

# SCAN

ISSUE 49 APRIL 2020

GS1NZ.ORG

## Tackling plastic waste

Interview with Professor Juliet Gerrard,  
Prime Minister's Chief Science Advisor

A BUILDING PRODUCTS  
LIBRARY IDEA

4

WOOD ENGINEERING WITH  
INDUSTRY 4.0

6

#GIVEUPTHEBOTTLE

11

RFID DEVELOPMENTS

13



# HIGH QUALITY, HIGH IMPACT BLANK & COLOUR LABELS



## PEACOCK BROS LABELLING SOLUTIONS

We manufacture labels for transport and logistics, chemical identification, food and beverage products, fresh produce, timber and hardware identification, healthcare products, harsh environment tags for steel, glass and aluminum products, retail shelf self adhesive labels and more including RFID tags and labels.

Peacock Bros can provide your company with the total solution, from hardware and software to consumables and on-site installation.

- ◆ Labels manufactured in New Zealand
- ◆ Direct thermal & Thermal transfer labels
- ◆ Courier & Shipping labels
- ◆ High quality colour product labels
- ◆ Thermal transfer printer ribbon
- ◆ A4 laser labels



COLOUR LABEL PRINTERS  
&  
THERMAL LABEL PRINTERS



MOBILE DATA CAPTURE  
&  
BARCODE SCANNING



LABEL PRINTER SERVICING  
&  
HARDWARE INSTALLATION

Contact us today to discuss your needs:  
**(09) 273 4455**  
email: [sales@peacocks.co.nz](mailto:sales@peacocks.co.nz)  
[www.peacocks.co.nz](http://www.peacocks.co.nz)



**Peacock Bros. NZ Ltd**  
Label & Data Capture Systems



## Complex problems require the right information

As the COVID-19 pandemic reminds us, complex problems require complex solutions – and those solutions inevitably require as much relevant information as possible, in the right hands and at the right times.

To beat the virus, governments, businesses and individuals require constantly updated data on where and how it has spread, and on the people next at risk. Only then can the best responses be designed and actioned.

In fact, reliance on data and on its use for analysing biological, physical or social phenomena are critical components in any process for solving complex problems. The latter can arise from disease outbreak but equally, from the environmental impact of human activities or the quest for greater efficiency in the use of natural resources. Problems that threaten us or impede social and economic progress can be found in just about every area of life.

Once confronted, problems become questions which demand new information and new data. Solutions, of course, require design, calculation and reasoning (perhaps also intuition) that draw on such information and data – and ultimately, solutions take the form of new drugs, changes in social behaviour, new manufacturing processes and so on.

Clearly, GS1 concepts, standards and services exist to make the gathering, sharing and analysis of data easier, more efficient and more productive. Anyone seeking answers and designing solutions really needs to identify with meaning, clarity and consistency objects, places and entities of particular relevance. GS1's globally unique identifiers (GTINs etc) and the related concept of serialisation are fundamental building blocks for all data standardisation, for automatic data capture, for synchronised storage and

sharing of information, and for digital inter-operability between machines and between organisations. All these GS1 concepts, standards and services can have huge value in problem solving.

New Zealand's solution for managing – and hopefully eliminating – Covid-19 includes keeping certain essential businesses in operation while putting all others into “lockdown”. In this context, GS1's ProductFlow is certainly among services deemed essential to sustaining the nation's delivery, distribution and sale of food and other key consumer goods.

Beyond this, I cannot say exactly how the GS1 system is being used in the fight against Covid-19, except to note that our identifiers, barcodes and synchronisation of product master data are increasingly embedded in healthcare systems worldwide for improved patient safety and greater medical supply chain efficiency.

I can say with confidence that the value of GS1 concepts, standards and services are increasingly recognised in design of complex solutions to many of our other problems. As Chief Science Advisor Juliet Gerrard confirms, standardised data will be an important part in any national strategy for tackling New Zealand's plastic waste problem – a strategy that will require changes in social behaviour as well as new recycling systems across the economy. My thanks to Prof. Gerrard for her interview in this SCAN.

In the building sector, there is growing recognition that gathering and sharing the right data on products will help overcome complex problems of building

cost and durability, along with workforce health and safety. This SCAN reports on the latest moves towards a digital library on building products.

Meantime, New Zealand's business innovators continue making productive use of various GS1 tools. Wood Engineering Technology is an excellent example with its solution to the under-use of timber harvested from plantation forests. SCAN reports on this company's use of digital technologies, including data standards, in a new wood lamination process that could revolutionise the economics of forestry, and perhaps timber building, here and internationally.

This issue spotlights other innovative young companies which we are also proud to have as GS1 members. Why do business innovation and smart use of our concepts, standards and services so often go hand-in-hand? Because people who are great at designing solutions to problems – easy access to genuinely healthy food is one example – also get the value of having the right data in the right places, at the right times.

Keep problem solving and innovating New Zealand! And stay safe and healthy as we unite to beat Covid-19.

Kia kaha.



Dr Peter Stevens  
Chief Executive

### GS1 New Zealand

PO Box 11 110

Wellington

+64 4 494 1050

0800 10 23 56

+64 4 494 1051

info@gs1nz.org

SCAN magazine is produced twice yearly for the benefit of GS1 New Zealand members. It has a circulation of approximately 6,000 readers throughout the country as well as 114 GS1 member organisations worldwide.

SCAN reaches decision-makers in a wide range of industry sectors including grocery, FMCG, healthcare, logistics, manufacturing, retailing, wholesaling, transport and government. Our readership includes chief executives, sales and marketing managers, account managers, brand and product managers, IT personnel, operations managers, production managers, logistics and supply chain personnel, (barcoding) staff and packaging coordinators.

Unless otherwise indicated, articles appearing in SCAN may be reprinted provided that GS1 New Zealand is acknowledged.

#### **For editorial or advertising enquiries please contact:**

Sheree Phillips on 04 494 1057 or sheree.phillips@gs1nz.org. Advertising rates are on [www.gs1nz.org/SCAN](http://www.gs1nz.org/SCAN).

**For copies of SCAN:** To receive a digital or hard copy of SCAN magazine, email [marketing@gs1nz.org](mailto:marketing@gs1nz.org) or phone 0800 10 23 56. SCAN is distributed to all members, and non-members are welcome to subscribe.



# Snackaballs for health-conscious people

Tom and Luke of Wainuiomata had a very simple idea: Let's give busy people a genuinely healthy option in the snack food market. Nine years later, their names are a brand representing exactly that, and their nutritious "Snackaballs" are eaten throughout New Zealand, in much of Australia and elsewhere through sales on Amazon.com.



Tom Dorman and Luke Cooper – personal trainer and chef, respectively – started their business after discovering a mutual conviction that poor diet is a major impediment to good health (physical and mental) whatever else might be going on in your life. Luke wanted to know exactly what things his second son, who had recently been diagnosed with severe allergies, should eat to stay well and to thrive. And Tom, as a trainer, had a strong professional interest in good nutrition, plus an acceptance that his scientific approach to exercise might be undermined by unhealthy diet.

The friends had help from one of Tom's clients who was a businessman with experience in start-ups. The first Tom and Luke products were gluten-free protein bars under the "Trinity" brand, each of which was lovingly handmade. Today, Tom and Luke Limited operates a production kitchen in Wainuiomata with around 50 employees producing more than 1 million Snackaballs each week.

"We saw a gap in the market for that format ... Snackaballs are smaller than the standard snack bar so you never end of up with something that is only half eaten and you have something that is genuinely healthy as well as very tasty," Luke says.

In fact, Luke says, the healthy snack food market is booming, and health-conscious consumers particularly appreciate the Tom and Luke commitment to ensuring all ingredients are refined-sugar free, have no genetic modification and a low allergen content. "We're very focused on the quality of our ingredients which come from sustainable sources as much as possible. Dates, a big ingredient in Snackaballs, have to be imported of course."

The biggest challenge, he says, has been making the transition out of being a small business where the proprietors do virtually everything themselves. "It's so good to have

the right people around us now ... people who are knowledgeable in specific areas including finance, sales and production."

That knowledge extends to marketing and supply chain management, with Tom and Luke now established suppliers to Foodstuffs, Countdown and independent health food outlets in New Zealand, and to Woolworths across the Tasman. GS1 identifiers and barcodes make all this much easier. And they are an integral part of the company's approach to Amazon.com which, says Luke, has been very positive on the prospects for Snackaballs in its Amazon Pantry range.



For more information, see  
Tom and Luke  
[www.tomandluke.com](http://www.tomandluke.com)

## An idea of a building products library

How can the New Zealand building industry, set up – and get real value from – an online library of trusted information on building products? What particular types of such information are needed by designers, builders, property owners, regulators and other stakeholders? How can it be easily stored in an industry repository, and readily accessible for many use cases ranging from a builder re-ordering the right product by smart phone to an emergency service provider urgently needing information to deal with a hazardous substance?

GS1 is engaged with the New Zealand Institute of Economic Research (NZIER) on an industry-funded research project

to answer these and related questions. The findings are destined to inform the design, implementation and operation

of a product library/digital catalogue which truly fits the needs and capabilities of the New Zealand industry.



The concept has been much discussed within government agencies and industry forums: Now, the GS1-NZIER research will answer many detailed questions for actually building and using a catalogue of real value to individuals and businesses when it comes to: selecting the right building products; providing assurance on product performance and safety; and understanding the likely social and environmental outcomes.

All parties agree a catalogue will hold trusted, globally-standardised product master data, some of which is already uploaded by manufacturers and merchants into GS1’s National Product Catalogue. Generally, master product data includes the precise identification of products and their technical specifications. For the building industry, it will also need to meet information needs around product testing and

quality assurance, safety issues in the use and application of products, and more. The research will identify such needs and the relevant globally standard data sets which currently exist or which need to be created over time.

The research will also look at the digital system requirements for designers, builders and all others to have ready access to information in the library. This will encompass the use of smartphones and other mobile digital devices. In concept, the digital catalogue will be developed with an API (Public Application Programme) to facilitate free public access.

The GS1-NZIER project is funded by BRANZ (Building Research Association of New Zealand) through the Building Research Levy on all industry participants. Its report will be available in mid 2020.



**GS1 lead project manager:**  
 Nick Allison, General Manager – Government  
[nick.allison@gs1nz.org](mailto:nick.allison@gs1nz.org)

# SCAN – CODES

## GS1 codes of practice shelved

Technology and public understanding of it constantly change. Not surprisingly, some of GS1’s past guidance on barcode scanning is no longer needed. In 2020 we have withdrawn two old codes of practice for the retail sector, one permanently and one until further notice.

First, the Retail Scanning Code of Practice – this was introduced back in 1982 when the growing up-take of barcodes and removal of physical price tags on consumer products raised concerns about possible over-charging. In fact, shelf labels and readable displays on tills negated the risk but

GS1’s forerunner, the New Zealand Product Number Association, along with retailer and consumer representatives, drew up a four-page code on how to manage shelf labelling and customer complaints. Those practices have long since become standard practice in retailing.

Second, the RFID Code – this was written 15 years ago to address early public concerns about consumer privacy as radio frequency reading of electronic tags emerged as a likely replacement technology for barcoding. This RFID code was produced by GS1 with relevant industry bodies as well as

the former Ministry of Consumer Affairs and the University of Auckland. As it happens, RFID has not yet been adopted across retailing on consumer units and does not look imminent.

After consultation with the other bodies involved, GS1 New Zealand has formally declared that the Retail Scanning Code of Practice is obsolete and that GS1 no longer holds itself responsible for managing complaints. (Only 32 were ever received). And the RFID Code has been shelved until such time as RFID becomes widely used in retailing.

# Engineering timber for more sustainable buildings and higher value forestry

## GS1 Standards have a role in Industry 4.0

The future of engineered timber for construction is here – and it requires very smart digital technology, including the use of GS1 concepts and standards.

Innovative start-up Wood Engineering Technology (WET) is making glue-laminated beams that are much lighter, straighter and stronger than conventional milled timber, and are a less costly, more sustainable alternative to steel and concrete for commercial and residential construction. WET's patented "optimised engineered lumber" (OEL™) system is also a significant advance on older forms of timber lamination.

WET New Zealand Chief Executive Shaun Bosson says OEL™ is a potential game changer for forest processing here and globally because of its improved product quality, its utilisation of lower-grade logs until now rejected for construction, and its commercial and environmental advantages. "We need to make far more use of wood in commercial and residential building given its renewability and lower carbon footprint ... OEL™ is a huge step in that direction," Mr Bosson says.

WET has been producing OEL™ beams at a demonstration plant in Gisborne since April last year, with its system being fine-tuned before output is scaled up and more plants built in other forestry regions. "We want to identify all the issues at an early stage so our system and the quality of production can be optimised at least cost in time and money," Mr Bosson says.



This approach reflects the innovativeness of both WET's product and its production technology. Logs of all shapes and sizes are broken down and re-assembled with precision to achieve weight, uniformity and strength characteristics that are unrivalled in other wood products. The Gisborne plant has over 2,500 sensors, scanners and cameras that capture the critical attributes of the wood at each stage, along with huge data processing capabilities which drive automated decision-making and robotic manipulation of logs, timber fragments and finished beams.

In fact, Mr Bosson says, WET is as much a technology company as it is a forestry processor – one of New Zealand's first working examples of Industry 4.0.

"There are huge data and automation challenges when you're cutting logs into thousands of small pieces that are going to be re-assembled in an optimal way ... we need to understand the characteristics of all that material throughout the process and determine how it'll contribute to a finished product with the specifications we're pursuing. That just isn't possible without digital technologies,

"We've taken the best digital technology available, often found in other industries, improved on it where we can, and imported it into a wood processing

environment," Mr Bosson says. "How we identify objects and materials within our processes is critical ... identification is a foundational element in our data harvesting and analysis."

### Standardised data

And this is where the GS1 system becomes important, especially its concepts of data standardisation and serialisation within a manufacturing process. For example, the company allocates a serialised GTIN (Global Trade Item Number) to each log entering its plant, and being graded on its wood qualities and OEL™ suitability. The GTIN is encoded in a barcode attached to the log for scanning in the early stages of the processing: The various work-in-progress materials that follow are identified by further unique numbers assigned within WET's operations technology system.

"The use of serialised identification for product and machines is critical to the plant's operating efficiency," Mr Bosson says. "As a general rule, for machines to co-operate automatically they need to be uniquely identified, and then capturing and sharing data sets which make sense to each machine ... it's data that enables interoperability between components of the one manufacturing process.

"Our plant is a good demonstration of the interoperability concept and over time, we want to extend this throughout



Industry 4.0 is the embedding of digital technologies and automation into manufacturing processes to achieve big gains in productivity and economic value. The term originated in Germany’s strategy for a more high-tech economy during 2011.

Industry 4.0 brings smart sensors, wireless connectivity, Internet of Things-type data capture and exchange, “cognitive computing” and robotics into the heart of processes for production of physical goods. These trends supersede Industry 3.0 or “the digital revolution” - the economy-wide take up of computing, the Internet and digital communications since the late 1970s.

Wood Engineering Technology has been described by Callaghan Innovation as “an outstanding example of an Industry 4.0 installation in New Zealand”.

**Refer:** [www.callaghaninnovation.govt.nz/forestry-meets-industry-40](http://www.callaghaninnovation.govt.nz/forestry-meets-industry-40)



our supply and demand chains. Ultimately we’re looking at an ‘Internet of Things’ application, enabled partly by standardised data and the GS1 system.”

Finished beams can be identified using EAN-13 barcodes attached to individual beams and to packs of them, while production dates and serial numbers are scannable from separate 2-D barcodes. WET has comprehensive master data on all its products, this including 25 attributes which are structured within a GS1 format.

“We’re ready to provide any information in a standardised electronic form, whenever a trading partner requires and for whatever purpose they might have,” Mr Bosson says. Likewise WET is ready to go with GS1-standard eCommerce documents as its supply chain relationships develop with merchants and construction firms.



**Sound familiar?**

The company’s commitment to maximising value from the GS1 system is hardly surprising – Shaun Bosson was GS1 New Zealand’s Chief Operating Officer for 10 years prior to joining WET full-time in 2016. He also brings many years of experience in process engineering and supply chain management in Europe.

**Full production**

Looking ahead, Shaun expects the Gisborne plant to begin continuous, production later this year after further fine-tuning, with a second and bigger plant to be built on land next door. Both facilities have been planned as a joint venture between WET and Tairāwhiti Trust, a Gisborne-based regional development body and investor. When fully operational, the plants will have the capacity to produce 40,000 cubic metres of engineered lumber annually, enough to build over 1500 homes.

Longer term, WET could have six or so relatively small but high-performing plants strategically sited around New Zealand. “Wherever there is a density of forest resource, we would like to have a plant close by,” Mr Bosson says. And there’s already been work done with other wood species producing excellent results and other geographies where the technology could provide significant benefits.

**Forest harvesting**

In addition to its product quality attributes, and to the general sustainability virtues of building in wood, OEL™ has the huge advantage of enabling traditionally lower grade and smaller logs to end up as high performing construction timber. Today a significant amount of New Zealand’s forest harvest goes into wooden packaging, concrete form work, or pulp and paper production: WET’s technology converts much of that into laminated beams for construction with the potential to fundamentally change the economics of plantation forestry here and in other countries like the UK (where spruce has traditionally been inferior for building).

Mr Bosson says that WET’s production draws on such diversity from forest harvesting that it addresses a decades-old problem: How to profitably use the “ugly logs”, thinnings and young trees that make up more than half New Zealand’s annual harvest. OEL™ arises from R&D on the issue which started 15 years ago, including work by forestry research institute Scion. WET recently produced OEL™ beams from trees grown over just 10-14 years and the outcome was very high grade for structural use. “When you think that this country’s structural lumber traditionally comes from pines at around 28 years, you see how this technology can radically change the economics of forestry.”

It could also radically change the carbon footprint of new buildings as (renewable resource) logs now exported for relatively low-value use are, instead, manufactured here into products that substitute for carbon-intensive steel and concrete. That, says Mr Bosson, shows the power of combining digital technologies – using global data standards of course – with traditional industry.



For more information, see Wood Engineering Technology Ltd [www.woodeng.co.nz](http://www.woodeng.co.nz)



# Tackling our plastic waste problem

## Chief Science Advisor calls for more data and standardisation

Plastic waste is a huge issue in New Zealand and globally. Professor Juliet Gerrard gave the issue top priority after being appointed the Prime Minister's Chief Science Advisor and last December, she and her team delivered Rethinking Plastics in Aotearoa New Zealand. The report says updated systems, new materials and information technology can enable us to make the future use of plastics far more sustainable and to radically reduce disposal in landfills. SCAN spoke with Juliet about the report and the importance of collecting and sharing data on all forms of plastic.

Juliet is a biochemist and academic with a doctorate from the University of Oxford, England. Her fields of expertise include protein nanotechnology and lysine biosynthesis. She moved to New Zealand's Crop and Food, a Crown research institute, in 1997, and has since held full professorships at the Universities of Canterbury and Auckland. At the latter, Juliet continues to be a Callaghan Innovation Industry and Outreach Fellow. She became Chief Science Advisor on 1 July 2018.

### © The report is extraordinary in its scope and depth. Where did it all start?

I was determined not to come into this role with a personal wheelbarrow full of issues but, instead, to find out what was on everyone's mind. I did a tiki tour around New Zealand and asked the researchers I met in various forums, 'where is there a gap in the evidence base that is really needed for policy making ... a gap that could be filled relatively simply?'. China had changed its policy on taking waste from other

countries, us included. After that, a Colmar Brunton Better Futures report came out and when Kiwis were asked about environmental issues, plastic waste came out on top. Various things came together.

The other thing I am trying to do in the Chief Advisor's role is to open it up so we're never advising into a vacuum. There's no point slapping a report on the table if there's no political appetite to act ... I want topics that many people

can engage with. On plastics, there's huge frustration with failures in recycling systems. I guess it's also a nice topic for me personally as someone trained in chemistry.

We asked for interest and were overwhelmed with responses. We picked a broad panel, with expertise from different disciplines and all people who could work as a team. First, we scoped the project using the full range of expertise on the panel. And the scope



got broader and broader over the first meetings despite me hoping, initially that we could narrow it down. I kept thinking ‘we’ll never get this done’ but it became clear that our scope had to be wide because plastics is a huge systems problem ... the moment you leave something out, there’s the question, ‘what about that bit in the corner you haven’t included?’ Rachel Chiaroni-Clarke who led the project from our team was great at thinking through systems problems and we had a fantastic reference group who contributed knowledge about different parts of the system. In the end, if we had tried to make the report narrower some people would be left focusing on issues that were left to one side.

**Q What has the feedback been like?**

Pretty good. When we first announced the project, the plastics industry said, ‘fine but you can’t do this from inside a university, you need to talk to stakeholders’. We invited everyone in to present their views and help us understand the situation. It was quickly apparent that everyone in the room agreed there was a problem that needed solving. Obviously people came from different angles and had different solutions but all agreed on the need to work together on addressing the issues. It was a fun project in the end.

“Tackling the problem of plastic waste needs a systems change, a collection of adjustments – some large, some small – across all aspects of society.” Rethinking Plastics in Aotearoa,

see: [pmcsa.ac.nz/topics/rethinking-plastics/](http://pmcsa.ac.nz/topics/rethinking-plastics/)

Recommendations for action by 2025 include: “Mandate ongoing data collection at product level and establish an open data framework with a centralised database that includes measures for material type, weight, colour, recycled content, contamination, reuse, industry, source and end market, location, and average product lifetime of all plastic used in NZ.”

**Q What does a ‘circular economy’ start to look like in New Zealand?**

Actually we came to think more in terms of a spiral than a circle. The circular economy is a dream goal and we’re not going to get there in a hurry. Better to encourage people to stop using or picking material that can’t be reused or recycled within classic waste hierarchy principles. The first goal is a spiral where less and less plastic is going to landfill because of changes in choices throughout supply chains and among consumers, and because of more effective re-use and recycling. So, reducing plastics waste in a spiral fashion is our concept and the measure is a decline in volumes going to landfill, especially the old-style types.

In reality, we are going to have to put plastic waste somewhere for a long time yet, so modern landfills will definitely be part of the solution. We were very impressed with one the panel visited. A modern landfill is built at a certain point in a valley where it can be lined and runoff water can be collected and treated. If there’s food waste, the resulting methane is captured for energy use.

**Q What about burning plastic waste to produce energy as the Europeans do?**

We had a massive debate about that. Yes, it’s a good solution in high-density places with not a lot of land, a large number of people and a guaranteed supply of waste. Waste conversion to energy requires huge infrastructure investment. In New Zealand, we would face big transport costs and carbon emissions just to get the waste to one central place ... none of it looks good even on ‘back-of-the-envelope’ analysis. Also, you create a perverse incentive for more waste to feed the scale of investment in the infrastructure. For a country of our size, it doesn’t work as a national solution although niche applications might work where small plants can be set up without major new infrastructure. We’ve had push back from some local authorities who want to see waste in their areas go into energy production ... we advise people with all sorts of ideas to take them to

the Ministry for the Environment who are working through specific policy options.

**Q You have made some recommendations, starting with a national integrated recycling standard**

I think that’s a real no-brainer. The fact that you can take your empty tetrapak from Auckland to Hamilton and the recycling rules change from city to the next is just silly. You’re never going to get the right scale in waste streams or mixed recycling facilities up and running if you have so many different rules. A national framework and standardisation is obviously needed, although that will need to be flexible enough to meet specific needs in different locations. Personally I live in an apartment and I have a bach on Great Barrier Island (Hauraki Gulf) ...both located in Auckland Council territory but with totally different situations for waste handling, disposal and recycling. So you can’t have a one size fits all but you absolutely need some clear national standards.

**Q What other practical steps are you recommending? Giving the consumer a standardised view on what plastics are what so they can make informed choices on what to buy and how to dispose of it seems to be important.**

That is a huge one. But consumer information on plastics must be relevant to the situations that people are actually living, shopping and working in. There’s scope to go backwards here! The classic example is allegedly compostable coffee cup lids made of plant-based materials but really these are only compostable in industrial composts and end up contaminating the rest of the plastic stream going into recycling if you’re not careful. If you have PET<sup>1</sup>, a type of plastic that can actually be recycled into more bottles and other things in New Zealand and put PLA<sup>2</sup> in there too, and you are challenging the whole process. We really do need clear labelling and public education. It’s really complicated at the moment ... often labels don’t match the instructions on your bin. People want to do the right thing but they’re not empowered to do so.

1 Polyethylene terephthalate, clear lightweight plastic most widely used in bottles and packaging. PET is the most common form of recyclable plastic (number 1. is the resin identification code).

2 Polylactic acid is a common bioplastic derived from renewable resources.



**Q Just how important is knowledge and its sharing?**

Very important and we've got to be working at all levels. Local manufacturers can learn to use less plastic and better packaging but the challenge is also global given that New Zealand imports so much, and this includes huge amounts of plastic packaging. All moves towards product stewardship are important and really people who manufacture goods have a certain responsibility to steward those products and packaging through to end of life... and that will make it easier for other businesses and consumers to take the actions.

My panel had a conceptual breakthrough when we realised that international trade agreements could include some tangible requirements in this area. I got invited to talk to the country's CPTTP<sup>3</sup> specialists who were really interested in plastics ... the Prime Minister, in particular, is really keen to see if we can broker better use of materials across jurisdictions. I think that with imagination and goodwill we can start to make inroads. But we need to know what everyone is using, how much and what happens after use if we're really going to make progress.

The data can take all sorts of forms. My favourite anecdote is about Sustainable Coastlines who are people passionate about cleaning up beaches – and they

realised that in order for their work to influence formal policies, they needed to collect standardised data. They worked with government agencies on a set of indicators that could be applied to all clean-up work and then be recognised in the policy context. Suddenly they could say things like, 'straws are the most common thing found on Wellington beaches and we can show people how they're contributing to the problem'. Sharing that with restaurants on the Wellington waterfront was enough to motivate them to stop serving straws. So access to the right information becomes the basis of effective action.

**Q The report recommends open, centralised data on products. Do you see GS1 Standards playing a big role here?**

Definitely. We had a catch cry, 'let's make best practice standard practice', knowing that there are lots of solutions are out there already. The National Product Catalogue is one of them. It's a great example of people having the data needed for particular purposes exactly where it can be accessed ... the challenge for us is how to integrate what the GS1 National Product Catalogue (NPC) has to offer into a bigger eco system for plastic waste reduction. There are issues for GS1 and its stakeholders to work through, like ensuring the relevant data can be collected at the source.

Across the board, many of the solutions for New Zealand will be based on international practices. If there are suitable standards out there, let's grab them.

**Q The political environment is receptive to the report. How confident are you that the key elements will be actioned in policy?**

It's happening, I have seen a draft of policy advice to the Government. As mentioned, I was looking for a topic where the policy people were hungry for evidence. Plastics are not particularly political, and Ministers said in December that there'd be a full response to the report within six months. I am optimistic about what we can achieve.



3 The Comprehensive and Progressive Agreement for Trans-Pacific Partnership



## #giveupthebottle Solid bar toiletries to replace plastic

Ethique is helping New Zealanders – and many others across the world – rid their bathrooms of single use plastic bottles one wash at a time.

This Christchurch-based company is on a mission to replace as many such bottles as it can with solid bars of shampoo, body wash and other toiletries products packaged in cardboard. All you need is water from the tap to lather up something as nice or nicer than whatever plastic-contained liquid you might have been using before.

For Ethique, progress in its mission can be measured in bottles not sent to landfill (and perhaps ultimately, the ocean) – 6.5 million since the business was launched in 2012. “We’re aiming for 50 million by 2025 ... all part of a revolution in how people think about and use plastics in the bathroom and in other areas of life as well,” says Brianne West, Ethique founder and chief executive. “I am pushing for fast business growth because the more people convert to our products and similar ones, the better for everyone.”

The products – 52 now and growing – are made from essential oils (mainly coconut) and other fresh ingredients are all sustainably-sourced, organic, vegan and biodegradable. And of the course, the cardboard is compostable.

Ethique all started when Brianne, a biochemist by training, got thinking in the shower. “I dropped my shampoo bottle on the floor and, as usual, about half of it spilled everywhere and I thought, ‘this is madness’. Why put water in shampoo when there’s already water in your shower? Why contribute to the devastating effects of plastic bottles when you don’t have to?”

Brianne started formulating her own solid shampoos. That research and development continues today at the company’s Wigram head office and along the way, Ethique has earned carbon neutral and B-Corp accreditations. With its simple #giveupthebottle marketing message, this must be one of New Zealand’s most eco-friendly consumer brands!

There is certainly no ‘hard sell’ required. Indeed, Brianne says, “most retailers come to us ... they have heard of our products and know there’s a huge demand out there for something like this”. Ethique’s progress so far can also be measured in 200%-plus annual sales growth, turnover above \$11 million during 2018-19 and extraordinary export success with 85% of sales now occurring overseas mainly in the US and UK. In America the brand has been swept up by big and demanding retailers Amazon and Target – thanks to the capability of Ethique’s distributor in that market and to its globally-acceptable packaging and barcoding. The company joined GS1 in 2015 and, says Brianne, “Amazon have signalled that they’re very pleased with our labelling, product numbering and barcodes”.

At home, the Ethique range was adopted early by Countdown and Farmers, both retailers recognising the power of Ethique’s “give up the bottle” message. “While we are growing rapidly overseas, New Zealand is a fantastic market because people here tend to be more environmentally aware and they are looking for alternatives to plastic,” Brianne says.

Manufacturing is all in New Zealand, at four contracted plants. So too are the company’s 13 direct employees and the 352 shareholders who have contributed \$2.8 million in start-up capital (including some equity crowd funding). Brianne says Ethique’s journey so far hasn’t all been easy: “We have very unique products and they are still largely hand-made ...we have great partners manufacturing thousands of bars daily but it took 18 months of really hard work to get our production systems working.”

New Zealanders currently toss around 686 million plastic bottles and containers into landfills annually, according to the WasteMINZ study released in January. Based on monitoring of the kerbside rubbish and recycling bins of 867 Kiwi households over four months, the study’s findings show: Households put a total of 1.76 billion plastic bottles and containers out for disposal or recycling each year and 39% of this goes to landfill despite much of it being fully recyclable.

The study was funded by the Ministry for the Environment’s Waste Minimisation Fund.

**See:** [www.wasteminz.org.nz](http://www.wasteminz.org.nz)



For more information, see [www.ethique.com](http://www.ethique.com)

Over the past 20 years we have helped hundreds of businesses across APAC save **\$50+ million** in administration fees

Find out how

[pacificcommerce.com.au](http://pacificcommerce.com.au)



## How to Accelerate your career in Supply Chain

Earn the globally recognised certification for experts in Supply Chain Operations

 <small>LEADING IN PRODUCT AND INVENTORY MANAGEMENT</small>	 <small>CERTIFIED SUPPLY CHAIN PROFESSIONAL</small>	 <small>CERTIFIED IN LOGISTICS, TRANSPORTATION AND DISTRIBUTION</small>
<b>Inside the four walls of your company?</b> Product Forecasting Master Scheduling MRP Scheduling Operations Cycle Counting Inventory movement Receiving Capacity Planning	<b>Outside the four walls of your company?</b> Supply Chain Design Supplier Management 3PL, 4PL Transportation Customs Distribution channels Customer Management	<b>Work in the "Deliver" and "Return" part of your company?</b> Logistics management 3PLs and logistics services Direct or indirect manufacturing Transportation Distribution channels Importers/exporters

NZPICS can help take your career to the next level in Supply Chain with the world's most recognised certification.

For over 40 years NZPICS has been helping shape NZPICS Supply Chain professionals.

Please contact Vijay Todkar on 021 525 604 or [vijay@nzpics.org.nz](mailto:vijay@nzpics.org.nz) to discuss which APICS Course is right for you.

### APICS education benefits:

#### Organisation

- Aligning internal activities with business objectives
- Creating common understanding, vocabulary, processes and frameworks
- Maximizing ROI
- Boosting productivity, collaboration and innovation
- Provide tools to better interaction with your ERP and other key systems

#### Individual

- Prepare for Success in the New Connected World
- Expand your digital supply chain knowledge and capabilities
- Grow your marketability and hireability through APICS certification
- Validate your SC mastery and expertise through APICS Certification
- Quickly gain fluency in supply chain frameworks and trends

For more information visit [nzpics.org.nz](http://nzpics.org.nz)



# RAIN in Lower Hutt – your new experience

New Zealand businesses are invited to discover the latest in RFID (radio frequency identification) for themselves, courtesy of technology innovator Times-7. The Experience Centre in Lower Hutt is for anyone wanting to see how Ultra High Frequency (UHF) RFID works and how they might benefit from it as the technology becomes more pervasive.

Times-7 designs and manufactures UHF RFID antennas for the global markets, and provides system integration support for customers in New Zealand. Times-7 is a member of the global RAIN Alliance which promotes the adoption of the UHF standard, the fastest growing RFID technology. The company says demand continues to grow around the world for its wide range of reliable, high quality antennas. Its latest RAIN near-field technology operates over distances from a few centimetres to one metre, and is particularly suitable for use at point-of-sale in retail stores, in packing and dispatch environments, and for inventory management functions.

Equipped with Times-7 antennas, compatible tags and GS1 standard Electronic Product Code (for identification of products), the Experience Centre enables visitors to see how efficient RAIN enabled

applications can be in a simulated retail store setting. Visitors to the centre can give voice commands to Google Assistant for the RAIN system to identify and display onscreen the whereabouts of individual tagged products on nearby shelves and, when a shopping basket of items is placed in a simulated check-out area, each item is instantly identified and listed onscreen. The Times-7 system can check out multiple products simultaneously, with very high accuracy.

“We want to provide opportunities for people to see for themselves the magic of this technology and to get some idea on what it might achieve in their own operational settings,” says Giuliana Gilges-Richards of Times-7. Giuliana welcomes anyone who wants to visit the experience centre at 29 Railway Ave, Lower Hutt.



Like GS1 New Zealand, Times-7 is a member of the New Zealand RFID Pathfinder Group, the independent non-profit organisation which was established to drive the adoption of UHF RFID technologies in New Zealand. A second RFID experience centre, similar to that of Times-7, is to be installed at GS1’s Auckland office, in Freemans Bay, for local businesses to visit later this year.



For more information,  
[giuliana@times-7.com](mailto:giuliana@times-7.com)  
 Ph: 04 947 6566

# RFID on-farm trialling continues

On-farm trials continue to explore the potential productivity gains for New Zealand farmers from the use of Ultra High Frequency (UHF) RFID technology for livestock tagging and data capture.

The technology, incorporating Electronic Product Code (EPC) data formats, enables greater accuracy of tag reading and individual animal identification, and also faster completion of tasks like loading stock onto trucks and measurement of weight gains.

The ongoing trials in Canterbury are a continuation of work undertaken by technical experts within the New Zealand RFID Pathfinder Group for several years. The technology, in contrast to systems with low frequency (LF), holds strong promise of capturing data from tagged animals when they are

moving about in mobs or flocks, and doing so with greater speed and accuracy.

RFID specialist and Chief Executive of Christchurch-based Tracient Technologies Grant Pugh says the trials are aimed at quantifying the net gains to the farmer from use of UHF RFID when tailored to their particular needs, separate from the compliance focus of the LF-based National Animal Identification and Tracing (NAIT) scheme.

“UHF tags have been shown to offer more opportunities for on-farm operational benefits and hence, for

faster payback on tag investment. That is especially so in applications which involve fast moving mobs or herds of animals, and where rapid, accurate identification is particularly important,” he says. “In fact, recent work has resulted in a 99.7% read accuracy with cattle.”

Mr Pugh notes that dual UHF/LF chipsets encapsulated in the same tag are under consideration in context of the current work programme.



## Sharon Coad - supporting healthcare with standardised data and barcode scanning

GS1 Healthcare Engagement Manager Sharon Coad isn't a clinician but her strong professional and academic background in the healthcare sector give her great understanding of how much standardised data and barcode scanning can support the work of doctors and nurses, and help deliver better outcomes throughout New Zealand's healthcare system. Her mission is to facilitate greater take-up and proper use of GS1 standards and services, with patient care and system efficacy always firmly in mind.

Auckland-based Sharon joined GS1 in October 2013 to strengthen our engagement with stakeholders across the healthcare sector and with medical device suppliers. She was previously Market Manager, Diabetes Care with Roche Diagnostics NZ. Sharon graduated with a BSc majoring in cellular and molecular biology from the University of Auckland, and she did further study to obtain a GradDipBus.

Today, Sharon is focused on working with New Zealand Health Partnerships (NZHP), private hospital providers and major healthcare suppliers to increase the availability of GS1-standard product master data on medical devices supplied to the healthcare system, and to support the efficient use of this data and of barcodes for identification and management of those devices. NZHP enables the country's 20 District Health Boards (DHBs) to access product master data uploaded to the National Product Catalogue (NPC). Sharon says there is growing recognition of the value that having such data on the right electronic platforms can have for healthcare management and medical care.

"Hospitals are such busy places with clinicians often working under real pressure to care for patients and to maintain high professional standards. Data standardisation and barcode

scanning are relatively simple technologies that can make a huge difference at the healthcare frontline, and in administrative and supply chain functions essential to the whole systems," Sharon says. "Once these GS1 tools are in place, they can be leveraged for many different uses."

Sharon's current priorities include helping Southern Cross to develop its strategy for greater use of data for patient safety and business efficiency in multiple areas, with medical device procurement and scanning being a top priority.



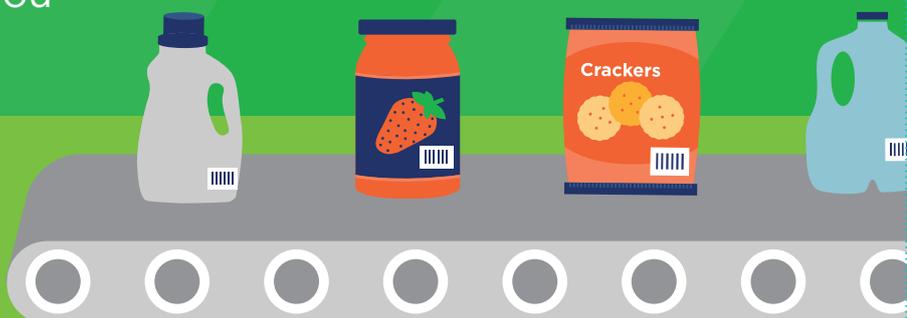
For more information,  
Sharon Coad  
[sharon.coad@gs1nz.org](mailto:sharon.coad@gs1nz.org)

## ProductFlow >>>

To **maximise your sales**, you'll need reliable barcodes, high quality photography as well as correct product information.

With **no stress** you can **get your product to market faster** using GS1's ProductFlow service.

It's a one-stop-shop to help you launch your products.



Talk with GS1 today

[gs1nz.org/productflow](https://gs1nz.org/productflow)



# Microgreens from a basement near you

Microgreens grown in central city locations and delivered daily to nearby consumers for their culinary delight and good health. That's the vision of agronomist and entrepreneur Matt Keltie, and his ShootsNZ business.

Microgreens? Young green vegetables and herbs harvested just after their first leaves emerge from a germinating seed. Nutrient rich and with intense flavours, microgreens are a speciality genre of greens for salads and meal garnishing. They include varieties of basil, broccoli sprouts, coriander, rocket, watercress and an array of other small leafy plants.

Central city locations? Hydroponic growing operations in building basements with LED lighting and expertly controlled growing conditions. They are locations close to restaurants and food stores for speed and lower cost in the growing-harvesting-marketing cycle. The first of them is a former basement nightclub metres from a busy Wellington city thoroughfare.

Since Matt Keltie and his co-founder launched ShootsNZ last year, demand

for their 22 microgreens has grown fast and mainly by word-of-mouth. Two employees are out on the ShootsNZ e-bike bicycle most days, delivering trays of super fresh produce to 110 restaurants around the capital. The business has joined GS1 in preparation for launch into gourmet food stores and supermarkets.

“Business is growing so fast that we are now looking at other sites around Wellington, and also in Auckland and Christchurch, and at other channels to market,” says Mr Keltie. “Ultimately we have an ambition to be the leader in this type of growing across New Zealand and Australia, and to be number 1 in supplying our food to the consumer market.”

Microgreens certainly seem a great idea for our times. They are dense with immune system-boosting nutrients and antioxidants. Up to 30-times so



compared with most mature vegetables, says Mr Keltie. Some microgreens – lemon balm and shiso are examples – are recognised as having “nutraceutical” healing qualities for certain ailments. They are also grown to organic principles, without chemicals or pesticides. And in the ShootsNZ model, they are grown and delivered in re-usable (and biodegradable) plastic trays.

Mr Keltie, university-educated in agronomy, continues to finetune the basement operation. His microgreens are grown in custom-made vertical racks in a permanently wet, non-soil medium and under carefully-regulated spectrums of light. The average growing cycle is eight days (although some take 22). “By changing the light, you can really change the way the plant grows, and therefore its taste and nutrient qualities.” And he has another 30 varieties in mind for production as the business expands in volume and market presence.

Health conscious consumers may well find microgreens coming to them from a basement nearby before long!



For more information, see  
Urban Green Limited  
[www.shoots.co.nz](http://www.shoots.co.nz)



# New members/rights to use holders August 2019 – March 2020, Welcome!

## New Members

ZBEFORE PERFORMANCE NUTRITION Ltd  
40 Degree Beverages Ltd  
A.R.K ARTISAN Ltd  
ABUZZ APIARIES Ltd  
ADAPTFDEFY Ltd  
ADDICTION FOODS NZ Ltd  
ADULT BRANDS Ltd  
Akstar Pty. Ltd.  
Alison Symes and Adrian Ward Partnership  
ALLAN FAMILY HOLDINGS Ltd  
ALLFIELDS CUSTOMISED SOLUTIONS Ltd  
AMALGAMATED HARDWARE MERCHANTS Ltd  
Anton & Larissa Balkhausen Partnership  
ANWARD ENTERPRISES Ltd  
AQUASILVA Ltd  
ARALIYA INVESTMENTS Ltd  
AUDIO ENGINEERING Ltd  
AURORA DISTILLERY Ltd  
AWO Ltd  
AYRMED Ltd  
BEE KIWI GROUP Ltd  
BEPURE HEALTH Ltd  
BEYOND THE RAZOR Ltd  
BF TRADING CO Ltd  
BHJ NEW ZEALAND Ltd  
BIO-EXCEL (NZ) Ltd  
BLACKSTAR HOLDINGS Ltd  
BLASE SKEIN Ltd  
BLUE PUKEKO GROUP Ltd  
BOOKSELLERS NEW ZEALAND Inc  
BOTANICS BEAUTY Ltd  
BQH Ltd  
BRAMICH Ltd  
Bryce Wilson  
BUY N VIETNAM Ltd  
BY CHANCE Ltd  
CAMBRIDGE GRAINS 1999 Ltd  
CANTERBURY TRELIS Ltd  
CARPETBINDERS Ltd  
CEQUENT PROJECTS Ltd  
CHOIX4US Ltd  
CIRCUBAND Ltd  
CIVILPLAN CONSULTANTS Ltd

CL Smith and JM Catley Partnership  
CLEVER KIWI INTERNATIONAL Ltd  
CMD PRINT Ltd  
CMG PLUS Ltd  
COFFEE DISTRIBUTION NZ Ltd  
COMPUTER & NETWORK SOLUTIONS Ltd  
CONNEXIONS NZ Ltd  
COUPLANDS STOCKFEED Ltd  
CREATIVE EDGE FOOD COMPANY Ltd  
CROISSANTS AND CO (NZ) Ltd  
Croxley Brands  
DARK HORSE COFFEE Ltd  
DEEP BLUE HEALTH NEW ZEALAND Ltd  
DEEP BLUE SEAFOODS NEW ZEALAND Ltd  
DERMEDA Ltd  
DFE DESIGNER FASHION ENTERPRISES NZ Ltd  
DOON ENTERPRISES Ltd  
DOSE AND CO Ltd  
DOUBLE FERN Ltd  
DR ROBERT BEULINK Ltd  
DUNROMIN FARMS Ltd  
DYNAMIC COMPOST TEA Ltd  
EAT SHOP DO Ltd  
ECO GROUP WORLDWIDE Ltd  
ECOBULB Ltd  
ECOHEM Ltd  
ED INSIGHT Ltd  
EGG MATERNITY NZ Ltd  
ELEMENTAL EATS Ltd  
EMTY TRADING Ltd  
ENVIRO-CLEANZ NATURAL CLEANING PRODUCTS Ltd  
EQALIS PHARMACEUTICALS Ltd  
Ezybuy Global Pty Ltd  
F.U.S. FOODS Ltd  
F&P DAIRY Ltd  
FACES OF AOTEAROA Ltd  
FAR NORTH HOLDINGS Ltd  
FIBER FRESH Ltd PARTNERSHIP  
FINE PEOPLE Ltd  
FLOM HEALTH & BIOBEAUTY Ltd  
FLYING PIG FOOD COMPANY Ltd  
FOGDOG Ltd  
FOOD HUB PAKURANGA Ltd  
FOOD NATION Ltd  
FRANKIE APOTHECARY Ltd

FREEFLOW PIPES Ltd  
FRESH JUICE NZ Ltd  
GAVINS HORTICULTURE Ltd  
GEORGIA JAY Ltd  
GIZZYTRU Ltd  
GLASSEYE CREEK SAUCE COMPANY Ltd  
GLOBAL LIFE SCIENCES SOLUTIONS NEW ZEALAND  
GOLDEN GATE FOODS Ltd  
GOLDEN GRAIN Ltd  
GOOD CUP Ltd  
GOOD EYE Ltd  
GOOD KARMA TRADING Ltd  
GOODMEASURE Ltd  
GOODPOPSNZ Ltd  
GOTTA GET Ltd  
GRASSENE Ltd  
GRATER GOODS Ltd  
GREENWOOD ASSOCIATES  
LANDSCAPE ARCHITECTURE Ltd  
GROUND.NZ Ltd  
GYAKO WELLNESS Ltd  
H & S INTERNATIONAL NZ Ltd  
HANMER SPRINGS WINES Ltd  
HANSEN & BERRY Ltd  
HATCHED 2019 Ltd  
HAWK GROUP Ltd  
HEALTHFARM NZ Ltd  
HEALTHFX Ltd  
HEMP SEED FOODS Ltd  
HOME GROUP Ltd  
HONEST SKINCARE  
INTERNATIONAL Ltd  
HONEY HQ NZ Ltd  
Hope Harkin  
HW DISTRIBUTION Ltd  
Hy-Clor Australia Pty Ltd  
HYGIENE TECHNOLOGIES Ltd  
HYOUMANKIND Ltd  
INDIAN SUMMER FARMS Ltd  
J & F HOLDINGS NZ Ltd  
J.E & L.B Frizzell Partnership  
JK14 Ltd  
John Liddiard T/A Arewa Treats  
JUST PERFECT 2018 Ltd  
KAIWAKA SPRINGS Ltd  
KALMIA ST Ltd  
KANUCOM ENTERPRISE NZ Ltd  
KC PET Ltd

KIMBELLA ENTERPRISES, Ltd  
KIRK NARBAY INC Ltd  
KIWI BEE KEEPER Ltd  
KIWI KAI NELSON Ltd  
KIWI TREASURE TRADING Ltd  
KNIGHTS OF NZ 2019 Ltd  
KOAKA Ltd  
KOTIA Ltd  
LADS BREWING COMPANY Ltd  
LANDLAB Ltd  
LATITUDE PRODUCE Ltd  
LE GRA VINEYARD AND WINERY Ltd  
LEE FISH Ltd  
LETTUCE BEE HEALTHY Ltd  
LINDDEN PTY LTD  
LINEN KING Ltd  
LION APIARIES Ltd  
LIQUID GOLD APIARIES Ltd  
LITTLE DISH Ltd  
LITTLE ROCK NZ Ltd  
LITTLE YELLOW BIRD Ltd  
LIVING GREEN NZ Ltd  
LOVE AND OBJECT Ltd  
M A T Z ARCHITECTS Ltd  
MA NATIVE Ltd  
MAKETU FOODS Ltd  
MALMAC TRADING Ltd  
MAMIA'S Ltd  
MANUKA HOUSE Ltd  
MANUKA WELL BEING Ltd  
MASON BROTHERS' HONEY Ltd  
MAURI-B-BREEZY Ltd  
MAZ GROUP Ltd  
MEDSALV Ltd  
MI SYSTEMS Ltd  
MIELE APIARIES Ltd  
MIJAD TRADING Ltd  
MINT JUJUP Ltd  
Moo Chews NZ Ltd  
MOSSBUSTER NZ Ltd  
MOUNTAIN ADVENTURE NZ Ltd  
MOVE2BIO Ltd  
NATURAL BALANCE Ltd  
NATURAL HEALTH CLINICS 1987 Ltd  
NATURES BEST GARDENS Ltd  
NATUROPATHIC SOLUTIONS Ltd  
NEKTA KLEKTAZ 2017 Ltd  
NEW HERB INTERNATIONAL GROUP Ltd  
NEW ICE COMPANY Ltd

NEW WORLD INVESTMENTS NEW ZEALAND Ltd  
New Zealand Fresh Corporation Ltd  
NEW ZEALAND GROWERS Ltd  
NEW ZEALAND HEALTH MANUFACTURING Ltd  
NEW ZEALAND ISLAMIC PRODUCTS AND SERVICES Ltd  
NEW ZEALAND KING LAVENDER Ltd  
NEW ZEALAND NATIVE HONEY PRODUCTS Ltd  
NGA PI HONEY Ltd  
NI & HC Parkinson Partnership  
NIAGARA SAWMILLING COMPANY Ltd  
NIUE HONEY COMPANY NEW ZEALAND Ltd  
NUMBER 8 MARKETING Ltd  
NURTURAL NUTRITION Ltd  
NUTREL Ltd  
NZ VAPOR TRADE Ltd  
NZCS OPERATIONS Ltd  
NZSF RURAL LAND Ltd  
NZYME NZ Ltd  
OCEAN & EARTH COSMETICS Ltd  
OFC Ltd  
OFFICE COFFEE SERVICE Ltd  
Oh & NH McKissock Partnership  
OLA PASEFIKA Ltd  
Olive and Ash Ltd  
OLIVER FAMILY GROUP Ltd  
ORANUI Ltd  
ORGANIC SOLUTIONS Ltd  
ORIGINE COMPANY Ltd  
OSSABILITY Ltd  
OXYGEN BRAND Ltd  
PARADISE TRUST COMPANY Ltd  
Patricia Helen Muir  
PERSEUS TECHNOLOGY Ltd  
PFNA GROUP Ltd  
PHILCO INVESTMENTS Ltd  
PINE VALLEY EGGS Ltd  
PIPES HEALTH HOLDING CO Ltd  
POLAR ICE Ltd  
POWER BUSINESS SERVICES Ltd  
PREMIER GROUP NZ Ltd  
PREMIER HYGIENE Ltd  
PURPLEJAY ENTERPRISES Ltd  
QBREW Ltd  
QUASAR VINEYARDS Ltd

RBK Nutraceuticals Pty Ltd  
REAL FOODS 2018 Ltd  
RED RHINO Ltd  
RED SHOOTS Ltd  
REMARKABLE TORTILLAS Ltd  
RICH TECHNOLOGY SOLUTIONS Ltd  
RISE TAUPO Ltd PARTNERSHIP  
RIVERSIDE HONEY Ltd  
ROOTS BREWING CO. Ltd  
RUM AND QUE Ltd  
RUSH MUNRO'S ICE CREAMERY Ltd  
S-CELL PHARMA Ltd  
SACRED GROUNDS Ltd  
SAUCER FOOD CO. Ltd  
SAUVE Ltd  
SAWREY CONSULTING ENGINEERS Ltd  
SEALY NEW ZEALAND Ltd  
SELFISH BEVERAGES Ltd  
SETTLERS HONEY Ltd  
Shayna LAWTON  
SKY ADVENTURE Ltd  
SNAP-D Ltd  
SNIKS Ltd  
SOLO PLASTICS Ltd  
SONE'S SAUCES Ltd  
SOUTH PACIFIC HEALTH LTD  
SOUTHCIDER Ltd  
SOUTHERN BREWERY Ltd  
ST PAULI Ltd  
STREAMLAND HONEY GROUP Ltd  
SUNSHINE TRADING Ltd  
SUPETT LABORATORIES Ltd  
SUREFIRE FOODS Ltd  
SUSHI TIME Ltd  
SYNERGY NUTRITION Ltd  
SYNLAIT FOODS (TALBOT FOREST) Ltd  
TAIGA GROUP Ltd  
TASMAN BAY FOOD CO Ltd  
Tassen Pte Ltd  
Teo Pilapil  
TERRA NZ Ltd  
THE ARIDIUM GROUP Ltd  
THE BAKED DANE Ltd  
THE BARKERY BROTHERS Ltd  
THE BEEKEEPERS HONEY Ltd  
THE CANDYMAN Ltd  
THE CHOCOLATE BARN Ltd  
THE HUMBLE OAT CO Ltd

THE LITTLE ADVENTURE COMPANY Ltd  
THE MUSHROOM CLOUD Ltd  
THE NEW ZEALAND WHISKY CO. Ltd  
THE NZ AROHA DAIRY Ltd  
THE QUICK DOLLAR Ltd  
THE REUSABLE BAG COMPANY Ltd  
THE ROGUE BORE Ltd  
THE RUNNING DUCK Ltd  
THE STAR LINE GROUP Ltd  
THE WILD TREAT COMPANY Ltd  
THEORY FOOD Ltd  
THIRTYONEOIGHT Ltd  
TIMES-7 RESEARCH Ltd  
TM & DP HAMLIN  
TNZ GROWING PRODUCTS Ltd  
TRADEBRANDS NZ Ltd  
TRADEX GLOBAL Ltd  
TRIPLE NINE FARMS GROUP Ltd  
TUMBLAR PRODUCTS Ltd  
TUSSOCK CREEK APPAREL (2018) Ltd  
UNBELIEVE-A-BULL HONEY Ltd  
UNITED CONFECTIONERY DISTRIBUTORS Ltd  
UNS Ltd  
UPJOHN NEW ZEALAND ULC  
URBAN GREEN Ltd  
VALENTINO'S GELATO  
WHOLESALE Ltd  
VANHART Ltd PARTNERSHIP  
VDC Ltd  
VIDEN CONSULTING ENGINEERS Ltd  
WAIPARORE Ltd  
WAIU DAIRY GENERAL PARTNER Ltd  
WATERPROOFING WAREHOUSE Ltd  
WAX EYED BEES Ltd  
Westland Smith Partnership  
WILD WEST WORCESTER Ltd  
WILDERNESS NATURAL HEALTH Ltd  
WILSON BARBECUE Ltd  
WOOLPACK NZ PTY Ltd  
YTQ INVESTMENT Ltd  
YOE & DOE NUTRITION Ltd  
YOUNG'S BAKERY 2019 Ltd  
YOUR HEALTHY GOURMET Ltd  
YU MEI Ltd  
ZHONGKE NEW ZEALAND Ltd



## Questions?

Please contact the GS1 New Zealand Team



**Bev Gough**  
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.



**Craig Russell**  
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.



**Caroline James**  
Customer Engagement  
Manager  
**T** 09 820 3786  
**M** 027 236 6207  
**E** caroline.james@gs1nz.org

Caroline is our Auckland-based Customer Engagement Manager, with the responsibility of assisting our members on all things GS1 throughout the region.



**Justin Saunders**  
Hardware Sector  
Engagement Manager  
**T** 09 820 3782  
**M** 027 534 8708  
**E** justin.saunders@gs1nz.org

Justin is our key engagement manager for the Hardware/DIY sector, and looks after our members throughout Auckland.



**Sharon Coad**  
Healthcare Engagement  
Manager  
**T** 09 820 3784  
**M** 027 281 8310  
**E** sharon.coad@gs1nz.org

Sharon is our ket engagement manager for the Healthcare sector and looks after members throughout the region.