SCAN

Standards amid complexity

- Interview with Director-General of Health Chai Chuah

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Don't stop thinking about tomorrow

Enabling business innovation worldwide

Rock group Fleetwood Mac said it brilliantly … and again at their New Zealand concerts recently! Tomorrow will soon be here and it'll be better than before.

Inspiring words for GS1 members in New Zealand and globally as we all prepare for 2016. The current year has been one of major investment in initiatives and programmes that will definitely make tomorrow better.

Think about the New Zealand Business Number (NZBN) roll-out, the emerging new world of food traceability systems, and the momentum for use of GS1 standards in Health systems worldwide. This SCAN reports on each of these. And we deeply appreciate Chai Chuah, the Director-General of Health, taking the time to share his big picture thinking on the future.

New Zealand is very much part of the GS1 global network – and that's something else that ensures our tomorrow will be better! We are delighted to have Mike McNamara of GS1 Global outline his view on how GS1 standards can help drive innovation. It's exactly the role we want to play in New Zealand – and the contribution we see New Zealand making to the world!

To all GS1 members, merry Christmas and a rocking 2016.

Dr Peter Stevens,
Chief Executive

Mike McNamara –
Chairman of the GS1 Global Management Board

GS1 standards and solutions are critically important enablers of business innovation in a fast changing world.

Explosive growth in online shopping and in demand for digital information on products and services pose huge challenges for companies everywhere. People are increasingly skilled at using Internet and mobile technologies to source whatever they want and to exercise greater purchasing choice. Retailers in particular have to rethink their business processes and to provide their customers with satisfying omnichannel experiences across the physical and digital worlds.

GS1's challenge is to support innovation in the retail and other business sectors through value-adding developments in our standards and solutions. GS1 members worldwide must be able to uniquely identify items, places, trading entities and more in new ways and for new purposes. And businesses must be able to capture and share the high-quality data required for new models of supply chain and of consumer marketplace.

Globally and in its 112 country organisations, GS1 works tirelessly to update and expand our standards and solutions. GS1 New Zealand is an active contributor to this process, drawing on the experience and advice of members in your country.

In 2015, we have formed an Innovation Network at the global level to strengthen the GS1 capacity for anticipating the needs of innovative businesses as they respond – and in many instances, lead – the big trends in online shopping and information, in consumer empowerment, and in society's demand for greater visibility and sustainability. The Innovation Network is focused initially on how GS1 will, in future, enable unique identification of everything in the world while supporting the efficient and safe collection and sharing of personalised data. There is work being done also on digital coupons for people to use their mobile devices for greater ease of purchasing multiple brands, from multiple outlets.

I encourage everyone interested in the future of supply chains and the consumer marketplace to read the GS1 Innovation Network's recent Roadmap document (www.gs1.org/gs1-innovation-network). GS1 Barcodes and other standards have helped propel business innovation for the past 40 years: We are striving to make an even bigger contribution to innovation for growth and sustainability in the decades ahead.

MIKE MCNAMARA

Mike McNamara has been Chairman of GS1's Management Board since 2013. This global governing body is composed of key leaders from multi-nationals, retailers, manufacturers and GS1 member organisations.

In his "day job", Mike is Executive Vice President and Chief Information Officer for Target Corporation, the giant US-based retailer. He has oversight of Target's long-term information technology roadmap, and the development, support and security of all technology for the company's stores, online and mobile assets, and distribution centres and headquarters facilities.

Previously, Mike spent more than 17 years at European-based retailer Tesco, where he most recently served as the Chief Information Officer.

NZBN scheme ready to roll

Every business in this country – sole traders and unlimited partnerships included – will have its own New Zealand Business Number (NZBN) by the end of 2016, subject to the passage of legislation through Parliament.

The NZBN Bill is progressing through the House after being reported back from the Commerce Select Committee in late September. The Committee recommended changes mainly to highlight the potential benefit of NZBNs in business-to-business interactions and to limit the public disclosure of some key business information.

NZBNs have already been allocated to all companies in the New Zealand Companies Register. Work is underway to extend allocation to State sector entities, incorporated societies, charitable trusts and limited partnerships. Under the bill, unincorporated entities will then be added to the roll-out by the end of 2016, including sale traders, unlimited partnerships and trading trusts.

Subject to the bill becoming law, the Ministry of Business, Innovation and Employment (MBIE) will allocate NZBNs to an estimated 500,000 unincorporated entities.

NZBN benefits

The NZBN scheme has huge potential for transforming how New Zealand businesses share key information, and how they interact with government agencies and with each other. The key information will be referred to as "primary business data". Each entity will have its own (globally) unique identifier that can be automatically recognised by others, and that can be the basis for secure sharing of the primary

business data with government agencies and other businesses. Big savings in time, effort and cost should result.

The benefits will reflect the extent to which government agencies, businesses and others use NZBNs as their principal means of identifying every business entity and their level of use of primary business data.

Register

NZBN-identified businesses will appear on the NZBN Register, an initial version of which was launched in July 2015 (see www.nzbn.govt.nz). In time, the register will become a central location for publicly-searchable primary business data. The NZBN Bill lists such data for corporate and public entities as: legal entity name; trading name or names; registered address; location identifier; NZBN; start date; kind of entity; and status. Public primary business data for unincorporated entities is: location identifier; NZBN; start date; kind of entity and status.

The NZBN Bill creates rules for the collection, accessing, and sharing of the data, and for protecting information that is personal and commercially confidential.

Fundamental to the NZBN scheme is the capability for information on a particular business to be updated in one place – for example by the entity itself or by a government agency – and for that update to be automatically "pushed" out to other

NZBN

NEW ZEALAND BUSINESS NUMBER

A NZBN is a 13 digit Global Location Number (GLN) provided by GS1 New Zealand. The Government chose GLNs for the NZBN scheme because they are globally unique and part of a credible international system, with strong links to trade and supply chain logistics.

databases. Businesses will only have to "tell government once" for correct, updated data to be available to all agencies who identify them using NZBNs.

Government agencies

Dependent on Ministerial approval, key agencies working regularly with businesses will be required to recognise NZBNs as their main identifier in dealing with businesses by the end of 2017. The Ministry of Business, Innovation and Employment, New Zealand Trade and Enterprise, Callaghan Innovation and Statistics New Zealand have already started using NZBNs.

More than 180 other agencies and Crown entities have been consulted during 2015 on how and when they will join the NZBN scheme. Government Directives are expected next year to establish a timetable for this to occur.

NZBN takes off

NZBNs are taking off with Air New Zealand as that company makes use of them in its new loyalty scheme for business customers.

When Air New Zealand launched Airpoints™ for Business this September, it built company name and NZBN into the scheme's registration process as mandatory fields. The company wanted customers to have fast, reliable self-service.

"We just needed a unique, credible and reliable identifier to make the process work. The NZBN fitted the bill," says Mark Street, the airline's Head of Customer Loyalty. Air New Zealand uses a Companies Office API* for immediate validation of the customer's information, then completion of automatic registration.

Photo credit: Naruedom Yaempongsa

* Application Programme Interface, see www.api.business.govt.nz

New food traceability regulations in 2016

Food businesses will be required to have effective "one up-one down" traceability from next 1 March, as part of New Zealand's major updating of food safety and suitability law.

The Ministry for Primary Industries (MPI) expects to publish regulations under the Food Act 2014 before Christmas so that businesses know what they need to do to achieve such traceability. An MPI spokesperson told SCAN that the regulations – like many others for implementing the Act which comes into force on 1 March 2016 – will be practical and focused on outcomes, not highly prescriptive of how businesses should establish traceability.

Earlier this year, Government policy statements confirmed that the traceability regulations will be based on the "one up-one down" principle which means that: Each business is able to trace food products and/or food ingredients back to the suppliers from whom these were sourced, and to track its own food products and/or ingredients down to the next recipient in the supply chain (excluding the final consumer). Each business also keeps records on the handling and processing of food in its own operations.

Safety and Suitability

The policy intent is to ensure all businesses along the supply chain have appropriate traceability systems in place for their business, including the ability to quickly share information. This will protect consumers by ensuring any unsafe or unsuitable food product or ingredient can be identified and removed as quickly as possible. The purposes of the Food Act 2014 include achieving the safety and suitability of food for sale, and maintaining confidence in New Zealand's food safety regime.

The Act is aimed at requiring people who trade in food to take responsibility for its safety and suitability. Much of the Act is concerned with food businesses' obligations to identify, control, manage, and eliminate or minimise hazards or other relevant factors that threaten safety and suitability. The Act regulates businesses according to the level of food safety risk that their food presents to the public. Businesses that produce higher-risk goods, like meat or cheese, or that prepare meals will operate under their own registered "food control plans". Low-to-medium risk businesses, such as retailers who do not make food or horticultural producers, will operate under a national programme that is relevant to their sector.

Wider Requirements

In regard to traceability, more regulatory changes are likely next year after MPI has looked at how wider requirements can strengthen New Zealand's food system overall. For this, MPI will draw partly on the Dairy Traceability Working Group* Report in early 2015. The report made detailed recommendations for traceability in the dairy sector after the August 2013 Whey Protein Concentrate (WPC) contamination incident. When the report was released, the Government indicated that because traceability is critical for all sectors, the recommendations will have wider implications than the dairy sector.

MPI spokesperson told SCAN that the Ministry will engage with industry early in 2016 to explore the need for strengthened. "Industry engagement will focus on getting feedback and further information on the current knowledge, practices, and concerns about traceability among food businesses," she said.

"Once we have done this, we will assess and analyse the feedback and input from industry before drafting any proposals for new traceability requirements. These proposed requirements will then be put up for public consultation and we expect this to take place around mid to late 2016."

The MPI spokesperson said New Zealand has a long history of encouraging international cooperation and efficiency through developing and supporting standards and systems based on international best practice. "We support GS1's work in facilitating global inter-operability in data standards," she said.

She noted that MPI was part of the Dairy Traceability Working Group whose second report – "New Zealand Dairy Industry Best Practice Guide to Proposed Regulatory Requirements for Traceability" – encouraged the use of inter-operable data standards. "We believe that this approach has lessons for all food businesses and not just for dairy operators," she said.

> **For more information,**
> see www.mpi.govt.nz/
> food-safety/food-act-2014/

* GS1 New Zealand Chief Executive Peter Stevens has a member of the group.

Distributor for the DHB National Catalogue

Pacific Commerce is expert in the requirements of the National Product Catalogue and has helped many healthcare suppliers become DHBNC Ready.

Distributor for the DHBNC is a GS1 certified solution developed by Pacific Commerce for validating and uploading product and pricing data to the NPC and the DHB National Catalogue.

Suppliers to the healthcare industry use Distributor to upload their product and pricing data to become DHBNC compliant for tendering and trading with private hospital groups and all healthcare jurisdictions in Australia and New Zealand.

Distributor provides business rule validation for your product information ensuring that all data uploaded (and downloaded) is clean and error-free.

Double handling of product data is eliminated by Distributor as it integrates with your existing ERP systems to automatically upload your data directly to the DHBNC with no extra effort on your part.

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Pacific Commerce ensure that even clients new to the concept of GS1net and the DHBNC completely understand what is expected in order to be GS1net compliant, simplifying what can otherwise be a daunting experience to the uninitiated.

Call us today to begin your migration to the DHBNC.

Integrate seamlessly

Pacific Commerce is an eCommerce service provider facilitating services to industries including hardware, healthcare, consumer electrical, grocery and retail.

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Pacific Commerce hosts and operates business-to-business eCommerce exchanges for electronic trading of business documents. These include the Pacific Health Exchange, NARTA Trading Exchange, Pacific Commerce Exchange and the Timber & Hardware Exchange.

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Distributor is a GS1 certified solution developed by Pacific Commerce for validating and uploading product data to GS1's data synchronisation platform - GS1net, to the National Product Catalogue and to the DHB National Catalogue.

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Martin Eley, National Business Manager on
Phone: +61 4 03 585 171
Email: martin.eley@pacificcommerce.com.au

John Rix, Remote Sales Manager
Phone: +61 2 9468 3333
Email: john.rix@pacificcommerce.com.au

Address
Level 4, 500 Pacific Hwy St Leonards NSW 2065
Phone: +61 2 9468 3333   **Fax:** +61 2 9468 3300

www.pacificcommerce.co.nz

Eco-friendly from India to NZ

"Eco-friendly" is a broad term but there's nothing vague or ill-defined about Meals in Steel tiffins and lunch-boxes – or about the highly durable, non-toxic stainless steel from which they are made.

West Auckland couple Rohan and Komal Patel have created the Meals in Steel range of food carriers with very clear ideas on environmental benefit and human health. These are stainless steel products marketed unequivocally as the eco-friendly alternative to plastic containers that might leach chemicals and other carcinogenic substances into food before ending up in landfill.

"In New Zealand we have seen extraordinary use of plastics for the out-catering of meals," says Rohan. "Hot food served in plastic … is not good."

Immigrants from India 15 years ago, Rohan and Komal turned back to their roots to provide Kiwis with a healthier option for carrying food to school or work, and for collecting it from takeaway outlets. "Everyone uses stainless steel containers in India, largely because they can't afford to keep throwing things away. It's part of the culture … people take their own containers, with six or seven areas for holding the different types of food they might buy from a food outlet or be intending to eat during the day."

Marketed as long lasting, easily cleaned and BPA*-free, Meals in Steel products are manufactured in India, and are available online through www.mealsinsteel.nz. They can also be found through several organic produce shops in New Zealand.

For Rohan and Komal, it is a new business that is built on their earlier success with Green Trading Company – another venture in bringing eco-friendly products to New Zealand. Green Trading supplies a range of medicinal and cleansing products derived from the oil and leaves of the Neem tree.

The special qualities of the Neem, which grows widely across the Indian subcontinent, have been recognised in ayurverdic medicine for thousands of years. Neem tree-based products, high in antioxidants, are used today to help treat cancer and other chronic illnesses, to improve gastric health and to treat many skin disorders. Neem extracts are also incorporated in products as diverse as household cleaning agents, sprays to kill lice and mosquito repellant.

The Patels offer a wide range of Green Trading-branded BioGro-certified products for people, plants, and pets, prepared to their formulae. "We have built an excellent relationship with our suppliers so they know exactly what we want," says Rohan.

Green Trading also has a growing range of other organic coconut oil and coconut sugar products.

The business was founded in Rohan and Komal's profound experience of supporting a son recover from leukaemia, diagnosed when the boy was seven years old. "We drew on things from India that we knew would have long lasting health benefits," says Rohan. "We thought 'now that we have seen the benefits of Neem in our family, let's bring them to New Zealand and get into business so others can benefit'."

In the years that followed, Rohan completed an MBA degree at Auckland University of Technology, and worked as the commercial manager for a successful Auckland firm until Green Trading matured into the business it has become today. Along the way, the family proudly became New Zealand citizens – and their son grew into a healthy young man. He is now 21 and working in Green Trading.

The Patels continue to develop plants and ideas for eco-friendly products. Rohan brings to the business not just passion for healthy and sustainable living, but also knowledge and experience of the GS1 System, gained in his earlier commercial career.

Rohan and Komal Patel

Meals in Steel.nz

For more information on the Green Trading Company, see www.greentrading.co.nz

* BPA is bisphenol A, an industrial chemical used to make certain plastics and resins since the 1960s.

Raising the bar on **patient safety and supply chain efficiency**

The GS1 Healthcare User Group Australasia (New Zealand Chapter) convened in Auckland during September. Here are key out-takes.

NZ's National Catalogue for DHBs

healthAlliance: **Ross Darrah**
– Interim Chief Executive

The DHB National Catalogue, is now available to the 20 District Health Boards and to PHARMAC with healthAlliance publishing updates monthly.

The catalogue contains product data on more than 120,000 items encompassing pharmaceuticals, medical devices and hospital consumables – and the total is growing each month. More than 150 suppliers are now "GS1net ready" in the catalogue. The data is now being used by healthAlliance in its formation of national procurement contracts and it will increasingly inform DHBs' purchasing decisions.

The DHB National Catalogue is a vital foundational initiative for the sector because of its key strength – global standards-based data on products that are constantly kept up-to-date. The catalogue is the first step towards a single national system for purchase and management of products and services used throughout the DHB sector. We have more than 550 national suppliers in-scope to eventually join the system.

The rollout foresees the use of GTINs as the product identifier on all purchase orders issued by healthAlliance for Northern DHBs in 2016-17 and by other DHBs progressively thereafter.

healthAlliance is now focusing on migrating suppliers away from the approximately 5000 temporary GTINs currently published in the catalogue. Temporary GTINs were used as an interim measure when, for some reason, brand owner-supplied GTINs were not available to the New Zealand supplier/ distributor. The essence of a GTIN is global uniqueness of a product to a specific brand owner: Therefore the use of temporary GTINs compromises the integrity of product identification and related information in the supply chain.

GTINS ARE UNIQUE

A Global Trade Item Number (GTIN) ensures that an item has globally unique identification recognisable anywhere. A GTIN also has the advantage of absolute integral – the final digit is always a mathematically-derived check digit which ensures the number is correctly composed.

PRODUCT RECALL IN SCOPE

healthAlliance has started investigative work on use of an online product recall solution for New Zealand's health system. This could be based on the GS1 ProductRecallNZ web portal solution now operating with success in the nation's grocery sector. A community of stakeholders from across the healthcare sector is now in discussions towards a potential pilot project for use of the web-based tool.

GLOBAL PERSPECTIVE

The adoption of GS1 standards by all healthcare providers in the UK and their suppliers will have efficiency, quality and safety benefits for everyone – this view to the GS1 Global Healthcare User Group conference in Budapest during October. The Head of Supply Chain at South of England Procurement Services was speaking to the HUG after her agency (part of the NHS) accepted a "GS1 Healthcare Best Provider Implementation Case Study Award" for its work on behalf of hospitals in England's southern region.

Budapest conference speakers addressed these challenges to patient safety: drug counterfeiting; ineffective and difficult product recalls; medication errors; and lack of inventory visibility. The final statement said: "It's time to reconsider how we work and shift to integrated and patient-centric care, where technology supports doctors and nurses in their everyday work. GS1 standards play a key role and make it possible to exchange unique product identification data across the entire healthcare supply chain. It is these standards that enable end-to-end visibility, no matter where or when a patient receives care."

* HUG members include pharmaceutical and medical devices manufacturers, wholesalers and distributors, group purchasing organisations, hospitals, pharmacies, logistics providers, governmental and regulatory bodies, and trade associations.

Standards adoption gains momentum

GS1 New Zealand: Gary Hartley – General Manager, Customer

GS1 standards are being adopted by healthcare systems overseas with increasing momentum as health authorities and industry members strive to improve patient safety and contain expenditure.

Over the past 10 years, GS1 Healthcare User Groups* – now totaling 37 groups worldwide – have created GS1 standards for virtually every requirement in healthcare supply chains. Of particular importance are Standards for the addition of serial numbers for unique identification of every packet (or blister pack) of a medicine, and for the automatic capture of that data using a GS1 DataMatrix Barcode.

The tools are now available and increasingly in use. Major current initiatives include:

- European Union members are moving to EU-wide harmonisation in requirements to use GS1 standards for identifying and describing pharmaceutical products in healthcare supply chains (only Italy and Portugal still also require use of national identifiers).

GS1 Data Matrix Data Carrier

(01) 08699546010011 — Product Identifier (GTIN)
(21) 583053774154 — Serial Number
(17) 151228 — Expiry Date
(10) TRT08E3 — Batch/Lot Number

- The EU Commission's draft law to guard against falsified medicines will require manufacturers to label each packet with a GTIN, serial number, batch number, expiry date and a national reimbursement number (where relevant). These numbers are to be encoded in a GS1 DataMatrix for use in mandatory verification before the medicine is dispensed to a patient. Medicines at higher falsification risk will be verified also at wholesaler level.

- In England, the so-called Carter Report on productivity in the National Health Service (NHS) has, this year, estimated huge savings by NHS hospitals from the system-wide implementation of GS1 Standards, including in product purchasing catalogues.

- In the United States, the Federal Drug Administration is now requiring globally unique identification for every medical device, with barcoding on the labels or packages of these and with standardised data submitted into a Global UDI Database (Unique Device Identification).

- The World Health Organisation is asking for GTINs, lot numbers and expiry dates, along with GS1 Standard barcodes, to be placed on vaccines that are submitted for selection in World Health Organisation public immunisation programmes in various countries.

Medicines List link to GTINs

NZULM: David Mitchell – Project Leader

The New Zealand Universal List of Medicines (NZULM) will be linked to pharmaceutical product GTINs so that patient safety can be enhanced through new systems for verifying medicines when they are being dispensed and administered.

We are now working to bring GTINs into the NZULM so they can be used in clinical systems for medicines management, administration and dispensing as and when required. Clinical systems need such linkage to the logistical world for electronic verification of medicines and also for improved management of medicines inventories.

The NZULM is New Zealand's constantly-updated, central information resource for clinicians. The information is drawn from the New Zealand Medicines Terminology – a database of standardised clinical descriptions of medicines – and from Medsafe and PHARMAC. GTINs will be imported to the NZULM from the DHB National Catalogue.

We are engaged with a small number of pharmaceutical suppliers on a pilot project to map product GTINs onto listings in the NZULM – and this work includes adding new listings where gaps are identified. NZULM management will, in time, have a supplier on-boarding process which brings each to a point where they are ready to have their GTINs and other relevant product data made available to the NZULM. Once they have "gone live", their data will be updated for NZULM users as it is also updated in the DHB National Catalogue.

Future thinking on the Health system

THE ROLE OF INFORMATION STANDARDS AMID COMPLEXITY

Chai Chuah, Director-General of Health, is leading an update of New Zealand's Health Strategy which will provide a clear view of the nation's health system for the next 10 years*. Chai gives SCAN an insight into the update's big themes – and into his thinking on the role of standards as the health system makes increasing use of information to maintain and improve the health of New Zealanders.

Chai became Director-General and Chief Executive of the Ministry of Health in November 2013. He has 25 years' experience in health sector management, including eight years as Chief Executive of the Hutt Valley District Health Board. His many leading roles have included chairing the DHBs' Information Group and the National Steering Committee for Quality Improvement Committee programmes. Chai holds a commerce degree from the University of Canterbury.

Q The Ministry is running sector-wide consultation on the future of our health system. What are the themes uppermost in your mind for this update?

It is really hard to predict the future and anyone doing so usually gets it wrong. But there are signals and patterns today that we can pay attention to. Our challenge is to look at these – and to make sure we're not caught out in future and left being only able to react as reality changes around us.

Some things we do know. For example, New Zealand's population will continue to grow and probably much faster than in the past. The Auckland City Council is forecasting its population to grow from 1.5 million today to around 2 million within 15 years, with external migration playing a big part. There are huge implications in all this for the health and wellbeing of people in this country. New New Zealanders will come from different cultures, have different expectations and different ways of living … all of that is something we need to be cognisant of when thinking about the health system of the future. We need to think about the impact on the social sector as well … issues in housing, transport, the environment and so on. These are all important for New Zealanders' future health. Paying attention to them now will make our job a lot easier than sticking with just the traditional focus on healthcare services.

Another of the patterns we need to watch is younger generations' ease of access to information and, along with this, a greater interest in managing their health, inside and outside traditional service models. If they have some sort of illness or condition, younger people are likely to take a bigger role than past generations in determining how, when and by whom they receive treatment. Of course we all have information more readily in our hands today … all of this signals a big shift

towards partnership in the relationship between users of health services and healthcare professionals. Over time, that partnership is likely to be strengthened. This brings many challenges for the health system in terms of how services are delivered, how facilities are set up, how staff are trained and so on.

The other big patterns to watch come from rapid changes in technology – and their influence on personalised medicine, digital medicine and more. Technology uptake is obviously accelerating when you consider that it took 75 years for the telephone to reach 50 million users, 13 years for television to do the same and three years for the Internet. Now it is taking 35 days or less for a smartphone app to reach its first 50 million users! What's interesting to us is the advent of health apps on smartphones and other devices. Can we imagine what take-up of these will do to the power of users when the number and range of health apps really starts exploding … when people en mass get interested and start asking questions related to their own health?

The changes also include nano technologies that drastically reduce the size of materials. It won't be too long before we have things like nano fibres that have the capacity, for example, to revolutionise the clunky exoskeletal robotics being used these days to help paralysed people take a few steps. Nano technologies could actually make the use of robotics as easy as putting on a suit. That will potentially make huge differences to the mobility of the elderly and people with disabilities.

Then there's the whole area of personalised medicine based on technologies for mapping the genome of the individual. Think of how we can reduce human vulnerability to disease by understanding those things. Knowing about people at a molecular level is going to give health professionals and consumers a much better understanding of what to do in terms of treatments, and also of diet and lifestyle, much earlier. We will be able to anticipate and then

* Find the New Zealand Health Strategy at www.health.govt.nz/about-ministry

> *It's not inconceivable that, in the near future, all the clinical measurement data that was traditionally the domain of intensive care units will become available through the wearing of a smart device throughout the day …*

moderate some of the things that cause chronic health conditions and disability. We're starting to see some of these things coming into practice now internationally, and we certainly know that knowledge and technology up-take is accelerating. So in looking at the New Zealand Health Strategy, we need to be looking at all these different patterns and to be asking ourselves, "how do we pro-actively create the future as opposed to just responding to all the changes as they arrive?"

We're proposing five themes for strategic action across the health system. The first is about empowering people with information for greater self-management of health condition. The second theme is called "closer to home" … getting the right services to people in the right locations, and increasing the focus on disease prevention and early intervention. The third theme is about having a high value/ high performing system and that leads to the fourth … health professionals and agencies working as one team. The fifth theme puts a focus on smart systems for using information and knowledge to improve healthcare.

Q What importance do you place on smart systems in particular when it comes to building the health system of the future?

This theme comes largely out of the rapid change that's occurring in technology … and its capacity for making healthcare interventions earlier, smaller and more affordable. 'Earlier' means, for example, putting more focus on children and on pregnant mothers. Earlier can also mean looking at illness more at a molecular level … and it also means working more on accident prevention and health promotion. These are all areas that are enabled by technology. With developments in nano technology - the 'smaller' dimension

– we can see everything becoming smaller and therefore much more portable. Over time they will also become more affordable, not just at the individual level but also at the systems level. We are looking at New Zealand's current infrastructure for healthcare and, like all the other countries, we see the current investment and its smarts heavily in and around hospitals. We still continue to invest in smart systems in hospitals such as robotic surgery. But increasingly, we need to also look at smart technologies and smart ways of doing things outside hospitals … in peoples' homes, in primary care facilities and so on.

It's a focus on information technology but also on smart buildings and infrastructure that support our way of living. Developments in smart housing are a good example, especially as the population ages. We need to think more about how we design houses, which materials are being used, and whether sensors and robotics can be embedded in them. In our smart systems theme, the potential is very broad … it is limited only by our imagination.

Q You have mentioned the health system doing more to empower people. How specifically do you see technology enabling us to do more self-management of our health?

There are a number of ways at looking at this. We work from the premise that, increasingly, individuals will take greater interest in their health and well-being, particularly once they have had their first encounter with ill health. One aspect of that, for example, can be an online knowledge-sharing network … 'Patients Like Me' is an example that I am personally familiar with. At last count, this network had half a million members worldwide. You sign up to Patients Like Me and enter

your characteristics. The smarts in the network then find a whole bunch of other people who have a similar condition and profile. You are then able to communicate with those people and share experiences. It is actually a push-and-pull network where you get messages to advise that someone might have a new insight or approach of particular interest to you. The network starts to create virtual communities. Of course, these exist now to a larger or smaller extent … Diabetes New Zealand and the Cancer Society have, for example, set up great networks in New Zealand. The smart system element we're starting to see now is in the use of social media to create virtual networks that are global.

There is another strand in self-management with the development of wearable apps. These started with basic things like pedometers for measuring how may steps you take and heart-beat monitors. It's not inconceivable that, in the near future, all the clinical measurement data that was traditionally the domain of intensive care units will become available through the wearing of a smart device throughout the day … and that device won't even be intrusive. It will potentially communicate over your smartphone to a healthcare provider and advise that, 'everything is normal today but for this one variable that is out of kilter with your previous norm'. You might receive a little text to do with that measurement. All of this comes back to giving the individual more information, more readily – and to the potential for each to pay more real-time attention to changes that are occurring in their body. More options in how we care for ourselves. For those who are much more interested in these things, it is conceivable that, even in the near term, they will have big data at their fingertips as a basis for going to a healthcare professional and asking,

'have a look at this, what do you think is happening?' There are many possibilities starting to emerge.

Q Do you see people actively monitoring themselves at home and work?

Yes and this can apply within families … for example, in a situation where adults live far away from elderly parents who have health issues. An elderly person could be wearing a device that monitors their condition and sends signals to family members via their smartphones. I can get a reading on your heart rate or whatever and if there's an irregularity, I can quickly be in touch with you or your doctor. Again we see options being opened up. But the technology needs to come with change in the mindsets of both consumers and healthcare professionals. It is all about how we own the technology and decide to use it.

Q Much of this comes down to how information about peoples' health can be captured and shared. What is the role for information standards in the design and operation of smart systems?

Standards in general are a very interesting issue … we need to stand back and ask some questions. I don't have the answers but I do have some scenarios to put up. Standards are used for standardising things, procedures, devices, information and so on. But in certain settings –

and particularly when you move into the realms of personalised medicine, and of nano technology and individualisation – you have ask: 'where do standards take us when you think about all the different ways of people accessing healthcare?' It presents some challenges when we think about developing and applying standards.

When you look at pharmaceuticals, standards are used to determine thresholds – what levels are acceptable and safe for use and so on. But where does that standard go when you are starting to design personalised medication for individuals based on the person's genomics? There are many interesting questions – and they require standards setting organisations, policy makers and regulators to think, 'so what do we have to change in terms of our processes to ensure they're not creating barriers that stop good things happening?' All the mainstream organisations tend to look at what is safe, what is sanitised and so on … and these are concerns that can slow down positive developments and prevent the adoption of new technologies. It's really important that people think about standardisation in a world where technology is moving at a really fast rate.

Q Are data standards for commonly-understood identification of a particular symptom, drug or whatever not key enablers for many of the things you are talking about?

Yes that is true up to a point. I would suggest we need a paradigm shift beyond that approach if we really are going to move into a future where things are highly personalised – a future where it will be increasingly difficult to talk about the standard human being. There is actually no standard human being! So there are all sorts of interesting challenges about how we personalise things related to human health.

When we think about all the problems and challenges to be confronted, we need to think about how they are categorised. Some problems are simple … we understand the causes and what has triggered a particular event. We also know what it is we must do to fix the problem. The fix works each time, it's repeatable and predictable. In the simple problem domain, absolute standardisation is the way to go. You use standards and 'best practices' to solving simple problems.

But then we move into a different domain where problems are much more complicated – there are many causes although they can be known. Outcomes can still be predicted but because there are so many of them, you need to take a different approach which we can call 'good practice'. Good practice still lends itself to standardisation but the standards applicable for good practice need to be different than those used for best practice.

Increasingly, the problems we face in modern society are not simple or even complicated – they're complex. With problems in the complex domain, cause and effect cannot be known except in hindsight. Even then, cause and effect linkages are not necessarily repeatable. With these problems, it can be very dangerous to try and standardise one practice because even when you find an answer, it might not be repeatable when a similar problem arises.

So, when you think of standards, you need to think about where and how they should be applied. In the modern context of complexity and personalisation, the role of standards needs to be really thought about.

Q Are there examples readily available of where standards might be dangerous in healthcare?

If we look at a healthcare setting where people are being managed for chronic conditions, those conditions are in the
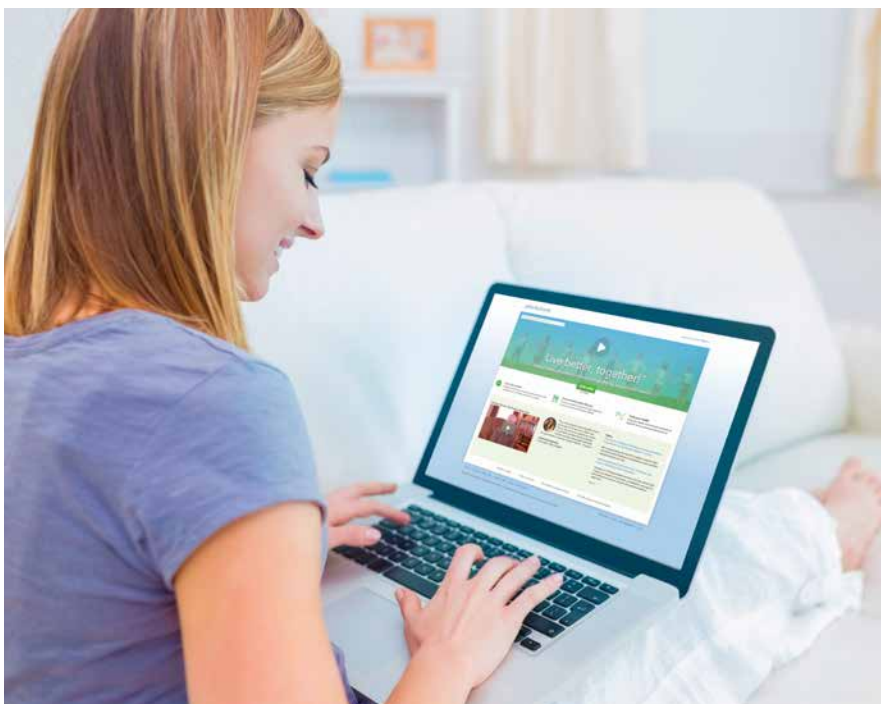
The "go to" on **healthcare sector data**

Healthcare providers increasingly demand accurate, standardised data on the products they buy. This enables greater administrative efficiency and better healthcare outcomes for patients. Innovit has become the "go to" on master data management solutions for healthcare providers and their supply network locally or globally.

Innovit is a world leader in software and expertise for master data management and global data synchronisation (GDSN) based on GS1 standards for product identification and for data capture and sharing. In New Zealand, Innovit's globally certified GDSN products have helped companies such as 3M, Johnson & Johnson, Thermofisher, BBraun to interact with local GS1 data pools such as the DHB National Catalogue of products for procurement by District Health Boards – one of many such programs for data management and synchronisation being adopted in healthcare across the world.

e-Health initiatives are already active in the US and the United Kingdom. The Federal Drug Administration and the National Health Service Trusts, respectively, are now requiring suppliers of medicines, devices and consumables to create electronic catalogues using GS1 standards. Since 2006, Innovit has worked on more than 100 projects around Australia's National Product Catalogue – NPC (formerly GS1net).

As a GS1 Business Partner in New Zealand, Innovit was delighted to support September's meeting of the GS1 Healthcare User Group Australasia (New Zealand chapter). This forum was used to brief NZ companies about the adoption of these global program. Innovit as a global solution provider and sponsor of this event was there to provide GS1-Certified tools and expertise to guide healthcare companies in preparation for these e-Health initiatives.

For more information, Robert Durrant 61 2 8020 2000 or email robert.durrant@innovit.com

complex problem category … diabetes, heart disease and so on. There's lots of information we must gather on each person with a chronic condition and we need to be very careful about how we standardise that information. The traditional medical approach does work for the standard profile patient. But it mightn't for people on either side of the profile who are not standard … that's the challenge when confronting complex issues.

If we start with a standardised approach every time, the patient who does not fit the standard definition in terms of their life stage, symptoms and so on may well be ignored. When we recognise the complexity of problems, we see big groups of people on either side of any standard profile. There really need to be different approaches to sorting different types of health problem … and an understanding that what is safe for one person might not be safe for another.

Q Can we still make a lot of ground, though, by applying standards to help people?

In the simple and complicated settings, yes we can. Over time, as we will come to understand a lot more about complex issues, through research in the field for example … and that means more challenges and problems can be shifted from the complex to the complicated domains where they can be addressed more readily with standards-based processes. There's an evolution going on and judgements need to be made.

Q There are various health system initiatives going on today for greater use of data standards and information

technology to address problems (e-medicine catalogues, point-of-administration drug verification are examples). Are these taking us into the future you foresee?

They are in the right direction. We just need to actually look at them and ask, 'are they solving complicated problems or they aimed at complex problems?' That is a good question to ask. If they are helping us to solve complicated problems, then absolutely do more! But if we are trying to use those approaches to solve complex problems, maybe we need to re-think what we are doing.

Q The Ministry's documents talk about the health system being 'wrapped around peoples' lives' which suggests complexity is being recognised.

Yes and the Health Strategy review is pushing that perspective. The system needs to give recognition to the complexity we're facing, and that includes

All the mainstream organisations tend to look at what is safe, … and these are concerns that can slow down positive developments and prevent the adoption of new technologies.

all the social and cultural variables that are increasingly relevant to peoples' health. Thirty or 40 years ago, those variables may have existed but they moved very slowly. Today they move very fast – and there are also new variables coming up all the time, including new science and technology.

Over time, if we come to understand more about complex issues, and we can shift some of the complex challenges into the complicated domain. There's an evolution occurring. For example, we know a lot more today about the composition of food at the molecular level and that's changing how some medicines are prescribed and taken. If we break down a chronic condition, there may be some simple problems that can we can solve … and maybe also some complicated things to which standard approaches can be applied.

It all comes back to the individual and variables impacting on their health in particular. The things that cause chronic conditions are related to our environment and our genetic disposition and other things that are molecular. In some ways this is still a new field now being opened up. For example, new cancer drugs for melanoma are highly personalised and before you are given them, the clinician will test for proteins in your blood stream. If you have the right protein, that drug will have close to 95% success rate.

Q Do you have any particular requests when it comes to standards setting that will benefit healthcare?

Standards-setting organisations like GS1 need to understand where standards fit with each of the problem domains – simple, complicated and complex – and not try to adopt the same solutions for all three if, in fact, they are doing so. I think it is worthwhile for them to think more about their approach.

We're talking about a 10 year horizon for the health system – and there's no question that things will move towards a much more personalised approach, with much earlier and much smaller healthcare interventions and treatments. Organisations who support the health system need to look at their processes and ensure they're not creating barriers to progress. If they do look closely at what they're doing and adapt their approaches, they can be enablers for making many positive things happen much faster.

Blockchain to change the Internet?

What does the Internet have in store for us next? No-one can be sure but the answer may have something to do with "Blockchain" technology – and perhaps with the much greater use of global data standards.

Some pundits say the Internet will remain a great network for information sharing and for human communication, but also become a mechanism for highly-secure exchanges of value and for automated command of virtually everything we use in our working or personal lives. Such developments will encompass the now-familiar Internet of Things concept (IoT)* – the digital linking of physical objects for monitoring and interactive purposes – and more importantly, the global take-up of the Blockchain protocol. Blockchain, some say, is the biggest thing to happen to the Internet since Hypertext Transfer Protocol (HTTP) was launched in 1989.

What is Blockchain?

This protocol creates digital ledgers of transactions – each transaction is recorded in time sequence, and as a unique event on which the details cannot be falsified or subsequently altered by the parties to the transaction or by any others. Blockchain works by automatically encrypting key information about each transaction so it requires no verification by third parties. Proof of authenticity on every aspect of the transaction becomes integral to that transaction's very occurrence in the digital world.

Further, the ever-growing ledger of transactions is shared simultaneously across every Internet node involved in creating that particular Blockchain. The latter can exist, and be constantly updated, on thousands or millions of computers. It does require, of course, intensive computation as new blocks are created and distributed across the network. (There is another layer of encryption to solve memory constraint issues on individual computers.)

New blocks are "mined" from a store of potential blocks that exists also across the network. Its distributed form makes any Blockchain virtually impossible to hack – and this becomes even more the case as a Blockchain becomes longer. As noted, no third party with a central (and perhaps hack-able) node is required to create and maintain a Blockchain.

Bitcoin and more

Cryptocurrencies are the first mass use of the Blockchain protocol. Since its launch in 2008, Bitcoin has been the highest profile cryptocurrency – and the most controversial because of its association with the so-called "Dark Web" and with trading platforms for illicit goods like "Silk Road". Parties in a Bitcoin transaction need no bank or other intermediary. Blockchain gives them a peer-to-peer electronic cash system with no need for a trusted third party (who, in many countries, might not be trustworthy.) Indeed, the essence of BitCoin is that verified transactions can occur between anonymous parties without anybody needing to be trusted. Cryptocurrencies will likely play out in many new forms of enterprise, some with big implications for economic management.

Blockchain itself has much wider potential, not least in connection with the IoT. The protocol promises to contribute the special qualities of self-authentication and of security that are required for millions of transactions to occur between networked objects. Exchanges of value need not, after all, be confined to human interactions.

> *Blockchain gives parties to a transaction a peer-to-peer electronic cash system with no need for a trusted third party.*

* The IoT has been evolving since 1999. Gartner Group predicts 26 billion devices will have Internet connection by 2026.

New food claims standard

The new standard for health and nutrition claims in food labelling comes into force in January – and GS1 New Zealand is ready to support any food manufacturer who still needs to make changes in their product packaging for compliance.

IBM and Samsung have this year revealed a system that uses Blockchain on top of file sharing, contracting and messaging protocols for the networking of devices at low cost. Their ADEPT system – Autonomous DEcentralised Peer-to-Peer Telemetry – is technology for enabling home appliances to maintain themselves through automatic communication with suppliers and other devices for software upgrades, for electricity efficiency and so on. For example, a Samsung W9000 washing machine equipped with ADEPT orders new detergent from a retailer and pays automatically once this has arrived, then sends a report to the machine owner's smartphone. For more on the ADEPT proof of concept, see www.scribd.com/doc/252917347

Trust and value exchange

So far the Internet has exploded peoples' access to information and given a stronger voice to millions. But it gives no real assurance on the veracity of information or on the source of voices. Blockchain is technology for adding attribution to information and voices, and thereby creating trust in content and value in exchanges without costly, perhaps risky, intermediation. GS1 Standards for globally unique identification of things, places and trading entities, and for data capture and sharing, do much the same in the physical world – add certainty and trust to information and trade.

As ever with the Internet, no-one can predict with any certainly how Blockchain and global data standards will work together in future. The GS1 Innovation Network (see comment from the GS1 Chairman, page 3) certainly is looking into Blockchain to explore if, and how, developments like the EPCIS network could leverage this potentially exciting technology.

Standard 1.2.7 on Nutrition, Health and Related Claims applies to voluntary statements made by food businesses about the nutrition content of their products and/or about food-health relationships. The standard comes into force on 18 January 2016, after a three-year transition period since adoption by trans-Tasman regulator Food Standards Australia New Zealand (FSANZ) in 2013.

New Zealand Food and Grocery Council Chief Executive Katherine Rich says her members are well prepared for full commencement of Standard 1.2.7 and no significant issues are foreseen around the 18 January start date.

The new standard could, in some cases, prompt changes in label design and packaging. Even if these do not require allocation of a new GTIN (Global Trade Item Number) to the product concerned, changes should prompt a new barcode verification test and new photographs for supply to trading partners. GS1 supports members in the food sector (and other sectors) with GTIN allocation, with barcode verification on changed or new packaging, and with product images for electronic catalogues that are increasingly used in supply chain management and marketing.

Standard 1.2.7 is intended to reduce the risk of misleading and deceptive claims about food, while expanding the range of permitted health claims. Broadly it is also aimed at encouraging industry to innovate and provide consumers with a wider range of healthy food choices. The new standard has two parts:

- **Nutrition content claims** which refer to the content of certain nutrients or substances in a food, such as 'low in fat' or 'good source of calcium'. These claims need to meet certain criteria set out in the standard. For example, with a 'good source of calcium' claim, the food will need to contain more than the amount of calcium specified in the standard.

- **Health claims** which refer to a relationship between a food and human health. There are two types of health claims:

  – General level health claims about a nutrient or substance in a food and its effect on a health function. These claims must not refer to a serious disease or to a biomarker of a serious disease. Food businesses wanting to make general level health claims are able to base their claims on one of more than 200 pre-approved food-health relationships or self-substantiate a food-health relationship in accordance with detailed requirements in the standard.

  – High level health claims about a nutrient or substance in a food and its relationship to a serious disease or to a biomarker of a serious disease. These claims must be based on a food-health relationship pre-approved by FSANZ. There are currently 13 pre-approved food-health relationships for high level health claims listed in the standard. A permissible example would be, 'diets high in calcium may reduce the risk of osteoporosis in people 65 years and over'. A biomarker health claim would be, 'phytosterols may reduce blood cholesterol'.

For information on Standard 1.2.7 see www.foodstandards.govt. nz/consumer/labelling

For GS1 New Zealand support see www.gs1nz.org/services/ or call 0800 10 23 56

Kiwiana at your fingertips

New Zealanders are great at design using traditional images in new and visually-exciting ways, according to Hamilton businessman Mike Dephoff. "We've got to be among the best in the world in terms of creating something new with iconic national symbols. In most countries you see the same old imagery and trinkets decade after decade," he says.

Mike and wife Rachel – specialists in tourist retailing – have turned their conviction into a business that produces and markets "nail art" for foreign visitors and for Kiwis traveling abroad.

Nail art is imagery printed on adhesive, fingernail strips for personal adornment and fun – and in this case, for association with New Zealand. Mike and Rachel have called the business Great Day New Zealand. They want to put a great piece of Kiwiana at peoples' fingertips any day they're in the mood!

The first three products from Great Day New Zealand are nail strips in striking black, vibrant pink and fresh green with accents of kiwis and silver ferns. They are sold in packs of 12 strips, along with a disposable nail file for ease of application.

Mike previously managed a business producing distinctive Kiwi biscuits for sale to tourists and more recently, he and Rachel went looking for a new product line in the same, growing market. "Many hours of research were spent identifying products that were trending in markets that are key to our tourism sector, and which were not available here in a suitable format or design for our retail partners to present as a souvenir" he says.

Rachel and Mike, who are experienced travelers themselves, came up with the idea of combining nail strips with Kiwi design flair. They use an offshore manufacturer for production but, of course, local designs for the imagery for product, packaging and point-of-sale display material. Great Day New Zealand has ensured each 12-strip packet has a GS1 barcode for ease of retail in tourist and Kiwiana shops.

"Many tourists, particularly from Asia, really want to feel involved in the place they're visiting … nail art is just a great fun product for doing that" says Rachel. "It is also small and flat, and therefore easily taken home as a souvenir or gift. We're also finding a demand from Kiwis living overseas who want to show off their Kiwi pride."

For more information see www.greatday.co.nz

NEW GS1 STAFF

Nick Allison

Nick is GS1 New Zealand's new General Manager, Government. He works with Government agencies to support their adoption of GS1 standards for identification, traceability and electronic data interchange (EDI). Nick was until recently Principal Economist at the New Zealand Institute of Economic Research. Previously he has held leadership roles at the Ministry of Economic Development, Foundation for Research, Science & Technology, Transfund and Ernst & Young. Nick is a graduate of both the University of Canterbury, with an MSc(Hons) in resource management and a BA in economics, and of Lincoln University (Diploma of Horticulture).

Georgina Randall

Georgina is the new Product Services and Engagement Lead with responsibility for growing GS1 New Zealand's portfolio of services including Smart Media, Product Flow and Product Photography. Georgina brings to her role wide experience in the FMCG, DIY/building supplies, retail, motoring and healthcare sectors. She has also run her own company establishing contact centres for New Zealand-based companies including The Shopping Channel and HRV. Georgina holds a BA(Hons) degree in journalism.

New *Board Member*

Ruth Brash

The uses for standardised product master data continue to grow and the building supplies/hardware sector could gain huge value from faster adoption of relevant elements of the GS1 System so says Ruth Brash, General Manager, Merchandise, at Placemakers.

As a new GS1 New Zealand Board member, Ruth wants to see more companies in her sector really understand how useful standardised data, and GS1 Standards generally, can be to them.

"We're getting increasingly sophisticated with e-commerce, with the tracking and tracing of products, and with the exact identification of what is needed for building construction – and that all requires companies to have high-quality data and low-cost means of applying it in many different ways, usually in co-operation with others," says Ruth.

"We need to get everyone operating with accurate product master data and able to secure the advantages from using this to meet current and emerging business requirements," she says. "The Christchurch rebuild is showing, for instance, just how important it is to have data on the authenticity and reliability of particular building materials."

Ruth has 13 years' sector experience, in various roles within Fletcher Building. In 2005, she managed the roll-out of barcodes and scanning on steel products held for distribution and sale at the Auckland warehouse of Fletcher's Easysteel business. "It was my first big exposure to the GS1 System for supply chain management and our project made an immense difference to customer service from that location," she says.

Ruth came into Fletcher Building (including two and a half years in her current role at Placemakers) after supply chain roles with clothing group Pacific Brands and with Levenes, the iconic New Zealand homeware and furniture chain of the 1980s and 90s. She joined Levenes after graduating from the University of Auckland with BA and BCom degrees in political science and economics respectively.

NEW GS1 STAFF

Catherine Chang

Catherine has joined GS1 New Zealand as Marketing Assistant, with responsibility for seminars, trade shows, industry events and various other marketing activities. Catherine emigrated from China in her teenage years and graduated from the University of Canterbury with a Bachelor of Commerce (with endorsement in marketing) before completing a Graduate Diploma in early childhood education at Victoria University. She previously worked for a property management company as well as a non-profit organisation. Most recently, Catherine has been in administrative roles at the Ministry of Education.

James Macdonald

James is an Implementation Analyst based in Auckland. James graduated from the University of Canterbury in 2013 with a commerce degree majoring in both International business and finance. Before joining GS1 New Zealand, he spent two years at the retail and lending front of the banking sector, working for BNZ in both Wellington and Auckland.

Julian Terris

Julian is a Service Support Analyst and he is first point of contact for members calling the GS1 New Zealand Help Desk. Julian brings to the role significant experience in IT, including three years as a helpdesk analyst and a contractor in systems administration and systems analysis. He has also studied IT formally to learn personal computer programming and analysis, multimedia production, and systems technology/network engineering.

Maju Nair

Maju is a Implementation Specialist based in Auckland. His main areas of work are data synchronisation and supply chain enhancement using GS1 standards and solutions. Maju was previously with Foodstuffs North Island in the buying and distribution areas. Earlier he was employed by Citibank's Indian subsidiary as part of a team that worked from conception to launch on their highly successful e-business platform and other projects. Maju has a degree in engineering, an MBA focused on marketing and systems management, and a post graduate diploma in management systems.

New members/rights to use holders April – October, Welcome!

New Members

A1 Industries Limited
AAM Limited
Acme Cupco Limited
Active Healthcare (NZ) Limited
Agape Element Limited
Almighty Beverages Limited
Alto Colourview Limited
Apollo Apples (2014) Limited
Aroa Biosurgery Limited
Ashby's Butchery (2014) Limited
Auckland District Health Board
Auckland Mobility Devices Limited
Averest Foods Limited
Aztec NZ Limited
Baby Corp (Xuzhou) Trade Co., Limited
Baked Limited
Barton Holdings Limited
Beecom (NZ) Limited
Berries Direct Limited
Better Choice Food Manufacturing Limited
Bigpop Music Publishing Limited
Biobalance Limited
Blue Building Solutions Limited
Burger Fuel International Limited
Butterfly Effect Brewing Company Limited
C & R Packers (1996) Limited
Cadenshae Limited
Candylab Limited
Cardrona Distillery Limited
Carpenters Waters (Fiji) Limited
Carrick No 1 Limited
Caythorpe Farm Limited
Central Thread Limited
Change To Green Limited
Chapajac Wines Limited
CHH Design
Chocit Limited
Chocolate Brown (2015) Limited
Chocolate Graphics Pacific Limited
Choice Fruit Products Limited
Church Road Industries Limited
City Produce Limited
Classique Plastics Limited
Clearview Services Limited
Coco's Coconut Trading Limited
Coconut Culture Limited
Cogel Enterprises Limited
Concept Brewing Limited
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Confitex Limited
Construct Brands Limited
Crack In2it Limited
Crasborn Fresh Harvest Limited
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Company Limited
D J Morton & R C Dillimore
Daily Organics Limited
Darosira Company Limited
Davies & Budd Cleaning Limited
Deadly Ponies (2010) Limited
Design Spun(2013) Limited
Destination Sinton Limited
Dri-Phone NZ Limited
DRM Solutions Limited
Dry Cuffs Limited
E.S.Plastics Limited
East Coast Origin Limited
Eco Ariel Limited
Ecobeings Limited
Edgewell Personal Care New Zealand ULC
Edwards Lifesciences (New Zealand) Limited
Egmont Honey Limited
Electrical Products & Innovative Conduct Components
Elevator Group Incorporated
Ellmers Holdings Limited
Ethique Limited
Europac Limited
EZE Distributors Limited
Ezi Health Pty Ltd
EZ Tap NZ Limited
Ezy Build Products Limited
Farm Medix Limited
Farmers Market Wine Company Limited
Fend Limited
Fiji Sugar Corporation Ltd
Filecorp NZ Limited
Firstflex Cables Limited
Florae Group Limited
Flower Box
Follywell No 6 Limited
Forbes Packaging Limited
Foundation Foods Limited
Fresh Partners (Pacific) Limited
Freshbake Nelson Limited
Funscreen Limited
GDL Brands Limited
George Weston Foods NZ Ltd
Gina Elizabeth
Gisborne Garagiste Wine Company Limited
Global Adventure Travel Company Limited
Global Agrichem Limited
Global Innovations Limited
Glue Guru Limited
Golden Group Holdings Investment Limited
Golden Wheat Trading Limited
Goldfern Mobility Limited
Good Boy Limited
Good3 Limited
Goodtime Foods Si 2014 Limited

Gourmet Innovations NZ (2014) Limited
Graeme McVicar Limited
Grava Wines Limited
Green Nutrition (NZ) Limited
Greenspring Biotec Limited
Greenways International Limited
Grin Natural Products Limited
Guitar Builders Online
Gumboot Tea Limited
Hannah's Bumble Balm Limited
Harris Meats (Cheviot) Limited
Health Brands Trust
Healthy Goods Limited
Heirloom Woollen Collection Limited
Henkel New Zealand Limited
Highfield Terravin Limited
Holy Smoke Smokehouse Limited
Honeyhoneyco
Hygex NZ 2015 Limited
Hygge Limited
Hygieia New Zealand Limited
Iceman (2015) Limited
ID Digital Media Limited
Il Casaro Limited
Incider Trading Company Limited
Industrial Athletic Limited
Infinity Health Foods Limited
Inkbox Limited
International Nutritionals Limited
Ixom Operations Pty Ltd
J F Group International Limited
James Hardie New Zealand
Jenscart Limited
John Davies & James McDonald
Jual Enterprises Limited
Kahikatoa Red Manuka Limited
Karma Cola Limited
Kevs Pickled Limited
Kia Ora Seafoods
Kiku Gmbh
Kiwicado Exports Limited
Kiwigold Limited
Kokoleka Limited
KS Manufacturing Group Limited
Kylie Clayton & Miae Kang
Lansford Holdings Limited
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LEP Engineering Plastics Limited
Lifespan NZ Limited
Light Source Solutions New Zealand Limited
Limitless Products Limited
Living Goodness Limited
Lohil Industrial Services Limited
Lynx Innovation Limited
Magic Group Limited
Manuka Masters Limited
Mark Ussher
Marpen Trade Limited

Maru Group Limited
Maxhealth NZ Limited
McGregors Trading Group Limited
Mead Johnson Nutrition (Asia Pacific) Pte Ltd
Meals In Steel NZ Limited
Medallion 2010 Limited
Medi'ray New Zealand Limited
Medica Herbal Products Limited
MoreNZ Resources Limited
Mosant Limited
Mount Dunstan Estates Limited
Mr & Mrs Martinez Limited
MMS International Trading Company Limited
Mt Pleasant Memorial Community Centre
Mums Food Supplies Ltd
Mustardmakers (Thames) Limited
My Kiwi Store Limited
Native Tongue Music Publishing Limited
Natural Honey Limited
Neutrizone Limited
New Zeal Cosmetics Limited
New Zealand Beer Limited
New Zealand Ceiling & Drywall Supplies Limited
New Zealand Delight Nutraceuticals Limited
New Zealand Green Health Limited
New Zealand House China Limited
New Zealand Miracle Holding Limited
New Zealand Natural Mineral Water Limited
Newasian Logistics Limited
Newline Group Limited
Nood Trading Limited
Norske Skog Holdings (No.3) Limited
NZ Bees Limited
NZ Gold Health Limited
NZ Made 2013 Limited
NZ Nectar Limited
O'vege Garden Limited
Ocean Seafoods (Opotiki) Limited
OK! Bottling Company Limited
Old Country Food (2015) Limited
Oliva Health Limited
One Love Limited
Onehunga Carpets & Rugs Limited
Online Distribution Limited
Oppenheimer New Zealand Limited
Oravida Waters Limited
Organic Initiative Limited
Oxville Farms Limited
P B Technologies Limited
Pacific Biotech Limited
Pacific Feeds Limited
PackNZ Limited
Paddy's Wholesalers Limited

Parlay Limited
Pasqual Chocolates Limited
PC Revolution Limited
Pegs Unlimited Limited
Perry International Trading Group Limited
Pfizer PFE New Zealand
Pharmacare (New Zealand) Limited
Pharmacy 2000 NZ Limited
PHD Cleanse Limited
Phoenix Medcare Limited
Pimlico Vintners Limited
Pinotmara Partnership
Positively Panama Foods Limited
Premier Business Forms NZ Limited
Quilting Services Limited
Raine Farms Limited
Ransom Wines (1993) Limited
Raw Pawz Limited
Rebelfood Limited
Renovo Technologies Limited
Revolucija Limited
RHB Wines Limited
Ripponvale Limited
RJs Licorice (NZ) Limited
Rocky Knob Brewing Company Limited
Rolf Ken Limited
Roots & Wings Merino Limited
Royalife NZ Limited
S-Kin Limited
Sarby Limited
Schipper's Beer Limited
Screenhug Limited
Sesion Tequila Limited
Shaw NZ Limited
Shoplex Limited
Shuk Engineering Distributors Limited
Siemens Healthcare Limited
Silver Fern Foods Limited
Sinker Lock Limited
SKP Media Limited
Small Batch Edibles Limited
Snowberry New Zealand Limited
Sophie Adele Williamson
Soul Organics Limited
Soviet Springs Limited
Spagalimis Limited
Spring Sheep Dairy NZ Limited Partnership
Springbank Orchard Limited
Springwood Enterprises Limited
Standing Spoon Limited
Super Organic Dairy Company Limited
Susan Collins
Synergy International Trading Company Limited
Tactical Skincare Limited
Tapestry Natural NZ Limited

Target Products 1978 Limited
Tasmandairy Limited
TCL Hunt Limited
Te Matuku Oysters Limited
The Awatere River Wine Company Limited
The Byron Bay Chilli Co Snack Foods Pty Limited
The Caring Card Company Limited
The Fine Wine Delivery Company Limited
The Green Kitchen Limited
The Innovation Company Limited
The Nutmylk Company Limited
The Thomas Family And Friends Wine Company Pty Ltd
Theia Limited
Three Miners Vineyard 2014 Limited
Tiamana Limited
Tingeys Health And Beauty Co Limited
To Love & To Serve Limited
Topp Travelware Limited
Torpedo7 Fitness Limited
Tourism Holdings Limited
Treehouse Ninja's Limited
Trinity Industries Limited
United Products Limited
Universal Sales NZ Limited
Urwin And Company Limited
Vetanda Group Ltd
Viberi New Zealand Limited
Victoria International Company Limited
Vitalabs NZ Limited
Wairarapa Nutraceuticals Limited
Wairere Goat Creamery Limited
Walnuts New Zealand Co-Operative Limited
Washington Group Limited
Waugh Rubber Bands (2015) Limited
Wellington Xiamen Limited
Westervelt Honey Limited
Weta Workshop Limited
Wildness Limited
Winter Developments Limited
World Foods NZ Limited
Yellow Box Brewery Limited
Zaayah Holdings Limited
Zaku Limited
Zero-Cast Limited
Zhijian Ding
Zoono Group Limited

Rights to Use Holders

AFM Group Limited
Cama Products Limited

Questions? Please contact the GS1 New Zealand Team

Vijay Todkar
GS1 Business Development Manager

T 09 820 3782
M 021 711 169
E vijay.todkar@gs1NZ.org

Vijay is based in Auckland and is responsible for assisting members to implement traceability, AIDC (auto scanning) and RFID into their supply chains.

Craig Russell
GS1 New Zealand Territory Manager, South Island & Sector Manager Food & Grocery

T 03 310 8082
M 021 711 070
E craig.russell@gs1NZ.org

Craig is based in Christchurch with responsibility for GS1 relations with members throughout the South Island.

Georgina Randall
GS1 New Zealand Products & Services Engagement Lead

T 09 820 3792
M 027 534 8708
E georgina.randall@gs1nz.org

Georgina is based in Auckland and is responsible for assisting members to implement Smart Media, ProductFlow and Product Photography.

Owen Dance
GS1 New Zealand Quality Services Manager

T 04 494 1064
M 021 577 032
E owen.dance@gs1NZ.org

Owen is based in Wellington with responsibility for managing the verification service, the accreditation programme, certificate course and various projects.

Bev Gough
GS1 New Zealand Membership Services Administrator (aka 'Director of First Impressions')

T 04 494 1050
E bev.gough@gs1NZ.org

Bev is the 'meet and greet' point of contact for members either calling, emailing or visiting our Wellington office.