iStart

TECHNOLOGY IN BUSINESS

INDUSTRIAL IT

ROBOTICS
3D PRINTING
SMART BUILDINGS

ISSUE 49
QUARTER ONE 2015
$11.50 inc GST

9 771176 135001

PLUS: 2015 ERP BUYER'S GUIDE | FIBRE WARS | AGILE BUSINESS | BUYING TECH

WHO'S GOING TO DELIVER YOUR NEXT ERP WIN ?

UXC Eclipse is the tried and tested team for delivering Microsoft Dynamics ERP.

uxc eclipse

intelligent solutions *old-fashioned service*

Australia
1300 660 471
info@uxceclipse.com
www.uxceclipse.com.au

New Zealand
0800 472 962
info@uxceclipse.com
www.uxceclipse.co.nz

Microsoft Partner
Gold Enterprise Resource Planning
Gold Customer Relationship Management
Silver Application Development
Silver Collaboration and Content
Silver Cloud Platform

MAPA 2014 FINALIST | Enterprise Resource Planning (ERP) Partner of the Year

2014 INNER CIRCLE
for Microsoft Dynamics

From the editor

It is the nature of humankind to continually push the boundaries, explore uncharted waters and unlock possibility with new discoveries. There are some discoveries and inventions that have such enormous repercussions that they literally reshape society and business as we know it. Today we are living through one such revolutionary phase: the digital age, where the physical and digital intersect on almost every level, and where businesses that do not take a digital-first approach are sliding ever behind. This issue explores this groundswell through the lens of the engineering, construction and manufacturing industries.

Robotics have been in factories for almost 40 years, however today the opportunity for integration with design and automation systems, and the complexity of doing so, have increased manifold. It's not just about greater compute power but the ability to gather data via a multitude of sensors, collate and simplify it and deploy it as information into agile decision-making processes. The trend, encapsulated in the new term 'internet of things' (IoT), is increasingly hitting the factory floor, as Donovan Jackson discovers on p 18.

The construction industry is another that at first look may not appear a digital frontier, but the reality is quite different. The influence of digitisation is providing increasingly sophisticated tools to not only design and engineer buildings, but also to manage the buildings themselves, and to provide sophisticated services for their occupants. Smart buildings that respond to their environment automatically and continually optimise their energy usage are now the norm. As cranes are erected in post-quake Christchurch, and increasingly on the Auckland skyline, we sent Anthony Doesburg out to report back on the changes technology is having on the sector (p 50).

3D printing is another technology which has the capacity to completely revolutionise not only manufacturing but also the biomedical, architectural, fashion and design industries (to name a few). Advances in the capabilities of these clever devices see the technology poised to move beyond rapid prototyping and into the world of finished-products, changing the supply chain model forever (p 56).

All of this means that businesses need to be both clever and agile enough to allow innovation to prevail. Agility is near and dear to the IT community where agile development frameworks have become a way of life, and these disciplines are now being adopted to help create more agile enterprises (p 62). Cloud software is also making it very easy to experiment with new ways of doing things, and this is changing how IT is procured, and by whom. In turn, that question is forcing the technology conversation into the boardroom (p 30), which we'd argue is about time! That said, we never pretend that buying technology is easy. We've tapped into the accumulated knowledge of three ERP experts who provide useful insights into how best to select and implement new ERP systems (p 24). The article is compulsory reading for anyone taking a serious look at our latest ERP Buyer's Guide (p 40).

Writing this now, in what little hindsight a quarterly publication affords, it strikes me that we live in an era where change truly is constant. To resist is both futile and career limiting, so we should all be open to embrace it and bravely forge new ways of doing things.

Enjoy the read,

Clare Coulson
Editor

iStart TECHNOLOGY IN BUSINESS

iStart magazine
is published by iStart Ltd
AU: 1800 462 388
NZ: 0800 928 268

EDITOR
Clare Coulson
editor@istart.com.au

CONTRIBUTORS
The Honourable Amy Adams, Vinod Baya, Paul Budde, Clare Coulson, Anthony Doesburg, Alan Earls, Denise Ganly, Beverley Head, Donovan Jackson, Paul Matthews, Hayden McCall, Owen McCall, Gerry McGovern, Alistair Mead, Gary Nelson, Patrick Saundry, Mark Webster

ADVERTISING CONTACTS
sales@istart.com.au
AU: 1800 462 388
NZ: 0800 928 268

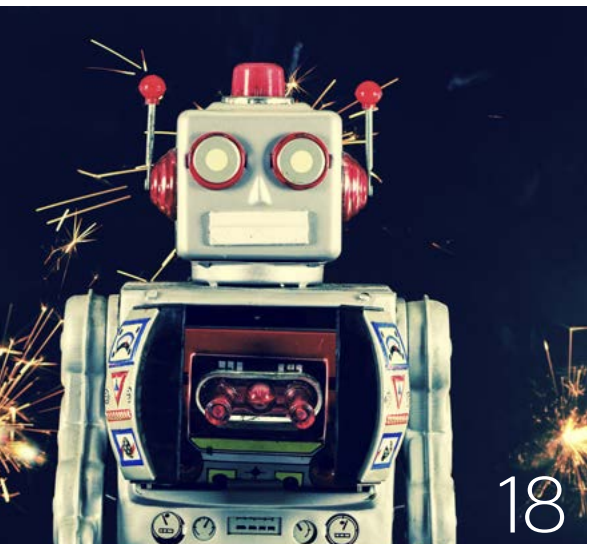
GENERAL MANAGER
Hayden McCall
hayden.mccall@istart.com.au

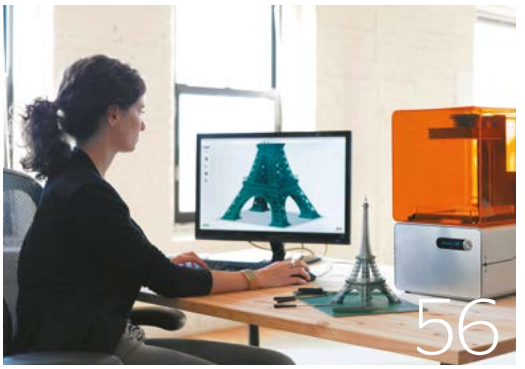
DESIGN
Sally Travis Design

STOCK IMAGES
iStockphoto.com

SUBSCRIPTIONS
Jennene Kelly
admin@istart.com.au

Contents // Issue 49 // Quarter One 2015





FEATURES & RESEARCH

OPINION

GUIDE TO CASE STUDIES & VENDOR CONTRIBUTIONS

Type	Industry	Company	Vendor	Page
ERP supply chain	Food manufacturing	GMP Dairy	Abel Software	28
Software architecture	All	-	Greentree International	36
ERP	E-commerce	Sprint Fit	First Software	46
Cloud ERP	All	-	UXC Oxygen	48
Automated receptionist	Primary industry/ agriculture	Aotearoa Fisheries Limited	Designertech	54
Project management	All	-	UXC Eclipse	66
CRM	Primary healthcare	NZ Royal Plunket Society	Koorb Consulting	68

Diary

ISTART AUSTRALIA EVENTS – Q1 2015

Digital Disruption X
11-12 March 2015 | Sydney
www.digital-disruption.com.au/default.aspx

Innovating IT Service
11-12 March 2015 | Melbourne
itsframeworks.com/

The 3rd Annual Police Technology Forum
17-18 March 2015 | Canberra
www.informa.com.au/conferences/ict-conference/police-technology-forum/

JuiceIT
18 March 2015 | Perth
http://www.data3juiceit.com.au/

The Next Big Thing Summit
21 April 2015 | Melbourne
nextbigthingsummit.com.au/index.html

Connect Show
21-22 April 2015 | Melbourne
con-nect.com.au/

IDC's Asia/Pacific Enterprise Mobility Conference 2015
22 April 2015 | Melbourne
www.anz.idc.asia/events

CIO Summit Series Australia 2015
19 May 2015 | Perth
www.ap.idc.asia/

ISTART NEW ZEALAND EVENTS – Q1 2015

e-Commerce NZ
10 March 2015 | Auckland
www.conferenz.co.nz/conferences/ecommerce-nz

2015 New Zealand CFO Summit and Awards
11 March 2015 | Auckland
www.cfosummit.co.nz/

Content marketing 2015
30 March 2015 | Auckland
www.conferenz.co.nz/conferences/content-marketing-2015

6th Annual Business Analyst Masterclass
21-22 April 2015 | Auckland
http://www.conferenz.co.nz/conferences/business-analyst-and-skills-development-forum

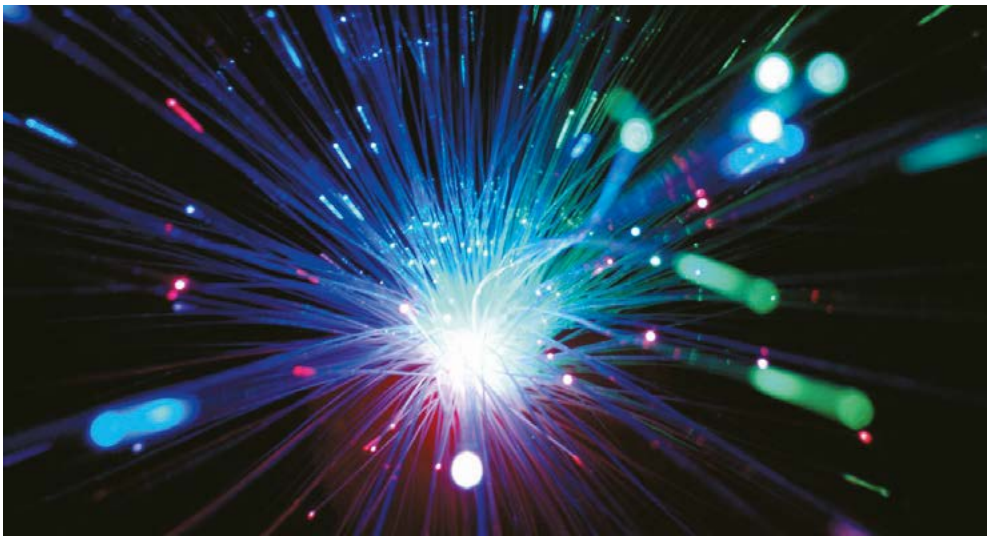
2015 ALGIM GIS Symposium
22-23 April 2015 | Auckland
www.algim.org.nz/algim-events/

Codemania
23-24 April 2015 | Auckland
www.codemania.co.nz/

NZ CEO Summit 2015
12 May 2015 | Auckland
www.conferenz.co.nz/conferences/nz-ceo-summit-2015

UPCOMING iStart WEBINARS 2015

Lunch Box - Taking the Plunket Book online
25 March 2015 | At your desk
www.istart.co.nz/lunchbox



SPARK/VOCUS JV UPS FIBRE ANTE

5 Feb 2015 - ***SPARK AND VOCUS HAVE*** *entered in to a joint venture in a move that has surprised some in the industry...*

Spark has taken a 50 percent stake in Vocus Communication's construction division to form a fibre construction joint venture to be called Connect 8. The move is expected to improve Spark Digital's ability to service the enterprise sector with fibre connectivity.

In terms of the deal, Vocus will sell its New Zealand construction division into the new joint venture at which point Spark will acquire 50 percent of the new business for an undisclosed upfront cash payment and an agreed level of annual construction spend...*read more online...*

ATLASSIAN EDGES CLOSER TO US IPO

17 Feb 2015 - ***SYDNEY-BORN SOFTWARE BUSINESS*** *Atlassian has taken a step closer to a US market listing, further beefing up its executive team...*

Over the last three years Atlassian, which develops and sells collaboration software including the well-known Confluence, Jira and HipChat systems, has been honing itself for a US float. Although much of its development effort remains in Australia the company has moved a slab of operations to San Francisco after first setting up an office there in 2005.

Atlassian last week announced that Erik Bardman had joined the company as chief financial officer.

Bardman has a wealth of experience leading the financials of a series of both private and public companies, and joins the company's San Francisco team.

Atlassian has over the last five years beefed up its executive team with seasoned US executives and also boosted its board, although the latter remains a female-free zone.

In the last 12 months Cisco executive, Didier

Moretti, was brought in as vice president and general manager of the company's service desk business while Citrix veteran, Bernardo de Albergaria, was made vice president and general manager of the company's collaboration software business.

Scott Farquhar, co-founder and co-CEO of Atlassian said that the appointment of Bardman was important in helping the company achieve its goals over the next decade...*read more online...*

SAMSUNG'S TV A SIGN OF PROBLEMS TO COME

10 Feb 2015 - ***THE COMPANY'S 'LISTENING TV'*** *has highlighted the coming privacy mine-field that smart technology and the internet of things will introduce for business...*

Last week online magazine The Daily Beast reported new wording in Samsung's 'Global Privacy Policy – SmartTV Supplement' that has ignited a fierce debate on consumer privacy and led to comparisons with Orwell's *1984*. The hue and cry is also an indication of how consumers may react to new ways of gathering and sharing information as the 'internet of things' takes hold...*read more online...*

CONSORTIUM TO SET UP PAYMENTS PLATFORM FOR 'ECONOMY OF THE FUTURE'

4 Dec 2014 - ***A DOZEN INSTITUTIONS HAVE*** *committed to invest in a new payments ecosystem for Australia that when complete will cost upwards of A$1 billion...*

International financial messaging giant SWIFT has been awarded the contract to design and build, in association with Australia's leading financial institutions, the new payments platform (NPP) that will allow real-time, mobile and data-rich payments when it is launched in 2017.

Paul Lahiff, steering chair of the NPP, described the network as the "financial plumbing for the economy of the future"...*read more online...*

ONLINE TV BATTLE LINES DRAWN

20 Jan 2015 - ***SPARK ANNOUNCES HOOK*** *to attract customers to free-TV-streaming, in a market place that is getting crowded...*

Today Spark New Zealand announced that it will be offering its more than 600,000 home broadband customers a year's free Lightbox subscription. This is the latest move in the battle for eyeballs in the rapidly evolving video-on-demand space and means that Spark customers will now have access to 6000 advertisement-free hours of television shows, with a bit of sports included too.

Spark home, mobile & business chief executive, Chris Quin, said "The future of TV is online. One billion hours of online TV is now watched globally each month, and we know the TV watching habits of our customers are rapidly shifting to on-line and on-demand – where they can watch what they want, when they want." The announcement followed Spark's partnership formed last year with online English Premier League rights owner CSM, meaning football, golf and some other sports will be part of the drawcard.

He added that the free Lightbox subscription is part of Spark's overall 'Thanks programme' in which it aims to give back to customers. On the commercial side, however, it is a pre-emptive move, as Netflix is due to launch in New Zealand and Australia in March offering a flood of new content on demand to customers who sign up for the service.

When asked by *iStart* if Netflix triggered the move, Lightbox chief executive Kym Niblock said: "Not specifically – but because Lightbox was the first to launch its internet TV service in New Zealand we are in a good position to grow awareness and take-up before the others become established. We have a well-established product, and we intend to remain at the forefront of this growing market. This bundled offer has been in the pipeline for several months now. It makes perfect sense to partner with Spark, the largest ISP in New Zealand, to bring online TV to their existing customer base as part of a bundled offer. Plus, we wanted to get this promotion up-and-running as soon as possible as we know people are excited about the February launch of one of the most anticipated shows of 2015 – *Better Call Saul*."*...read more online...*

GREENTREE PLANS US PUSH WITH FOURTH GENERATION ERP

19 Nov 2014 - ***THE INTRODUCTION OF THE*** *first elements of Greentree4 which allows browser-based access to the ERP platform has delivered the impetus for the New Zealand company to tackle the US market...*

With 75-80 percent of the company's NZ$15 million in annual revenues already coming from overseas (the majority in Australia with a peppering of sales in other markets including the UK and South Africa) New Zealand's Greentree International is now planning further international expansion. CEO Peter Dickinson, in launch events in Auckland and Sydney over the past week, said that although it had been possible to launch in the UK with the previous version of its business management software, the company wanted to wait for the release of Greentree4 before tackling the US...*read more online...*

XERO US LISTING ON CARDS NEXT YEAR

*11 Dec 2014 - **AFTER A RUGGED YEAR** on the stock exchange the cloud accounting provider has got its mojo back indicating US growth and listing plans...*

Rod Dury, CEO of Xero, has told online US financial and business news outletThe Streetthat the company is considering a US initial public stock offering next year.

Few other details were forthcoming, but in its 2014 interim report provided to the New Zealand Stock Exchange in November, the company said that its momentum continues in all markets and noted that the US was its fastest growing market. It grew the number of Xero users by 120 percent and revenues by 131 percent. This growth, however, comes off a low base with just 22,000 US users out of a total 371,000 users internationally.

Blair Galpin, senior equity analyst at Forsyth Barr said that Xero has been talking about a US listing for the last couple of years but has been waiting to hit particular milestones before progressing with it, in particular achieving US$100 million annualised revenue, which Drury confirmed Xero has made in his interview withThe Street.

"One important reason for the listing is the visibility it would provide Xero in that market, which it believes will be useful in attracting customers. We believe Xero will also look to raise additional capital at that point in time. This is not a new or unexpected announcement but does further cement its likelihood in the middle of next year," said Galpin...*read more online...*

HOW APIS ARE BUILDING THE NEW ENTERPRISE

*10 Feb 2015 - **SYDNEY IS THIS WEEK** hosting up to 300 of Australia and New Zealand's leading API developers at a conference intended to showcase the role of APIs in creating "composable enterprises"...*

The APIDays conference has been organised by Sixtree which provides IT services to the likes of Toyota, Telstra, Victoria Police and Deakin University. It builds solutions that "cross boundaries", be they enterprise boundaries or application boundaries, by using or developing application programming interfaces (APIs) as effective bridges.

Saul Caganoff, chief technology officer of Sixtree, explained that five years ago the firm noted a major trend with the democratisation of integration. "Smaller companies were needing this for integration with cloud-based services such as (subscription software) Zuora and (accounting platform) Xero," he said.

While the API movement is gathering steam internationally Caganoff said it is not yet as well understood over here, and the conference is intended "to bring practitioners together to spread the word about APIs at a vendor neutral conference"...*read more online...*

HAS TRADE ME/HARMONEY INVESTMENT PUT CAT AMONG THE PIGEONS?

*23 Jan 2015 - **AS PEER TO PEER** lending platforms gain momentum, traditional lending institutions will need to evolve to remain relevant in a new lending culture...*

Last week TradeMe bought a NZ$7.7 million, 15 percent stake in New Zealand's first peer to peer lending platform, Harmoney after a successful round of capital raising. The round saw Harmoney receive multiple offers from investors in New Zealand and overseas, and left it NZ$10 million the richer.

The Trade Me investment is a strong endorsement for the fledgling company, which was established in September last year as an alternative way for ordinary New Zealanders to borrow and lend money. Harmoney CEO Neil Roberts said it was fantastic to have publicly listed Trade Me on board as a key investor and partner. "More importantly, we gain a strategic partner and distribution channel with deep domain knowledge of building and running an online marketplace," he added.

TradeMe and Harmoney are a natural fit. As Trade Me's CEO Jon Macdonald put it: "Harmoney and Trade Me share a common purpose in that we are both all about providing Kiwi consumers with a safe, trusted, scalable, efficient online platform to undertake a

transaction – the Trade Me platform is all about items changing hands, and Harmoney's platform is all about dollars changing hands."

Sue Brown, a partner with DLA Phillips Fox with a background at the Financial Markets Authority, agrees. She sees peer to peer lending as a game changer for the financial sector, although it is still early days...*read more online...*

TECHNOLOGY AT CENTRE OF NZ POLICING EXCELLENCE

18 Dec 2014 - ***A NEW ZEALAND POLICE*** *report on its Policing Excellence initiative has shown how technology helped the organisation to exceed its predicted targets...*

The Policing Excellence initiative, which began in 2009 and ended its bedding in period in July this year, has seen New Zealand Police transform from a largely reactive force to one focused on crime prevention and meeting the needs of victims. One of the ways it has achieved this is by harnessing the latest technology to deploy its resources in the right places at the right times. Indeed, the second phase of the project has now seen New Zealand Police and Vodafone partner to open a Mobility Innovation Lab and Experience Centre in Wellington. According to Vodafone the Centre will "provide an environment that fosters innovation, collaboration and encourages rapid deployment of ideas and tools that support day-to-day operational policing".

Evaluating the first phase of the Policing Excellence initiative, Police Commissioner Mike Bush MNZM said in the report's foreword that it has made the Police more mobile, visible, efficient and effective than ever before.

"Our results speak for themselves. When we embarked on Policing Excellence in August 2010, we set some very ambitious targets. These were a 13 percent reduction in recorded crime, a four percent increase in prevention activities and a 19 percent reduction in non-traffic prosecutions.

"We have exceeded each of those targets. When Policing Excellence ended on 30th June, 2014, recorded crime had reduced by 20.1 percent, prevention activities had increased by 5.8 percent and non-traffic prosecutions had reduced by 41.3 percent."

Speaking to *iStart* about the technology aspects of the first phase of the initiative, Stephen Crombie, 2IC of strategy & executive director for information, technology and systems, said that New Zealand Police is now at the leading edge of technology usage within police forces and wants to be "the most tech-enabled police force in the world". He said New Zealand's police force is a good test bed for new technology initiatives because it is simultaneously large enough to be of interest internationally and not so large as to be unmanageable as a test case...*read more online...*

SPECTACULAR SLOW-DOWN IN TABLET MARKET EXPECTED

27 Nov 2014 - ***TECHNOLOGY RESEARCH FIRMS GARTNER*** *and IDC are both predicting a dramatic slow-down in the tablet market this year...*

In 2013 the market grew a whopping 52.5 percent according to IDC, but the firm's newly-released numbers for 2014 show that this year it will grow only a fraction of that, slowing to just 7.2 percent year-over-year. Gartner estimates that tablet sales worldwide will reach 229 million units in 2014, representing 9.5 percent of total worldwide sales of devices in 2014. Meanwhile the mobile phone segment will continue to grow in 2014 due to strong sales of lower-end smartphones. Gartner says sales of basic smartphones (including midrange Android devices) are projected to grow 52 percent in 2014, while utility smartphone units (including low-end Chinese white box devices) will double. As smartphones reach lower prices, Gartner expects nine out of 10 phones to be smartphones by 2018...*read more online...*

INFOR ANNOUNCES CRUSADE FOR RECOGNITION

13 Feb 2015 - ***ERP VENDOR INFOR IS*** *pushing for more adoption of its cloud suite, announcing a major sponsorship of the Crusaders rugby team to boost brand recognition...*

In what must be a world first, a US-based global software company with 73,000 customers around the world has announced a partnership with a provincial New Zealand rugby team, albeit one with a fearsome reputation and a global following amongst rugby fans: the Crusaders.

Jo-Anne Ruhl, managing director of Infor's Pacific operation, explains why the "substantial" sponsorship makes sense. "The partnership with the Crusaders reflects our commitment to being actively involved in the future of Christchurch," she says. "Infor shares the values that make the Crusaders a success – teamwork and constantly striving for excellence."

The partnership, which will run over the next four years, will see the Crusaders bearing the Infor logo below the player number on the back of their jerseys, as well as signage at AMI stadium, game day tickets to share among clients and other brand visibility.

Local Infor partner EMDA has been a long-time supporter of Canterbury rugby and the partnership had not gone unnoticed, particularly by rugby supporters inside the company. Tim Moylan, the Aussie who runs the APJ operation for Infor, is a Warratahs fan, but was drawn into the deal after seeing the Infor logo on Canterbury players. This eventually led to a meeting with Crusaders commercial manager Warren Goddard. The fact that company president Stefan Scholl was also a keen ex-player and Crusaders fan helped seal the deal.

The sponsorship is an interesting move in bringing regional relevance for Infor, where A/NZ numbers are typically seen as little more than a rounding error in the books of global IT vendors. But Ruhl explains: "This region is leading the uptake of our cloud suite, accounting for 90 percent of the growth in cloud across the APJ region." Getting more cloud wins is a key metric for the company as it engages in a race to the cloud among ERP vendors. It is a race that Ruhl says the company is confident about competing in.

"Infor has spent US$2.5 billion on R&D since ex-Oracle 2IC Charles Phillips joined as CEO in 2010. There has been a relentless focus on making Infor products cloud ready, meaning 100 percent browser-based and accessible on any device, while still retaining the depth of functionality needed to compete in key verticals," she says...*read more online...*

MYOB REACHES FURTHER INTO ENTERPRISE CLOUD

29 Jan 2015 - ***THE FINANCIAL SOFTWARE BUSINESS,*** *headquartered in Sydney, has unveiled MYOB Advanced, a cloud-based ERP for the enterprise market across Australia and New Zealand...*

MYOB's software development team in Auckland has built an ERP system tailored for use in Australia and New Zealand using the US-designed Acumatica system as the platform. MYOB took a minority stake in Acumatica last October costing it US$13.3 million.

The resulting cloud solution was officially released yesterday after being piloted in 2014, and represents MYOB's first multi-tenanted software-as-a-solution cloud offering for mid to large scale businesses. In the past the on premise MYOB Exo system has been the only enterprise scale ERP solution on MYOB's playlist...*read more online...*

ORION HEALTH HITS $1 BILLION ON DAY TWO OF TRADING

28 Nov 2014 - ***AS ORION HEALTH JOINS*** *the growing ranks of New Zealand technology companies listed on the stock exchange to great fanfare, it pays to remember that it's not all plain sailing – just ask Gentrack...*

Orion Health, which until this week was New Zealand's largest independently owned health software company, has listed on the NZX and the ASX trading with the ticker OHE. Founder and CEO Ian McCrae said at the company's 20th birthday celebrations last year that Orion would explore an IPO when the time was right...*read more online...*

SERKO POSTS 50% GROWTH AND LOSES MONEY

27 Nov 2014 - ***SERKO, WHICH LISTED ON*** *the NZX in June, has announced its interim results for FY15 showing a total revenue growth of 50 percent and significant interest from the US, but also a large increase in losses...*

The Kiwi online travel booking and expense management software specialist posted and increase in revenue of NZ$1.6 million to NZ$4.7 million for the six months to 30th September 2014, but losses have bloated to NZ$3.6 million, up from NZ$347,146 for the same period last year. According to the company both the increased revenue and losses are in line with expectations. It has increased its expenses by 127 percent to NZ$8.9 million, mainly due to a 129 percent increase in remuneration and benefits to NZ$5.3 million as it has continued to hire staff to drive sales growth. At the end of the period Serko employed 118 worldwide, with another 13 new starters contracted to join...*read more online...*

ZESPRI WORLD FIRST WITH SAP MOVE TO AZURE

14 Nov2014 - ***THE KIWIFRUIT MARKETER HAS*** *chosen the US Azure cloud to help it combat disaster recovery and scalability issues in its business...*

In what Datacom's director of cloud and enterprise tools, Rob Purdy, says is a world first, Datacom has put Zespri International's SAP production environment into the Azure cloud. While other companies have moved their disaster recovery, test and development systems to the Azure cloud, Zespri, the world's largest kiwifruit exporter with US$1.5 billion in sales is the first to move its SAP production environment to Azure, reducing its IT costs by up to US$1 million in the process.

Until the move to Azure, Zespri's IT systems, including the company's business-critical SAP software, ran on-premise in several locations across New Zealand. Zespri relies heavily on SAP to support and manage virtually every aspect of its business from receipt of 3.3 billion pieces of the fruit through storage, shipping, sales and paying growers...*read more online...*

DRIVERLESS CARS ZOOM INTO FOCUS FOR A/NZ

11 Nov 2014 - ***WITHIN TWO DECADES DRIVERLESS*** *vehicles could become a significant feature on Australian and New Zealand roads – if Governments invest in supporting technical infrastructure and update road rules...*

The smartphone has delivered the greatest change in consumer transport to date according to Dr Charles Karl, national technical leader at transport specialist the ARRB Group, delivering immediate insights about traffic flow and congestion. But he says that is only the tip of the iceberg in terms of what is possible in the future.

Governments and private infrastructure companies are already investing in technologies that allow improved understanding of traffic flows around the nations' roadways, rolling out sensors, traffic cameras and information systems that allow finer grained control of traffic particularly in CBD or metropolitan areas. If that infrastructure was boosted with even more road-side sensors it could support the rollout of driverless vehicles helping to reduce crash-rates, cut insurance premiums and also deliver environmental benefit...*read more online...*

IBM TECHNOLOGY LIMITS PERSONAL DATA EXPOSURE

3 Feb 2015 - ***AUSTRALIAN BIOSECURITY COULD BE*** *an early winner from a cloud-based security breakthrough touted by IBM and being tested by the CSIRO...*

IBM has announced it has developed a new cryptographic algorithm able to limit the amount of personal data that is shared online helping to reduce identify theft while stepping up privacy.

Called Identity Mixer, the cloud system encrypts identity attributes such as age, nationality, address, even credit card numbers in a digital wallet, and only shares that information which is needed to complete an online action.

IBM's argument is that what isn't shared can't be stolen, allowing users to limit the number of organisations able to access personal data.

The service will be launched in an experimental form on IBM's BlueMix cloud in the next few months.

Conceptually the service works by providing online services only with the information they need. For example a video streaming service only needs to know that someone is over a certain age and able to download movies, and has a valid subscription...*read more online...*

NZ MBAs PROVIDE SOLID IT FOUNDATION

12 Jan 2015 - ***ON A RECENT TRIP*** *to the region the CEO of the Association of MBAs wasimpressed by New Zealand's coverage of technology in MBA courses...*

Andrew Main Wilson, CEO of AMBA (the international authority on postgraduate business education) made the comment during a trip to New Zealand for the 2014 Asia Pacific AMBA Conference at the end of last year.

"While visiting New Zealand I was impressed to see that a number of MBA courses are providing specialist Information Systems modules to help ensure managers can to contribute in a knowledgeable and informed manner to information systems decisions affecting their area," he said.

Information technology (IT) and information systems (IS) have had an enormous impact on organisations and their ability to gain and maintain a competitive advantage over the last few decades. Today they are not only harnessed for productivity gains but are increasingly being used as the change agents for organisational structure and drivers of fresh revenue generation. As such managers must be able to integrate IT into their management plan...*read more online...*

LOCAL 365/DYNAMICS TURN-AROUND SIGNALS CHANGE IN MICROSOFT LEADERSHIP STYLE

9 Dec 2014 - ***AUSTRALIAN HOSTING OF OFFICE*** *365 and Dynamics CRM, coupled with per-user pricing is being tipped to boost A/NZ demand for Microsoft's cloud and shows the company is listening to its customers...*

When Microsoft switched on the Melbourne and Sydney hosted instances of its Azure cloud in October it was coy about its plans for productivity suite Office 365 which has previously been offered to Australians and New Zealanders from its Singapore data centre.

The company has now announced that both Office 365 and Dynamics CRM online will be available from its Australian cloud by March 2015...read more online...

GOVERNMENT GREENLIGHTS ICT STATISTICS OVERHAUL

20 Jan 2015 - ***AUSTRALIA IS SET TO*** *overhaul the way it tracks and measures information and communications technology statistics, and attempt to assign higher priority to key data...*

After years of hit-and-miss ICT statistics collection the Australian Bureau of Statistics (ABS) and Department of Communications have announced a review of ICT statistics with public consultation open until 27th February...*read more online...*

VEDA LAUNCHES REAL-TIME PASSPORT VERIFICATION SERVICE

14 Nov 2014 - ***NEW ZEALAND CREDIT BUREAU,*** *Veda, is the first company to launch a real-time passport verification service in the New Zealand market...*

Veda has built a web service and a business-to-business link to access passport details via the Department of Internal Affairs (DIA). Veda customers can use this service to electronically identify their customers which assists in meeting Know Your Customer (KYC) obligations under the Anti-Money Laundering and Counter Financing of Terrorism (AML/CFT) Act 2009. Passport information is accessed via a secure and encrypted direct link between Veda and DIA. While Veda acts as the intermediary between the customer and DIA passport database (providing the technology, security and user interface), Veda customers will still require acceptance from the DIA before accessing the Passport Verification Service...*read more online...*

ENTERPRISE SOFTWARE SPENDING GROWTH LEADS THE PACK

13 Jan 2015 - ***ENTERPRISE SOFTWARE IS A*** *standout in Gartner's 2015 IT spending forecast – though market competition and consolidation may threaten some vendors' coffers...*

IT analyst Gartner has this week released its 2015 worldwide IT spending forecast, predicting overall growth of 2.4 percent during the year, taking total revenues to US$3.8 trillion.

Because of the strengthening US currency this growth is down on the earlier prediction of a 3.9 percent growth rate, but Gartner has sheeted the blame for that almost entirely to the stronger US dollar.

Fastest growth of all is predicted for enterprise software, with spending tipped to

rise 5.5 percent to US$335 billion.

However Gartner warns that; "More price erosion and vendor consolidation is expected in 2015 because of fierce competition between cloud and on-premises software providers. In particular, in the customer relationship management (CRM) market, a key cloud battleground, seat prices for segments such as sales force automation are expected to decline by 25 percent through 2018.

"This will be caused by incumbent on-premises vendors discounting their cloud offerings heavily to try and maintain their customer base. There will also be increased price competition from cloud offerings in other areas such as database management system and application infrastructure and middleware, albeit at a somewhat slower and weaker pace than for CRM."*...read more online...*

"SERIOUS" EQUITY CROWDFUNDING SITE LAUNCHES IN NZ

3 Feb 2015 - ***EQUITISE IS THE FOURTH*** *equity crowdfunding platform to be launched in New Zealand since April last year – a boon for the start-up sector, but not without its risks...*

Four equity crowdfunding platforms have been established in the past nine months following changes to the Financial Markets Conduct Act which opened up this new style of fundraising as part of the government's business growth agenda. These crowd-sourced fundraising platforms enable a new, more agile way of capital funding, particularly good for our start-up economy. Equitise is the latest offering to launch, with the other three being PledgeMe, Snowball Effect and Crowdcube (although the latter's website does not appear to be operating at present).

Sue Brown, a partner with DLA Phillips Fox with a background at the Financial Markets Authority, says the aim of the law changes was "to get the atoms buzzing at the small end of our financial markets to help businesses develop and grow"*...read more online...*

INDUSTRY VETERAN SPRUIKS OPEN CLOUD FOR INNOVATION

4

21 Nov 2014 - ***CLOUD COMPUTING IS NO*** *longer simply delivering enterprises with a new way of managing their information systems, its generating entirely new business models according to Paul Maritz...*

Paul Maritz has been a part of the technology landscape since the late 1970s, working at companies including Burroughs, Intel, Microsoft, EMC and VMware and is now CEO of 18-month old Pivotal. The company was set up by EMC and VMware, with a 10 percent stake from GE, in order to provide a platform for companies wanting to make use of big data on an open cloud platform.

On a visit to Sydney this week Maritz said, "we are on the threshold of all the machines in the world being connected to the internet," and that companies which were able to harness the information from those machines could radically reform themselves. Besides delivering much more compelling end user experiences by better understanding customer preferences based on big data analysis it would be possible for enterprises such as electricity generators to take telemetry feeds from electricity turbines to understand whether they could be safely ratcheted up to increase production without requiring additional investment.

Maritz said that Pivotal was also working with Monsanto to understand how agricultural sensors could be deployed, and the data analysed to improve yields. "You could improve crop yields by 10 percent with no more water, fertilizer or land," if fine-grained data was available for analysis in near real time he claimed.

"I was there when the industry made the shift from the mainframe to client server and web 1.0. But that was not as profound as the shift we are seeing now," according to Maritz.

"We spent 15 years trying to automate the workflow of white collar workers. But in many ways that was not a revolution...we were just making business models and people more efficient.

"Now we are in a situation of technological revolution, a fundamental change in business models and boundaries."...*read more online...*

SPOTLIGHT SHINES ON SAFETY AND SECURITY

11 Feb 2015 - ***INDIVIDUALS, BUSINESS, EVEN NATION*** *states are facing a rising tide of online security and safety threats prompting a rash of different responses...*

The recent hack on Sony and its continuing fall-out demonstrate how vulnerable even the largest enterprises can be to online attacks.

In Australia professional services company Deloitte estimates that on average the cost of a data breach is A$2.5 million and involves 20,000 records. Reputational damage can prove even more costly.

According to James Nunn-Price who has joined Deloitte in Australia to lead its cyber security team, "Cyber risks are a result of dynamic targeted threats. On an industrial scale they are focused at the digital assets, operations and information of the organisation. Both complex and severe, these risks are evolving faster than business can react."...*read more online...*

INTEREST SURGES IN DATA LAKES AS ENTERPRISES SEEK CUSTOMER INSIGHTS

13 Nov 2014 - ***THERE HAS BEEN A*** *surge in interest in data lakes over the last three months according to technology analyst Gartner, as enterprises scramble to make sense of their data...*

Data lakes which are expressly designed to act as repositories of all forms of information – structured and unstructured – are being constructed by large enterprises keen to understand customer behaviour. Large enterprises including insurance companies, retailers and banks are leading the charge to build central pools of data that can then be interrogated.

Speaking at FST Media's Future of Banking and Financial Services conference in Sydney recently Greg Booker, chief information officer of RACQ, said that the organisation had; "Created a data lake in Amazon. It's now a free for all for people to go in and play "what if"....*read more online...*

DIGITAL MARKETERS GRASP THE B2C NETTLE

18 Nov 2014 - ***THERE HAS BEEN A*** *surge in confidence regarding digital marketing from professionals in Australia and New Zealand...*

A survey of 115 Australian and New Zealand marketing professionals has revealed growing appetite for digital marketing investment, although offline still holds the lion's share.

Jane Briggs, director of First Point Research and Consulting, said that compared to a similar survey conducted a year ago marketing professionals now rated their digital marketing skills more highly and were more confident about their digital strategy with regard to B2C marketing. Confidence in B2B digital marketing was still lagging however...*read more online...*

A/NZ UNI SPINOFF TARGETS BIG DATA DEMAND

18 Feb 2015 - ***ROZETTA TECHNOLOGY, OFFICIALLY LAUNCHED*** *this week, is an attempt by 40 Australian and New Zealand universities to commercialise their big data expertise...*

A team of 85 has been spun out of Sirca, the not-for-profit big data organisation owned by 40 A/NZ universities and renamed RoZetta Technology under the stewardship of Dr Ian Oppermann, former head of CSIRO's ICT flagship.

The arrangement sees RoZetta take over all of Sirca's commercial client business, leaving Sirca free to meet the big data needs of its university owners. Oppermann said that he intended to take RoZetta to the next stage by rolling out a series of products, rather than bespoke services.

He has also not ruled out a float or trade sale of the business in the future; but he's not blind to the challenges that the company faces in developing a higher profile and growing revenues: "Software companies grow really fast or die slowly"...*read more online...*

TECHNOLOGY DELIVERS BANKS AND CONSUMERS WITH CURATE'S EGG

19 Dec 2014 - ***AUSTRALIA'S FINANCIAL SYSTEM INQUIRY*** *has cast technology as banking's curate's egg – delivering the sector and consumers with enormous change that is 'good in parts'...*

According to the report, which was released on Sunday, "The disruptive effects of innovation have the potential to deliver significant efficiency benefits and improve user outcomes, notwithstanding costs associated with adjustment for industry, and possible uncertainty for some consumers about change."

But it also noted that, "As technology continues to increase network speeds, broaden distribution networks and heighten levels of interconnectivity, these changes can also amplify the risks of innovation across the system. The pace of technology-driven market developments can challenge regulatory frameworks and make it difficult for regulators to adapt with sufficient speed. Failure to manage these risks may result in system-wide impacts and/or adverse consumer outcomes."

Attempting to cut out the bad bits and magnify the good, David Murray the former CEO of the Commonwealth Bank, who chaired the inquiry has called for a series of technology-related actions intended to "enhance the resilience of the Australian financial system"... *read more online...*

DEVIL LURKS IN THE E-GOV DETAIL

29 Jan 2015 - ***AUSTRALIA WILL ESTABLISH A*** *Digital Transformation Office (DTO) under the stewardship of communications minister Malcolm Turnbull, but the devil still lurks in the detail...*

In a bid to accelerate the delivery of digital government services and stamp out departmental silos, the Government has announced a DTO will be set up comprising a small team of developers, designers, researchers and content specialists to co-ordinate the delivery of digital services to Australian citizens and businesses.

According to a joint statement issued by Minister Turnbull and Prime Minister Abbott, one of the first tasks will be to establish a single "digital identity" which can be used as a single sign-on for all government services.

The intent is that better digital services will mean that, "fewer people will need to come into a shopfront or make a phone call".

The DTO has been "established to deliver digital by default and make services simpler".

While it's a noble intent, the journey to actually making the plan a reality could be fraught, and it's not yet clear exactly how Agimo and the DTO will work together...*read more online...*

APPOINTMENTS

Canon NZ managing director **Yusuke Mizoguchi** has been promoted to managing director of Canon Australia/Canon Oceania, based in Sydney, effective as of 1 April 2015. He will also take up the position of chairman of Canon NZ and chairman of Canon's Australian R&D company, CiSRA. **Kim Conner**, currently the general manager of Canon NZ consumer imaging, will replace Mizoguchi in the role of managing director in New Zealand, becoming the first female Managing Director for the Canon Oceania Region.

NetSuite, a leading provider of cloud-based financials /ERP and omnichannel commerce software suites, has appointed **Lee Thompson** as its senior vice president and GM, Asia Pacific & Japan. In this role, Thompson will be charged with heading up NetSuite's sales operations and building a world-class sales organisation across the entire Asia Pacific and Japan region. Thompson brings more than 20 years of sales leadership experience to NetSuite, having worked for high tech companies including TechnologyOne, Oracle and Salesforce.com in the UK, Sweden, Australia, Canada and Singapore. Most recently, Thompson was operating officer at TechnologyOne.

Westpac Australia has appointed **Brian Hartzer** to the position of chief executive officer. One of his first actions was to make chief information officer **Dave Curran** a direct report. He also appointed **David McLean** as CEO of **Westpac New Zealand**; McLean has been acting in the role since last August when Peter Clare stood aside after a heart attack. Strengthening the New Zealand executive team will be the newly-appointed CIO, **Dawie Olivier** who will also report directly to McLean, signaling the strategic importance of technology to Westpac.

Qrious, the information analytics business launched by Spark New Zealand in March 2014, has announced the appointment of **David Wills** as technology director. David joined Qrious from Xero where he was the GM of platform services. Prior to that David spent five years as CIO at UK Telecommunications regulator Ofcom. Ed Hyde, chief executive of Qrious, is excited by the appointment saying, "David brings a wealth of experience and world class expertise to Qrious. This is a significant move for us, and having him on board underpins our ambitions to be the number one information analytics business in New Zealand."

Well-known technology industry face **Graeme Mueller** has been appointed research specialist as CEO of **NZTech**, the industry group which promotes the growth of the technology industry in New Zealand. NZTech said it was looking for someone dynamic, energetic and capable to take over the reins from out-going CEO Candace Kinser as her three year tenure came to a close. Muller was most recently a managing partner of Ecosystem research and advisory firm in Auckland which he launched just over a year ago. Prior to that he spent a decade at IDC in a number of international management roles, during which he was responsible for the overall management, research services and sales and marketing for a variety of territories and across a number of hi-profile hi-tech industries.

Tableau, a global leader in what it calls "rapid-fire business analytics software", has announced the appointment of **Nigel Mendonca** as its first Country Manager for Australia and New Zealand. Mendonca is tasked with ensuring customer success and driving the growth of Tableau in ANZ. Mendonca has more than 22 years of technology expertise, having previously held senior roles at Salmat, Symantec, and Xpedite Systems/PGi. Mendonca's appointment comes at a time of rapid growth for Tableau in the ANZ region. Local Tableau customers include Mater Health Services, Ray White, University of Western Sydney, Silver Fern Farms, Sportsbet, Anomaly and Inivio.

Texas-based **Global Shop Solutions**, a leader in producing ERP software for a variety of manufacturing, job shop, engineer-to-order,make-to-stock, andmixed-modeindustries, has announced that it is opening a new office in Auckland, New Zealand. Until now New Zealand sales and support have been managed from its Australian office as part of the vendor's overall Asian Pacific operations. The new office will be overseen by **William William**, described as a "veteran Global Shop Solutions employee" and manager of the Singapore, Indonesia and Australian offices.

DEALS, SIGNINGS AND IMPLEMENTATIONS

Qlik has announced that **Mind Australia**, a leading provider of community mental health services in Victoria and South Australia, is using **QlikView** to streamline reporting processes and provide managers visibility into how they are tracking against business targets and key performance indicators (KPIs). Mind generates a significant amount of data on clients, employees, finance and business targets, which needs to be analysed and acted upon in real time. Qlik will seamlessly integrate all data sources into one, reducing reporting requirements and giving a clear and single view of how the business is performing against its targets.

Briscoe Group, one of New Zealand's best-known retailers, has boosted its reporting and decision-support capabilities with the implementation of the SAP HANA

platform taking it a step closer to real-time analytics. With 80 Briscoes Homeware, Rebel Sports and Living & Giving retail outlets around New Zealand, Briscoe Group captures thousands of individual transactions every day. The faster processing that SAP HANA offers has immediately enabled the group to access its data more rapidly and enhance and support decision-making across all of it brands. Implementation services were provided by Briscoe's long-term technology partner **RealTech**.

New Zealand's largest provider of video conferencing equipment and technology for the health industry, **Vivid Solutions**, has extended its services to patient's tablets and smartphones. It already provides a fully managed, secure and dedicated video conferencing network to clinicians from almost every DHB in the country and the new application extends the network to homes of patients requiring frequent in-home medical supervision via their own personal tablets or smartphones. This will reduce commute times and eliminate the need for specialised devices and has the potential to save millions of dollars for the DHBs.

Film Victoria has replaced its legacy financial software with **Microsoft Dynamics NAV**. A growing demand for its services led Film Victoria to decide to overhaul its funding programmes, which meant upgrading its ageing financial software. Film Victoria wanted both flexibility in its financial reporting and easy integration with Microsoft CRM to streamline its business processes, and chose **EBS**, a Melbourne-based company with extensive experience in deploying the Microsoft Dynamics NAV enterprise management software to implement the new solution.

Jade Software capped off a successful 2014 with a seven terminal sale of its **master terminal port management software** to **Abu Dhabi Ports Company**, further enhancing Jade's reputation as the mixed cargo terminal operating system of choice in the Gulf region. The sale ends a year of substantial multi-terminal deals in Europe, Africa and the Middle East, including a record breaking third quarter. Jade's Managing Director David Lindsay says: "We are excited to have formed this new relationship with Abu Dhabi Ports and look forward to working closely with them to not only achieve their operational goals, but also to support their growth aspirations for the future."

Sitecore, a global leader in delivering website customer experience management solutions, announced that the **Colliers International Australia and New Zealand** websites are now live and providing visitors with a personalised, multi-channel web customer experience – putting the customer at the heart of every interaction. The new Colliers websites were built by Sitecore experts, **OneClick**, using the Sitecore platform and are consistent

with the Colliers International United States and Canadian websites which **OneClick** also develop and maintain. The sites will also support the soon-to-come 'My Colliers' feature which enables customers and end users to take complete control of the browsing experience by connecting to the site through their LinkedIn account and providing the ability to manage subscriptions, preferences and stored information. They also boast an enhanced search capability with a 'predictive search' and a 'drag map' where site visitors in New Zealand and Australia can click on a listing and instantly view its location. Global critical communications company **Tait Communications** has been chosen for Australia's first national Digital Mobile Radio (DMR) Tier III network. Tait has clinched a deal with Australian telecommunications provider **Vertel** to deliver the solution that provides digital voice and data services to help government and enterprise customers increase their operational effectiveness and efficiency.

MERGERS, ACQUISITIONS AND PARTNERSHIPS

Australian web hosting provider, **Crucial**, has announced it has acquired AVS Networks, one of the nation's oldest domain hosting and registration companies. Sydney-based Crucial has acquired AVS Networks (NSW) in an agreement which will see all AVS Networks customers move across to Crucial's award-winning platform. The acquisition will also see Crucial strengthen its position in the small business hosting sector, with the addition of AVS CEO and founder, Nigel Burke, to its team. AVS Networks customers will migrate to Crucial in early February.

CA Technologies has announced it is working with a selection of Australian channel partners – including, Melbourne IT, RXP and UXC – to help local businesses fully leverage their investments in Amazon Web Services (AWS). This will be achieved using CA Unified Infrastructure Management (formerly CA Nimsoft Monitor) for Amazon Web Services which allows organisations to monitor and manage service levels in the cloud. Darren Reid, senior vice president, partners & alliances – Asia Pacific & Japan at CA Technologies, says that CA UIM is a popular choice for companies deploying AWS because of its ability to use insights into resource usage to further leverage their AWS investment.

The Australian brand **RosterLive** is no more, having been subsumed into WorkForce Software which bought the business in early 2013 and is now pushing ahead with rebranding in A/NZ. The RosterLive cloud-based workplace scheduling system used by around 250 organisations across Australia and New Zealand has been renamed EmpLive following a rebranding by its new owners. RosterLive meanwhile has been rebranded as WFS Australia. Leslie Tarnacki, WorkForce Software's vice president of HR worldwide, and general manager of the company in A/NZ said that since the merger the Australian operations have doubled in terms of headcount and that the company now employs 70 people in Sydney and Melbourne. The vast majority of clients are in Australia, though the company has also deployed its solution for three New Zealand businesses and one in Japan, which are all serviced out of Sydney.

One of Australasia's largest independent business technology solutions providers, **Datacom**, and contact centre software company, **Interactive Intelligence Group** have announced a strategic partnership that will see them bring the best infrastructure, experience and tools on offer to contact centres across Australia and New Zealand. The combination of Datacom Connect's flexible and proven cloud-based infrastructure and contact centre solutions with Interactive Intelligence's Customer Interaction Center (CIC) to bring a rich will mean the partnership can offer a resilient and scalable contact centre solution to its customers. The partnership enables Datacom to extend the provision of sales, service and support across New Zealand and Australia for the entire range of Interactive Intelligence communications solutions.

Cloud business analytics firm **Adaptive Insights** and performance management specialist Tridant have announced that they have partnered. Tridant plans to leverage the Adaptive Insights cloud-based performance management and analytics platform via the partnership to assist clients to shift from outright purchases arrangements to flexible subscriptions.

Deloitte Digital has announced the expansion of its Cloud ERP Integration practice through a strategic alliance with MuleSoft. The alliance will enable Deloitte to continue to help its customers accelerate their digital transformation initiatives in the areas of mission critical data, application development and mobile experiences."Clients bring us their challenges knowing we have what it takes to create a new business vision for their companies," said Martin Stansbury, principal, Deloitte Consulting LLP, and cloud ERP and integration practice leader.

ASX-listed IT services company **UXC Limited** has started 2015 at a fast clip with growing enterprise demand. Besides tackling the fundamental technology needs of all enterprises, UXC has also established a series of vertical industry strengths. UXC Connect for example has developed a range of solutions targeted at the healthcare market. According to Ian Poole, **UXC Connect** CEO, particular focus was being paid to patient experience and healthcare business's financial performance, which was essential given Australia's ageing demographic, specialist skills constraints, and constrained economy. The SAP solutions and cloud company **UXC Oxygen** meanwhile, has become a preferred Platinum partner of Concur, the leading provider of travel and expense managementsolutions. The Concur cloud-based platform manages every step of a business traveller's journey before, during, and after the trip and is used by more than 27 million people. It is fully cloud-based and mobile enabled and integrates seamlessly with UXC Oxygen's customers' existing investment in SAP technology.

Need business software?
Get a Shortlist.

Be connected with a shortlist of vendors relevant to your specific business needs.

The right software system can make or break your business. If you're considering a new ERP, CRM or other major business system, let us help with a shortlist of highly relevant vendors.

Our free "Get A Shortlist" service accelerates your selection process and gives you confidence that an extensive range of quality options have been considered. We're here to help. Today.

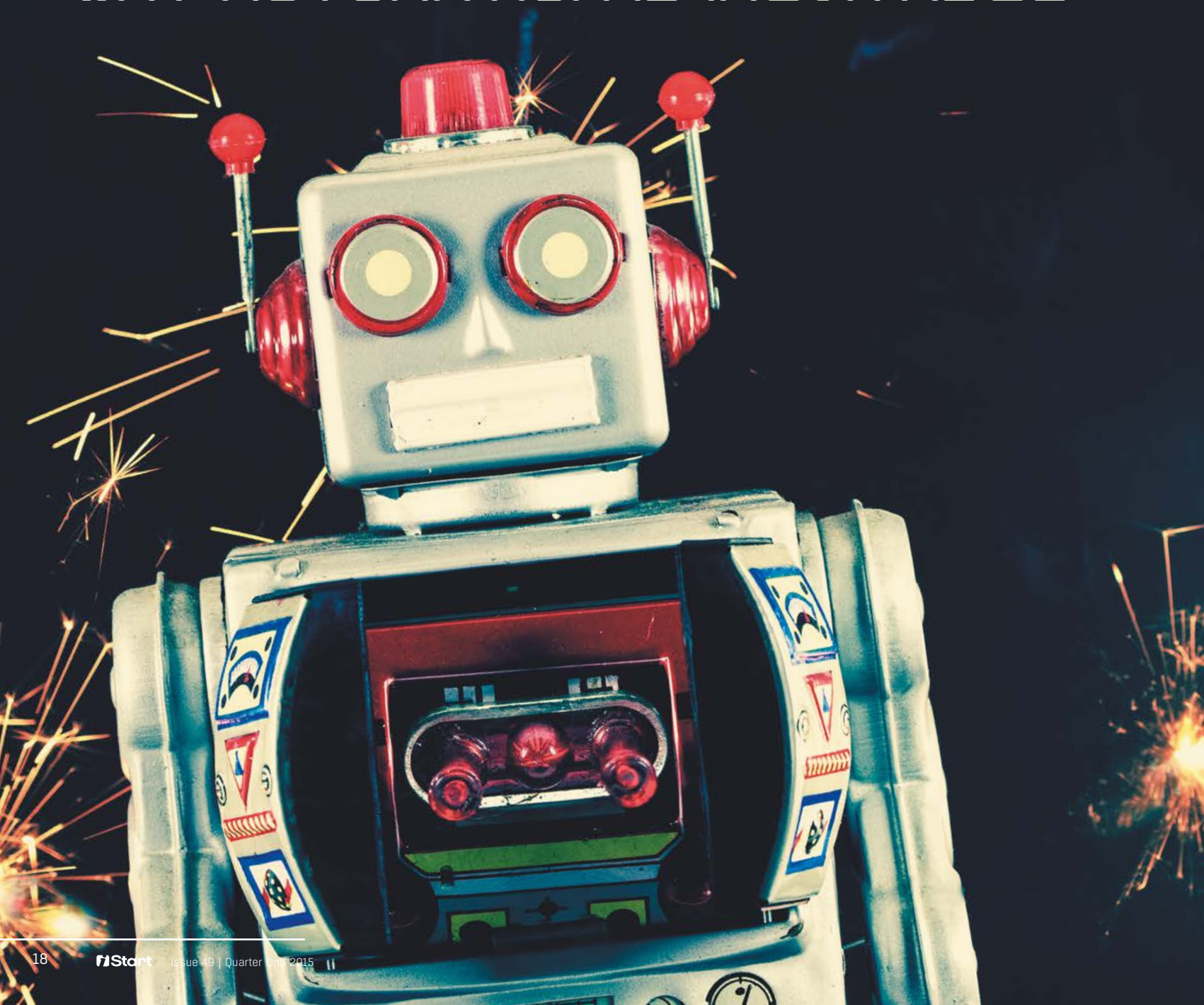
Submit your software requirements at
www.softwareshortlist.com/getashortlist

freephone 1800 462 388 (AU) or 0800 928 268 (NZ)

Software Shortlist .com

INDUSTRIAL STRENGTH IT

WHY AUTOMATION IS INEVITABLE



Farming, manufacturing, fast moving consumer goods, office work and even the information technology industry – what do all these activities have in common? Among many other potential things, a relentless drive towards automation of business processes is a common thread, because when machines can perform tasks the result is greater efficiency, more consistent outcomes and lower costs of production. **DONOVAN JACKSON** *pointedly avoids automating his own role* to find out how companies in Australia and New Zealand are integrating machines and IT systems to maintain their competitive advantage...*

Mechanisation is nothing new; after all, it was 1811 when the Luddites got busy smashing stocking frames, spinning frames and power looms in a futile effort to halt the march of mechanisation in the textile industry. However, the pace and capability of automation has taken massive leaps and bounds thanks to developments in both the hardware which is found on production lines, and the software which controls and manages it at a factory floor level, and further up the chain into enterprise management systems.

That's confirmed by Bob Stokes, managing director of Hamilton-based automation firm CTEK Combined Technologies. "The sophistication of the software in the PLCs [Programmable Logic Controller] means they are much more intelligent; predictive aspects are now standard, so, for example, if there is a temperature variation, the software will look at that and make changes to ensure that the outputs of an industrial process are consistent. From a hardware perspective, too, we're seeing more memory and componentry which is smaller, cheaper and more powerful; as the two advance in tandem, it means you can automate much more, and a lot more cost effectively."

A PERSPECTIVE ON MATURITY BURGER N CHIPS PLEASE

Providing a rather stark perspective on how automation has matured, let's consider the possibility of a machine-made burger. A delicious bit of science fiction you might think. Not quite. A hamburger-making robot is already a reality and has demonstrated its ability to produce 360 of the things in an hour. It's called Alpha, it's made in America (where the appetite for burgers surely exceeds even our own) and it's made by a company named Momentum Machines.

Amazed? Don't be, because over 50 years ago, AMF – a company today better known for its tenpin bowling alleys – invented a fully automated fast food service system, including a burger-making machine. The AMF system didn't take off because it was incredibly expensive to purchase, install, run, maintain and clean. In those days it was just far more cost effective to employ people to perform those tasks.

Today, the advances which CTEK's Stokes outlines, mean even relatively small operations can and do look for every opportunity to automate processes. For example, says Simon Craig, orchard manager at Punchbowl Kiwifruit Services in Ramarama, near Pukekohe, there is something of a meeting of cutting edge technology on one end of the company packhouse, and the oldest techniques in the business on the other.

"We've automated sorting of kiwifruit as they come into the packhouse with a system that uses cameras to take photos of the fruit and grade them. That was once done manually – or, if you prefer, visually – with people inspecting each fruit and deciding whether or not it makes the grade," says Craig.

At the other end of the packing process, it is good old manual labour, where trays are packed into boxes by hand.

WHY AUTOMATION IS A COMPETITIVE NECESSITY

Shane Bebe, business development manager at Australian industrial automation company Mobile Automation, says automation is a competitive necessity, particularly for companies in the developed world. "The biggest cost for companies is people, and that drives the necessity for implementing automated solutions," he points out. "If they are not automating as soon as they can, the simple reality is that they face going out of business."

That's because there are two conflicting forces at work, metaphorically tugging at opposite ends of a piece of string. On one hand, people want quality goods cheaply. On the other, workers want high wages, even for relatively menial work. Both can't win – but in a globalised environment, those who can produce inexpensively will make the sales. "There's a stark example playing out right now in the Australian automotive business. If those factories were allowed to automate years ago, the industry would still have a future," Bebe points out.

*ref sidebar p 22

Craig notes that companies which employ manual labour actively seek opportunities for further automation for the simple reason that machines don't require management (they also don't drink alcohol, take drugs or get sick). "It does take significant investment to automate even what looks like a fairly simple process; the sorting machines cost several hundred thousand dollars, but it is the return which is the important factor. In this instance, those machines will pay for themselves within two to three years."

Stokes provides further perspective on why automation is indispensable in businesses at scale. "Our largest customer is Fonterra; automating its plants is vital to get consistency of product in large volumes. Complex automation processes are applied in these big plants for longer runs and offer the ability to accommodate variability in incoming raw materials to ensure the end products meet applicable grading and standards."

Human operators, he points out, simply cannot manage these processes to the same degree of granularity and accuracy required to achieve predictable outcomes. "In other plants, such as baking, there are complex recipes to produce huge volumes of bread and other finished products, which must be the same on every day of the year, despite variability in conditions and materials. There is less operator input required today to get it right – and the advantages extend to health and safety, too. For example, packing lines can be physically dangerous, something that automation can and does reduce."

The demand for consumer products today is also such that plants operate around the clock. "Instead of three shifts and the inherent dangers of working with moving machinery late in the night, automation means the ability to produce high volumes with lower margins," says Stokes – and he adds that many of the jobs which are taken over by machines are those that humans really wouldn't want to do anyway. "The reality is that with automation, jobs don't disappear, they change."

FROM FACTORY FLOOR INTO ERP

Of course, automation and process control sit at the front end of the considerably sophisticated software systems which manage (particularly) today's large corporations. Fundamentally,

> "SUCKING UP INFORMATION CREATED ON THE SHOP FLOOR COLLATING COMBINING AND REFINING IT."

enterprise resource planning (ERP) solutions are about information exchange and management; they can be seen as a large funnel, sucking up information created on the shop floor, collating, combining and refining it to provide managers and directors with the ability to operate large, complex businesses.

"ERP systems support thousands of functions and every level of an organisation, from operational, managerial and strategic levels. It empowers people, down to every individual within an organisation, as appropriate, with information at their fingertips rather than requiring it to be explicitly sent, and provides a mechanism to collaborate in a structured manner with workflow systems and other mechanisms," says David Sundaram, associate professor of information systems and operations management at the University of Auckland.

That information is also increasingly drawn from the shop floor, Sundaram notes. "Information is varied and comes from a variety of sensors; it can be temperature, pressure, goods counts, whatever, increasingly automatically generated but also from people keying it in from terminals. The information flows into operational systems, before being passed at a higher level into data warehousing and business intelligence systems, providing people at the managerial and strategic levels with the ability to take decisions based on accurate, real-world data."

> "EMPOWERMENT MEANS PROVIDING VISIBILITY AND CONTROL, ALLOWING THE CEO TO DRILL DOWN."

CTEK's Stokes agrees that the shop floor is more integrated with enterprise software systems than ever before. "That's reflected in the type of people we employ and there are two aspects to that: those who specialise in automation and have an engineering [specifically mechatronics] background, and those with experience and training in manufacturing execution systems [MES]."

MES is something of an intermediate step between ERP systems and SCADA (supervisory control and data acquisition) systems, commonplace on factory floors. "These two skills sets have to be well integrated; we need people competent in both camps, so that things like reporting on downtime, operational efficiency and packing line performance can be designed and built to go straight into the MES layer."

What that means in practice, says Stokes, is that a manager can instantly pinpoint issues with shifts, downtime, production and any one of hundreds of other salient metrics, directly drawn from the coal face. "Today, it is very much more tightly coupled and it is a lot smarter."

That's confirmed by Bebe, who says he has over the course of many years observed the interface between factory automation and business management software develop considerably. "Today there is greater interaction between automation and management systems; managers in the office are in control of processes to the extent of handling throughput and dealing with exceptions as they crop up. And whereas the average electrification person wouldn't touch the 'black boxes' [PLC] in the past, today we see people walking around the shop floor, plugging in with monitors and looking at the coding in the PLCs. It has become an integral component of this type of work, reflective of how managers have a direct link into how automation equipment is running."

OFFICE WORKERS, YOU'RE NOT SAFE EITHER

Automation isn't limited to industrial and manufacturing processes, but extends into the white collar environment, too. That goes beyond the traditional 'office automation' which is the standard equipment of business (computers, printers, and other devices) and, more significantly, extends to 'high touch' business processes.

Sundaram notes that automation is a big part of ERP solutions, pointing out that major business processes and functions can be taken care of within the system. "Offloading tasks such as compliance with regulations – Sarbanes-Oxley, or Basel Capital Adequacy and many others – means businesses have the ability to meet their obligations rapidly with low human overheads."

It goes further; for example, a major insurer is introducing a new way of doing business by automating to a large extent the manual tasks involved in producing policy documents for its customers. The system centres on a new platform which is used by internal staff and the company's brokers to handle quotes and get service. The Belgium-based project manager of the system implementation, who asked not to be named as the system is still commercially sensitive, says it represents an investment of some US$5-million. "The purpose is to achieve a new 'target operating model' which will make us a disruptive force in the short-term market for small to medium business," he says.

"By automating many of the tasks and production of paperwork for business insurance, our brokers become more efficient and can spend more time with their customers, rather than shuffling paper."

Notably, the system is divided into two components: an automated service centre and a centre of expertise. Business insurance isn't as standardised as home and car insurance, so when the inevitable exceptions crop up which cannot be handled by the finely defined business processes which underpin automation, the system 'kicks' the transaction into the centre of expertise where real people handle it. Even so, the project manager says the split between the centres is 80 percent for automation and 20 percent to human handling.

WHY AUTOMATION IN BUSINESS IS IMPERATIVE

Just as automation is necessary to maintain the global competitiveness of manufacturers and those in the agricultural fields, so too is the automation which comes with ERP systems a major driver for their implementation, notes Sundaram.

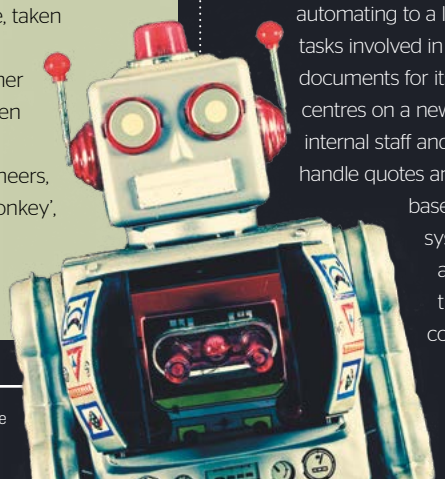
It is a particular necessity for those businesses operating in multiple countries which have differing currencies, rules and regulations, practices and languages. "In this environment, it is necessary to achieve lean manufacturing, optimise cost and stock holdings and so on, and provide intelligence across the business. Empowerment means providing visibility and control, allowing the CEO to drill down and look at the company performance in detail from the top, while also at the bottom level providing people with the ability to see across their job functions to, for example, gear production schedules and control operations better."

But Sundaram has a warning for growing companies considering the implementation of an ERP system. "This is not a no.8 wire quick fix; it requires serious investment of time and money. It requires taking a medium- to long-term view of your ability to remain competitive. There are substantial risks in getting that done properly, and companies have gone bust attempting to deploy ERP. Big systems mean big risk."

* WHAT NEXT – AUTOMATED JOURNALISTS?

Automated production of written texts doesn't fall into the realm of science fiction. In the United States, clever software is capable of producing written weather reports for publication on news websites. Commenting on one such a programme (called StatsMonkey) *The Guardian* notes that, "Automated journalism can basically be understood as search algorithms programmed to look out for certain key findings. then to put them into a certain structure. For a report on a football game for example, the StatsMonkey calculates the narrative based on the numerical data." [sic].

Given the errors in that quote, taken directly from *The Guardian's* website, it is questionable whether or not the report itself was written by a machine. Furthermore, it is arguable that the software engineers, in calling their program 'StatsMonkey', have great insight into the calibre of people who take work as journalists or writers.



CIO SUMMIT
NEW ZEALAND

9-10 JUNE 2015 | AUCKLAND

IDC Analyze the Future

Conferenz Connect. Know. Succeed

REGISTRATIONS NOW OPEN

SUMMIT

SUMMIT PASS

ALL ACCESS • TWO DAYS

In addition to the full CIO plenary programme, 2015 Summit Pass-holders will have full access across all events happening across the two days: including Networking Roundtables, the Seminar Programme, Demonstration Zone, Exhibition area and the annual CIO Awards Dinner.

AWARDS

CIO AWARDS NEW ZEALAND

NOMINATIONS NOW OPEN

TECHPASS

TECH PASS

LIMITED ACCESS • ONE DAY

2015 Tech Pass-holders will have limited access to attend the Seminar Programme, Demonstration Zone and Exhibition area on Day 2 of the Summit. The annual CIO Awards Dinner is not part of the Tech Pass.

CONFRONTING DISRUPTION - SHAPING THE FUTURE OF BUSINESS TECHNOLOGY

FULL SUMMIT AGENDA AND AWARDS DETAILS

www.ciosummit.co.nz

#NZCIO

HEADLINE SPONSORS

vmware UNISYS vodafone

GALA DINNER SPONSOR

EMC² where information lives

PLATINUM SPONSORS

Interactive Intelligence DDS IT delivering stability Symantec salesforce HUAWEI

DIGITAL MEDIA PARTNER

iStart

An expert guide to selecting and implementing ERP solutions

Embarking on a journey to implement a new ERP system is a major challenge in any business. It is risky, expensive and disruptive. With today's reliance on technology, the consequences of getting it wrong can ultimately determine future success or failure. Hayden McCall spoke to three professionals with a combined 60 years of ERP evaluation and delivery experience across multiple projects, and presents an abridged version of the conversation...

ERP implementations are by their very nature lengthy and complex with significant risks that need mitigation.

One of the strongest themes to come out of the discussion was the imperative to understand existing processes while also planning the desired or 'could be' future state. Businesses need to identify the intricacy of how things actually work in a day to day setting, versus how they should work, in order to better resolve how they could work. Such analysis lays the platform that subsequent success with software selection and project delivery relies upon.

The other strong theme was the need for the whole organisation to have visibility over the project so individuals can understand the reasoning behind the change and embrace the project objectives long before go-live.

Without seeking to be self-serving, the panel was in consensus that the input of experienced independent practitioners to guide the client through the justification, planning, analysis, selection and implementation phases is vital to success.

Key insights:

- Make sure the business case properly addresses the organisational impact, and takes a medium to long term view. Don't prepare it and shelve it once approved, let it live and act as a resource that informs the project and holds leadership to the expectations that have been set.
- Senior management need to demonstrate their commitment and not just verbalise it. They need to foster resilience inside an experienced team that understands how the business really works, and is prepared to go the extra mile.
- Use the leverage you have with vendors before you sign the contract. Don't try to be too prescriptive, be open to change and explore alternatives.
- Recognise when skills don't exist in house, and engage specialists who can lean on previous experience to navigate teams through challenges.
- Keep vendors honest and accountable for what they commit to - record demos and insist that contracts reflect commitments made, and that the people assigned are suitably qualified to both understand your business and deliver the solution.
- Preparing for change takes dedicated and focused resources, don't underestimate what it takes to encourage change. Keep an open door to the wider business, invite and encourage their participation, and celebrate successes with them.
- And, lastly, a comment that says a lot more than just the words it uses - remember: "It's just the start once you go-live."

The panel:

The expert panel consisted of Jamon Johnston, director & owner of Solution Minds based in Perth, Barry Carruth, managing director of Probity Consulting in Auckland and Wellington, and Greg Thompson, succession of architecture director at Present Group, also based in Perth. Together they represent a combined 60 years of ERP selection and implementation experience across multiple industries and solutions.

Under consideration:

1. *Selection:* What are the key factors in successful ERP system selection?
2. *The business case:* What are the key considerations involved in constructing a business case for an ERP project.
3. *Expectations:* What are your tips on setting expectations internally for an ERP project.
4. *Cloud:* What are some of the factors in considering a Cloud deployment model.
5. *Requirements:* How far out should you plan future needs.
6. *Implementation:* What are the key factors in kicking the project off successfully.
7. *Consultants:* Engaging external project management consultants
8. *Resources:* How best to manage company resources during an implementation.
9. *Change:* What are some tips to cope with organisational change management.

Selection: What are the key factors in successful ERP system selection?

JJ – Securing the right sponsor, setting expectations early, understanding what the drivers for change are, agreeing to the objectives of the whole project upfront, socialising those and getting agreement are all important to success, as the others have pointed out. But I'd add that the selection approach needs to be the right level for your business in terms of the due-diligence that you need to go through and the risk mitigation. You don't want to just choose something because a competitor uses that product – that's very, very risky because every business is different in terms of objectives and requirements. We typically choose the software for the business and also the software partner at the same time too. A bit of a plug for us consultants, but I strongly recommend engaging specialists who really know the market, who deal with the vendors, deal with the partners all the time. That 'warts and all' knowledge is invaluable.

I strongly recommend engaging specialists who really know the market, who deal with the vendors, deal with the partners all the time. That 'warts and all' knowledge is invaluable.

Further to what Greg said before about process work, that's absolutely part of our recommended approach. Some companies don't like us doing it because they think it's a waste of time so we've tried not doing it, and jumping straight to the future state, but it's hard for people to get their heads around. You can document the as-is processes really quickly because people know what they currently do, where the issues are, and where there are touch-points with other systems. It is a valuable exercise particularly if a business has grown organically or acquisitively as it's a chance to standardise your processes to support how you want to operate in the future.

We also encourage companies to do some investigation in to what competitors and other companies in the industry are using – you don't really want to be on the bleeding edge! You can typically pick out two or three products that are dominating your space. The business scenarios part of the selection is really important – if you've done the process work your desired future states drive those business scenarios. Focus on the

SELECTION

"Engage specialists who really know the market, who deal with the vendors and partners all the time. That 'warts and all' knowledge is invaluable."

"Video the demonstrations as a bit of risk mitigation – you might want to refer back to representations that were made in the demo."

"Do reference checks that the vendor provides, but also do some of your own."

"Instead of calling it the 'future state' we call it the 'could be' state, so we're not prescriptive in saying it has to be that way."

"Record vendor representations and factor them into the contracts so that they can be referred to during the implementation."

Insist on presentations being attended by the consulting staff that are going to be involved in the implementation.

SETTING EXPECTATIONS

"Top management actions, and not just verbal support, are important in setting expectations."

"It's not always a pleasant experience implementing ERP – although you'd like it to be – so your people have to be very resilient."

"It's just the start once you go-live."

"Understanding the current processes is probably the most important thing you need to do when implementing an ERP."

"Don't just allow a vendor to assign consultants thinking they're all the same, because they are not."

"Vendors do oversell and they don't factor in a lot of client-side activities. It's a sad indictment of our industry...you need to be wary of that upfront and address those expectations early on, particularly with your sponsor and the executive team."

"Vendors prefer you to sign the deal first and then assign consultants, but you can push pretty hard for it because you've got leverage at that stage."

"You've got to factor in the impact on productivity. There's a big call on internal resources before go-live for testing and training...and for power users after go-live."

CLOUD CONSIDERATIONS

"Check exactly what it is that the vendor's offering, how mature it is and what the model is."

"At some point in the life of the solution the cloud-based costing model will become more expensive than the traditional model."

BUSINESS CASE PREPARATION

"One of the biggest oversights [is not] addressing the issue of understanding the organisational impacts of an ERP solution implementation and its aftermath."

"You can't think of getting a return on investment in 6-12 months, it's further out than that. But you'll notice it in two years' time and wonder how you used to get on."

"It's a document that has a life, and for many organisations it gets shelved after it's been approved."

PLANNING

"Define future state processes as broadly as you can, as that's really how you want to operate...prioritisation determines what you're going to implement initially."

"Unless the feature is already generally available don't consider it...unless you can see it and touch it, then it's not real."

pg 1 of 2 – download the full paper for more.

differentiators; if you're looking for a pretty broad footprint for your ERP, you don't necessarily need to spend a huge amount of time on finance because it's pretty standard in the packages these days, so focus on the operational areas that will really make a difference to your business.

Provide your managers with data so vendors can make their demonstrations more meaningful. I strongly suggest you video the demonstrations as a bit of risk mitigation – you might want to refer back to representations that were made in the demo or even share them with people that weren't part of the selection committee. At the backend reference checking is absolutely critical. Do your reference checks for the references that the vendor provides, but also do some of your own. Some of your selection committee will know people in other businesses, so we encourage some informal reference checking. It's quite insightful.

Finally, just negotiate when you have leverage, which is before you've made the decision. We like to engage the preferred vendor and partner for a detailed scoping/planning study before we buy the software, so they can put in a proposal based on real information. We typically like to invite them in from anywhere from two to three months to do a detailed scoping exercise to really understand what is meant to be coming out of the box, what the gaps are, and refine the costs. Then we can refine our business case before we embark on the actual implementation itself. If you do this, you also get to suss out the consultants as well and maybe ask for replacements if they are not right for your business.

We've grappled with getting the right balance between flexibility and pinning down plans and requirements many times in the past. Instead of calling it the 'future state' we call it the 'could be' state, so we're not prescriptive in saying it has to be that way. What we want is for the vendors to demonstrate against these future state processes as well as showing us how their good practice inbuilt system processes work. When we do decide on what the solution is, then there is a negotiation process really to determine our future state versus what the system provides.

There are also different views on how useful lists of requirements are; they're a guide. We base the requirements list on current requirements and we get the vendors to represent whether their package is supported out of the box, as a customisation requirement, or as third party add on – that all helps drive the refinement of the implementation cost. The list of requirements can also help knock out any vendors that have big weaknesses in their product set.

We also like to get those vendor representations and factor them into the contracts so that they can be referred to during the implementation. But bear in mind requirements are only written in a certain level of detail, and although a system can do something, how it does it may be different to your expectations.

Footnote:
The above is the first of 9 questions considered by the expert panel. The transcript has been abridged into a white paper entitled *An expert guide to selecting and implementing ERP solutions* and is available free to download here: www.epicor.com/istart or use the QR code below. Our thanks to Epicor who sponsored the creation of this white paper. Epicor had no influence over the content.

EPICOR
Business Inspired™
www.epicor.com

Safety first the right formula

Infant formula manufacturer GMP Dairy has locked in its supply chain traceability with a new ERP system, providing customers around the world assurance that their baby's formula is safe...

It's no surprise that infant formula makers must meet stringent food quality regulations to safeguard the health of babies. Dairy product manufacturers in New Zealand and around the world face even tougher standards if they want to export to China – the world's largest and fastest-growing infant formula market.

China introduced new quality measures for imported infant formulas to improve safety and consumer confidence after a number of quality problems. Exporters to China must now further demonstrate clear quality control over their entire manufacturing process – from the raw dairy products delivered to their factory to the finished goods shipped to China's shelves.

That's good news for GMP Dairy. An established leader in New Zealand's NZ$200 million export market for infant formula to China, GMP Dairy is particularly well positioned to meet both the new regulations and the surging demand worldwide for quality infant formula products.

One reason, says GMP Dairy director Karl Ye, is the company's new multi-million dollar factory – New Zealand's first pharmaceutical-grade dairy product manufacturing facility. With glistening stainless steel mixing equipment and epoxy resin floors, the 5000-square-metre Auckland facility looks more like a scientific laboratory than a traditional factory. Built to strict hygiene standards with extensive automation, the clean room production facility features the most advanced dairy processing, air filtration and testing systems in New Zealand.

New Zealand's Prime Minister John Key officially opened the factory in 2012. Since then, production has been steadily increasing and in the next few years is expected to reach 40,000 tons of infant formula a year.

GMP Dairy's other significant advantage – something that brings together all the company's expertise, quality standards and innovation – is its 'Black Box' traceability process. Ye says that traceability is essential in the pharmaceutical industry and that GMP Dairy took years to develop its complex system. Using closed-circuit cameras, sensors, batch readers and X-ray machinery, the patented quality control system records data from key stages of the production process.

"Infant formula is an extremely sensitive product for especially vulnerable consumers, so it needs very high manufacturing standards," Ye says. "By collecting critical quality control information about every can of formula, our traceability process gives customers more confidence and allows us to quickly target any quality issues."

As well as infant formula, GMP Dairy also produces nutritional adult milk powder and organic milk powder products for New Zealand and overseas markets.

GMP Dairy is owned by GMP Pharmaceuticals and both companies use Abel software. With its pharmaceutical pedigree, GMP had specific requirements for a new ERP system. GMP Dairy chose Abel's integrated ERP system because it helped the company to easily and efficiently track and access all its quality control data. GMP's 60 users now have real-time visibility of the entire supply chain.

"We chose Abel because they took the time to understand our unique business and configure the system to meet our needs," Ye says. GMP Dairy decided to turn on Abel's functionality gradually so it could manage the implementation in stages, starting with financial and inventory management, production and quality control and then planning, scheduling and BI reporting.

One of the most critical tools driving traceability is batch tracking. Abel allows GMP Dairy to respond to a customer's query about a product by accessing detailed production data on any can of infant formula. The data includes everything from the batch or cypher numbers of the materials, to production details, shipping details and even an X-ray image of the can's contents.

Before Abel, traceability was managed using spreadsheets. Ye says the Abel way is fast, efficient and accurate, giving GMP Dairy greater confidence about quality control.

GMP Dairy will soon give customers direct access to product information from anywhere in

the world. Using a mobile phone to scan a unique QR code on individual products, customers will be able to see the composition of the product and other testing data. The QR code also helps customers verify a product's authenticity and can also advise customers of a product recall or warning.

GMP stands for Good Manufacturing Practice – the "gold standard" for food, drug and pharmaceutical manufacturers. GMP Dairy's innovative traceability process and pharmaceutical-grade production standards certainly impressed the Chinese government. After Chinese auditors inspected 13 New Zealand infant formula manufacturers in early 2014, GMP Dairy emerged as the cream of the crop. GMP Dairy was not only the first company to be registered by China for the export of infant formula products, but also the only company that did not need to take any corrective action to meet the new requirements.

Most of GMP's infant formula already goes to China, and Ye says the company plans to increase exports to China and to other markets, including Korea, Singapore, Taiwan and Australia.

GMP saw how much Abel offered so the management team decided to adopt more of Abel's functionality than they originally intended, including Abel's material requirements planning (MRP). Next on the list is document management, and further adoption of Abel's capabilities in capacity planning, scheduling, KPI management and utilization of resources.

"Abel has given us a better, more flexible system and has contributed to our overall success," Ye says. "We now have real-time access to accurate and critical information, improved quality control and security, and a more efficient use of resources."

CASE STUDY//

GMP Dairy
www.gmpdairy.com

AT A GLANCE//

INDUSTRY
- Food manufacturing

LOCATION
- New Zealand

BUSINESS OBJECTIVE
- Agile manufacturing and distribution processes.
- Supply chain visibility and traceability.
- Chinese export market compliance.

SOLUTION
- Abel ERP

BUSINESS BENEFITS
- Full Chinese market compliance without any remedies required.
- Batch tracking traceability through to consumer.
- Future extension of solution across more processes.
- Improved quality control and process visibility.

FOR MORE INFO//

ABEL SOFTWARE
www.abelsoftware.com
info@abelsoftware.com
+64 9 442 4603

Visit iStart online for more Abel Software case studies

THE PSYCHOLOGY OF IT PROCUREMENT

IS YOUR BUSINESS A PROTECTIVE OR PROGRESSIVE PURCHASER?

Making the decision to invest in a core piece of business technology is up there with buying a house or getting married – it will change your life, hopefully for the better, and it will cost a packet to boot. To make it more complicated, the rules for buying the new house are changing and the CIO no longer has the deciding vote. **CLARE COULSON** *set out to unravel the technology procurement conversation in the era of cloud...*

Ever since the first punch card machines were introduced into the work place in the 1950s, technology has gradually been ingratiating itself within organisations. It has gone from being ancillary to business processes, to being core to what an organisation does, computing information and pumping it to its extremities. As technology's grip has tightened, so the person in charge of the IT department has risen in consequence. In the 1990s the term 'chief information officer' or 'CIO' was popularised and began the journey to the executive table.

In the two decades that have followed, the relative purchasing power of the CIO has fluctuated and today it is being challenged by the democratisation of technology and the availability of eminently consumable cloud computing services. The economic squeeze that came with the GFC only hastened the trend. Adam Dodds, research manager for IT services, IDC New Zealand, says that while larger procurement decisions are mostly still being made based on a well-considered business case process managed through the CFO and CIO offices, cheaper as-a-service technologies that do not require sign off by the upper echelons of management have caused the budget to shift to the wider business and line of business managers who are closer to the customer.

The result has been a fracture in the traditionally solid and risk-averse technology procurement processes. "The CIO office is perceived as delivering the functional requirements of technology rather than the effective opportunities," Dodds says, suggesting that the CIO office is only seen as providing core systems and is not agile or responsive enough to supply lighter weight cloud technology services that address specific and immediate business needs and opportunities. This perception means that so-called 'shadow IT' is a growing influence, as evidenced by Gartner's IT spend forecast for 2015 which shows that although the overall spend continues to rise in A/NZ (up 4.1 percent to A$78.7 billion in Australia, and 2.9 percent to NZ$11.6 billion), local CIOs are seeing their IT budget dwindle and predict that their budgets will actually fall.

Moreover, a survey of 1000 senior executives across Asia Pacific by the Economist Intelligence Unit has highlighted a mis-match between how CIOs and CEOs view the CIO role. According to the resulting report *The Future CIO, which way is up?* CEOs believe CIOs need to develop a greater understanding of the business; learn to think strategically; and develop a greater awareness of broader industry trends in order to use technology to generate revenues. CIOs by contrast think where they need to lift their game is in being able to create a better business case to secure IT investment, and keeping up to date with technology advances. This "blind focus on technology" could be the reason that senior executives believe their CIO's greatest contribution in the last 12 months has come from efficiency improvements rather than innovation.

The changing landscape is not going unacknowledged however. Peter Sondergaard, Gartner senior vice president and global head of research, told the audience at Gartner's Symposium held in Sydney last November that a survey of 161 A/NZ CIOs found 79 percent of them acknowledged that they needed to change their leadership style in the next three years. »

"CEOs believe CIOs need to develop a greater understanding of the business; learn to think strategically."

WHO HOLDS THE PURSE STRINGS?

Deloitte Australia's national managing partner for consulting Robert Hillard agrees, saying he has seen a big change in the last six to nine months, with the best CIOs reclaiming procurement governance and relinquishing their desire to be in sole control of technology procurement. For a short while the power to procure IT reached right down into the lower levels of organisations, thanks to the small operational expenditure required to fund as-a-service products under the operating budget. Now the pendulum has swung back towards the ranks of middle management, but it is unlikely to swing all the way back to the C-suite. Hillard says many CIOs are now taking a step back from hands-on procurement and simply outlining the aspects of governance that they really do care about, such as how the organisation gets access to its data, its governance obligations and the like. He also says that the feedback loop on technology purchases made below executive level has closed and the advent of better technology has made it easier to manage different types of cloud accounts centrally.

"Today it is a much more sophisticated relationship. Increasingly the CIO is not the person who signs the purchase order. But the best CIOs have actually written papers and embarked on education of IT stakeholders to explain the implications of different types of services. They have acceded that they are not going to stand in the way but they are going to facilitate. Some have also even distributed some of their staff across their organisation."

"EXPERIMENTATION IS ALSO TAKING PLACE IN THE FORM OF DIGITAL START-UPS POPPING UP WITHIN LARGE ORGANISATIONS."

Not every CIO is on board, he admits, but he figures that about half of CIOs are on this track. The other half is still frantically trying to protect its territory and grow its IT teams to bolster its importance.

Statistics from IDC gathered across a number of surveys and a year's worth of executive interviews in 2014 (including the *NZ Ecosystem Study 2014*; CIO roundtables; mobility, cloud and IT services surveys during the 2014 period; and the *C-suite Survey* 2014 which- focused on CxOs) reflect the split between progressive and protective CIOs. Over 55 percent of organisations surveyed say their CIO is involved in setting the organisation's strategy and reports directly to the CEO. The transportation, communications & media, and utilities industries are leading the charge, with local and central government following suit. Meanwhile, at least 35 percent of CIOs are not actively involved in introducing technology services to the wider business – in particular in the health and education sectors, and the professional and personal services – which suggests that many departments are circumventing the CIO's office in an effort to get the IT they believe they need. Equally when it comes to the budget for funding technology adoption, less than 30 percent of organisations share it across the CIO's office and line of business managers.

On a more positive note, over 90 percent of organisations say their executive team is actively involved in setting the technology strategy.

Vendors have also started to get wise to the shift in purchasing power and Gartner says 50 percent of IT vendors now sell to the business rather than IT departments. It suggests that 38 percent of all IT spending is now taking place outside the IT shops – and expects it to rise to more than 50 percent by 2017.

A NEW PROCUREMENT MODEL

Dodds calls the structured procurement process "a procurement office game" that usually sits in the portfolio of the CFO or the COO under 'strategic sourcing'. It is typically a slow process filled with detailed business cases and risk assessment. The unstructured process is, he says, adopted when a business or business unit needs a more dynamic, faster-moving approach to purchasing. "Where the investment is aligned to cost of sale or customers the controls are looser and the business tends to go around the CIO office," says Dodds, adding that 71 percent of marketing departments exclude IT from decisions.

Procurement in its broader sense is a hot topic in its own right, and Hillard says he is seeing many companies put a real focus on streamlining procurement (from stationery to transport infrastructure and real estate) to make it easier to do business while using the scale of the organisation to get the best possible deal.

"That's been happening in parallel with this trend towards more sophisticated buying of technology," he says.

The trend is for businesses to disintermediate the relationship between doing something and delivering value. For example, rather than researching and documenting a traditional business case for supply chain optimisation then going to tender with a fixed budget in mind, organisations are striking deals with vendors to try their off-premise technology on an incremental basis, Hillard explains. This way they can put part of their supply chain through the new solution and measure its performance. They can even run technology from two or more vendors on different tranches of the supply chain and try different settings for different geographies and demographics so as to see what satisfies their customers best.

"This year we think that there will be more experimentation. At the moment the procurement decision is still made in the company but increasingly the power is also going back to the customer. By picking two or three vendors and randomly assigning them to customers you can see whose satisfaction levels are most improved," says Hillard.

Cloud computing is changing procurement in another sense too. In the past vendor agreements were signed for a set number of years and any changes to the technology were carefully planned and rolled out. Now, businesses have to try to evaluate technologies that are constantly being updated by the cloud providers. Hillard says many executives are asking exactly how they can actually build a company around such instability and this is often the deciding point between investing in a technology with CAPEX or OPEX. Dodds is also seeing this dilemma and says one of the questions IDC is most often asked is whether companies should have different procurement processes for

what he calls 'functional IT', core systems which underpin the business, and 'effectiveness IT' which is purchased and rolled out quickly in response to a specific business need. And, when companies do purchase cloud solutions, they want to understand how to set up governance programmes and accountability for operational expenditure. After all, license management remains one of the biggest problems in procurement.

EFFECTIVENESS IT

'Effectiveness IT' and its associated experimentation is also taking place in the form of digital start-ups popping up within large organisations. Sondergaard commented on them in his speech in Sydney, discussing how business units, such as the marketing, HR, or logistics departments, are acting as technology start-ups, taking a digital first approach. It goes to show that departments such as marketing which are used to a more agile approach to projects will work around IT if they perceive that they are not getting the help they need. That said, IDC's managing director of Australia & New Zealand, Ullrich Loeffler said in a LinkedIn post that CIOs and CMOs can either compete for a share of the ICT budget or collaborate to become "the organisation's power couple".

"The benefits to both parties are irrefutable, with growing empirical and anecdotal evidence showing that when CIOs and CMOs collaborate, their organisation is usually more competitive than their industry peers," he said, adding that this new partnership was supported by the vast majority of CEOs (80 percent). On the flipside, CIOs who don't collaborate with the marketing department will see more of their budget diverted directly to the CMO.

THE C-SUITE CONVERSATION

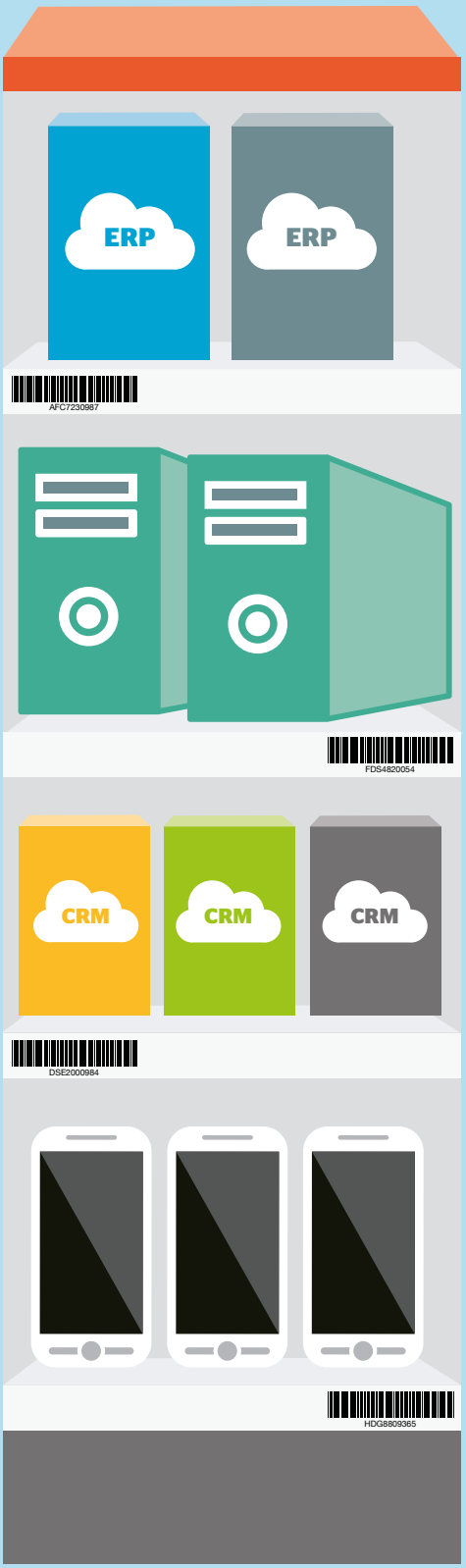
The CIO/CMO relationship is not the only one that counts. All members of the executive team have a role to play in the technology conversation to one degree or another. You can't be an executive in 2015 without having an understanding of technology. Equally, the CIO needs to broaden his or her executive relationships to reach beyond the CFO and include the whole team. As the technology budget shifts to non-technical business units, now, more than ever, there needs to be a holistic technology conversation at the executive table as well as multiple side conversations between different groups of relevant executives.

The results of IDC's surveys and executive roundtables show that the conversation should target the higher level issues that technology can help with, such as how to prioritise the use of better technology, how to get value from a business's information, how to use technology to gain competitive advantage, how to drive technology adoption and how to mitigate security concerns. The infographic overleaf also outlines specific questions that the executive team should consider.

Members of the C-Suite also need to drill down into more specific questions in side conversations between relevant members of the team. For example, the CFO will want to discuss new technology adoption plans, cost structures, OPEX governance plans and business processes with the head of HR, the COO, CRO, CMO and CIO. The department heads meanwhile, Dodds says, want to discuss the type of technology they can adopt to achieve their business goals and gain efficiency. The CIO will also be able to provide advice on governance issues. Not everyone needs to be in every meeting and IDC's Dodds has prioritised the key conversations in the infographic shows. The full list of potential questions by role is available on *iStart* online.

One of the biggest questions that Dodds says he is hearing from IDC's local clients is whether they need a CIO office to run their business. The answer is yes, but it can no longer be the cumbersome, people heavy department of yesteryear that kept technology decisions to itself. Instead it needs to be part of the technology conversation going on in and across the various business units. As Hillard puts it: "There will be a certain amount of conversation which is about gaining efficiency and displacing inefficient processes... but the most interesting conversations are about how cloud can be used to allow collaboration to do something that's actually radically different. And the best conversations usually pull together a group of executives because no one executive is able to think up this on their own."

In a world where most business technology will soon be consumed via the cloud and businesses are subject to the changing whims of cloud providers, an agile and distributed IT department headed by a CIO who acts as a chief integrator and governance officer will be the winning formula. »



IN THE BOARDROOM: THE CXO TECHNOLOGY CONVERSATION

	CFO	CIO	HR	COO	CRO	CMO
CEO	How set up are we to manage OPEX-based solutions such as cloud? How does this change our existing procurement process for IT? Does this change how we value our business?	What is the role that you see your department playing in the adoption of technology? What are the resources that you need to fulfill this role? Where we choose to do this ourselves, what is the price or performance benefit compared to partnering?	What are the expectations of the new generations regarding the adoption of technology? How can we leverage technology to visualise how our business communicates with itself and its customers? Using technology – how do we make use of a more variable labour market?	How can our cost of operations be made more variable through the use of technology? How does our investment in systems and tools align to that of our competitors? What unique IP in business operations could be systemised and sold to the market?	How can we change our revenue models to be more aligned to the way in which our customers do business? Where is the new business threat where our competitors leverage technology? Who of our customers' strategic partners can we partner with to create something unique?	What is our digital strategy? How can we grow our addressable market through the use of technology? What information do we have about our customers that might allow us to diversify? What information do we not know about our customers that we need to understand? How do we establish a framework for innovation to capitalise on market opportunities with pace?

LATER ON IN THE FINANCE DEPARTMENT...

...AND IN THE CIO'S OFFICE...

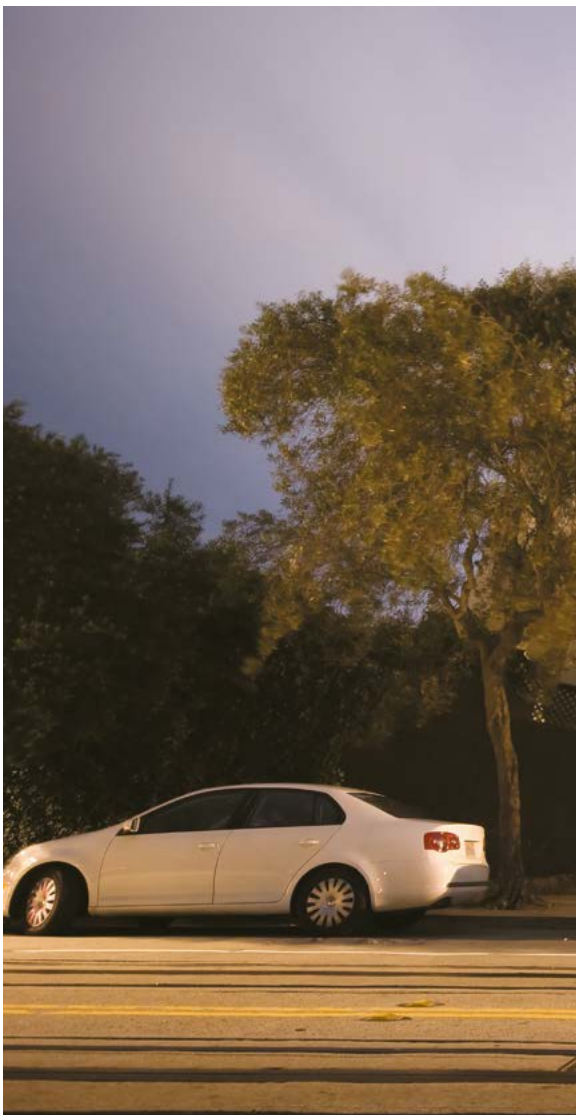
...HR...

...AND OPERATIONS...

Scan here, or visit http://istart.com.au/feature-article/who-owns-it/, to see the conversations in full detail.
Source: IDC studies including the *NZ Ecosystem Study 2014*; CIO roundtables; mobility, cloud and IT services surveys during the 2014 period; and the *C-suite Survey 2014* which focused on CxOs

Built to last – the ultimate business software challenge

If the consequences of a failed software project were the same as for a bridge or building, there would be some significant piles of rubble, numerous casualties and a whole lot more court cases. By ***Peter Dickinson****...*



Don't get me wrong. I've had a forty year love affair with the software industry and can verify first hand that it improves lives, saves resources and generates more income for businesses – it is an absolute game changer. But the software industry is also one of the most wasteful and debilitating industries on the planet.

The numbers are so large the statistics don't seem real. The global cost of IT project failure is calculated at US$6.2 trillion per annum with an estimated 15 percent of projects being abandoned pre-launch or shortly afterwards. A survey of businesses in Europe established that up to 50 percent of purchased software is never effectively used – a good percentage of it never actually being deployed at all.

This catastrophic ongoing pattern of failure and waste seems to be accepted as part of the high risk we pay for the reward of progress. But should it be?

It isn't that those in the software industry are necessarily negligent and by all accounts the IQ level is higher than most. So why don't we have the same expectations of those engineering our software as we do for those engineering buildings and bridges?

I see three main drivers for the waste that occurs:

1. The technology industry celebrates platform change. While there can be real improvements associated with a platform shift, very often it is a thinly disguised commercial opportunity to turn existing customers into new customers all over again.
2. Love of shiny new things. Disruptive thinking is in every software developer's DNA. As a result they're always pushing the boundary and see their latest solution as the only solution and demand that everyone immediately embrace its brilliance. The question as to whether you really need to upgrade (or not) is never asked.
3. The most critical cause of all: A disconnect between developers building technology they love as opposed to building what the customer actually needs. It is an age-old information gap but the void between customer and developer is larger than most.

It means we see the software equivalent of a lot of new mouse traps in a year. We also see numerous projects fail because what the customer actually wants isn't getting heard. Or if it is being

"This catastrophic ongoing pattern of failure and waste seems to be accepted as part of the high risk we pay for the reward of progress. But should it be?"

Peter Dickinson, CEO, Greentree International

heard, then it isn't being interpreted accurately so the outcomes that are delivered miss the mark.

At some level software is also viewed as highly replaceable. Because it is constantly evolving and changing even a completed project is never finished – there are constant upgrades and improvements as the technology and business requirements continue to evolve.

As we've already discussed this can create a rip and burn mentality; out with the old and in with the new, requiring a complete rethink and often a rebuild every time your business grows and changes. This is not such an issue when your company (and comparative investment) is small or if the software sits at the periphery of your business.

It is an entirely different matter when you are discussing replacing the core-system that runs every aspect of a business. Then the decision to shift house is an expensive and disruptive undertaking and something you don't do lightly.

And this is where the engineering and architecture of your software really comes into play. You shouldn't have to shift house to accommodate expansion or changing business requirements. Growth is the fundamental focus of every organisation and any business management system worthy of the title, should be able to expand with you – effortlessly.

Some ERP software players are addressing this issue by bolting on some new bits which is easily done while business goes on as usual. But it is the equivalent of window dressing a leaky building – it looks and functions OK at a surface level but you don't have to dig too deep to start finding areas of pain: processes that aren't integrated, areas of the database that aren't searchable, parts of the program that require a manual work-around.

The excuse is generally that renovating the building while you still occupy it is too hard and too costly. I would argue that should never be the case if the underlying platform and architecture you have in place are built to last. Change is inevitable and if your core business systems aren't built to change and grow then your business will continue to be limited by the software it's using.

So what lessons should you take from this? Firstly don't be distracted by the window dressing. When you're buying software pay as much attention to its architecture and engineering as the processes and systems it automates for you. Ask the hard questions around meeting the growth challenge and assess how easy it will be for you to execute add-ons and renovations while you continue business as usual. There is truth in the statement that a building is only as good as its foundations. The same is true of software.

MORE INFORMATION//

Peter Dickinson is the CEO of Greentree, based in Auckland.

This article was contributed by Greentree International.
www.greentree.com

Digital business calls for postmodern ERP

The term enterprise resource planning or ERP was coined by Gartner in 1990, but a lot has changed since then. Gartner's ***Denise Ganly*** *explains why the ERP megasuite is dead and why postmodern ERP is a vital foundation for digital business...*

ERP remains one of the biggest enterprise software spending categories. Australian organisations are forecast to spend almost A$780 million on ERP software in 2015, while in New Zealand, spending is forecast to reach more than NZ$100 million. Both markets showed healthy growth rates over last year.

Many Gartner clients are concerned about the future of their ERP suites. Large organisations find the problem formidable, with many moving parts and interdependencies that create a leave-it-alone mentality. Consequently, most organisations are overwhelmed with tactical issues, such as reducing licensing costs, pursuing instance consolidation, managing upgrades and interfacing with cloud services. This leaves little time for strategic planning on how ERP can enhance value and support the pace of business change.

Introducing postmodern ERP

ERP technology has evolved during the past 30 years from a collection of stand-alone, best-of-breed applications to an increasingly comprehensive end-to-end integrated suite. However, this technology vision has been killed by external market forces and the fact that, for most, a one-size-fits-all approach does not work. There are a number of reasons for this, the most important being the availability of cloud services.

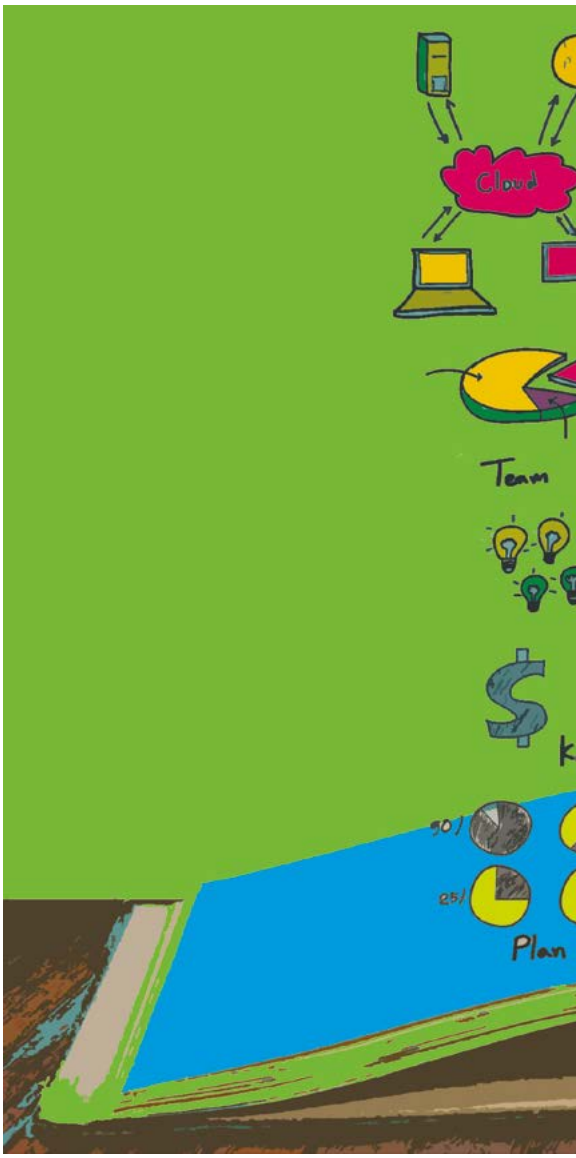
Cloud vendors are selling the vision of easy-to-use and manageable applications with new, modern user interfaces in areas such as sales force automation, talent management, and travel and expense management. Many users who found their ERP applications hard to use now use these cloud applications.

Vendors now offer core elements of ERP and even full suites in the cloud. Cloud services offer not only new user functionality and a different buying model, but also the reality of faster feature updates and enhanced technical scalability due to the underlying cloud infrastructure. As organisations look at extending their ERP to support mobile access, multi-enterprise working and better decision making, they're forced to re-imagine the role of ERP, its provision, and which vendors will dominate.

Gartner uses the term 'postmodern ERP' to describe the deconstruction of suite-centric ERP into loosely coupled applications that are indifferent to the source of process provision and will enable innovation instead of stifling it. The concepts and benefits of an ERP should be preserved where it makes sense to do so, but today there is no automatic quest for on-premise solutions, or a single instance/megavendor, or for operational efficiency over business agility.

Many traditional ERP deployments stifle innovation, because they are rigid and slow, and they value integration and standardised processes over agility. Gartner predicts that heavily-customised ERP implementations will soon be referred to routinely as 'legacy ERP'. Within five years, hybrid ERP environments will be the norm, with a mixture of on-premises, cloud and outsourced components.

Postmodern ERP has emerged at the same time as many CIOs have focused on ERP investments. Gartner's 2015 CIO Survey showed that in Australia and New Zealand, ERP ranked as the fifth priority overall for new spending. It is vital that CIOs making investments in ERP understand the impact of postmodern ERP and don't throw more good money after the bad, old way of doing things.



Defining an ERP strategy

Many organisations have inherited their ERP through a combination of tactical decisions made at the business unit level and merger and acquisition activities. Senior executives often see standardising on a single, monolithic ERP suite as a way to rationalise, delivering operating and process efficiencies and forming a foundation for future growth. Although this approach can deliver significant benefits, it is a high-cost, high-risk initiative that could compromise the business if it is ineffective.

The biggest mistake many ERP projects make before the implementation starts is failing to define and agree on a business-led ERP strategy. Instead, executives get excited about the potential benefits

of ERP and encourage IT to rush straight to vendor selection, hoping that a vendor's ERP suite will solve all their business process and change management issues. Although this can work (more by luck than anything else), in most cases, it causes end users to resist using the ERP system.

Consequently, CIOs and application leaders must work with business users and senior executives to define and agree on an ERP strategy before considering any technological choices. This is one of the foundations for ERP success: 83 percent of the organisations that exceeded the business payback identified in their original business case had an ERP strategy that was approved by the business.

Four tenets of postmodern ERP

Although the fundamentals of ERP and defining an ERP strategy are still valid, the emergence of postmodern ERP adds another layer of complexity. CIOs and application leaders need to understand:

1. The megasuite is dead, killed by cloud specialist vendors that just develop a subset of the megasuite really well.

2. No vendor in the world can build a suite fast enough to keep up with the specialists, particularly cloud specialists. ERP vendors have stopped developing some areas that traditionally fell within the scope of ERP (such as talent management) and are acquiring cloud specialist vendors to deliver the required functionality.

3. New, loosely coupled ERP solutions are emerging in the cloud, based on developed and acquired products plus integration services.

4. Integration becomes more complex; however, vendors are hiding complexity in the cloud.

Overall, this means that the ERP market is in transition. Choosing a single vendor and hoping that vendor could do it all, without defining a business-led ERP strategy, was a high-risk approach in the past. In the postmodern ERP world, it's pretty much a guarantee of failure.

IMC in the postmodern ERP era

The real future of ERP lies in in-memory computing (IMC). It breaks down the wall between ERP and business intelligence. By 2018, at least 50 percent of global companies will use in-memory computing to deliver significant additional benefits from investments in ERP.

Gartner defines IMC as an architecture style where applications assume all the data required for processing is located in the main memory of their computing environments. Broadly speaking, IMC technologies in ERP and CPM applications will deliver three types of benefits: performance improvements, advanced analytics and process innovation. These potential benefits (and the hype around them) may make IMC seem like a must-have technology investment, but the benefits will vary by organisation size, functional domain and industry. The potential benefits of IMC will not be restricted to large organisations, because midsize organisations will benefit from advanced analytics and may be able to innovate processes faster than larger, less nimble organisations.

Postmodern ERP using IMC will be a key technology enabler in digital business because organisations will be able to react to business moments in near real time by identifying their potential impact on strategic business objectives.

Using a traditional ERP system in digital business is like building a house on sand. As a first step, understand your business' appetite for digital transformation and what processes will change, and start to renovate your ERP systems for the digital age.

ABOUT DENISE GANLY//

Denise Ganly is the research agenda manager for Gartner's ERP and Enterprise Applications Strategies research group, based in Melbourne. In her 15 years at Gartner, she has advised many clients on life cycle challenges for enterprise applications including ERP strategy, business cases, benefits realisation, selection, implementation and change management.

iStart
TECHNOLOGY IN BUSINESS

ERP Buyer's Guide 2015

ERP Buyer's Guide 2015

For more information, whitepapers and case studies on these solutions go to www.istart.com.au/ ERP-SCM-solutions.htm (or .co.nz)
*Case studies highlighted in **Orange** can be found on iStart.*

SOFTWARE PRODUCT	ABEL	AGRESSO	CINCOM ERP
Industry Focus	Business Management Software that provides industry standard solutions in the following areas: Manufacturing (Process, Discrete, MRP and MRP II), Jobbing / Job Costing, Distribution, Engineering & Fabrication, Assembly, Service Industry, Repairs & Maintenance, Wholesaling, Food Production & Traceability, Apparel, Professional Services, Mining, Furniture & Fixtures, Marine, Asset & Project Management and Finance.	Agresso is designed for service-intensive organisations. It is highly configurable to enable you to fit the system to your business. Its architectural design enables our customers to respond to business change faster, cheaper and without the typical business disruption associated. The upgrade process has been tailored to ensure upgrades are straight forward and cost effective.	Cincom Systems offer innovative ERP solutions for a range of complex businesses. For over 45 years Cincom has been supporting companies in industries such as; Aerospace & Defence; High-Tech & Electronics; Medical Devices; Industrial Equipment & Machinery; Transportation Systems and Specialised Vehicles; Government/ Public Sector; Service Management; Utilities, Resources; Financial Services; Building & Construction and Telecommunications
Appropriate for businesses of size ($ turnover)	$5m+	$25M+	$20m+
A/NZ Sites (# installed)	200+ globally	A/NZ Sites - +40,000 globally	65+ ANZ; 7,000+ Globally
Key Reference Sites (those highlighted in orange can be found as full case studies on iStart)	Alsco Inc, Craig's Investment Partners, CTI Logistics, E.W. Sinton, Fairfax Industries, Franklin Plumbing & Builders Supplies, First New Zealand Securities, G-Tech Bellmor Engineering, Guala Closures Hotter Engineering, GMP Dairy, Myriad Engineering, Nautech Electronics New Zealand, Reid and Twiname NZH Limited, Inventis Group, Manuka Health, Mastip Technology, Nautech Electronics Australia, New Image International, New Zealand Wool Testing Authority, Besra Gold, Electronic Navigation, GMP Pharmaceuticals, Disc Brakes Australia, COR Engineered Cooling, Hiltech USA, Australian Wool Testing Authority, Talus Industries, Air Data, G-Tech Separation, Credit Suisse, Innova Products, Amtex Electronics.	NZ Post Group, Kinetic IT, Skilled, DOF Subsea, One School, Qld Government, Saab, Expedia, Save the Children, British Red Cross, HRG, Van Oord, RPS, The British Museum, Grant Thornton, Ernst & Young, Rio Tinto, Ikea, Paperchase, Telegraph Group, Metro Bank, Easy Jet, Travelex, WSP, Cyril Sweett, UK House of Commons, UK Department of Transport, Cranfield University, University of Southampton, Royal Roads University, Harvard Law School, Bristol City Council, North Somerset Council, Cotswold District Council, Xentrall Shared Serivces, Bedford Borough Council.	Australian Submarine Corporation, ASC AWD Shipbuilder, Thales Australia, Royal Australian Mint, Harris Corporation, Cubic Defence System, The Trane Company, Ericsson, Rockwell Automation UK, Lushous Clothing, HydrauLogic, T&F All States, Manly Windows, Fassi Cranes, E-One, Siemens, Dayton Progress, Greenheck Fan, Air Products and Chemicals, SMIT Textile, Carrier Refrigeration, Alliant Energy
SaaS/Hosted Option	Yes	Yes	Yes
Web Browser Version	Yes (specific modules)	Yes	Yes
Financials	Yes	Yes	Yes
Manufacturing	Yes	No	Yes
Distribution	Yes	Yes	Yes
e-Commerce	Yes	Yes	Yes
Business Intelligence	Yes	Yes	Yes
Other modules/product features	Abel is an affordable fully integrated ERP Business Management System that delivers: Financials, Multi Company & Multi-Currency Accounting, Multi-Language, Manufacturing & Production, Distribution & Supply, Job Costing, Serial & Tracking, Inventory Management, Pricing, Customer Relationship Management and Corporate View with full visibility across multiple companies, branches, locations, languages and currencies. Abel is currently running in 6 languages and is in 12 countries.	Project Costing and Billing, People and Project Planner, Payroll, HR, Workflow, Commitment Accounting, Utility Invoicing, Subscriptions, Field Service, Education and Research. Agresso puts collaboration at the heart of your organization, through a range of online chat, screen-sharing and other built-in collaborative features. Colleagues stay close, information is always at your fingertips, answers just a click away and you can discuss and resolve queries in a matter of minutes – before they ever become issues.	Cincom has partnered with Microsoft to offer a unique manufacturing solution built to cater for complex business needs including: - Native integration with Microsoft Dynamics AX and Microsoft Dynamics CRM; Advanced Product Configuration; Project Supply Chain; Release Management; Revision Control; Engineering Change Control; Advanced Contracts; Advanced Projects; Service Lifecycle Management; Decision Support; Advanced Project Supply Chain; Advanced Production Control; Product & Services Configuration; Cincom also offers Configure Price Quote (CPQ) and Front Office Product; Configuration software that streamlines complex sales processes.
A/NZ Vendor Contacts	Abel Software Limited Jane Mattsen, Business/Channels Manager +64 9 442 4603 janem@abelsoftware.com www.abelsoftware.com	A/NZ Vendor Contacts +64 4 903 5390 www.agresso.co.nz	Cincom Systems www.cincom.com.au info@cincom.com.au 1800 022 871 +61 2 8875 1400
A/NZ Partner Contacts	NZ: Abel Solutions Limited 0800 ABEL SALES +64 9 526 5210 info@abelsolutions.co.nz www.abelsolutions.co.nz AUS: Abel Solutions Sydney +61 2 9888 3355 AUS: Abel Solutions Melbourne +61 418 696 488 info@abelsolutions.com.au www.abelsolutions.com.au	A/NZ Partner Contacts + 64 4 903 5390 sales@agresso.co.nz www.agresso.co.nz	Cincom Systems www.cincom.com.au info@cincom.com.au 1800 022 871 +61 2 8875 1400

ERP Buyer's Guide 2015

For more information, whitepapers and case studies on these solutions go to www.istart.com.au/ ERP-SCM-solutions.htm (or .co.nz)
*Case studies highlighted in **Orange** can be found on iStart.*

EPICOR	FIRST SOFTWARE (N2 CLOUD)	GLOBAL SHOP SOLUTIONS	GREENTREE	IFS
Manufacturing (including industrial machinery, fabricated metal, construction and engineering, high tech, medical devices & more), wholesale distribution (including industrial supply, fasteners, HVAC, electrical, fluid power, medical supplies, pharma & more), supply chain management, services, oil & gas, mining and resources, and aged care.	Built for Retailers and Distributors with a strong ecommerce focus as you can sell on the web from within N2 using the embedded ecommerce functionality. Features live dash-boards for up to the minute company results. Eliminates the need for multiple applications by being an all-in-one solution	Global Shop Solutions ERP Software is designed for small to medium manufacturers including job shops, machine shops, make-to-stock, make-to-order, mixed mode, engineer-to-order, and DCAA/Government contracts who manufacture for the Aerospace, Automotive, Defense, Display Fixture, Electric Device, Energy, Furniture, Gas, Green, Machine Building, Medical Manufacturing, Metal Fabrication, Oil, Plastic Fabrication, Rubber Fabrication, Soft Material, Wood Product, and other industries.	Integrated solutions across various industries including: Wholesale & distribution, not-for-profit, manufacturing, construction & engineering, property development, agriculture, education & training, mining, transport, entertainment, food & beverage, health & support, ITC, tourism, automotive, service industries (professional, trade, HVAC, high tech, heavy equipment etc).	IFS focuses on businesses with processes in manufacturing, projects, service management, asset management, and supply chain management. Key industries include oil & gas, mining & resources, engineering & construction, manufacturing, field service management, aerospace & defense, high tech and utilities.
$5m - $1B+	$1m+ - customers range from 3 to 80 users.	$5M - $300M	$5 – $500m	$10m+
600+ANZ & 20,000+ globally	40+	2,000+ global installations	10,000+ companies Globally	40+ ANZ; 2200+ Globally
Europlan Industries, DC Ross, Filtercorp, Giltrap Engineering, Ludowici, Marque Magnetics, Shears and Mac4, Southern Spars, Trimax Industries, Nu-Con Engineering, C-DAX, Supreme Steel, Drake Trailers, Tieman Industries, Autex Industries, Future Products Group, MAS Zengrange, Precision Parts, Hydestor Manufacturing, ASPX Ltd, Temperzone, Hi-Vis Signs & Safety, Wilson Transformer Company, AWMA Pty Ltd, ETEL EL ES DE Engineering, Sapphire Aluminium, Air-Met Scientific	Malcove, Forman Group, Vero, Elite Fitness, Industrial Athletic, Hyper Drive, Sprint Fit, Smart Marine, Players Sports, Composite Developments, Vplas, LovenTools	Access over 40 global case studies: http://www.glo-balshopsolutions.com/case-study Key Gas Components Tackpoint RK Mechanical, Inc. Sussex Wire, Inc.	MediaWorks, Mazda NZ, Oxfam Shop, Universal Homes, EasiYo, Ryman Healthcare, Toyota Technical, Medical Council of NZ, Griffiths Equipment, Epic Employment Service, Sisters of Mercy, Kerrick Industries, Museum of Old & New Art, William Loud, Halifax Vogel, Ewing Construction, Carers ACT, Dynea, GS1, Alvin Electronics, John Hart, Leap, HW Richardson, Rothbury Insurance Group, RJ Hill Labs, Gray Lines, Keratec, HJ Cooper, Seeka, Ivoclar Vivadent, Eurotec, Vynco, Airfirst, Curious Film, NPBHS, Paramount Services, Palfinger, EnviTE, Smith & Davies, Hydroflow, Fire Fighting Pacific, Infocus, TEAR Fund, United Cleaning, Print Blocks, SJ Displays, Irvine International, Parmco, Butch Pet Foods Ltd.	AB Equipment, Alliance Contracting, Atherton, Babcock, Brierty, Brookfield Multiplex, Burton Contractors, Closed Loop, CuDECO, Dairy Australia, Eurolift, Execujet, Icon Engineering, Industrial Research Limited, Georgiou Group, Globus Group, Geo Fabrics, Hawker Pacific, Helitec Sikorsky, Mid West Ports, Tiger Resources, Ngarda, Pindan Asset Management, Process Group, TAE, UhdeSheddon, Visy, Warratah
Yes	Yes	Yes	Yes	Yes
Yes	Yes	No	Yes	Yes
Yes	Yes	Yes	Yes	Yes
Yes	No	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes (powered by QlikView)	Yes
Available hosted, on premises or in the Cloud, Epicor is a fully embedded ERP solution delivering financials, multicurrency management, production management, planning and scheduling, product data management, supply chain management, service management, sales management, CRM, human capital management, field service management, project management, energy manage-ment, and business intelligence and analytics.	N2 Cloud ERP is built on Microsoft technology and works with any browser. Modules include Financials, Distribution, Mobile, ecommerce CMS, Business Intelligence, Procurement, Courier integration and Point of Sale. Extensive integration to external suppliers and applications including Xero.	Advanced Planning and Scheduling, Business Dashboard & Reporting, Company and event mes-saging, Costing, Customer Relationship Management (CRM), Document Control, Electronic, Data Interchange (EDI), Financial Solutions, Forecasting, Global Application Builder Software Development LabelWriter™, Material and Inventory Management, Preventative Maintenance, Project Management, Quality Management, Sales Analysis & Management, Shop, Management Solutions, Time and Attendance, Mobile applications, Touch screen technology, Multi-language, Multi-currency, Multi-company/division support	Greentree has launched its next Generation of ERP software, Greentree4, which offers browser-based capabilities, sitting seamlessly alongside its Windows Client access. Greentree's robust unified solution offers integrated Financial Management, Human Resources and Payroll, Supply Chain & Distribution, Job Cost Management, Customer Relationship Management, Retail, Manufacturing, Service and Asset Management, eBusiness, Mobile, Information Access & Reporting, Workflow and Business Intelligence. Greentree will continue to roll out new browser based capabilities that enables you to work it your way.	IFS's ERP suite is built on SOA architecture consisting of Financials, Human Resources, CRM, Sales & Marketing, Manufacturing, Distribution, Business Intelligence, Document Management, Project Management, Enterprise Asset Management, Enterprise Service Management, Engineering, Procurement and Construction.
www.epicor.com Aus +61 2 9927 6200 NZ +64 9 967 1000 Offices: Auckland, Sydney, Melbourne, Perth, Adelaide and Brisbane	www.firstsoftware.co.nz stewart@firstsoftware.co.nz Ph +64 9 573 2648 First Software – 74 France St South, Newton, Auckland	William William wwilliam@gssmail.com or marketing@gssmail.com General Manager, Asia-Pacific Global Shop Solutions 40 Mount Street, North Sydney 21 Queen Street, Auckland	Graham Hill Channels Director +64 9 366 3897 graham.hill@greentree.com NZ: 0800 313 313 Australia: 1800 000 737	info@ifsworld.com +61 3 9810-1100
info.anz@epicor.com www.epicor.com	First Software provides full implementation and support services.	Global Shop Solutions designs, develops, sells, and services their ERP software directly. Please contact www.globalshopsolutions.com or your local office for sales inquiries.	Greentree is sold through a network of resellers throughout A/NZ. These include: NZ: Capital IT, Endeavour Solutions, Primacc Systems, Verde Group AUS: Addax Business Solutions, bizlinkIT, Daniele Saunders & Partners, Endeavour Solutions, Frank, GT Business, Kinetic Information Systems, Star Business Solutions, Synateq For more details, visit: www.greentree.com/partners	Refer www.ifsworld.com

INFOR	MICROSOFT DYNAMICS	MYOB EXO business	NETSUITE
Aerospace & Defence, Automotive, Chemicals, Distribution, Fashion, Food & Beverage, High Tech & Electronics, Industrial Equipment & Machinery, Industrial Manufacturing, Health, Hospitality, Public sector.	Whatever your industry, you need business managment software that supports industry-specific requirements and processes—without costly and time-consuming customisation and development. Microsoft Dynamics provides many industry solutions to enable your organisation to exceed expectations. Specifically, Retail, Public Sector & Government, Financial Services, Manufacturing, Telecommunications & Service Industries	Job and Project Management, Wholesale/Distribution, Manufacturing, Construction, Engineering, Professional Services, Trades, Retail, Agriculture, Mining Services, Asset Management, Finance.	Import/Export, Wholesale/Distribution, eCommerce, Professional Services, Software Development, Media & Publishing, IT Resellers, Advertising, Manufacturing, Non Profit, Retail
$10m+	$3m+	$3m+	Businesses of any size
NZ: 150+, Aus 1500+	900+ NZ	3000+ ANZ	750+
Infor CloudSuite Industrial (SyteLine): AW Fraser, Architecture Profiles Ltd., BestBars, BEP Marine, BSN, Bremca, Carlton Taylor, Clariant, Elldex, Genea, Mercer Stainless, Versatile Buildings, Spanbild, Uvex, USG, C-Tech, Navico, Sud-Chemie, Scott Technology, Rocklabs, Pacific Doors, Thermo Fisher Australia Pty, Dematic Pty Ltd., Tycab Infor M3: Synlait, Tegal Foods, Anzco Foods, King Salmon, Independent Fisheries, Fletcher Aluminium, MCK Metals, Ziera Shoes, Lyttleton Port Infor LN: Alphen, Compac Sorting, Damar Industries, Danone Nutricia NZ Ltd, General Cable, Groenz, Holden Special Vehicles, Pacific Aerospace, Rinnai NZ, Tait Electronics, Thales, Tui Products, VT Fitzroy Infor SCM: Prolife Foods, API Consumer Brands, Pacific Steel, Sheppard Industries, Foodstuffs, Ezibuy	Dynamics NAV: Sacred Hill, Amcom, BL Shipway, Joval Group, Learning Links, CPC Engineering, Home Support Services, Atlas Pearls and Perfumes, DYWIDAG-Systems International (DSI), Schild Estate, Jack Link's, Signs Publishing Company, Image Gallery, Fugro-TSM. Dynamics GP: Southern Cross, Westmead Millennium Institute. Dynamics AX: Hassell, Outdoor Agencies, Lindsay Australia, Albi Imports, InterOil, The Bell Tea & Coffee Company, NZ Window Shades, Woolyarns, Ceres Organics, Leigh Fisheries, Mathias Meats, ABE's Real Bagels, BJ Ball Auckland Transport, Hamilton City Council, Icebreaker, Standards NZ.	Abyss Distribution, Adams Pest Control, Arcadia, Australian Slate-Crete, Automotive Engine Reconditioners, Bekir, Big Balloon, Beaver Liquor, Chapman Grove Wines, Chefs Hat, Clean Planet, Community Solutions, Cotsworld Furniture, David Ogilvie Holdings, Direct Imports Ltd, DDK Commercial Interiors, DSK Engineering, Eastern Plant Hire, Elephant Hill Winery, Enzed, Fiordland Lobster, First Assistance, Glengarry Hancocks, Global Alloys, Hallensteins, Hi-Tech Packaging, Landells Signs, Maton Guitars, Midland Irrigation, Mustad, Nippy's, Nulab, Outward Bound, Positive Energy, Pristine Cleaning, Prowler Proof, Reliance Transport, Scott Machinery, Seed Distributors, Shamrock Craft, Southern Clams, Supply Chain Solutions, Surgical Medical Supplies, Tobys Estates, Town and Country Style, Trident, Ullrich Aluminium, XPO Exhibitions	The Home Baked Cookie Company Pty Ltd, Ethan Group Pty Ltd, McGrath Foundation, Premier Global Services, Virgin Money - Credit Cards, TimeZone One, Brennan IT, Matisse NZ, NZITO, QVS, GB Teat, Panztel, Collingwood Lighting Pacific, Lanzatech, Headland Machinery, Invisalign Australia, Pegasus Group, Empired, Waugh Infrastructure Management, White Gold Solutions
Yes	Yes	Yes	Yes
Yes - HTML5	Some modules web	No	Yes
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
Yes	Yes	Management Reporting	Yes
CloudSuite provides specific solutions for verticals. Other modules: Supply Chain Management, Service, Advanced Planning & Scheduling. Integration via Intelligent Open Network (ION).	Microsoft Dynamics NAV gives small and mid-sized businesses like yours complete control over your core business processes, the precision to perfect your supply chain, and the insight that employees need to perform their best. Microsoft Dynamics AX is a business solution for global enterprises that supports industry-specific and operational business processes, along with comprehensive, core ERP functionality for financial and human resources management. It empowers your people to anticipate and embrace change so your business can thrive.	MYOB EXO Business is a fully integrated, highly configurable Financial and Business Management System consisting of modules supporting: Finance, CRM (including marketing and social media integration), Job Costing, Accountant Assistant, Point of Sale, Fixed Assets, Business Intelligence and Reporting and Inventory Control. MYOB Advanced is a fully cloud based business management system designed specifically for larger A/NZ businesses. Provides effective inventory, sales and purchasing management on a scalable monthly subscription.	Integrated ERP, CRM and ecommerce suite cuts cycle times and errors, real-time dashboard provides advanced analytics, multi-subsidiary capable, customisable on standard cloud platform, automated version upgrades. NetSuite is the only company to give growing and midsize businesses on-demand web-based business applications to run their entire company. NetSuite's solutions eliminate the majority of IT costs and complexity.
www.infor.com.au 1800 1 INFOR (146 367) sales@infor.com	askdynnz@microsoft.com or contact +64 9 362 5565	Australia: www.myob.com.au/enterprise 1300 555 110 exo@myob.com.au New Zealand: www.myob.co.nz/enterprise 0800 696 239, exo@myob.co.nz	www.netsuite.com.au infoAPAC@netsuite.com +61 2 9464 6100
EMDA is listed on iStart: www.emda.co.nz ChCh: +64 3 379 9530 Akl: +64 9 623 3001 info@emda.co.nz	Koorb Consulting NZ: +64 9 361 1304 www.koorb.co.nz Refer: www.pinpoint.microsoft.com	www.myob.com.au/enterprise www.myob.co.nz/enterprise	NetSuite is sold through a partner network to deliver software, implementation, support and education.

ERP Buyer's Guide 2015

For more information, whitepapers and case studies on these solutions go to www.istart.com.au/ ERP-SCM-solutions.htm (or .co.nz)
*Case studies highlighted in **Orange** can be found on iStart.*

PRONTO SOFTWARE	SYSPRO	SAP	ZAVANTI
Pronto Software has been developing award-winning business management software for over 30 years. With in-built intelligence, flexibility and an easy-to-use interface, its flagship product, Pronto Xi enables users to discover rich business insights. Pronto believes in the power of actively listening to clients, adapting our product to meet their needs and finally revealing the best solution.	For more than 35 years, SYSPRO's ERP technology has provided manufacturers and distributors with one flexible, easy-to-learn, out-of-the-box solution. SYSPRO software combines a broad and powerful feature base of manufacturing, distribution and accounting functionality with strong emphasis on inventory and work in progress, simplicity of use, operational visibility, strong analytic and reporting capabilities, business process modelling and workflow management.	As market leader in enterprise application software, SAP helps companies of all sizes and industries run better. From back office to boardroom, warehouse to storefront, desktop to mobile device – SAP empowers people and organizations to work together more efficiently and use business insight more effectively to stay ahead of the competition. SAP applications and services enable more than 263,000 customers to operate profitably, adapt continuously, and grow sustainably, 80% of SAP customers are small and medium business. For more information, visit www.sap.com.	Zavanti provides comprehensive integrated solutions for Real Estate, Property Development, Property Management, Construction, Engineering and Professional Services sectors.
$5m+	$10M+ or $3-5M for smaller specialist industries	SAP Business One $3m+ SAP All-in-One $25m+ SAP Business By Design $25m+	Businesses of any size
1,200+	400+ ANZ/Asia +15 500 Globally	1500+	100+
City Care, OfficeMax, BIC (NZ) Ltd, GD Rutter Ltd, Clearlite Bathrooms, Hydraulink Fluid Connectors Ltd, Trade Tools Direct, JJ Ltd, Digital Mobile, J. A. Russell Ltd, Spicers Paper (NZ) Ltd, The Laptop Company, RSEA Safety, Croxley Stationery, Austral Construction, The Body Shop, The Co-op, Hirotec, Hart Sport, Inspirations Paint, Meyer Cookware, Parragon Publishing, Retail Prodigy Group (Nike) and Wallace Bishop Jewellers.	A-dec, Advanced Polymer Technology (APT) Group, AF Gason, Austbreck, Barrett Communications, Community Chef, Construction Specialities, Epicentre Trading, Natural Beauty Care, Nelson Irrigation, New Zealand Pharmaceuticals, Philip and Smith Ltd., Rinstrum, Satake Australia, See Hoy Chan, SEI Carbide Australia, Toyota Tsusho Steel Centre; Tyree Industries, United Pacific Industries Pty Ltd, WESPINE Industries, Whites Group	**NZ:** Earthquake Commission (EQC), Ballance Agri-Nutrients, DB Breweries, Zespri, Gallagher Group, Briscoe Group Limited, Coastlines NZ, Shoof International **AU:** XTM, Department of Employment and Workplace Relations, Sancella, NACCO Materials Handling Group, Alinta, GWF Baking, EPA Victoria, SCA Hygiene Australasia, George Weston Foods, ERM Power, Supercheap Auto, Downies Coins, XTM, Aquanita. Cogstate, Grifols, Metro Parking Management, Outdoor Education Group, City North Infrastructure, Bonn, Procal.	Branson Group, Village Building Company, MAB Corporation, Austcorp, Diab Engineering, Bensons Property Group, Design Landscapes, Essendon Airport, CBD Homes, Platino Properties, THG WSG Group, FKP, Investa, PEET, Tasmanian Irrigation.
Yes	Yes	Yes	Yes
Yes, selected modules	Yes	Yes	Yes, selected modules
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
Yes	Yes	Yes	
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
Pronto Xi is modular, which means you can build it around your business – not the other way round. No matter what your industry, we can help you examine your business in more detail – so you can increase productivity, lower costs and simplify tasks. As your business grows, so too does the software running it. Start with our core offering of business basics, add the competencies that suit your requirements and discover insights with intelligence built on IBM Cognos technology.	SYSPRO 7 has over 55 modules for Mobility, Manufacturing, Distribution, Business Intelligence, Enterprise Service Management, CAD Integration, Shop Floor Data Collection. We can also ensure FDA/CFR Part21 Compliance and HAACP Compliance	**SAP Business One** - a single, integrated solution for successfully managing small businesses and subsidiaries of large enterprises, available both on premise and in the cloud **SAP Business ByDesign** - Cloud Suite a complete, integrated, and adaptable on-demand solution for subsidiaries of large enterprises, upper midmarket and service organizations **SAP Business All-in-One** - a customizable and extensible solution for midsize companies with deep industry best practices built in, available on premise and hosted by partners	Zavanti ERP provides a fully integrated CRM and ERP suite, with modules specifically for the Real Estate, Property Development, Property Management, Construction, Engineering and Professional Services sectors across multi-company & multi-site. Feasibility module allows developers to assess new projects.
www.pronto.net +61 3 9887 7770 info@pronto.net	Info@au.syspro.com +61 2 9870 5555 www.syspro.com	Australia 1800 287 272 info.australia@sap.com New Zealand 0800 300 727 info.australia@sap.com	Doug Harrison sales@zavanti.com AUS: +61 2 8080 4800 NZ: 0800 ZAVANTI www.zavanti.com
Velocity Global Ltd Chris Morris, CEO +64 9 358 4445 chris.morris@velocityglobal.co.nz www.velocityglobal.co.nz	Computer Support Enzed +64 3 343 3085 or 021663570 rosanne@computer-nz.com Advanced ERP Consultants +6427 4835194 johnb@advancederp.co.nz	NTT DATA Business Solutions: +61 2 8908 4200 contact_au@nttdata.com www.nttdatasolutions.com.au www.solutions.nttdata.com UXC Oxygen AU: Patrick Saundry 1300 136 450 patrick.saundry@uxcoxygen.com NZ: Wayne Rowe +64 9 583 1675 wayne.rowe@uxcoxygen.com www.uxcoxygen.com	Zavanti delivers solutions direct, please contact Zavanti as above www.zavanti.com

Find better business software

Sprint Fit a boot camp for ERP development

Setting up a premium fitness gear and sports nutrition business to guide a software development company may sound curious, but it's working...

In a former art gallery in central Auckland, nestled among modern apartments and small offices, a retail business is quietly going gangbusters. But its reason for existence is a little twist on the usual start-up.

Newton-based shop Sprint Fit sells premium fitness gear and sports nutrition, featuring brands such as Reebok CrossFit, Adidas, Balance and BSN. Most customers wouldn't walk past the shelves of protein powders and eye-grabbingly fluorescent shoes, but if they did, they'd wander into First Software, the software development company that helps make this business a success.

Founded by brothers Vidas and Saul Petraska, First Software is now run by Vidas's sons Alex and Leon Petraska. Alex is First Software's general manager, while finance manager Leon works in the software business while overseeing Sprint Fit.

First Software specialises in cloud-based integrated ERP and e-commerce solutions for retailers and distributors. Developed over the past five years the company's offering includes point-of-sale, integrated eftpos, inventory management, purchasing, financials, business intelligence and integrated e-commerce webstore. Current software customers range from sports and fitness, to automotive accessories, tools and building products importers and retailers.

Keeping in touch with retailers' needs was why Alex and Leon set up Sprint Fit, with help from a new colleague familiar with the premium fitness market. "It's a really good showcase and test bed for the software company. We're making enhancements and improvements to the software based on what we're seeing in the business," says Alex. "For instance, we developed a mobile version of the business intelligence module so retailers could track sales in real time on their mobile devices."

The key lesson they've learned is how vital information is to a retailer's success. Leon explains they've spent a lot of time developing dashboards, which display real-time information such as top-selling products, best customers, and shop sales versus online sales. "With that information we can react to the market much quicker than anybody else can, and that gives us a competitive advantage."

Sprint Fit is a nice little earner, across the bricks-and-mortar shop and the website (www.sprintfit.co.nz). The market for sports supplements is highly competitive and margins are "extremely tight", says Leon – but each month the business turns over well into six figures (and processes thousands of transactions) while employing only 1.5 staff. Turnover has at least doubled every year since it started in 2012, and the integrated system's efficiency (fast order processing, up-to-date stock records and more) plays a key part.

"Being able to double the turnover and not having to hire extra staff means your economies of scale really start having an effect," says Leon. "So we can grow this retail business quite a bit and not put any extra costs into it."

What's the biggest challenge they, and other New Zealand retailers, face? "International retailers!" the brothers chorus. Leon elaborates: "New Zealand generally deals in lower volumes and bigger mark-ups. Overseas, it's the opposite."

They've learned that when competing in the global retail market, no matter what your product is, having a technology-optimised business and great service gives you an edge. Leon says Sprint

"Being able to double the turnover and not having to hire extra staff means your economies of scale really start having an effect."

Fit's physical shop and webstore complement each other. Often customers want to examine the product, talk to staff, then order later. The majority of Sprint Fit's sales and growth is online, but "people who buy online like to know there's a physical place they can go to if there are any problems. Many of them do their research prior, then 'click and collect'."

Amid the neon colours and sleek fabrics hanging on Sprint Fit's racks, a pair of slim grey Reebok pants bears the mantra: "Challenge brings change." Surely a metaphor for retail, and possibly also the Petraska brothers' motto. Unsurprising, given in the next three to six months they're releasing an additional software offering that integrates with Xero, the favoured accounting software for many small retailers in New Zealand, Australia and the UK. It seems the lessons they've learned in their own operation has them fit and ready to take the product on to a global stage.

CASE STUDY//

Sprint Fit
www.sprintfit.co.nz

AT A GLANCE//

INDUSTRY
- Retail e-commerce

LOCATION
- Auckland

BUSINESS OBJECTIVE
- Establish a retail business as a showcase for ERP software.
- Create an efficient, competitive, profitable business.
- Prove product enhancements in a real setting.

SOLUTION
- N2 ERP developed and implemented by First Software.

BUSINESS BENEFITS
- Profitable diversification and building of new business value.
- Immediate coal face testing and feedback cycle of ERP product releases.
- Efficient technology has facilitated growth without adding staff.

FOR MORE INFO//

FIRST SOFTWARE
www.firstsoftware.co.nz
stewart@firstsoftware.co.nz
+64 9 573 2648

Visit iStart online for more First Software case studies

Getting ERP into the cloud is just the first step

General Manager of SAP Business One solutions at UXC Oxygen, ***Patrick Saundry****, explains there are key issues to consider when moving to the cloud – and plenty of opportunities and challenges to consider once it's done...*

Cloud technology is proving attractive to SME customers, thanks to the cost advantages of its pay-as-you-consume financial model, speed of implementation, and ability for organisations to scale processing power up or down rapidly. The decision to move ERP to the cloud or go with a traditional on-premise implementation is often determined by an organisation's current IT investments and future business objectives. The choice between the two remains important. For some organisations the criticality, complexity or risk profile of their existing technology will demand that some, or all, of their environment remains on premise.

At UXC Oxygen, much of the increase in interest from SMEs in SAP's mid-market software, SAP Business One, over the last 18 months has arisen from the ability of organisations to choose between deploying the software on-premise or in the cloud.

Having made the decision to go to the cloud there is then the choice of what type of deployment to opt for. Ask ten people and you will most likely get ten different answers as to the merits of hybrid, public or private cloud deployments. There are a number of issues to consider, such as standards, privacy and security. It is important for organisations embarking on the cloud journey to seek out providers who have business and technical savvy, as well as a proven deployment track record they can reference. Finding the right cloud solution for your organisation requires rigorous planning and requirements gathering – it is not a one-size-fits-all deal.

Implementing SAP Business One via the cloud does provide cost and innovation advantages for many SMEs. But getting to the cloud is not the end game and it should not be seen as a panacea for avoiding IT project blow-outs or poor workforce productivity.

Organisations need to be aware that the cloud solution often needs to be integrated with other on-premise line-of-business systems and possibly other cloud solutions – and that can make for a convoluted technical landscape. For service-based organisations a common theme is the need to integrate an ERP solution with apps used in the field by a mobile workforce. The desire for mobility, work portals and the need to better manage or automate business processes outside the ERP environment are also becoming increasingly important.

"Organisations need to consider how, who and what connects to the ERP system in order to service users who traditionally wouldn't have had access."

Patrick Saundry, General Manager of SAP Business One solutions, UXC Oxygen

SAP software is globally seen as a core engine which helps automate and improve critical business processes, but increasingly we are seeing the real advantages lie in what is connected to the SAP backbone. Today, application environments are growing exponentially as users demand access to tools and data that allow them to meet customer demands for anytime, anywhere service.

A 2015 survey by global applications services company F5 Networks, entitled *State of Application Delivery*, indicates that the strategic importance of cloud-based and mobile apps is continuing to increase, as is the number of applications requiring services and the complexity involved in their deployment.

In other words, today, organisations need to consider how, who and what connects to the ERP system in order to service users who traditionally wouldn't have had access. A SME may have 20 or 30 direct ERP users, but it also needs to consider how the system can help it run its business better for the other 100 employees in the organisation, along with its customers and suppliers.

The pressure to remain competitive is felt by people on the front line and it is these line-of-business users that are driving the demand for more heterogeneous business tools, particularly mobile apps. Business owners, senior management and more directly, IT departments, will need to ensure that these resources are available and appropriately integrated into the core IT infrastructure if they want their company to maintain or grow market share. Getting ERP into the cloud is often the first step on this path.

Cloud-based solutions give organisations the flexibility to build out solutions more easily and they provide a level of future-proofing and business growth thanks to their higher degree of elasticity. For example, an event management company could, once its ERP is in the cloud, provide specific web-based purchasing functions to an event team so they can buy what they need – connecting them to the ERP without burdening them with access to the entire suite. Thanks to the elasticity of cloud services that purchasing ability can be removed once the event has been staged. Multiple opportunities also exist to extend a specific business process beyond the browser environment onto mobile devices.

Customers need to ensure their provider is accountable not just for the delivery of the cloud or on-premise solution, but that they see it through and can continue to be answerable for the ongoing management of the solution. As the business moves forward, the need to maintain a managed cloud environment becomes essential.

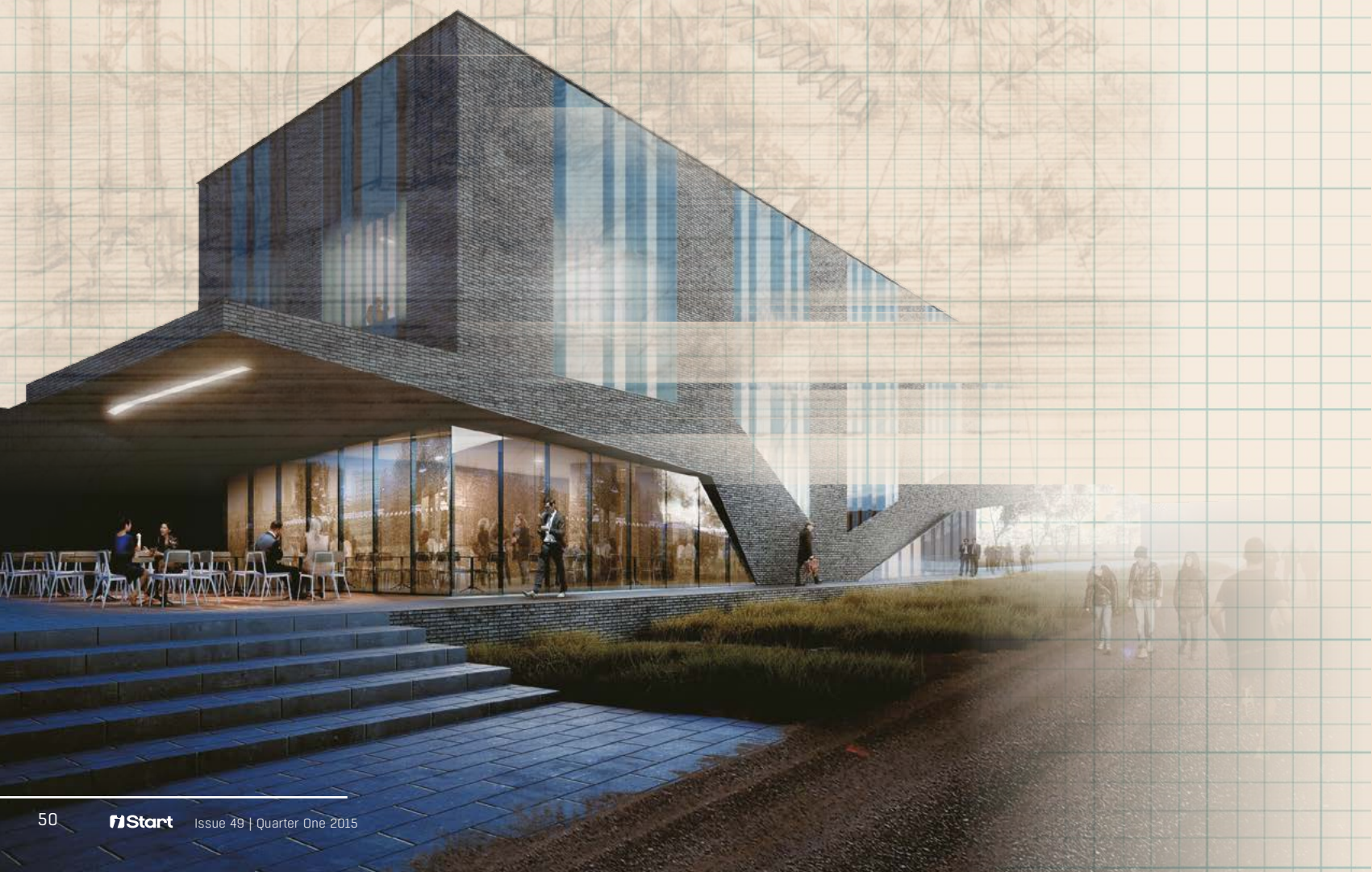
Investing in cloud based ERP systems such as SAP Business One is not a trivial undertaking – an organisation needs to be of a certain size and maturity to get the best value from the software. Timing is also important. There is no point moving to the cloud if an organisation believes it still has value to extract from its existing IT asset infrastructure. But more and more the decision to make transformational change will be signalled by a compelling need to solve a process problem – and it will be an organisation's business users driving the demand. When that time comes, the cloud option becomes advantageous. It allows organisations to meet that need at an affordable price and provides a platform on which to build and integrate future processes to keep staff, clients and suppliers happy.

MORE INFORMATION//

This article was supplied by UXC Oxygen.
www.oxygenforsapbusinessone.com

BUILDING SMART

As the construction of 'smart' buildings becomes more common it has presented the design and construction industry with more challenges. ANTHONY DOESBURG *explores the impact of software in the design and construction process and how architectural and engineering firms are responding...*



The collective IQ of Australasia's office towers is steadily rising as a growing number of smart building projects is completed. With the accompanying improvement in building's green credentials, the result is the creation of human- and environment-friendly spaces that tenants are queuing to occupy. The evidence is in the rapidly growing number of green stars awarded to construction projects by each country's green building advocacy body. It is clear developers are increasingly willing to pay for clever design and smart technology in pursuit of better efficiency.

The Green Building Council of Australia certified 150 Green Star projects last year, 43 percent more than 2013. On the other side of the Tasman, the New Zealand Green Building Council (NZGBC) has certified a total of 70 four-star or better projects.

In the background, architects and engineers are equipping themselves with the IT tools and expertise to enable them to design, construct and operate buildings to exacting certification standards. Vanessa McGrath, the NZGBC's senior technical co-ordinator, says adoption by the construction industry of building information modelling (BIM) software and building management systems (BMSs) is a positive development.

"IT provides powerful tools to model building performance in terms of response to climate and other conditions at the design stage and to manage buildings efficiently and fine-tune them in response to occupants' needs," says McGrath.

BIM, in particular, is having a profound effect, requiring design teams to go beyond "design intent" to "fully co-ordinated and integrated designs", she says, creating a shift in responsibility within the construction world. A fully implemented information modelling system will tie in with a host of other systems to ensure a smart building design isn't let down by poor commissioning and operation.

"BIM is used in the design and construction stage and then can be fed into the management system. BIM technology in operation can combine a BMS with energy management systems, integrated work management systems (IWMS) and computerised maintenance management systems (CMMS). BIM systems link drawings, specifications, operation and maintenance manuals, warranties, systems test reports and other project records in one place. This can make a facilities manager's job easier and more efficient," says McGrath.

A fully commissioned example of high-level integration is the University of Queensland's A$30 million Global Change Institute (GCI) facility, designed by global building design agency HASSELL and built by Towoomba-based construction firm McNab. The degree of automation of the six-star-rated building, one of Australia's first, was recognised with an award for sustainability through innovation last year.

The structure, which is touted as a 'living building', features automatic internal and external blinds, louvres, shade-screens, in-slab cooling and audiovisual and lighting systems that interface with a BMS, described by the building's operators as central to its day-to-day running. Its four levels have no air-conditioning, relying instead on a sun-tracking shading system and a central 'thermal chimney' for temperature regulation.

Solar roof panels connected to storage batteries produce all the electricity the building needs and a storage tank holds 60,000 litres of rainwater for cooling and kitchen and shower use.

A range of touch panels throughout the building connect to one of seven master controllers, which talk directly to the BMS. Building manager David Harris says the ability for users to control room temperature, lighting and airflow locally, while feeding information through to the central controller, was critical to the system's success.

"The management system enables us to continually monitor the building's operational status and user preferences, which will allow us to make the building even more comfortable for staff and students in the future," he says.

Even before the building was standing, McNab implemented BIM systems to help it to manage the construction process and feed vital information to Australia's green building certification body, opting to use cloud-based conject applications in partnership with construction IT specialist Zavanti. General manager, environmental services, Mark Jewell says the rigour of the Green Star rating process and the building's complexity convinced McNab to opt for conject, which can receive, index and store almost any document, communication, report and contract associated with any project.

"IT PROVIDES POWERFUL TOOLS TO MODEL BUILDING PERFORMANCE IN TERMS OF RESPONSE TO CLIMATE AND OTHER CONDITIONS."

Instead of two or three people taking up to six weeks to collate the information required for Green-Star certification, software can be expected to cut the duration and headcount needed for the work by more than half.

BMSs such as that in the University of Queensland facility are nothing new, but the NZGBC's McGrath says they are becoming more capable.

"What's happening is that systems are becoming more adept, more sophisticated and increasingly allowing access to real-time data in a useful format that enables continuous commissioning. The use of fuzzy logic allows the BMS to learn how occupiers use the building and can optimise thermal comfort and energy efficiency accordingly." McGrath says ASB Bank in Auckland, for example, is making data available to staff so they can play a part in maximising building efficiency.

According to Frans Plugge, however, buildings are often born smart but fail to reach their potential. Plugge, of Wellington's ECOsystems, says the company's engineers frequently go into buildings with impressive environmental credentials but the facilities are being mismanaged.

"It's amazing how much of our work is in five-star green-rated buildings," says Plugge. "They have good equipment but the way they're programmed and commissioned means in the majority of cases our work is still required. That's because the Green Star rating relates to building design, not operation.

"About five years ago we looked at best practice in the US and UK and concluded that buildings in New Zealand were using about double the amount of energy they should be. We have a pretty temperate climate compared with many parts of the US and UK, which experience greater extremes of cold and heat, so we shouldn't need to use anything like the energy we do."

Sometimes energy waste can be put down to lack of intelligence on the part of a building's operators, such as when heating and cooling are merrily taking place at the same time. An energy audit by a team of ECOsystems' control, mechanical and electrical engineers, can unlock such savings.

"What we typically do is spend months on-site to get an understanding of how a building functions, how the controls operate, where the energy is being used and what we can do to reduce consumption," says Plugge.

It's not that technology isn't being used for building management but that it's not being well implemented. Office equipment such as a photocopier, for instance, might be placed beneath a temperature sensor, which then gives an elevated reading and triggers unnecessary cooling.

Or an employee arriving at work on a cold morning might take his place at his desk, feel chilled after the warmth of his car and request that reception have the heating cranked up. The receptionist relays the message to the facilities manager, who calls an off-site control operator who turns up the temperature.

Meanwhile, a late-arriving worker reaches the

> "THE USE OF FUZZY LOGIC ALLOWS THE BMS TO LEARN HOW OCCUPIERS USE THE BUILDING AND CAN OPTIMISE THERMAL COMFORT AND ENERGY EFFICIENCY ACCORDINGLY."

MEASURING FOR SUCCESS

A developer might go all out to build a six-star green-rated building, but that doesn't guarantee it will cost a fraction of the cost of a less smart structure to run.

"It's a bit like being a Toyota Prius owner. Unless you drive it the right way, you're not going to get the high mileage per litre of fuel out of it that it's designed for," says Vanessa McGrath of the New Zealand Green Building Council.

For that matter, throwing every monitoring and automation gadget at a building isn't going to be much use if the basic principles of sustainable construction –orientation to the sun and how a building responds to the climate – aren't followed.

"IT can be a great boon in modelling and designing for the climate," says McGrath, pointing to the 'parametric design' of Adelaide's South Australian Health and Medical Research Institute building as an example. It too features shades that change orientation to provide protection from the heat and sun.

"It's about using a lot of data to guide a design that is as low-energy and as responsive as possible. Once a building is operational, smart collection and use of energy and other data is a great tool for efficiency. But it's not just about having the data – you need to know and understand how to use it and have a plan."

That's where Nabers – the national Australian built environment rating system – and its New Zealand offshoot Nabersnz come in. Nabers was developed to measure a building's energy efficiency, water usage, waste management, indoor environment quality and impact on the environment, scored from one (signifying considerable scope for improvement) to a market-leading six stars.

Building information modelling (BIM), which the New Zealand Government is promoting in a bid to boost construction industry productivity, goes hand in hand with tools such as Nabers. The Ministry of Business, Innovation and Employment, which is leading a 'productivity partnership' initiative with the industry, calls BIM a game-changer.

By producing a digital representation of the physical and functional characteristics of a building, BIM gives a reliable basis for decisions concerning the structure throughout its life. The process is being adopted by architects and engineers including Jasmax and Beca.

According to research by McGraw Hill, Australia and New Zealand are leaders in BIM use. By the end of this year, nearly three-quarters of 435 construction industry professionals surveyed in the two countries expect to be using BIM in 30 percent of their projects, McGraw Hill says. With both Auckland and Christchurch in the middle of construction booms, that has to be a good thing for all.

office after it has been warmed by the sun and wants to be cooled. "There are a number of scenarios like that happening all the time that mean we're using much more energy in our buildings than we should be."

At Dowse Art Museum in Lower Hutt, for instance, cooling of exhibition spaces was an uphill battle because of warm air entering through the gallery's open restaurant doors on sunny days. The answer was to install doors between the dining and temperature-controlled areas.

Similarly, at McDonald's outlets it was found air-conditioning units in the kitchens and dining rooms were both set to 21 degrees Celsius, without regard to the different uses of each space. In the kitchen, where heat's being produced by cooking, cooling is constant to provide a comfortable working environment.

In the dining room, however, 21 degrees is unnecessarily warm in winter when customers enter dressed for much lower outdoor temperatures. Conversely it's cooler than necessary in summer when outside temperatures can be in the 30s. Turning the temperature down by two degrees in the winter and vice versa in summer represents a huge energy saving.

"Heating and cooling is where the bulk of energy is used," says Plugge.

ECOsystems sets out to cut energy use in commercial buildings by half, which Plugge sees the internet of things playing a big part in. "At this stage it's about putting sensors in the right place and automating controls so that if, say, the temperature is adjusted, it goes back to its original setting after a period of time."

The cost-effectiveness of technology such as LED lighting, which uses half the energy of alternatives, keeps improving. Installing equipment and using the information from it correctly is the next stage. If sensors show the outdoor air temperature is lower than indoors, for instance, cooling can be provided by pumping fresh air in rather than the less efficient refrigeration of indoor air.

There's no shortage of hardware and software for the task. But very often the problem is the 'wetware' or the human element. "The big factor is the tenant-landlord conundrum, as we call it." Landlords aren't eager to pay the capital cost of energy-efficiency systems. For the tenant, meanwhile, staff overheads dwarf energy savings, and there's a perception that their comfort might be compromised by sub-optimal environmental settings.

But perceptions are changing, says McGrath. "There are some positive models of tenant-landlord collaboration on energy efficiency. For example, IAG is working closely with owners Goodman Property in Christchurch and Newcrest in Auckland to ensure energy-efficient premises.

"We're seeing a strong impetus for green building – energy efficiency is only one benefit – albeit an important one. Green buildings have been shown to provide a range of benefits, beyond just energy efficiency, such as healthier and more productive work environments with improved indoor environment quality."

"THERE'S NO SHORTAGE OF HARDWARE AND SOFTWARE FOR THE TASK. BUT VERY OFTEN THE PROBLEM IS THE 'WETWARE' OR THE HUMAN ELEMENT."

A welcome reception

Aotearoa Fisheries has engaged a welcoming presence in the reception area of its new facility to greet visitors and sign them in. EVA efficiently takes care of everyone without a single complaint...

Established in the wake of the 2004 Maori Fisheries Act, Aotearoa Fisheries Limited (AFL) is the largest Māori-owned fisheries company in New Zealand. With revenue of NZ$162 million last year, the business comprises Moana Pacific Fisheries, OPC Fish and Lobster, Prepared Foods, Pacific Marine Farms and Kia Ora Seafoods. In addition, Aotearoa Fisheries owns 50 percent of the NZ$500 million Sealord Group Limited.

Building 21st Century

Group information systems manager at AFL Angus McFarlane says he had been looking at automated reception systems for some time before procuring the Electronic Visitor Assist (EVA) solution. "I'd seen similar systems in action a number of times at what was then Gen-i (now Spark Digital) and I was impressed. However, as with anything, there is a cost involved and getting that past management took some doing."

He says the appeal of the solution was its ability to efficiently and professionally handle visitors coming into a building, with a touchscreen-driven interface that prompts each guest to enter his or her details. "There was also a level of confidentiality that you just don't get with a visitor book; that's important, because when you have contractors or service providers tendering for contracts, it isn't necessarily a good idea for them to be able to page through and see who they are bidding against."

He points out that the introduction of EVA wasn't done to eliminate the company receptionist, but rather to allow front desk personnel to focus on other, more value-adding, tasks.

Enter EVA

Given his experience using the system at Gen-i (and backing that up with desktop research), McFarlane says it was an obvious choice for the modernisation process. "We therefore engaged Designertech to set off what was a quite straightforward implementation which took around two to three weeks," he relates.

Most of the time taken for deployment of the solution, McFarlane explains, involved customising EVA to suit specific requirements. "In our case, one part of that was branding EVA with our logos, colours and a company video so it reflects the 'face' of the company. The other part was carefully considering the workflows and processes behind visitor arrivals and setting the system up to cater for that," he explains.

With the two types of visitors (corporate or factory), EVA's flexibility came to the fore. "The system is configured to kick off with two options, with underlying workflows to address the specific Health and Safety disclosures and disclaimers which are required when a visitor enters a production area," says McFarlane.

A reliable worker

As the individual charged with delivering dependable solutions to AFL's management and staff, there is little more satisfying for McFarlane than a system which just does what it is supposed to do. "Our premises covers a very large area, so when a visitor comes in, there is no longer any need for the receptionist to try and track down staff members. EVA is intuitive and easy to use, and as soon as the visitor signs in, the system notifies our staff member of their presence on their cellphone, and prints a barcoded nametag."

> ***"We want to make sure our visitors are well looked after and treated with professionalism."***
>
> **Angus McFarlane,** Group Information Systems Manager, Aotearoa Fisheries

He says EVA adds to the visitor experience. "We want to make sure our visitors are well looked after and treated with professionalism

throughout their time on site. EVA starts that process off very well – and a technologically driven solution looks far neater than an untidy old visitors' book."

One of EVA's characteristics is that it is an information control solution, so visitor details remain confidential to AFL; the system also maintains an accurate and immediate record of everyone who is on site at any given time. "Imagine, for example, if there were a fire. Using a visitor book would require a manual scan of the pages to find out who is in the building in order to establish an accurate roll. With EVA, it's immediate – you can instantly assess whether or not there is anyone in danger," McFarlane points out.

It's an issue that comes up again and again, but that's because it has important implications for the wellbeing of staff and visitors, as well as potential legal repercussions. "Most companies will be familiar with the challenges of ensuring compliance with Health and Safety, particularly for visitors. EVA automates this process, with minimal hassle for the visitor; we can also produce accurate and immediate logs when required to demonstrate our compliance."

As a smart system, McFarlane says EVA retains information; frequent visitors can scan the barcode on previous nametags for immediate registration of subsequent visits. "Entering details into forms is part of life, but it is tedious. Those who regularly come to our premises appreciate the convenience of this rapid process."

Probably the biggest test of satisfaction, however, comes down to a simple question: 'Would you do it again?' "Oh definitely. I had pushed for this solution for two or three years. It looks professional, it works beautifully and we've only had positive feedback from staff, management and visitors," McFarlane concludes.

CASE STUDY//

Aotearoa Fisheries Limited
www.afl.maori.nz

AT A GLANCE//

INDUSTRY
- Primary industry/ Agriculture

LOCATION
- New Zealand

BUSINESS OBJECTIVE
- Introduce an automated reception.

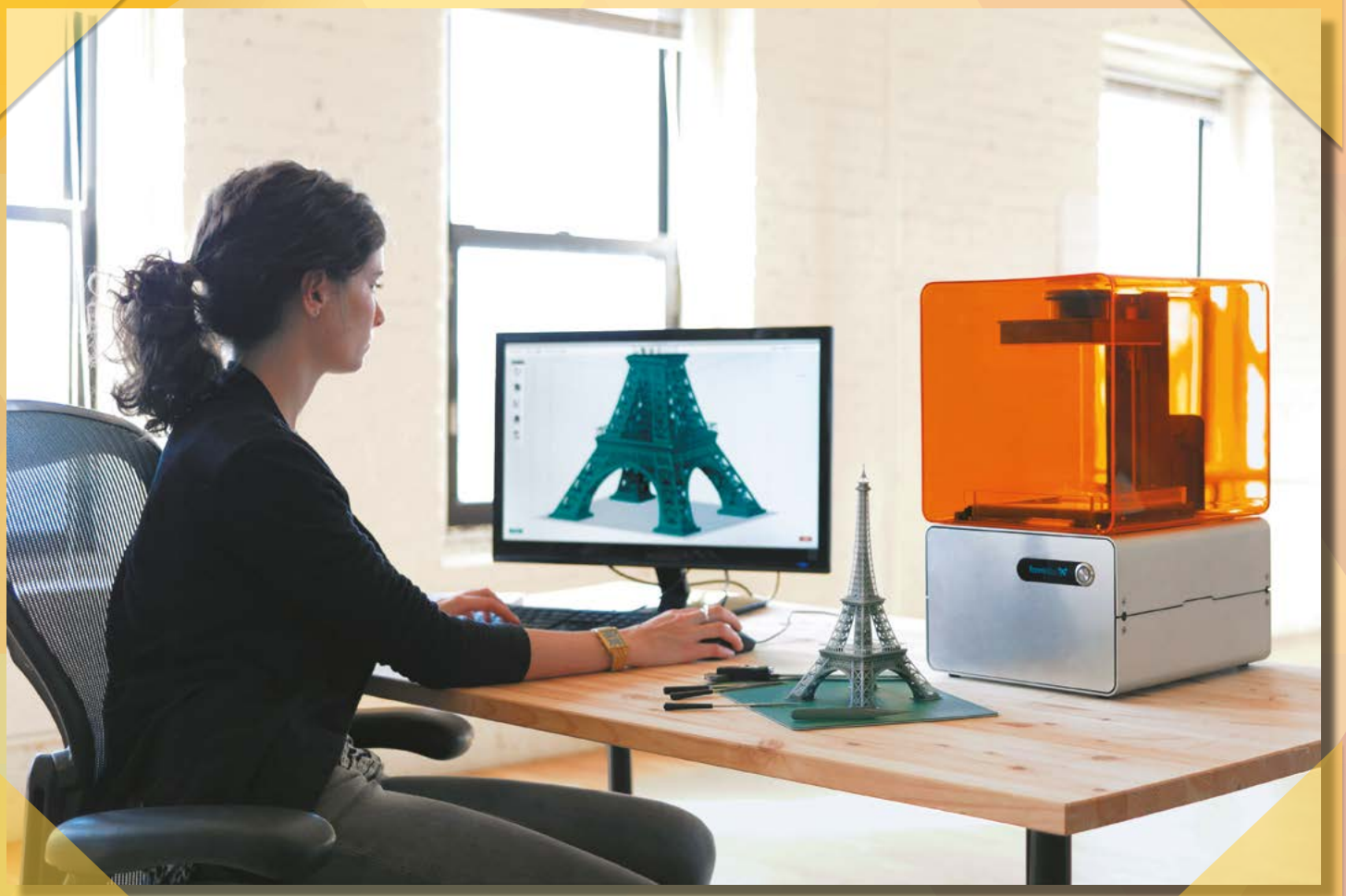
SOLUTION
- Electronic Visitor Assistance (EVA) from Designertech.

BUSINESS BENEFITS
- Automation of visitor reception processes.
- Provide confidentiality for visitors.
- Improve Health & Safety performance and reporting.
- Allow reception staff to focus on value-adding work.

FOR MORE INFO//

DESIGNERTECH LTD
www.designertech.co.nz
www.evareceptionist.com
+64 9 571 1450
EVA@designertech.co.nz

Visit iStart online for more Designertech case studies



THE ROAD AHEAD FOR 3D PRINTERS

The technology for 3D printing has existed in some form since the 1980s. Now it is poised to move beyond prototyping into end-product and high-volume commercial manufacturing. ***Vinod Baya****, director of PwC's Centre for Technology and Innovation, and* ***Alan Earls*** *look at the coming changes and challenges for 3D printing...*

Background image Freepik.com

In a recent PwC survey of more than 100 industrial manufacturers, two-thirds were already using 3D printing. (See Figure 1.) Most were just experimenting or using it only for rapid prototyping, which has been 3D printing's center of gravity for most of its history. Canalys, a market research firm, anticipates changes ahead and predicts the global market for 3D printers and services will grow from US$2.5 billion in 2013 to US$16.2 billion in 2018, a CAGR of 45.7 percent. Several technology trends are pointing to these changes, but despite this the 3D printing industry faces challenges. Rapid prototyping will remain important but is not the game-changer that will expand the technology into high-volume use cases. The industry should pivot to printing more fully functional and finished products or components in volumes that greatly outnumber the volumes of prototypes produced. For example, some makers of hearing aids and dental braces have adopted the technology for finished products. In addition, 3D printing should supplement or supplant products and components manufactured traditionally and create items that can be manufactured in no other way.

To evolve their design and manufacturing strategies, many industry sectors are using 3D printing solutions already in the market. (See Table 1.) Technology for 3D printing will advance through loosely co-ordinated development in three areas: printers and printing methods, software to design and print, and materials used in printing.

The emerging shape of the 3D printer industry

3D printers must be improved in three areas to seize the opportunities that exist beyond today's predominant use case of rapid prototyping:

Performance: Improve speed, resolution, autonomous operation, ease of use, reliability, and repeatability.

Multi-material capability and diversity: Incorporate multiple types of materials, including the ability to mix materials while printing a single object.

Finished products: Provide the ability to print fully functional and active systems that incorporate many modules, such as embedded sensors, batteries, electronics, microelectromechanical systems (MEMS), and others.

Today's 3D printers are concentrated at two ends of a spectrum: high cost-high capability and low cost-low capability. During the past year, a new class of printers in the middle has emerged. These printers from new entrants and established vendors have many of the higher-end capabilities at lower prices. For example, printers from FSL3D and Formlabs deliver higher resolution and smaller size using stereolithography technology and are priced at a few thousand dollars. Printers from MarkForged offer the ability to print using carbon fiber composites in a desktop form factor for less than US$5000. CubeJet from 3D Systems is priced under US$5000, can print in multiple colors, and brings professional features to a lower price point.

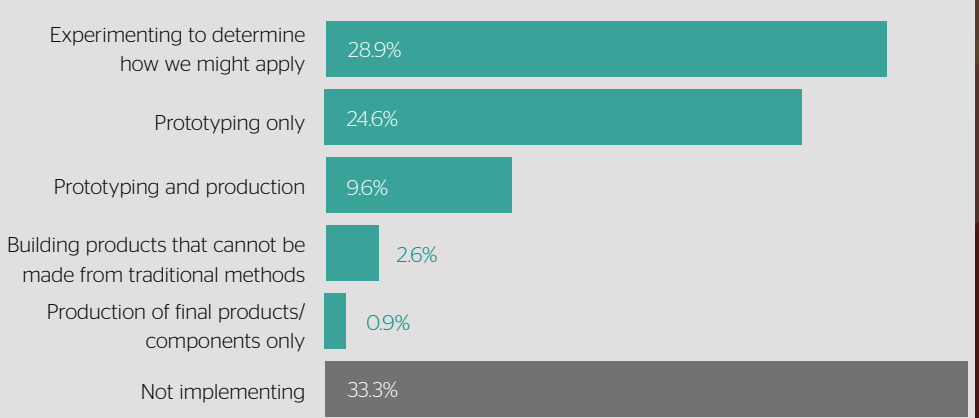
Gartner predicts that 3D printers with the value (capabilities and performance) that is demanded by businesses and other organisations will be available for less than US$1000 by 2016. It is fair to expect that printer improvements will accelerate in the next few years, although the degree and nature of these changes will vary considerably across printing technologies and vendors.

Trends in 3D printer performance

While many characteristics define a printer's performance, the key challenges are speed and ease of use.

Speed: Even for simple products, 3D printing still takes too long — usually hours and sometimes days. Incremental improvements as well as new methods that have the potential for an order of magnitude change will help printers meet the challenge for greater speed. "There are lots of ways to improve speed by using higher quality components and by optimising the designs and movement of the lasers," says Andrew Boggeri, lead engineer at FSL3D, a provider of desktop stereolithography printers. Most of today's printers use a single printhead to deposit material. Adding more printheads that print at the same time can increase speed by depositing material faster, while incorporating multiple materials or multiple colors of the same material. Multiple heads can also make many copies of the same design in the time it takes to print one. With such innovation, print speed can increase more or less linearly as the number of heads increases. Speed is especially a

Figure 1:
How is your company currently using 3D printing technology?



challenge when printing larger objects. A partnership between Oak Ridge National Laboratory and Cincinnati Incorporated, a machine tool manufacturer, is addressing this challenge. The organisations are developing a large-scale additive manufacturing system. Their design will combine larger nozzles for faster polymer deposition, high-speed laser cutters that handle work areas in feet rather than inches, and high-speed motors to accelerate the pace at which printer heads are moved into position. The result will be a system capable of printing polymer components as much as 10 times larger, and at speeds 200 to 500 times faster than existing additive machines.

To control the movement of the printer head, 3D printers use different approaches or architectures. Cartesian printers, which move a printhead in two dimensions on a plane, are the popular configuration today. Deltabot printers, also called Delta robot printers, use parallelograms in the arms like a robot "The Delta printers are going to basically take over all the Cartesian printers, because they have some significant benefits, one of which is speed," predicts Joshua Pearce, associate professor at Michigan Technological University (MTU) and an active developer of open source 3D printers. Delta configuration allows for higher speed, because the printheads are lighter and they use shorter paths from one point to another.

Ease of use: Existing 3D printers perform many tasks autonomously, however, some printers at the hobbyist end require that printheads be cleaned periodically, that beds be properly levelled, and that a human tinker and supervise to minimise errors. Automating the features that cause many of the common errors and reliability concerns (such as support structure generation, part orientation) will be a key area of innovation over the next few years and will likely advance the ease of use in hobbyist printers. For instance, a print run can be wasted if the build platform is not level. Many printers, such as those from Robox, XYZprinting, and MakerBot, include autolevelling. Expected in the future is a feedback system that provides real-time monitoring of the printing process, that detects defects or deviation from the specified design, and that allows appropriate intervention. Together, such features will likely improve the reliability and repeatability of the printing process.

Table 1: Emerging uses of 3D printing in the different industry sectors.

Industry sector	Some emerging and near-term future uses of 3D printing
Automotive and industrial manufacturing	• Consolidate many components into a single complex part • Create production tooling • Produce spare parts and components • Faster product development cycle with rapid prototyping, form and fit testing
Aerospace	• Create complex geometry parts not possible with traditional manufacturing • Control density, stiffness, and other material properties of a part; also grade such properties over a part • Create lighter parts
Pharma/ Healthcare	• Plan surgery using precise anatomical models based on CT scan or MRI • Develop custom orthopedic implants and prosthetics • Use 3D printed cadavers for medical training • Bioprint live tissues for testing during drug development
Retail	• Create custom toys, jewellery, games, home decorations, and other products • Print spare or replacement parts for auto or home repair, for example
Sports	• Create complex geometry and shapes not possible with traditional manufacturing • Create custom protective gear for better fit and safety • Create custom spike plates for soccer shoes based on biomechanical data • Create mutil-coloured and multi-material prototypes for product testing

How 3D printers deal with materials

Most printers work with only one type of material — plastic, metal, ceramic, wood, or a biological material. To create more useful products and expand the market, 3D printers will need to process multiple material types within a single build cycle. Various factors, mostly related to materials themselves, make this requirement challenging. For example, most processes are built around an ideal material that responds to a narrow range of temperature inputs or light frequency, preventing the use of other potential materials – at least at the current level of sophistication.

The pursuit of multi-material capability will favour certain printing methods over others. Fused filament fabrication (FFF) printing has high potential to accommodate multiple materials without greatly extending the existing technology, because printing heads can be added to handle other polymers. "For multi-material printing, inkjet-like technology such as Voxeljet is the present and the future," Boggeri predicts. Methods such as selective laser sintering and others use inkjet technology. This technology can handle multiple materials within a range that can be delivered as a powdered 'base' because it already uses multiple

printheads. As a result, parts or assemblies made from different materials can be printed in a single print run. Today this technology is accessible at the high end from Voxeljet, Stratasys, 3D Systems, and others.

Inkjet printing for 2D printers has been around since the 1970s, but was adopted for 3D printing only about seven years ago by Objet (now part of Stratasys) in a process the company calls PolyJet. By jetting two or more base materials in varying combinations, this technology allows the creation of new material properties that span from rigid plastic to rubber-like and from opaque to transparent. More recently, the technology also allows the printing of multiple colours. For example, the Stratasys Objet500 Connex3 printer supports multi-material and multi-coloured 3D printing. A printed part can have as many as 14 distinct material properties and 10 colour palettes.

Today, multi-material printers work for a single family of materials – polymers, for instance – and are largely used for prototyping so designers can check form, function, fit, and feel. Advances are still needed to combine different families of materials, such as metals and plastics, in a single print cycle. Developments on this front are in very early stages in research labs, and it will likely be more than five years before products are offered.

"As 3D printers become faster, easier to use, handle multiple materials, and print active components or systems, they will find use beyond rapid prototyping."

Printing complete systems

Farther out is the ability to print complete systems or subsystems. Emerging multi-material capabilities will help, since most finished products are made from more than one material. However, challenges extend to the ability to embed components such as sensors, electronics, and batteries, so everything can be printed in one build. R&D efforts are under way in a number of areas, including materials, printing methods, and combining additive and traditional methods of manufacturing.

The key materials science challenge is to develop inks (the term inks refers to all material in 3D printing that is either extruded or jetted out of a nozzle) that can be the basis for printing different types of products, be they sensors, electronics, or batteries. For example, Xerox PARC is developing inks so circuits, antennas, and RFID tags can be printed and applied directly to a product. Similarly, Professor Jennifer A. Lewis at the Harvard School of Engineering and Applied Sciences has developed the basic building block of tiny lithium-ion batteries as inks that can be printed. The future of additive manufacturing is not limited to inanimate objects. Lewis's team has developed bio-inks to make living tissues. The team uses multiple printheads and the customised inks to create complex living tissues, complete with tiny blood vessels. Some pharmaceutical companies are already using 3D printed tissue for testing drugs.

"Technology for 3D printing will advance through loosely co-ordinated development in three areas: printers and printing methods, software to design and print, and materials used in printing."

3D printed furniture by French company Drawn

Bio-printing typically uses two inks. One is the biological material and the other is hydrogel that provides the environment where the tissue and cells grow. The breakthrough to add blood vessels was the development of a third ink that has an unusual property: it melts as it cools, not as it warms. This property allowed scientists to print an interconnected network of filaments and then melt them by chilling the material. The liquid is siphoned out to create a network of hollow tubes, or vessels, inside the tissue. Such creations are possible only with 3D printing, generating new possibilities beyond traditional manufacturing.

The printing of complete systems is not limited to a nano or microscopic scale. Working with Aurora Flight Sciences and Stratasys, Optomec has printed complete aeroplane wings, including electronics and sensors, for small drones. Some approaches may combine 3D printing with other manufacturing methods. For example, iRobot has filed a patent for a fully automated robotic 3D printer, including multiple manipulators and milling, drilling, and other processes to make final products.

The pace of innovation

The 3D printer market is transforming rapidly. Robust innovation at established vendors and among entrepreneurs and hobbyists is providing a test ground for filling the market with more midrange systems that bring enterprise-class capabilities at much lower prices.

Another key factor that will likely change soon is the control that patent holders have had over specific techniques. When key patents for FFF expired five years ago, the open source community rapidly incorporated the techniques in low-cost printers, triggering improvements in speed, quality, resolution, and ease of use.

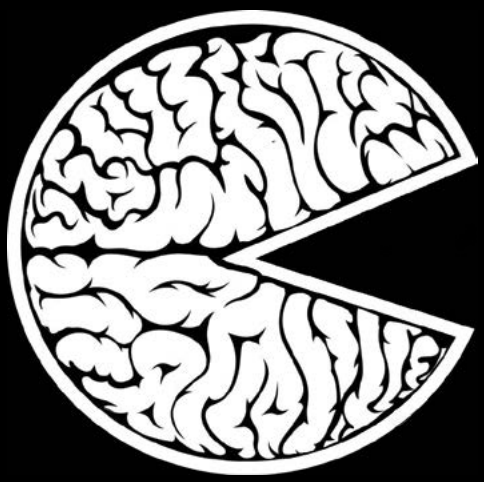
Likewise, many laser-sintering patents were set to expire by the end of 2014. If the pace of innovation is as rapid as it was with FFF printers, then less-expensive desktop metal printers may appear within a few years.

Today's market for 3D printers and services is still largely bifurcated – at the low end are limited-function offerings and at the high end are extremely expensive printers. The key for market growth is the continuing development of printers in the middle price range to achieve advances in performance, in multi-material capability, and in printing complete systems.

**This article was originally published in Q4 2014 by PwC's Centre for Technology and Innovation (CTI), as part of its Technology Forecast series.*

Next Lunch Box webinar **Mar 25th:**

Taking the Plunket Book online



Food for your brain

Lunch Box

Easy, free, online

Register now:

www.istart.co.nz/lunchbox

0800 928 268

lunchbox@istart.co.nz

The iStart Lunch Box is a light but informative webinar series you can join from your desk, with live speakers and open Q&A to address all your questions.

Agility runs deep, failure runs deeper

IT developers have been refining the process of agile development frameworks for the last two decades. Today, the escalating pace of change in once rock-solid industries means a more flexible work method is necessary across the enterprise. Organisations are now beginning to heed the lessons learnt from agile development and apply its principles to other departments. ***Clare Coulson*** *investigates...*

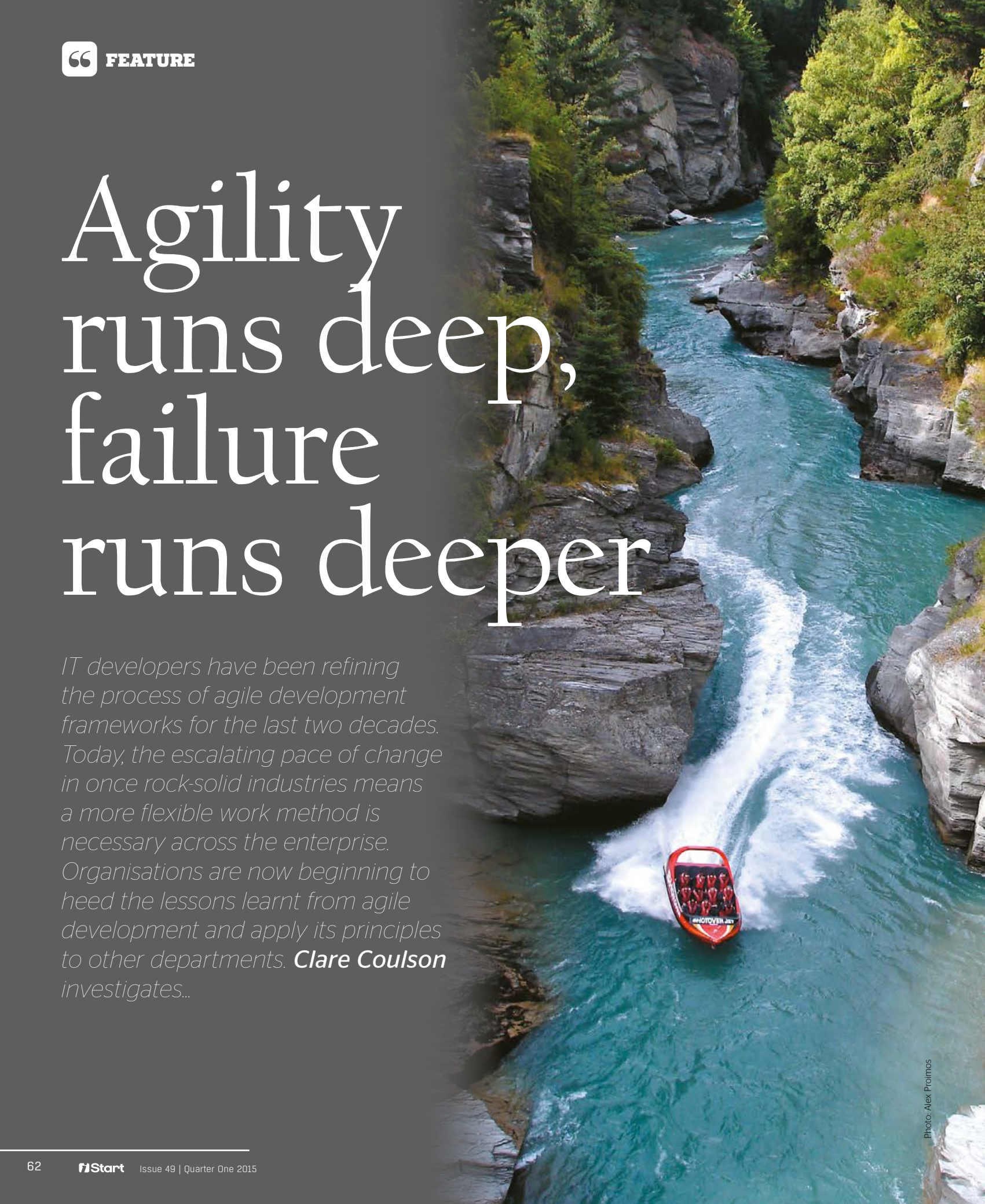


Photo: Alex Proimos

Today we live in a fast-paced world where technology is changing the goal posts on an almost daily basis. Old-style enterprises are rapidly finding themselves challenged by technology-led disruptors, à la Kickstarter, Airbnb, Uber or Xero. These challengers have the benefit of being young and not weighed down by legacy infrastructure, processes and mind-sets. Like a Hamilton Jet they can navigate unexplored waters and respond quickly to market fluctuations and opportunities. They disrupt the incumbents, innovate fast, and can stay ahead as industries adapt. Meanwhile, traditional businesses have spent the past 30-plus years setting their processes in stone and honing their efficiency. Changing direction is done at the speed of a laden cruise ship and sees them left in the wake of the disruptors, unable to respond quickly and ill-equipped to embrace innovation.

Many IT departments used to be like these old organisations (some IT departments still are, but that is a tale for another day). Large and lengthy IT projects developed a reputation for being risky and prone to frequent and spectacular failure. The traditional Waterfall approach to IT projects hinged on preparing a detailed business case then executing it to the letter before testing and deploying it. This could take years, by which time needs had changed and the end users were dissatisfied by the result.

Is agile mainstream?

In the 90s a group of radical software developers and interested parties met to discuss better ways of developing software that would result in fewer project failures. What ensued was the Agile Manifesto which cemented the core tenets of developing software while avoiding project failure. Its core values are:

- Individuals and interactions over processes and tools
- Working software over comprehensive documentation
- Customer collaboration over contract negotiation
- Responding to change over following a plan

Essentially it meant lots of small projects that allowed developers to fail small but often and to fix issues as they arose. These ideas were reiterated in the landmark *Chaos Report* released (way back in 1995) by The Standish Group. It concluded that smaller project time frames, with delivery of software components early and often, would increase IT project success.

Since then, the now-annual report's central thesis has continued to say that smaller projects are essentially better and, a decade later, the message is gradually getting through.

Today there are many flavours of agile development, from Extreme Programming to Scrum, Sprint, Lean and Kanban, and it is no longer considered fringe. Since agile frameworks are designed to be flexible, pinning down a specific definition deflects from the more important issue of finding the most efficient way to deliver IT projects. What truly differentiates an agile project, however, is its bite-sized projects and constant review of working code. Agile's mini-projects, or development cycles, are usually referred to as 'sprints'. Each sprint involves planning, design, development, testing and deployment activities and delivers functioning code to the customer for review and signoff throughout the duration of the project. Many well-known companies from Suncorp to Telstra, NAB, Jade Software and Xero now swear by its effectiveness.

Craig Beveridge, COO and general manager of Jade Software in Australia, a full-service provider of business software and technology, is responsible for solution delivery and capability using agile methodologies and works closely with big, complex clients on challenging software projects around the globe. He says that working in an agile manner allows organisations to test their ideas in the market very quickly with no surprises at the end of the project. From concept to pilot they could have something up and running within six to nine months.

"That's really, really quick when you consider you have done your market research and your testing along the way and by the time you get to the end you are actually up and running and you've got customers using your product."

It sounds like common sense, but many large organisations are yet to embrace an agile work-style.

Can large organisations be agile?

The inherent flexibility that has made agile frameworks so successful can also be their undoing when it comes applying them to enterprise environments which thrive on clear structures and processes. Adam Boas, advisor to the Agile Australia conference and delivery lead at Australia's REA Group, which uses agile development frameworks extensively, says that new adopters are typically looking for some clear instruction on what to do and instead get advice on how to approach things and some useful tools.

"It's been a bit of a disappointment for some companies that have attempted to adopt agile frameworks and agile thinking because most mature agile frameworks refuse to tell you what to do," he says. Indeed, they encourage you to pick and choose the tools that are most useful to you and most mature agile companies use a mixture of techniques cherry picked from the various agile frameworks.

Not only do larger organisations struggle with the flexibility of agile frameworks, they can also

find it difficult to deal with the lack of hard deadlines and a responsive project management approach. Boas says that the introduction of Scrum, which draws heavily on PRINCE2 project management principles, helped to put some structure around agile in terms that traditional businesses are more comfortable with. In particular it helped to dispel the perception that agile frameworks lack accountability.

Scrum has been a very popular agile process within enterprises, but Boas says the more mature organisations often move past that and adopt the principles of Lean, which have more of a focus on just-in-time feature delivery. Even so, he finds it frustrating that many companies start to see a better outcome using PRINCE and Scrum and then don't take it further.

"There's a common failure mode where they cease to question whether they can get more, so they often get frozen in that early phase of agile adoption and confuse that with having completed the journey."

Flexible organisations

The core concepts of agility are not only relevant for IT projects but are transferable across any type of work and any line of business.

Although big business has spent the last three decades solidifying its processes with a focus on efficiency, the rise of digital business models is driving a change revolution. Gartner analyst Michael Warrilow said at a recent Gartner Predicts 2015 briefing, that by 2017, 70 percent of successful digital business models will rely on deliberately unstable processes designed to shift as customer needs shift. This will require an agile and responsive workforce that is empowered to make decisions and is held accountable for those decisions.

Beveridge, who uses agile frameworks throughout Jade, says, "I think it's quite easy to implement agile teams in verticals within an organisation. The greater challenge is to get an agile project which is cross-disciplinary, especially once you start bringing in partners or externals. In my view it's that organisation agility that needs to step up next."

And it is a challenge. You can have very good pockets of agility within a business but the more fingers you get in the pie the more difficult it becomes to remain agile. "I believe the key to a successful agile organisation is to focus on the overall process or project that you are trying to deliver and introduce agility at the executive level all the way down. Then you look at how you apply those agile principles to all those processes regardless of how big or small they are," he says.

Xero is another organisation that has brought agility into its entire organisation, not just its product development teams. Jolene Enoka, who heads up Xero's online marketing, spoke at the

AgileNZ 2014 conference about how the marketing team has taken on the principles of agile. Eighteen months ago Xero had one centralised global marketing team of 20 based in Wellington. It was frequently a bottleneck to progress and at one point had 300 projects in its work cue. "We knew we needed to change so we took a few cues from what was going on in the product development side of the business," says Enoka, who admits that agile was completely foreign to her at the time but now feels like common sense.

They chose to introduce what they call the 'pod system' (similar to a Scrum team) which already operated in the product development side of the business. Each pod is cross-functional, co-located and autonomous, made up of all the skill sets that are needed for a marketing project. Xero established eight pods around the world and de-centralised the newly named 'global marketing services team' in Wellington into another six pods. Focus was one of the key outcomes from the change as staff suddenly had a sense of purpose and knew what they needed to work on, which was both empowering and sped up the pace of delivery.

Enoka says that the real risk with de-centralising the team was that there would be an alignment issue and the different pods would start to pull in different directions, but a common purpose, regular communication both within the pod and back to the wider marketing team and trust that the pods could operate autonomously and effectively were the answer.

As for specific agile philosophies that have found their way into marketing, Enoka says that the team has stopped looking for a silver bullet or big bang solution, working on a succession of small improvements and projects that incrementally contribute towards overall success. Iteration and frequent testing in a live setting to gauge customer priorities have become the new mindset.

This idea of breaking big problems into small problems is core to agile operations, says Boas. So are transparency, accountability and stakeholder trust – every day team members are called on to report on the progress of the tasks they are responsible for (and everyone is responsible for something). The Kanban storyboard is a good tool that helps teams and companies to visualise project progress and Boas says that this is used throughout REA. The HR department, for example has a storyboard for hiring people, so you can see what is going on in the team at a glance.

Innovation teams

If you want to inject agility into an organisation without changing everyone, Beveridge suggests using specific innovation teams.

"These teams implicitly have the authority or permission to take an idea and research and test it quickly. If the idea works it can then move it into a more mature execution within the main business," he says.

These sorts of innovation programmes are naturally well-supported by the executive committee and, if their projects are set in the context of the long-term business strategy they can also be a good way of introducing innovation to the wider organisation. A 'mid-point' team made up of people from the main business can sit between the innovation team and the business-as-usual teams to make the link between the forward thinking and the company's day-to-day operations.

Beveridge adds that "an evolution rather than a revolution type approach" to system development is a more effective means of changing the backend of the business in today's budgetary environment.

He says another really important aspect of using agile project frameworks is that they help organisations to build a proper and successful capability model to help them face and even take advantage of the disruption that digital technologies bring to industries.

Over the horizon

Beveridge has one word of warning however. He says that you don't want to lose what he calls "the vision over the horizon".

"Agile projects are by nature focused on what the next outcome is, so you don't want to lose your long-range planning and strategy," he says. One way to manage this is to ensure that the people working on the project don't only understand the tactical needs of the day but also how they fit into the two to three year strategy for the company.

Case study: how Jade uses agile processes

Craig Beveridge, COO and general manager of Jade Software in Australia, explains how his organisation uses agile methodologies both in-house and with its clients:

- For innovation projects where the outcome is to identify new products, services or processes that may disrupt the market or build a competitive advantage, our teams draw heavily on the tenets of design thinking and often use design studio methodology to quickly establish a very solid design that gets a huge amount of input at the beginning of the project. We've literally iterated dozens of variants in a couple of days using this method. One of the major benefits of these agile design approaches is that they allow you to take the business stakeholders on a journey very quickly that allows them to test all their ideas and distill them down to those that matter most - this insight might not come out until much later in a waterfall project.
- To develop digital solutions that allow businesses to inform, engage and transact with consumers we use Scrum most often. It lets a team start delivering software almost immediately and it allows us to respond instantly to market and user testing. Scrum can help you get the very best value-for-money in terms of features and functionality, in a fixed time frame.
- Before development begins we make heavy use of all sorts of rapid prototypes to validate scope and requirements and this can range from paper sketches to clickable wire-frames or even throw-away applications.
- To manage an ongoing programme of work and the associated work-flow we will use Kanban boards which allow us to quickly identify bottlenecks in work and 'swarm' to get things moving again.

Scoping IT out: 5 essential steps to success

Embarking on a technology-led change in your business can be both hairy and audacious. ***Alistair Mead*** *is the senior executive responsible for Microsoft Dynamics AX at UXC Eclipse, and has learned a thing or two about planning for success...*

Even though today's technology and IT systems are becoming more intuitive, the purchase and implementation of an integrated software solution remains a complex project. To achieve success, careful management of the scoping exercise is the starting point for any implementation. Scoping is the process of identifying and outlining the deliverables and work that will be required.

My five key steps to managing scope effectively are:

1. Engaging leadership – the importance of management buy-in.
2. Understanding the business requirements and developing a business case.
3. Choosing the right technology.
4. Future-proofing the decision.
5. Looking for a strategic partner.

STEP 1: Engaging leadership – the importance of management buy-in

For any project to be a success leadership and strong vision must come from the top.

Large-scale IT implementations aim to make an organisation work more efficiently and be more successful. Such projects are often considered high-risk because they are business-critical. It's therefore vital to have management buy-in from the start.

When the senior leadership team is engaged with and fully supportive of a project, it is more likely that the appropriate time and resources will be allocated, letting the project team focus completely on a successful implementation. For example, some companies will invest in additional staff to manage the day-to-day operations so that the internal project management team and key stakeholders can focus exclusively on the implementation, thus avoiding the risk of conflicting priorities.

STEP 2: Understanding the business requirements and developing a business case

The high-level scope of the project should be defined and documented in a business case, with input from all relevant stakeholders, prior to the project kick-off. Once a project starts it may be difficult to change direction without additional cost or delays. Therefore, a company needs to start by understanding what is working and what isn't – so it doesn't replicate inefficient processes.

Four essential elements of an IT project business case include:

> ***"When the senior leadership team is engaged with and fully supportive of a project, it is more likely that the appropriate time and resources will be allocated"***
>
> **Alistair Mead,** Senior Executive - Microsoft Dynamics AX, UXC Eclipse

- *Return on investment (ROI).* An IT implementation project needs to deliver a strong ROI to justify the implementation and operational costs.
- *Highlight the breadth of benefits.* A strong business case needs to explain all of the potential benefits and how they can contribute to the bottom line.
- *Change management.* Without effective change management, including business process documentation and process-driven training, organisations risk poor uptake and the anticipated business benefits will not be fully realised.
- *Execution plan.* It is vital to remember the end users of the solution. The desired business value will only be achieved with successful execution of the ERP project.

STEP 3: Choosing the right technology

There is a wide range of IT systems and software available to solve business challenges. Choosing a solution that works for the business isn't just about price. It's equally important to look at a variety of parameters, including:

- Depth vs breadth of functionality
- Industry-specific features
- Ease of support
- Future development path
- Flexibility to adapt to a changing business model
- Integration with existing/future systems
- Cloud versus on-premise hosting
- Analysis tools available
- Scalability.

All these factors must be considered if a company is to choose the right technology for its needs.

STEP 4: Future-proof the decision

It is important to select a solution that maps as closely as possible to the current and future requirements of the business. This is only possible when the future requirements have been visualised and shared with the implementation team. Key stakeholders need to be interviewed and all business-critical requirements discussed upfront. The team can then recommend a technology solution that provides the flexibility and scalability needed to expand with the business.

Adequate support is vital to ensure the ongoing value of the ERP implementation. This should include consultants working with the business team to find new ways to extract value from the system.

Businesses should look for an ERP solution that can integrate proven, industry best-practice workflows with ease, as well as offer the flexibility and scalability they need to cope with future growth and market changes.

STEP 5: Look for a strategic partner

An IT project is not about simply installing new software. There are many stakeholders and complex, mission-critical business processes involved. This means a high quality of work is required, with the scope for customisation and the need for appropriate (technical) support. Look for an implementation partner that has a history in your industry, can provide references from its existing customer base, and can offer qualified, certified professionals to work on your project.

MORE INFORMATION//

This article was supplied by UXC Eclipse.
For more information on how to successfully scope a new implementation project, download UXC Eclipse's *Successful Software Implementation Differentiators* white paper at http://tiny.cc/31uosx
www.uxceclipse.com.au
www.uxceclipse.co.nz

Kiwi babies' health in good hands

Plunket, the New Zealand institution which has touched the lives of almost every Kiwi baby, is set up for another 100 years of service with a new CRM solution...

Founded over 100 years ago, the Royal New Zealand Plunket Society is New Zealand's largest provider of support services for the development, health and wellbeing of children between the ages of zero and five. Their Well Child health service touches 90 percent of Kiwi babies.

Day in and day out, over 700 Plunket nurses and health workers visit homes around the country to capture developmental milestones, and record them in each child's 50 page Plunket Health Record (PHR).

To maintain their clients' privacy, Plunket nurses collect the PHRs they need before they start their daily visits, returning them to the base at the end of the day to be stored securely.

The trouble with paper

With 55,000 new babies added every year, Plunket is responsible for storing hundreds of thousands of paper files for a set regulatory period.

Should relevant registered health providers require information on a child the relevant details are gathered manually. If a family or child relocates within NZ, the PHR book is couriered to the nearest Plunket branch.

As a health provider Plunket is required to maintain the highest clinical quality systems. Auditing paper-based PHRs is a time consuming task, and ensuring consistency of documentation is a challenge with the current system.

Andrea McLeod, chief operating officer for Plunket, is very conscious of the dangers inherent in their paper-based system. "We don't have an easy way of monitoring the consistency and quality of the data entered in the books from one nurse to the next. By moving to electronic records we can be more efficient, holding real-time data that we can share with not only our funders, but other necessary health providers. It will also put us in a better position to respond rapidly to any sort of outbreak or public health situation, something that is currently problematic because of our paper-based records."

Time to move forward

Plunket was well aware of the opportunity and benefits of using technology but the scale of the task was daunting.

To systemise, Plunket needed a tool that fully supported the Well Child service delivery plan. Nurses would need to enter data digitally, with real-time and off-line data synchronised and available centrally. Critical metrics needed to be tracked, analysed and reported on by child, district and demographic.

The Plunket Well Child electronic Plunket Health Record (ePHR) provides a full suite of tools from a front line app to secure local data archive, all built on top of the Microsoft Dynamics CRM Online solution.

McLeod said integrating Dynamics CRM Online was easy. "We had a compatible IT environment, and PlunketLine has also been operating for over three years on Microsoft CRM. Our experience to date provided us with a level of comfort, so it wasn't as if it was new and scary."

Plunket engaged Koorb Consulting to build the ePHR system, and Marker Metro, a specialist Windows app developer, was contracted to design and build the app for use by nurses in the field.

Appy nurses

The average age of a Plunket nurse is around 50 years. Many are new to using technology as a work tool so the solution needed to be highly intuitive, and take into account nurses' workflow and data capture.

Plunket provided its nurses with tablets before the solution pilot. "It's been great," says McLeod. "They're using the devices out of hours, using the email and calendar functions

> ***"From a diagnostic point of view, it will improve consistency of nursing practise and overall it will help us offer a more responsive service."***
>
> **Andrea McLeod,** Chief Operating Officer

and accessing the internet – this is just what we wanted to happen.

"From a diagnostic point of view, it will improve consistency of nursing practice and overall it will help us offer a more responsive service. The ability to email a photo of a worrying rash to a GP for feedback is one example of this." Accessing secure online data also means that nurses can use the regained travel time to see additional clients, or spend more time if needed on visits.

Data security

Directly uploading all records electronically to the CRM means the client's data is protected and secure, while administration staff can only see the level of data detail they are permitted to view.

Although the cloud-based Dynamics CRM is hosted offshore, Plunket's data will be repatriated back to New Zealand on a daily basis to meet its legal obligations as a health service provider.

The rollout

After their face-to-face online training, Plunket's nurses involved in the pilot will use the ePHR in their day-to-day working practice. Following this, it will be rolled out across Plunket. McLeod envisages a future where a client-facing portal for parents sends out automated appointment reminders, alerts people about impending car seat upgrades, local parenting courses, and online enrolments for other Plunket services.

The future

Although the demise of the paper record may be mourned by some, in the short term Plunket can slash its considerable printing and stationery costs, and in the long term, have an integrated approach to service delivery.

"This is only the starting point of our technology journey," says McLeod. "Our aim is to deliver better services to our communities through the use of technology."

CASE STUDY//

New Zealand Royal Plunket Society
www.plunket.org.nz

AT A GLANCE//

INDUSTRY
- Primary Healthcare

LOCATION
- New Zealand

BUSINESS OBJECTIVE
- Eliminate paper record keeping.
- Improve scheduling and co-ordination.
- Provide regulatory compliance and oversight reporting.

SOLUTION
- Microsoft Dynamics CRM Online implemented by Koorb Consulting, Windows app by Marker Metro.

BUSINESS BENEFITS
- Simple interface and process has enhanced user adoption.
- Consistent quality of real-time data capture.
- Data security with patient records uploading electronically.
- Reduced print costs and physical storage space requirements.

FOR MORE INFO//

KOORB CONSULTING
www.koorb.co.nz
nbirch@koorb.co.nz

Visit iStart online for more Koorb case studies

NBN & UFB: getting down to the wire

The NBN and UFB projects have dominated the national and tech media headlines ever since their inception, usually due to squabbling over which technology should be used, who's paying for what and whether progress has been fast enough. iStart *asked Australian telecommunications policy advisor* Paul Budde *and New Zealand's Minister of Communications and Information Technology,* The Honourable Amy Adams*, to take a step back and discuss the big picture for the NBN and UFB project rollouts respectively. The results offer some stark contrasts, with one project catapulting its country to second place in the OECD for annual growth of fibre subscriptions while the other lags behind...*

Paul Budde: NBN – this is as good as it gets

While we can argue that what Australia will get from NBN 2.0 is a second-rate version, the reality is that, with the new deal with Telstra now inked, for the foreseeable future this will be as good as it will get.

It looks as though all parties agree that under this new contract the multi- technology-mix (MTM) can and will be rolled out. However Telstra covered itself, with NBN Co taking care of any unexpected extra costs related to the MTM rollout. The minister is happy with that arrangement and is convinced that these costs will not blow out – but only time will tell.

Further to that we will never know if the MTM version will indeed be cheaper. It is hard to trust the Government on this. The previous Government claimed that it would be able to deliver the first-class fibre-to-the-home (FttH) version for roughly the same cost as this Government will deliver its second-rate version. Both these plans were costed at around the A$40 billion mark.

In the meantime Australia wasted another year where very little broadband progress has taken place. This has happened repeatedly over the last two decades, with the result that Australia is at the bottom of the OECD heap in high-speed broadband connections. Increasingly we now hear ordinary people (not just the geeks) complaining about the quality of their broadband; and it will get worse before it gets better, as no major results of these new arrangements are expected to hit the road in any significant way before the end of next year.

As we have said repeatedly, the big winner from all of this continues to be Telstra. It had already negotiated a fantastic deal under the previous

> "The new contract has the potential to increase the dominance Telstra already has in the market."

"Provide a comprehensive fibre network at least ten years before it would have been economically viable."

Government, and under the new deal with the current government that lucrative deal remains in place, with a range of new concessions on top of it – and for Telstra they are changes for the better.

The overall deal stayed the same, so theoretically that will result in a smooth transition. Instead of simply disconnecting and discarding the old copper and HFC cables, they will now be transferred to NBN Co – hardly any skin off the noses of Telstra and Optus. However, in order to make the arrangements for a more complex multi-technology-approach to work, some of the more detailed elements of the contract required dramatic changes. This was the main reason it took so long for these negotiations to be completed, and at the same time it allowed Telstra to negotiate for a range of changes.

It opted to hand over the infrastructure assets in exchange for the right to continue to use the HFC network to deliver its Foxtel pay TV services.

The company has secured asset disposal restrictions if NBN Co were to sell the HFC or copper network after ownership is transferred. In certain circumstances these restrictions would require a buyer – such as another large retail service provider – to enter into a direct agreement with Telstra to purchase the assets.

Also, with at least some first-hand experience, certain simplifications to the contract have been included that will have a positive effect on Telstra's costs.

But Telstra's greatest (extra) financial wins this time are in the area of maintenance. NBN Co has no skills – and also no capacity – to undertake the maintenance of the ageing copper network. There is no doubt that this network still has some life left, but the mid- to longer-term question is when will it become more costly to maintain old infrastructure in comparison with deploying new infrastructure. At a certain point in time this will have to be done anyway. In the meantime, however, these ongoing, increasing maintenance costs are becoming an interesting new revenue stream.

Costs will only increase as the infrastructure ages, and therefore a significant amount of money will need to be spent by NBN Co to maintain it; and Telstra is the only company with long-standing expertise in this field, especially in the more value-added areas of infrastructure planning, design, construction and maintenance. While there will be room for competition in the actual physical work, Telstra will be hard to beat in those other areas.

Both the minister and NBN Co have indicated that they understand that the new contract has the potential to increase the dominance Telstra already has in the market. However the question will be whether the delivery of the MTM NBN or the protection of competition will get priority.

NBN connections so far

	Brownfields			New developments (greenfields)		Satellite	Wireless		Totals	
Week ending Day/month/year	Premises passed	Premises serviceable	Premises activated	Lots/ premises passed	Premises activated	Premises activated	Premises covered	Premises activated	Lots/ premises passed/ covered	Premises activated
End of Q1 2014	340,956	246,073	74,465	93,897	36,570	43,934	77,806	11,673	512,659	166,642
End of Q2 2014	381,146	281,294	105,211	111,116	45,916	42,948	112,208	16,553	604,470	210,628
End of Q3 2014	419,896	334,288	144,529	128,481	58,189	41,642	129,158	22,624	677,535	266,984
End of Q4 2014	469,111	390,839	182,352	150,234	71,531	40,716	159,479	27,792	778,824	322,391
19 Feb 2015	508,089	436,390	206,447	159,384	80,011	39,986	169,111	31,165	836,584	357,609

Source: NBN Weekly report: http://www1.nbnco.com.au/corporate-information/about-nbn-co/corporate-plan/weekly-progress-report.html

The Honourable Amy Adams: the ultra-fast broadband challenge

Four years since work began to build a world-class ultra-fast broadband (UFB) network, the Government's programme to deliver fibre to the homes and businesses of New Zealanders in the country's 33 fastest growing towns and cities is making strong progress.

It has proven so successful that New Zealand has taken the lead as having the fastest fibre growth in the OECD and the second highest increase in fibre connections. The initiative is 40 percent complete with 30 percent of the population able to receive a service, and demand is at its strongest levels yet.

As part of our drive to provide New Zealander's with faster access to better broadband, the Government has partnered with private sector companies for the roll out, with its NZ$1.35 billion investment being at least matched by our partner companies. Essentially this will provide a comprehensive fibre network for New Zealanders at least 10 years before it would have been economically viable for the private sector.

The UFB and RBI programme is the most ambitious infrastructure programme New Zealand has ever undertaken and it's held in very high regard internationally.

The nine-year project has already seen New Zealand jump to second place in the OECD for annual growth of fibre subscriptions, with an annual rate of 144 percent.

While a speedy start was made, however, deployment has not been without its challenges.

In New Zealand we've got comparatively low population density, so there's a need to cover a lot of distance for a few customers. Partners have to manage many different local territorial authorities with associated consenting and permission-to-work standards. Mobilising work forces simultaneously across the country can also be tricky.

In addition, there is a lack of existing conduit to use for fibre, and of course New Zealand's geological variances have seen crews both drilling in volcanic rock and tunnelling through silt.

Despite these issues, over the final few months of 2014 we saw a 39 percent increase in connections, taking connections across New Zealand to more than 10 percent, which is slightly ahead of projections at this stage of the build.

As of the end of September, 536,000 end users were able to connect. Whangarei, Te Awamutu and Oamaru have already been completed. Work will be finished in Cambridge, Tokoroa, Taupo, Hawera, Wanganui, Blenheim, Ashburton and Timaru by June 2015 and most towns and cities will have UFB fully rolled out by 2018.

For the rural programme the build is now 70 percent complete, with 282 towers having been upgraded and 98 new towers having been built to provide fixed wireless broadband to 213,000 premises. In addition 75,000 fixed lines have been upgraded.

Under current programmes, hospitals, schools and libraries in both rural and urban areas will receive fibre. More than 2200 urban and rural schools now have fibre installed and the managed network operated by the Network for Learning (N4L) is in place in more than half of those. N4L has been designed specifically for schools, providing safe, predictable and fast internet with uncapped data, online content filtering and network security services.

The results already being achieved are remarkable, with schools reporting that pupils are more engaged, their reading levels have improved, and absenteeism has dropped. Additional resources and training are being provided to ensure teachers are well equipped to make the most of the opportunities that digital learning provides to make learning fun, access the best educational resources, prepare their pupils for a digital future, and connect to other schools in other communities.

Our Telehealth initiative has particular benefits for rural communities. Being able to video conference gives rural patients quicker access to medical specialists, without the need for travel, and this saves time and money for both the patient and the health system.

These initiatives are only a small reflection of what we can achieve with UFB and RBI. As well as improving accessibility, a key focus is ensuring that ultra-fast broadband is then affordable for everyday New Zealanders as well as businesses.

One way we tackled this was to open up the telecommunications market to competition which has transformed the industry. Competition among major retail service providers has triggered attractive UFB offers for broadband customers, notably unlimited broadband plans.

As a result consumers are getting more value than ever before from their broadband and mobile plans. All the local telecommunications retailers are now selling UFB, and fibre entry-level plans are priced similar to the much slower existing ADSL copper broadband, while offering download speeds three or four times faster.

While providing access to affordable fibre-to-the-premise for 75 percent of New Zealand and improved broadband to 97.8 percent was a bold goal, we are certainly not resting on our laurels.

In a perfect world every New Zealand home and business would be connected to the highest speed and capacity possible and in that regard fibre-to-the-premise remains the gold standard. But in a country of just 4.5 million people who are widely dispersed across several islands, vast open spaces and numerous mountain ranges, the economics of that is prohibitive. In fact the economics are such that without the Government's investment it is unlikely that the market would have provided the services now being delivered for many years, if at all.

We are, though, constantly assessing what more we can do to continue to lift connectivity for those outside the UFB footprint.

The Government has announced it will extend the target for the UFB programme to at least 80 percent of the country and invest a further NZ$150 million into rural connectivity (fixed and mobile).

This will take our total investment across these programmes to around NZ$2 billion.

It means that some South Island towns such as Motueka, Westport, Alexandra, Temuka, Cromwell, or Picton for example, could receive fibre.

We are currently working through the policy development for the extensions of these programmes and I look forward to having more to say about them in the months ahead.

We are now in transition from a time when infrastructure was our primary objective, to focus more on how we use this infrastructure to the benefit of our citizens and businesses.

Getting the connectivity infrastructure in place is of course fundamental but it is the way in which we use that connectivity that has the ability to transform New Zealand. One of my continued frustrations is how few New Zealanders know that our third largest export sector is ICT and that the sector is growing far faster than the national average with demand for staff meaning salaries in ICT are more than twice the average.

In addition to the global opportunities, better connectivity at home has the potential to completely change how we connect with each other, how we educate our children and how we provide healthcare and other services across the population. It has the ability to mean that living outside the main city centres no longer means a lesser level of opportunities to work, train or get specialist care.

It is delivering on these opportunities that is at the heart of capitalising on the better connectivity we are providing.

How much methodology is needed for a successful project?

These days it seems like you can't swing a cat without bumping into two or three technology projects, but not all of them will be successful. Project management methodologies are one way to improve success rates. International project management expert ***Gary Nelson*** *tells us more...*

Whatever business you are in, you will find projects. They are the way that things get done, the way to introduce change, make new things or make things better – but what is the best approach to getting a successful project outcome?

'Winging it' has a tendency to produce variable results. Alternatively, you can use a project methodology – a defined set of methods, principles and rules for doing something in a consistent fashion. One good thing about using established methodologies is that someone else has already done a lot of the hard work. The down side is that there are a lot of methodologies out there, with names of varying levels helpfulness like Method123, Scrum, TenStep, UPMM, Prism, PRINCE2, Lean and Waterfall. Some are simple to use, while others can be extremely complicated and require huge amounts of effort. And following a project methodology does not mean that a project's success is confidently assured, although it can significantly improve the odds.

If you are considering using a new methodology, there is a lot of information available that describes the pros and cons of each. With a bit of reading you can generally choose one that looks promising, but it is wise to seek advice on what methodologies are best suited to your industry or situation. You don't need to hire another consultant to do this, just talk to other companies in your sector that have been using the methodology for more than a year – particularly those that have similar challenges to yours. Find out what project methodologies they use, what worked, what didn't and how they adapted them to work for their business. You might also like to find out if the methodology needed extra staff to support it and what added the most value for them.

While a project methodology can help move a project forward, I have seen too many people get lost in the methodology itself and lose sight of their project's objectives. When you adopt a project methodology, take it with a grain of salt. My advice is to introduce it slowly, learn from it, and gradually adapt it so that it works for your business. (Obviously, the shorter the project the less documentation and structure you need, but you can still pace the project for learning.)

You may not need to use all of the structure or documents the methodology describes, and most methodologies actually advise users to tailor them to their specific situation. If a particular document adds no value, then it's not a sin to drop it. When all is said and done, it is not the methodology that is important, but the project results and a well-adapted methodology should be an aid to producing your desired results.

Another, more advanced, approach is to develop your own custom methodology that is specifically tailored to your business needs, using a framework like the PMI PMBOK Guide. These custom project methodologies typically serve their purpose very well and allow users to adjust and improve them as time goes on, but are only really worth the investment for large projects or when your company has lots of projects in its sights.

All in all, a project methodology is only a guide and should be treated with a critical eye. Throw out things that are not adding value, tailor elements to suit your environment, and keep an eye on your own project's goals and you should find yourself with the perfect balance between methodology and practical application.

ABOUT GARY NELSON//

Gary Nelson, PMP, is a project manager and author of three project management books. He has co-developed several project methodologies over the past 25 years, and his international experience includes numerous projects in New Zealand, Taiwan, Hong Kong, the US and Canada.

Time to call in the pros

The Institute of IT Professionals NZ (IITP) CEO ***Paul Matthews*** *explains what the Chartered IT Professional accreditation is and why we need it...*

In 1907 a group of engineers and bridge builders in Quebec, Canada, embarked on an ambitious project to build the longest bridge in the world. But before the bridge was completed it was to cost almost 100 human lives.

On August 29th the partially built bridge collapsed, killing 75 workers and injuring another 11. A Royal Commission of Enquiry found a lack of experience of the type and size of bridge and clear mistakes had caused the disaster and held the designer and consulting engineers responsible. Construction began on the bridge once more in 1916, but disaster struck again, when the central span was being raised into position, and fell into the river killing 13 workers.

The managers had been made aware of the problem that caused this second collapse a full six weeks prior by the engineer responsible for the construction of the centre section, but hadn't taken any action. All in all, 88 people lost their lives to predictable failures.

So what does all of this have to do with IT and technology today?

It was after this double tragedy that the concept of the Professional Engineer was born. Engineers realised that they couldn't continue to have such devastating failures caused by inexperience or not following reasonable standards of practice. And they could no longer tolerate decision-makers ignoring their professional advice.

A similar sentiment has been growing in the international IT community since 2008, when the national tech professional bodies from Canada, the UK, Australia, South Africa, Japan and elsewhere came together to discuss whether it was time for the IT profession to also put in place minimum competency standards. Since then, all of these countries, and many others have done just that.

In New Zealand's case, the road towards the Chartered IT Professional accreditation that was officially released in February began when the IITP (then called the NZ Computer Society) released a 2008 discussion document outlining a range of problems in the industry and calling for the profession to form independent competency standards to address them.

As well as continual significant failures in major IT projects in both the public and private sectors, some of the issues highlighted included the global IT skills shortage; significant reduction in technology undergraduates and in the percentage graduating; negative perception of IT as a career amongst youth; and lack of retention of skilled individuals in New Zealand.

In other words, our bridges were falling down and we needed to do something about it.

New Zealand's response, run by the Institute and named IT Certified Professional (ITCP), was released in late 2009 to great success.

Up until that point, IT was almost the only vocation or profession remaining without a set of independent benchmarks outlining the minimum expected standards of skills, knowledge, ethics and professionalism for people operating the field. And we're not just talking about the established professions such as accountants and lawyers here. Almost every area you can think of, from plumbers to librarians and architects, has minimum standards in the form of an overarching professional certification. The reason for such accreditations is that there is a real difference between someone who knows what they're doing and someone who doesn't. Professionals have the right to differentiate themselves and a responsibility to come together within professional bodies and define minimum standards.

In February the IITP converted the ITCP to the Chartered IT Professional NZ, issued under license from the UK-based BCS, the Chartered Institute for IT. It also introduced a new Certified Technologist accreditation for those in the first few years of their career. The reason for the change is to increase the recognition of Kiwi IT professionals both in New Zealand and around the world, and to provide credentials that are immediately recognisable by the public.

Those accredited have committed to adhering to standards of professional conduct and ethics and have agreed to be professionally accountable if they don't. In return, they have the weight of the entire profession behind them when they say that a project can't proceed because if it does, the bridge will fall down.

ABOUT PAUL MATTHEWS//

Paul Matthews is chief executive of the Institute of IT Professionals New Zealand.

You can find out more about CITPNZ and CTech at www.iitp.nz/certification

Things we can still learn from the electrical revolution

***Gerry McGovern** invites you to reimagine your business in the digital age by taking a walk down memory lane...*

Imagine it's the early twentieth century when electricity is all the rage. Companies are hiring chief electricity officers and the hottest topic for boards is how to develop an effective electricity transformation strategy.

"Everybody's going electrical," John Lowe, the CEO says to his newly appointed chief electricity manager, frank. "We can't be left behind. We have to go electrical."

"I agree, Mr Lowe, but we can't simply go electrical for the sake of it. We have to think deeply about this. It's more than just replacing oil lamps with light bulbs."

"But it's a no-brainer, Frank. Let's just put electricity in the factory and replace those smelly, dangerous oil lamps."

"Electricity should make us rethink the factory, Mr Lowe. Have you ever wondered why our factory is beside the river?"

"No. All factories are beside rivers."

"There are two reasons. One is transport. One is power. With electricity we have power. Transport is shifting to trains and soon it will be roads."

"And what does that mean, Frank?"

"It means that we don't have to have our factory beside a river anymore. We can have it inland, near a railway station. Land is cheaper inland, and we'll be closer to the new transportation hubs."

"That's an interesting idea, Frank! Wow! This electricity thing is big."

"We can also build our factory flat, with just one story."

"But that doesn't make sense."

"It doesn't make sense in the context of water power, Mr Lowe. Water technology dictates that your factory has to be tall and slim, but with electricity we can be wide and flat. That will allow us to more easily design production lines. It will make for the more efficient movement of raw materials within the factory."

"That's amazing!" Electricity is going to change how we work, what we work on. It's going to radically reshape business and the economy. We have to move away from the river, move inland."

Right now, a lot of organisations have digital transformation strategies and chief digital officers, but simply making what you have digital is not a digital transformation strategy. Turning print documents into digital PDFs is most definitely not a transformation strategy. Digitizing everything and putting it online is not clever.

The revolution that digital is driving should force us to rethink everything. Digital is flexible, malleable, adaptive. Digital is not physical. It lives in the network. It is cheap and getting cheaper. It is small and getting smaller, which means that it will be everywhere and in everything. Digital is the network and everything that has something digital in it (whether it be humans, fridges or cars) will become part of the network.

Digital is an abundant resource and the more abundant it becomes the more powerful and all-embracing is its network and reach. This makes digital a real challenge to traditional organisations that are built on physical principles of managing scarcity and exerting power through proprietary tools that allow them to organise better. Ironically, most citizens are better organised today than most employees. The customers have better tools than the employees, and, of course, there are far more of these customers.

So, if you are still working by the river, thinking that all you need to do is get electricity in, think again. It's time to move inland. It's time to move to the network.

ABOUT GERRY MCGOVERN//

Gerry McGovern is an expert in customer-centric technology, CEO of Customer Carewords and a five-time published author. He helps large organisations become more customer centric on the web. His clients include Microsoft, Cisco, VMware, IBM, Atlas Copco and Tetra Pak.

Codifying change and success

Owen McCall *explains how a personal situation led to building a model for successful change...*

I have recently had reason to apply much of what I have learnt in my business life to my personal life. Without going into too much detail it came about after a trip to the doctor at which he told me I had type two diabetes. Initially I was devastated and hosted a personal pity party.

After a few days, however, I began to think about what I could do about it because I am committed to living a long and healthy life.

It occurred to me that the principles that underpin successful organisational change were likely to be just as relevant for me as a person. As it happens I know a fair bit about change as I have spent most of my career running change programmes either as a consultant to large organisations or as an executive leading teams within organisations. The irony is that although I may know a fair bit about change, I discovered that my knowledge has always been unstructured and intuitive. This meant it was difficult to pull it out of the business context and apply it to myself. So I set about structuring what I knew and came up with the following:

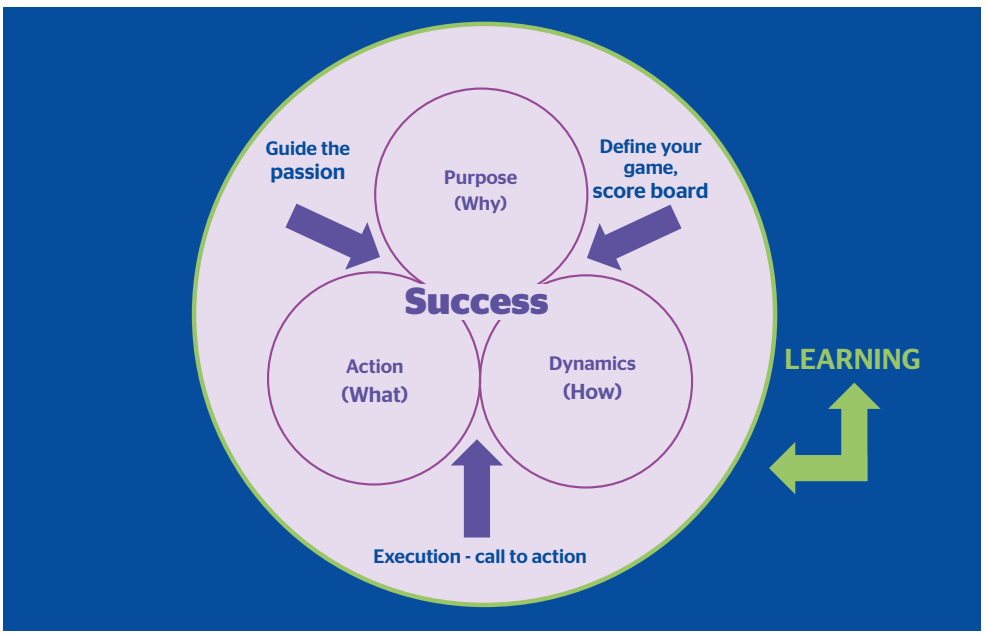
Start with purpose. Or as Simon Sinek coaches, "start with why". People will work harder and offer more of themselves if they understand and believe that what they are doing is important and contributing to something bigger than themselves. A clear sense of purpose or vision provides this background for effectiveness. Purpose and vision are fantastic and absolutely necessary, however they are not enough. You also need a way to measure and monitor the progress you are making towards your goal. Air travel provides a good analogy: while you need to know your destination, the purpose or goal for the flight, you also need constant feedback to let you know where you are in relation to the goal and be able to make whatever corrections are needed along the flight. Your success measures are effectively predefined by a combination of the purpose or vision and the dynamics which you want to harness to achieve that success (see below).

Understand underlying dynamics. In defining your strategy and approach, focus on the underlying dynamics at play and then plan to use those dynamics to your advantage. As I have written in the past I am fundamentally lazy, and as a lazy person I always try and find the easiest way to achieve a result. That easiest way almost always involves seeking to understand what is really going on behind the scenes and then using those dynamics to your advantage rather than pushing against them.

Act on the plan. Over time I have learnt that for a plan to be effective you have to live in the world of the doable, or as I like to say, focus on next practice not best practice. As a consultant I lived and breathed best practice. All my clients had to do was implement best practice and they would reap the promised rewards and benefits. As a CIO however I began to realise that knowing best practices and successfully implementing them were two completely different things. Often best practices are simply not achievable given the current level of maturity of the organisation – it's like trying to get a fat man to run a marathon.

Learn, celebrate and correct. Having set off on the journey to meet your goal things are going to happen. Some of those are going to be good things and some not so good. Whatever happens, channel it into a process of evaluation and learning rather than a self-assessment of yourself as being brilliant or a failure. If what you did worked can it be systematised and repeated? If it didn't work why not and what is a logical next action to take?

So there it is, a model for change and success that can be applied in many different circumstances including personal and organisational change on virtually any scale.



ABOUT OWEN McCALL//

Owen McCall is the founder of Viewfield Consulting a specialist IT strategy and leadership consulting firm. He was CIO of The Warehouse for seven and a half years. You can find Owen on the web at his blog site www.successfulcio.com

Apple Matters: Silver Apple dollars

Following Apple's record-shattering earnings call for Q1 2015, Apple expert ***Mark Webster*** *takes a look at where all of Apple's money is coming from...*

Whichever why you look at it, it sure was one hell of a quarter: Apple made US$18 billion in profit on its record-shattering US$74.6 billion in revenues. That's 30 percent up on last year. That's almost the same as Microsoft's if you add Microsoft to Procter & Gamble and IBM – only then do you get US$72.7 billion. For this was not just the best quarter Apple's ever had, it's the best quarter any company has ever had. Apple overtook the previous record holder, Exxon, which formerly held the top position with a US$15.9 billion profit.

Not surprisingly, perhaps, was how Apple made its profit: iPhones. I recently bought one myself at the Apple Store near Union Square in New York in one seamless, frustration-free process. In fact, Apple has been selling 575 iPhones every minute, which neatly mirrors Apple's revenue: 575 ... thousand dollars... every minute.

More surprising, though, was Apple's Mac sales figures, given everybody's focus on iDevices. Do you remember when Steve Jobs declared the PC era was dead? Well, it's back at least for Apple. While other personal computer sales declined everywhere over the last four years, Apple's stayed solid and even rose a little, with them now at an all-time high of 5.52 million units, just ahead of the company's previous best in the preceding September quarter. This represents a 14 percent year-over-year rise in Mac sales, and this against almost any expectations anyone had. Apple CEO Tim Cook, who famously claimed a few months ago that he does all his work on his iPad now, reckons that's not a problem, making a reference to his "clear view" of the "road ahead". Personally, I like my iPad as a kind of viewer on the world. But would I use it for serious work? Not a chance. Weirdly, through all this end-of-the-PC-era stuff, iPad sales kept declining. They fell to 21.4 million units in the December quarter, down 18 percent from the same period a year ago.

In other numbers, the rest of the world is increasingly important to Apple: international sales

accounted for 65 percent of the quarter's revenue.

Another potentially strange fact is that most iPhone 6 buyers are new to iPhone, although you can appreciate why Apple feels so bullish on this, because many existing iPhone 4 and 5 users will eventually upgrade to 6 as well. Even the declining iPad is still finding large markets of entirely new users: a full 50 percent of iPad buyers in the US, Japan and UK. Meanwhile, IBM, which partners with Apple in enterprise and service apps for iPad, stated that iOS devices are responsible for twice the online traffic and four times the commerce sales of Android-based devices.

The China market is the biggest boom market for Apple with over 70 percent of iPad buyers new to iPad, according to Cook in the earnings call.

Revenue grew in all sectors, but that from China rose from US$9.5 billion in the first quarter of 2014 to US$16.1 billion for the first quarter of 2015 (almost catching up with Europe). In China, iPhone beat out Samsung and the rising local handset manufacturer Xiaomi. Apple plans to have 25 Apple Stores in China by 2016.

By the way, Apple just rolled out updates to Mac OS 10.10.2 'Yosemite', and iOS 8, and even Apple TV. These are all free updates. Apple has sold 25 million Apple TVs, and 21.4 million iPads since it was launched (five years ago this January). With the iPhone figures added to the iPad numbers, that's one billion iOS devices sold. Meanwhile, Apple Pay is growing daily in the US. Oh, and Cook said the Apple Watch would be available from April.

**This article first appeared in longer format on iStart's Apple Matters blog.*

ABOUT MARK WEBSTER//

Mark Webster was editor of NZ Macguide magazine from 2002 to 2007, author of Assembly: NZ Car Production 1921-1998 and now spends his time blogging about Apple Inc, helping people get more from their Apple devices and writing New Zealand history books.

iSTART VENDOR DIRECTORY

Abel is an affordable fully integrated ERP system that delivers successful, full-visibility solutions across multiple companies / branches, locations, languages and currencies. With customers in 12 countries, Abel has been meeting the needs of medium-sized and growing Manufacturing, Job Costing, Distribution and other businesses since 1996.

Abel is highly configurable, adapting to your business needs and processes, providing you with the ability to tailor the functionality to suit your business today, and into the future.

www.abelsoftware.com

Agresso New Zealand sell and implement arguably the most nimble ERP system ever built.

No other ERP system better equips organisations for change.

UNIT4 AGRESSO is a fully integrated suite of core business functions, including financials, reporting and analytics, budgeting and forecasting, procurement, project management, HR and payroll and field asset management.

Thousands of organisations in over 100 countries use AGRESSO to adapt and grow - simply and quickly.

www.agresso.co.nz

Over 500,000 people from over 40 countries use Crossware Mail Signature to extend their email platform to automatically include professional looking email signatures and disclaimers on every email leaving their company.

These signatures may include disclaimers, logos, graphics and advertising banners that can be randomised or targeted to specific recipients.

Visit www.crossware,co.nz/trial for a free 30 day trial.

www.crossware.co.nz

Designertech's goal is simple, to provide IT that works for you.

We help organisations achieve their desired outcomes using technology. We have four business streams providing a range of products and services: Software Development, Continuous Computing, Frank Consulting, Product Innovation.

Designertech understands that technology is a tool to help people solve problems and improve business processes. We have recognised expertise that allow us to create tailored technology solutions for each client.

www.designertech.co.nz

EMDA specialises in comprehensive business solutions for manufacturing and distribution companies, providing ERP software and business services to clients throughout New Zealand and Australia.

As a Gold Channel Partner for Infor's range of business software, EMDA works closely with Infor to deliver high quality solutions that are designed to help make going to work an enjoyable experience.

www.emda.co.nz

Endeavour Solutions was founded in 1986 and our focus is to find out what business improvements you want and make them happen. We understand that making business systems work well is hard and that no two minds think alike, so we work with you to make these systems simple and understood by all.

We are passionate about solving our client's problems and delivering great systems and service. It's the partnership with our client's that makes the difference, that's why we have been taking the hard out since 1986.

www.endeavour.co.nz

Epicor Software Corporation is a global leader delivering business software solutions to the manufacturing, distribution, retail and services industries.

With nearly 40 years of combined experience serving midmarket organisations and divisions of Global 1000 companies, Epicor has more than 20,000 customers in over 150 countries.

www.epicor.com

If you sell online, have retail outlets, import and distribute, N2 Cloud ERP will take your business to the next level. N2 Cloud ERP is an all-in-one Ecommerce, Financials, Distribution, Procurement, and Business Intelligence software application for Retailers and Distributors.

We have been developing and supporting ERP Applications for over eight years on the Microsoft Platform. N2 ERP also integrates to Xero for companies that want to continue to use Xero Financials. N2 ERP is suitable for 3 to 100 plus users, and as its cloud base you'll never need to upgrade again.

www.firstsoftware.co.nz

Flow provides Integration software and Multi-Channel eCommerce EDI software. Flow's software integrates your business applications and automates your business processes. Leverage your investment in existing business applications and enable your business to grow volume without growing paperwork, with less keying errors, and less missed steps in the process. Flow automates yours communication with customers and suppliers through multi-channels like eCommerce web portals and EDI, then integrates and automates this data through your business applications.

www.flowsoftware.com

GLOBAL SHOP SOLUTIONS

For nearly 40 years, Global Shop Solutions fully integrated ERP software system has helped thousands of small to medium sized manufacturers increase sales, improve quality and on-time delivery, and lower costs. Our ERP software enables better service to your customers, more control over your business, and accelerated growth and profitability.

Global Shop Solutions has 200 employees and is headquartered in The Woodlands, Texas, with offices across the United States, Mexico, Singapore, Indonesia and Australia, serving customers in a variety of industries throughout the world.

www.globalshopsolutions.com

Greentree®
PRIMED FOR BUSINESS

Greentree's business software is today's ultimate painkiller and multi-vitamin.

Imagine all your staff having the operational intelligence at their fingertips to perform at their best. Discover how automating many common and regular processes will have your business humming. Picture your talented people being freed up to spend more time developing new ideas and making better decisions. We are unashamed technology and business buffs; fanatics; addicts. Call us what you will, we have one obsession: building the best business software.

www.greentree.com

JetReports®
Any report. Any way. Right Now.™

Jet Reports provides Business Intelligence and Reporting solutions to over 70,000 users in 89 Countries.

Jet Essentials is an Excel-based reporting solution which allows business users to create, run and schedule their own reports.

Jet Enterprise is a complete business Intelligence system which includes ready-made Cubes and Data Warehouse for certain ERP systems, and capability to modify and create your own BI solution based on the Microsoft BI stack.

www.jetreports.co.nz

KOORB CONSULTING

Koorb Consulting is a 100% NZ owned company with offices in Auckland, Wellington, Christchurch and Dunedin.

We focus on delivering business transformation through implementing Microsoft technologies. We are a Microsoft Gold ERP, CRM and BI partner, and a Silver SharePoint partner. Our customers include some of the most iconic companies in New Zealand. We are committed to ensuring our customers realise quantifiable benefits from adopting world leading Microsoft business solutions.

www.koorb.co.nz

Microsoft Dynamics

Microsoft Dynamics is a flexible, powerful business solution for customer relationship management (CRM) and enterprise resource planning (ERP) that can help make your people more productive and can grow with your business. Microsoft Dynamics enterprise resource planning (ERP) software gives your people the tools they need to connect your entire business. From financial and supply chain management, through your operations and human resources, to the business intelligence and reporting you need to make smart decisions. Start with what you need now and easily adapt as your needs change – in the cloud or on your servers the choice is yours. To read customer references refer to www.customers.microsoft.com

www.microsoft.co.nz

MYOB Exo

MYOB EXO Solutions are for medium and larger Businesses who want enterprise-wide insight and control.

With flexible scalable ERP systems and integrated modules to take care of all aspects of your business; Financials (accounting), Job Costing, Point of Sale, Fixed Assets, CRM, Reporting, Payroll and Time and Attendance.

MYOB EXO is the largest selling mid-sized ERP in Australia & New Zealand, built and developed specifically to meet local needs. EXO continues to evolve with the recent launch of EXO OnTheGo.

www.myob.co.nz/enterprise
www.myob.com.au/enterprise

NETSUITE

Today, more than 20,000 companies and subsidiaries depend on NetSuite to run complex, mission-critical business processes globally in the cloud. Since its inception in 1998, NetSuite has established itself as the leading provider of enterprise-class cloud ERP suites for divisions of large enterprises and mid-sized organisations seeking to upgrade their antiquated client/server ERP systems.

www.NetSuite.com.au

NTT DATA
Global IT Innovator

NTT DATA Business Solutions designs, implements, hosts and supports solutions to solve complex business challenges faced by organisations that use SAP ERP and BI as their strategic enterprise business platform. NTT DATA Business Solutions leverages our global strength and capability while delivering localised service and flexibility. We offer a broad range of SAP services including: Analytics, Cloud Computing, Global and Local Roll Outs, Hosting and Application Management Services, Industry Solutions, IT Architecture, Mobility, SAP HANA and SAP Rapid Deployment Solutions.

www.nttdatasolutions.com.au

Software Shortlist .com

Our mission here at Software Shortlist is to help businesses like yours take advantage of available software to improve their performance.

We don't sell software. We don't develop it. We don't implement it. There are plenty of firms doing those things and doing them well. We focus solely on software selection: helping you find the right solution for your unique needs.

So if you're thinking about how software could improve your business, let's talk.

www.softwareshortlist.com

Tranzsoft
Business Process Automation

For over 10 years Tranzsoft has been leading the way in creating efficiencies in organisations and lowering their procurement processing costs. Our simple interfaces have allowed the most complex IT systems to 'talk' to each other – exchanging data, automating administrative tasks, reducing human error and providing a platform for growth.

Tranzsoft has grown to offer many other associated services while sticking to our principles of efficiency, simplicity and cost saving.

www.tranzsoft.com

UXC oxygen

UXC Oxygen is the leading SAP solution and integration partner across Australia and New Zealand, offering a true end-to-end systems and applications service for small, medium and large enterprises.

UXC Oxygen is an expert at leveraging ERP, analytics, mobile and cloud technologies to help customers drive business growth.

www.uxcoxygen.com

UXC eclipse
intelligent solutions *old-fashioned service*

As a leading provider of intelligent business solutions to the enterprise and mid-markets, UXC Eclipse helps you get the best ROI and business benefits from your software investment.

As one of the most awarded Microsoft Dynamics ERP Gold partners in the Asia Pacific region, UXC Eclipse delivers ERP, CRM and business software that empowers your business and drives efficiencies.

www.uxceclipse.co.nz
www.uxceclipse.com.au

VELOCITY
GLOBAL LTD

Velocity Global supplies and supports world leading solutions with Pronto-Xi ERP covering Financial, Distribution, Manufacturing, Retail, Service and Project Management; and Yellowfin Business Intelligence software, agile and easy to use, fully browser based and mobile out of the box.

Our successes spans over 26 years in New Zealand. We provide a complete solution including software, hardware and service. All backed by our OWN solid team of experts.

www.velocityglobal.co.nz

WXC
COMMUNICATIONS

WXC Communications (WorldxChange) is a 100% Kiwi owned and operated telecommunications company. WXC provides high quality carrier grade services to government and commercial New Zealand businesses, as well as offering residential internet and calling solutions.

WXC has built up an extensive amount of expertise in Next Generation Telephony and is viewed by customers and peers as a leading provider of SIP Trunking and IP Voice services.

www.wxc.co.nz

Zavanti
Technology for Advantage

Zavanti is a global provider of software solutions for all companies within the Real Estate, Construction, Engineering and Professional Services industries.

Our solutions manage all your requirements from Feasibility, Marketing, Sales, Leasing, Financials, Project Control and Customer Relationships.

Our cloud or on-premis solutions provide your business the support it needs in the office or on the beach!

www.zavanti.com

Refer to iStart.com.au & iStart.co.nz for case studies from these vendors

NTT DATA

Global IT Innovator

www.nttdatasolutions.com.au

NTT DATA Business Solutions designs, implements, supports, and hosts SAP centric business solutions for organisations of all sizes.

The group is the largest global reseller of SAP license and focuses on end-to-end solutions across the entire SAP portfolio of applications and seventeen industry domains.

Drive your SAP investment further with SAP's Premier One-Stop Partner

NTT DATA Business Solutions

contact_au@nttdata.com

Use **iStart2015 1/1** as your enquiry code

+61 2 8908 4200

www.nttdatasolutions.com.au

>>> *Delivering the Power of SAP to YOU*

GREENTREE 4

THE ENGINE ROOM OF BUSINESS

ERP SOFTWARE THAT'S BUILT TO LAST

- ☑ Effortlessly expands with you
- ☑ Continuous upgrades without disruption
- ☑ Works your way:
  - Device agnostic
  - Cloud, on-premise or both
  - Switch on what you need
  - Configure your work space

POWER UP NOW!

Call 0800 313 313 (NZ) or 1800 000 737 (AU)
www.greentree.com

Greentree®
PRIMED FOR BUSINESS