

SCAN

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New Zealand

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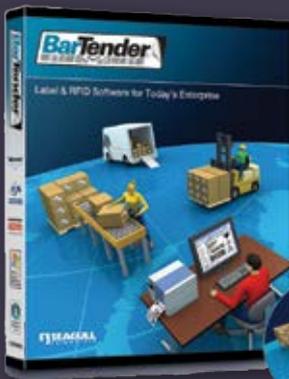


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Watch this space!

Next year and beyond will see New Zealand leap forward in its use of globally-standardised data and digital systems for economy-wide collaboration. A bold prediction but one easily made given various initiatives now well underway.

Big developments are coming in e-Commerce, supply chain management and traceability systems, and information availability to consumers. In every area, GS1 standards will be playing an even bigger role than they do today in how things are uniquely identified and digitally connected, and in how data is captured and shared.

Take the Government's current push for e-Invoicing – the direct, electronic exchange of invoices between suppliers' and buyers' systems with huge benefits to all. As Small Business Minister Stuart Nash explains in this issue of SCAN, the Government will vigorously promote the value of businesses transitioning en-mass to one standardised form of e-Invoicing.

So big is the potential value that the New Zealand and Australian Governments have given inter-operability in this area high priority in their ongoing development of a Single Economic Market (SEM). Eventually companies on both sides of the Tasman will be able to exchange e-Invoices with equal ease, and similar time and cost savings. Research suggests a value gain of \$30 billion-plus to both economics over a span of 10 years.

The Governments have agreed the basic principles of e-Invoicing in the SEM and recently, they've been consulting their respective business communities on a trans-Tasman governance structure. Clearly, there's a big "watch this space" sign across the whole topic as we go into 2019.

Mr Nash makes it clear that for New Zealand, e-Invoicing is just one step in an e-Commerce future that will encompass other routine business activities and will be based, in large part, on the NZBN system of identifiers for each entity. Of course, those NZBNs are created using

GS1 standards – and from now on, we can expect to see them used by Government agencies in an increasing array of their dealings with businesses. The Government is making that more of a priority too.

Meanwhile, GS1 standards are enabling supply chain enhancements everywhere across our economy – and the momentum builds as organisations increase their digital connection in many ways. New Zealand's Trade Single Window is an excellent example, this updated last 1 July so importers and exporters now use only the World Customs Organisation (WCO) electronic message format for most of their cargo reporting, clearance receipts and excise entries. WCO messages contained information needed by both Customs and the Ministry for Primary Industries while eliminating duplication, reducing compliance costs and providing data for much greater analysis of trade patterns.

The Food sector is another going through its own major data-driven transition, thanks to Food Act changes in force from this year. Businesses must have procedures for identifying units of food, and for tracing them back to the supplier and forward in the supply chain. GS1 can certainly enable all that, just as we have on a grand scale within Fonterra's global supply chain. As SCAN has previously reported, Fonterra expects to have its traceability system fully operational in 2020.

Of course much of the demand for product data today is coming not from supply chain partners but from consumers who want to know origins, ingredients and qualities. Parliament's current Consumers Right to Know (Country of Origin of Food) Bill is very much a sign of the times in its compulsion for fresh fruit and vegetables to be properly labelled. In this issue, we

report on the rise of GS1 Databar as one relatively-easy means of meeting such a requirement and of facilitating consumer-accessed traceability.

All but a few countries have only just scratched the surface so far in the use of scanning and digital media to enable consumers to inform themselves more fully on particular products. Another "watch this space" in New Zealand.



Rest assured that GS1 is not standing still. And to give our members stronger insight on the big developments, we offer Connect 2019 – a half day of presentations by leaders in business and government. The date is 11 April, and the venue is Grand Millennium, Auckland. Please keep an eye out on www.gs1nz.org for our exciting programme, and for details on how to register.

I wish GS1 members and all our stakeholders a successful end to 2018, a relaxed holiday season and a great start to what is shaping up to be momentous 2019.



Dr Peter Stevens
Chief Executive

SCAN magazine is produced twice yearly for the benefit of GS1 New Zealand members. It has a circulation of approximately 6000 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.

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PAL turns high-quality data into a valuable tool

Not all paint brushes are the same. Paint Aids Limited puts serious intellectual property and craftsmanship into making its brushes and other products – and into ensuring their unique identity and special attributes are easily recognised across the marketplace.

This is a distinctively-New Zealand company that really understands the competitive importance of differentiating products through quality of design and manufacture, and through quality of product data supplied to trading partners and consumers.

Paint Aids – trading name PAL – leads the local market in supply of brushes, roller sleeves, fillers and related equipment to the painting and building trades. PAL also has a strong presence in DIY through all this country's hardware, paint and building supply chains. The business, with a 57-year legacy of local manufacture and ownership, owns various product brands including the Legend range of brushes, PAL 1-6 Roller System and Contract Filler. It has been a GS1 member for 30 years.

National Sales Manager Matt Jones says accuracy in product identification, master data and eCommerce systems for ordering and invoicing are all critical to PAL. "We concentrate on what our customers require of us to meet their definition of an excellent supplier," Matt says.

The company makes or imports for local distribution more than 1000 product lines, and it supplies around 350 stores New Zealand-wide. Some supply also goes to distributors in Australia and Britain.

Matt says 60% of the range is manufactured at PAL's factory in Mangere, South Auckland, and this includes brushes made by hand. (Some of these brush craftsmen have been with the company more than 20 years).

PAL imports synthetic filament from US-based chemical company DuPont, applying to this raw material its own patented process for the creation of brushes which are widely acknowledged as the best on the New Zealand market. Other innovations have included development of Contract Filler, an all-purpose filler favoured by trade professionals, and the "bump roller sleeve" for use on corrugated iron roofs.

All PAL products are shipped out from the Mangere site which includes a large warehouse as well as the factory.



The company uses EDI (electronic data interface) for receiving purchase orders from, and invoicing, the hardware, paint and building supplies chains. Orders are constantly arriving, with pick, pack and dispatch often occurring on the same day. PAL distributes directly to individual stores nationwide as only one of the chains, Resene, operates its own distribution centre.

"We pride ourselves on aiming to be 100% in-stock with the products required in each of the stores we service all the time," Matt says. "For this to be achieved, or even to meet the standard requirement among customers of 95% in-stock and delivery within three days, we need all data to be accurate in our system and when it's being used by others in our supply chains."

PAL was an early contributor to Mitre 10's National Product Catalogue (NPC) programme. Most of its product range is now represented on the NPC (with digital images as well as data), where it is also available to other hardware and building chains as they begin using the same platform.

Matt says having strong presence in the NPC and efficient EDI has enabled PAL to focus its marketing efforts more on areas that augment the ongoing sales promotion activities of retailers. "We concentrate most on our inventory management processes, our packaging and our retail point-of-sale materials ... things that will keep product in front of consumers, and make their shopping choices easier and better informed."

PAL's interest is in giving users of brushes and rollers, in both DIY and trade categories, greater appreciation of the benefits to them of buying and maintaining paint aids of high quality (benefits include ease of use and better paint finish). "Our products are tools and like any great tool, they need to be used properly and looked after," Matt says. "So much of that comes down to having the right information where it is easily accessed at the right time." Not all paint brushes are the same, indeed.

For more information, see www.paintaids.co.nz
NZBN: 9429000011532





PAL's systems and willingness to collaborate make doing business with this supplier very easy, says Dave Hargreaves, owner-operator of two Mitre 10 Mega stores in West Auckland.

The stores offer 100s of PAL products, ordering stock each Monday using that company's online system and receiving accurate delivery on a Wednesday. "They're a very, very good supplier who knows exactly what we need and how to help us drive sales," Dave says.

He aims for a high 14 weeks' cover on the PAL range to ensure the Henderson and Westgate stores will never let customers down. The weekly purchase order into PAL is largely automated, based on past sales data, forecast sales (including seasonal variability) and intended stock holding levels. Dave says PAL is an excellent candidate for inclusion in Mitre 10's supply chain transformation project which includes "blind receipting" from trusted national suppliers - only pallet barcodes need scanning for verification of order fulfilment.

ProductRecallNZ grows

GS1 New Zealand's ProductRecallNZ service is used increasingly for recalls and withdrawals in food and grocery supply chains - and its utility continues to grow as this country adopts tighter legal rules for food safety.

More than 2200 product suppliers are now registered on ProductRecallNZ and their online notifications through the service can be shared with over 750 retailers. The past year has seen 39 recalls and 135 withdrawals (these occur before products reach the point of sale to consumers). ProductRecallNZ was launched in 2012 to enable faster, more efficient and safer recalls and withdrawals.

GS1 continues to enhance the service and in 2018, we introduced 'Recall Ready' so suppliers can assure their customers that they are capable of using ProductRecallNZ at any time.

To have 'Recall Ready' status, the supplier must confirm its staff are trained in using the service and have run a mock recall notification in the past year. When that status is nearing expiry, the supplier gets an automatic reminder and instructions for renewal. So far, over 920 organisations are Recall Ready.

ProductRecallNZ can better position food businesses to meet tighter requirements for traceability and recall after the Food Safety Reform Act came into force last 1 April. Detailed regulations for these businesses will follow.

See *Produce traceability*, page 7. For more **ProductRecallNZ**, www.gs1nz.org/services

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MediaLibrary – the future of digital asset management



Digital product images have become fundamental in most marketing and sales programmes, and in certain areas of supply chain management. GS1 New Zealand continues to develop its MediaLibrary service for the holding, accessing and sharing of high-quality “digital assets” – video, photography and other forms of visual media – within and between companies.

MediaLibrary has grown out of GS1’s previous digital asset management services including those under the SmartMedia and Images in Space brands. It enables trading partners to exchange such assets for use in printed collateral, websites, point-of-sale displays, mobile apps and so on.

MediaLibrary is becoming the largest and most capable platform for digital asset storage available to New Zealand-based businesses.

Chief Executive Peter Stevens says ongoing development of software and applications on the platform will add scale and versatility to MediaLibrary over time.

“We know just how critical having the right digital assets available, at the right time and in the right place, can be for any product supplier or retailer,” he says. “MediaLibrary takes worry, time and cost out of how companies meet those needs, while also ensuring the assets are available to all who need them at high standards and at the required specifications.”

The service is supported by GS1’s product photography service which enables companies to obtain photographs to the high standards generally required by retailers today. Users of the MediaLibrary repository can, of course, create their own digital images, ideally to the same high standards. (GS1’s product photography services can be used without MediaLibrary).

Peter says the food and grocery sector is

the biggest user of MediaLibrary at this stage, with GS1 focused on helping to roll the service out to suppliers of the Foodstuffs and Countdown supermarket groups. Foodstuffs and Countdown supermarket groups. A new application programme interface (API) will soon be available to enable easier access to the repository, this new software now being developed with the two groups in readiness for widespread use.

To date, MediaLibrary has approximately 200 supplier users who have uploaded 42,000 images. The numbers are growing each month.



For more information, see

www.gs1nz.org/services/medialibrary

CONNECT 2018 – NEWS



No more ‘shopping’

Digital technologies will transform retailing so no-one actually

“goes shopping” anymore. Instead, retailers will come to you with personalised offers based on your past purchases or your analysed preferences for the future. This forecast from Amit Menipaz, eBAY’s Vice-President for Vertical Experiences & Platforms, speaking at GS1’s Connect 2018 conference in June.

Amit believes tomorrow’s winners will be businesses that capture and share digital information on everything in order to create the best possible consumer experiences. “No-one is going to go

searching for stuff on particular sites anymore ... people will be shopping all the time whether they know it or not, and businesses are just going to have to be where people are (online) in order to interact with them,” he said.

Today, at least 50% of consumers’ purchase decisions in the US are made with some form of digital assistance. Amit predicts it will be 100% globally in the next 10 years as business models are transformed to fit younger consumers’ online existence and their vastly different attitudes to owning, sharing and trading goods.

eBAY is at the forefront of using computer algorithms to instantly sort items according to buyer and seller preference, and of creating digital representation of

people and their interests. “It all begins with value propositions of use to each consumer ... there’s no limit to the number of ways you can put things together if you think beyond your particular product and your particular company.”

Other digital technologies are just as important to the transformation: Spatial computing where shoppers can have a virtual reality experience of whatever they might buy, and the Internet of Things with its rapidly expanding ecosystem of connected devices and objects (20 billion worldwide at last count!)





GS1 Databar – barcoding’s next frontier

Retailer interest is mounting in the use of GS1 Databar for more efficient management and sale of loose fresh produce and other items. GS1 Databar is a barcode for items that are otherwise hard to mark or, when used in longer form, for the extension of traceability right to retail point-of-sale. Worldwide, GS1 Databar has been slowly rolling out for a decade. Its use is now expected to grow more steadily across New Zealand and Australia, particularly in food retailing.

GS1 Databar enables point-of-sale scanning of Global Trade Item Numbers (GTINs) on, for example, individual pieces of fruit where sales staff would otherwise be manually keying a four-digit Price Look Up (PLU) code. This makes price retrieval, sales recording, category management and, potentially, produce traceability much faster and more accurate to the advantage of both retailers and consumers.

The most common version is the GS1 Databar Omnidirectional linear barcode, presented either as one line or “stacked” as shown above. In this example, the barcode carries a 14-digit GTIN identifying an individual mango and the supplier. It carries only as much information as an EAN-13 barcode which is, of course, the ubiquitous type of barcode used on packaged consumer goods everywhere.

EAN-13’s are already widely used on bagged produce where there is space for a label or sticker of the size required. As for PLU codes, these are likely to still appear as four (small) digits printed on each GS1 Databar sticker as a back-up for produce identification at point-of-sale.

The benefits of GS1 Databar have been around for a decade or more but implementation costs and legacy software issues have slowed adoption. Most scanners made in the last 20 years are

capable enough, but the accompanying software usually could not process data off this barcode type. Now, more and more retailers worldwide are moving across as traceability and food safety become bigger concerns, and as they invest in long-scheduled upgrading of scanning hardware and software. GS1 Databar represents the next frontier in point-of-sale scanning.

The simple GS1 Databar Omnidirectional barcode that fits on a fruit label can only carry a GTIN, a basic identification (for example, a mango under the Mango Pro brand). It is of limited help for traceability although better than using only a PLU which does not identify the supplier.

The GS1 Databar Expanded barcode carries a GTIN and data such as batch/lot, date and serial number, all of this supporting traceability. In fact, GS1 Databar Expanded can do anything the current carton and pallet barcodes can – and do so at point-of-sale.

Sticker size is less of an issue when items are bigger. The fresh fish shown below has a GS1 Databar Expanded barcode containing GTIN, catch date and location, fishing method used and fishing boat identity. In this example, German consumers can retrieve this information for themselves by scanning in a supermarket. For more on this see: METRO Cash & Carry

Traceability System - YouTube
<https://www.youtube.com/watch?v=yFaeMpXDAKA>

Greater use of GS1 Databar Omnidirectional on loose produce and other sensitive food items is expected to stimulate interest in its application to other small, high-value consumer products such as cosmetics and jewellery. The advantages here are accuracy in inventory control and point-of-sale pricing.

For more on GS1 Databar, see
www.gs1.org/standards/barcodes/databar



Produce tracing

Traceability in New Zealand’s fresh produce industry is being assessed as part of a major project supported by the Government, through the Sustainable Farming Fund, and led by United Fresh with GS1 New Zealand technical support. The project’s objective is to develop best-practice guidelines for use in fruit and vegetable supply chains, from the grower through to the consumer.

Field work to assess current practices began during October. A project team including GS1 personnel traced two pallets of strawberries from two growers to the points of sale for this produce at four Auckland retail outlets. GS1 standards including the GS1 Databar were used to identify the produce and trace its movement through these supply chains. Initial results exceeded expectations.

The project will continue in 2019, with a focus on identifying and testing methodologies needed for robust traceability systems for fresh produce.





e-Invoicing and NZBN for productivity gain and business innovation

Small Business Minister Stuart Nash is leading New Zealand's push into e-Invoicing based on mass take-up of the NZBN. The 2018 Budget put funding into a major project for this and last March, New Zealand and Australia committed to a joint approach on e-Invoicing across the Trans-Tasman single market. Mr Nash talks with SCAN about Government intentions for e-Invoicing and the NZBN to promote productivity gain, business innovation and further e-Commerce initiatives throughout our economy.

Stuart Nash first entered Parliament in 2008 and was re-elected as Labour MP for Napier in 2014. He was sworn in as Minister for Small Business, and of Police, Revenue and Fisheries in October last year. Before entering politics, the Minister held senior management roles in small and large organisations, including responsibilities in IT, sales and marketing, business strategy, resource planning and general management. He is a graduate of Victoria University of Wellington and of the University of Canterbury.

☎ How do you see the future with broad take-up of e-Invoicing?

I'm advised that about 35% of invoices are paid late across the New Zealand economy today. Even Inland Revenue says that it late-pays a third of the invoices it receives. The issue is simply that when invoices are submitted, they're often wrong and must be sent back to the supplier, corrected and re-submitted ... that's another 30 or so days added to the payment cycle. Before you know it, your business has suppliers or perhaps banks knocking on the door, saying 'hey we need to get paid here'. Not much good for anyone.

The move to e-Invoicing should tidy that all up and we can expect many businesses to be paying in fewer than 21 days from then on ... maybe 14 days will become the norm. I think there will be a cultural shift around e-Invoicing as people find they can be more efficient on payment issues, and as big players in both the public and private sectors say to their suppliers, 'we're going to e-Invoicing and if you want to be part of our business supply chain, you have to come with us which means using the right software package so that my system can talk to your system'. The transition could be tough for people who have been doing things their own way for decades ... but I bet that after six months, they will be saying, 'why weren't we doing this six years ago!?'.

For us in Government, the challenge will be communicating the value proposition for e-Invoicing ... you're going to be paid on-time and more than that, there'll be a new paradigm around 'on-time' and the ease of business transactions. Today you usually have to wait until the 20th day of the month following, and perhaps 50 days after you delivered. In future, that wait might be never more than two weeks.

There might be four or five compelling value propositions ... we have to ensure we get those out to people in ways meaningful to them. They can tick at least two of the boxes perhaps. It might be the advantages of being paid faster, or of incurring less cost when you do your invoicing. You could be moved by saving time, say, five hours a month. There's also the motivation that comes from seeing everyone else move to e-Invoicing. I'm sure the market will drive everyone in the same direction over time.

☎ What do we actually mean by 'e-Invoicing'?

It's literally a customer entering all your details as a supplier into their accounting software and you doing the same ... when you push 'go' on an invoice message, it can be received, authorised and paid without any unnecessary delay. It's literally accounting software talking to accounting software, and processes that allow an

invoice to be verified against an order number and your electronic record of goods and services being received. As soon as that happens and the invoice is confirmed as correct, then it can be paid.

There are no more PDFs being created and emailed through to the accounts payable department at your client company, where it is printed off and cross-checked with an order number and so on. No more saying, 'we asked for 15 linear metres, the invoice is charging us for 17 metres ... we need to look again at how much was actually received'. The process will show up mismatches in data wherever they occur in purchasing and payment processes ... if there is a problem, people will find out within days, not weeks.

e-Invoicing is basically automating the supply chain to the point where correct invoices can be received and paid in a timely manner and without manual work in organisations. A substantial number of small businesses in New Zealand are already using one of the software packages that will support this.

☎ Where is \$5.8 million allocated in the 2018 Budget going to be spent?

We've got MBIE¹ staff working on the whole programme at the moment and that includes our collaboration with Australia on inter-operability. Government agencies

¹ Ministry of Business, Innovation and Employment.



are going to be driving much of the early take-up of e-Invoicing with changes in their own processes ... we have to be walking the talk within the state sector to have credibility with business. Same as with the NZBN. The Government and its agencies have an important role in driving innovative processes forward in what they do every day. From there, suppliers and others can be asked to come on board.

☉ Why is Australia so important in the work on e-Invoicing?

It's about inter-operability. There's no point in us working on Beta and Australia going ahead with VHS². Between the two countries, I think there are 1.3 billion invoices generated every year, so with e-Invoicing we're talking about substantial productivity gain in businesses that trade both ways across the Tasman.

This is something that both Governments really want. The collaboration is everything from Ministerial and Prime Ministerial talks, to officials travelling both ways across the Tasman and exchanging lots of ideas and papers. There will be confirmation of progress at the highest level at the appropriate time. I'm impressed with the

speed and quality of the work that is being done by our officials and their Australian counterparts. It's very much part of the Single Economic Market concept.

As the Minister responsible for e-Invoicing, I would like our Prime Minister to be able to stand up at the next Australia-New Zealand leaders forum next March and say that e-Invoicing is nearly a reality now³. We're working fast ... but we also need to ensure the system has integrity and is robust. The last thing we want is to put something into the market that is half baked ... 80% right but with businesses finding that some of their messages bounce back. At that point, they'll give up and go back to paper! Of course, e-Invoicing needs to work for every type of business who might be operating Trans-Tasman and that encompasses many, many different types of business.

☉ Are the Australians ahead on digital business processes?

They are slightly but they're also keen to work with us ... we're fast catching up. There's no benefit to Australia in doing things in this area independent of New Zealand and there's no benefit to us

in not tagging on to a lot of what they're doing. We are very aware of what is happening around the world. There's growing recognition that our old 'number 8 wire' mentality isn't good enough today. It's helped build a level of resilience among New Zealand businesses, but today our innovativeness needs to be taken to the next step of professionalism.

☉ What's the vision e-Commerce overall?

e-Invoicing is the first step and there's a lot more to come. We would love to get the whole procurement process online across the New Zealand economy ... and to have world-leading traceability on our products. The Government has a responsibility to promote the best use of technologies that drive higher productivity and more innovation, and of course, those technologies are constantly being developed. Once we get e-Invoicing embedded we won't rest ... we're looking at the next steps for using new technology in every supply chain function.

In fact, really innovative New Zealand firms – there are not that many but the number is growing – are already well on the way. Take those who are selling into China for

² Reference to competing video technology standards in the early 1980s.

³ Prime Ministers Jacinda Ardern and Malcolm Turnbull announced a joint approach on e-Invoicing after the Annual Australia-New Zealand Leaders Meeting in March 2018.

Continue on page 10



example ... firms who are selling to consumers off Alibaba or another platform and who do all their warehousing in New Zealand, doing just-in-time delivery as orders come in. Gone are the days where you sent a huge delegation to China, set up an office in Beijing and incurred lots of cost in warehousing your product in one of the most expensive warehousing precincts in the world (China). It's getting easier and easier for SMEs to actually engage in export markets in ways they never did before. When New Zealand signed the Free Trade Agreement with China (2008), you had to be a Fonterra or Lion Nathan to be there in a meaningful way because of the resources required to do that. The way things are going now with online platforms, you can take advantage of an FTA in a way we never foresaw ... marketing and selling directly to the Chinese consumer and getting paid in whatever currency you like. That is the fast-innovator end of the market today and I don't know how long it will take to become the norm. Certainly, in my children's lifetime.

Where technology is really going to drive the New Zealand brand forward is traceability. As people become more educated and more enabled by technology, they are going to want to know where their food comes from ... what part of the world, using what resources and processes. The technology exists now to some extent, an example being a fishing company that can send video images of each catch along the supply chain to restaurant diners who will be consuming the fish. That is the sort of high-end consumerism where New Zealand could be

aiming with its great products. We do have a good country brand but we've always got to be looking at enhancement – and traceability is a big part of that.

☺ The market is fast evolving on its own accord. What role does the Government really need to play?

Three things. We can be a big enabler for New Zealand businesses. The Government's got to have trade people on the ground in global markets, communicating the national story, basically being brand ambassadors. The businessperson in Gisborne who is producing and selling manuka honey in China, for example, can't also be responsible for promoting Brand New Zealand. The second thing is legislation and that is about ensuring New Zealanders selling on Alibaba, eBay and so on are protected ... that when they sell, say, \$50,000 worth of goods in a container sent to China they get paid. We need to ensure that transactions occur as cleanly as possible and that people meet their legal obligations here and around the world.

The third role for Government is squarely in relation to trade agreements. Of course those generally reduce tariff barriers but they also need to address non-barriers of all kinds. We've got to ensure integrity in the whole supply chain including the efficiency of processing when goods pass through borders here and overseas. We need to have the right systems and platforms for enabling that to happen in good time and at least cost. One illustration of this is ensuring tax compliance at the New Zealand border...

we're creating the systems needed to collect GST on goods imported here after purchase online. The Government needs to work with other countries in getting them to adopt the same or complementary approaches and systems for management of trade flows.

Only governments can do these three things and they're increasingly important with the rise of e-Commerce in a globalised world where businesses and consumers are able to do so many more transactions. This Government is very focused on getting a genuine multi-agency approach to all the issues ... in fact across every portfolio. I know this sounds glib, but we have to work together much more if New Zealand is going to optimise all its opportunities economically and in social policy areas as well.

☺ Where does the NZBN fit in to all this? Surely it is a building block in any form of e-Commerce.

It is exactly that ... the building block that will allow organisations big and small to leverage much of what the Government is doing and to grow productivity in all their supply chains. The NZBN is the unique identifier that gives confidence to your customers and suppliers, and takes away a lot of the pain in routine business activities especially for small businesses. The Australians have done it really well with their ABN which is also the GST number for an Australian business. The ABN is at the bottom of every business card. In New Zealand, I'm asking people to put their NZBN on every card printed from now on here. If someone asks about your business, you can refer them to the NZBN



website for all the basic information. When the NZBN is also linked to the compulsory provision of information, it becomes even more powerful.

What about the NZBN becoming our GST number as well?

Ultimately the fewer numbers you have the better, right? In the future, if you want to do business with any part of government and ideally any company, you will need an NZBN ... you register your business get an NZBN and a GST number and away you go. And in time, we could almost get rid of the GST number.

How well are government agencies doing with their implementation of the NZBN in their systems?

I have written letters to all agencies after the most recent annual audit on this issue. Some organisations like the Broadcasting Standards Authority are doing brilliantly, but District Health Boards aren't. Some of my letters have been a bit harder than others. Eight core government agencies⁴ must have the NZBN implemented in all their dealings with businesses by December 2019 by Cabinet Direction. There are some agencies of whom we are not requiring implementation at this stage, the Crown Research Institutes for example. In reality, I think using NZBNs will just become part and parcel of doing business for everyone whether in the public or private sector.

Audit report pages relating to each Minister's portfolio were pulled out and sent to him or her with a message that,

'your agencies are doing well' or 'your agencies need to do better'. We recognise there are costs. It's easy for Inland Revenue, for instance, as they go through a business transformation at the moment, spending \$1.8 billion ... they can embed NZBN as part of this. At the extreme end you get a couple of organisations who have buried their heads in the sand. There's a middle group where the chief financial officer or whoever has NZBN responsibility knows they have a deadline, and they're needing some encouragement to get the work done. Over all, we are getting there.

What importance do you attach to the current process of updating the primary business data against NZBNs?

It's another important piece of the pie. We are doing consultation on what data to include, what works currently, what isn't needed and so on. There's been a lot of feedback. We need to get this right because you really only get one chance at it ... getting it wrong will leave people cynical about future efforts. We do need to be very clear that this isn't 'Big Brother' collecting information on people but rather, it's about enabling productivity gain. Most of the information in the NZBN register will be what's already public anyway, in various places. There are some things you can ask not to be publicly available.

Are there particular business sectors likely to stand out as early adopters of NZBNs and e-Invoicing?

These things will take off where there is a

business association leader who really gets it ... when someone who is well respected starts telling his or her business members, 'this NZBN stuff is brilliant, I've used it in my business and you need to get on board'. It will be that sort of across-the-fence talk, starting first with an inspired leader and most people will act when they hear about it from someone they know and trust. Communicating the value proposition will be the great challenge for the Government. I can't get to all the decision makers from here in my ivory tower but MBIE and others will use all the channels available.

What is your key message?

e-Invoicing is the beginning of a journey as we focus on really driving productivity and innovation in the New Zealand economy by using current and emerging information technologies. As a small trading nation, we have a lot to gain from making it easier for businesses – and small to medium-sized businesses in particular – to operate and to engage successfully in export markets. As technology develops, we've got to make sure we are close behind the lead adopters. As I've said, people need to understand the value proposition to them ... and the Government doesn't need to take any credit for this. The technology itself, and peoples' ability to see its benefits, will be what drives change. I think we're going to see rapid growth in e-Commerce over the next three or four decades.

Note: NZBNs are based on GS1 Global Location Numbers, sourced through GS1 New Zealand.

⁴ MBIE, Ministry for Primary Industries, Inland Revenue, Callaghan Innovation, ACC, NZ Customs Service, Statistics NZ, NZ Trade and Enterprise.

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Eco-friendly entrepreneurs

Passion for less plastic wrapping in everyday life has made accidental entrepreneurs of Stacia Jenson and Miko Hayashi.

The Hawkes Bay couple started investing time and thought in alternative materials for food protection. Eighteen months on, their LilyBee Wrap business employs eight people, sells its eco-friendly product online and through a growing number of stores. They are also opening doors at some of New Zealand's biggest companies.

LilyBee Wrap is cotton fabric treated with a mix of bees wax, tree resin and coconut oil, and presented to the consumer as a visually-attractive, hygienic and re-usable food wrap in place of plastic film and other forms of plastic container.

Demand for LilyBee Wrap has taken off since Stacia and Miko sold their first batches at the Hastings farmers market – and Stacia says they were blown away when Countdown approached them about adding the product to its growing range of sustainability choices for customers.

“It’s been a wild ride keeping up with demand ... we now employ eight people, mostly mothers who can work flexible hours while their children are at school,” she says. The couple have moved LilyBee Wrap production from home to leased business premises in Napier – and they have joined GS1 to supply into Countdown and other stores.

Stacia believes LilyBee Wrap has tapped people’s growing alarm with the omnipresence of plastic wrapping. “It will

become like smoking ... people are turning away as they realise just now inundated we are with plastic. They feel overwhelmed and getting the stuff away from our food is a great place to start.”

The couple had their realisation while on a van trip around New Zealand. They were increasingly uneasy about the accumulation of plastic wrapping and its effect on their food in the summer heat. “Miko started experimenting with other materials including bees wax ... it took a while but he came up with a solution which could be applied to the fabric, preferably organic cotton, and works extremely well,” says Stacia. Miko – his previous career includes cooking – keeps his recipe secret (as any good entrepreneur would!)

Other products are in the pipeline, along with new business relationships. Indeed, LilyBee Wrap has found common ground with Air New Zealand after Stacia’s approach with sample wraps. “They were very positive and we’re working on a new product especially for Air New Zealand.”

Business might be booming, but Stacia and Miko are determined to keep LilyBee Wrap a family business – that includes their baby daughter – and to retain their farmers’ market stall. And yes ... the wraps are packaged in brown paper (now proudly bearing GS1 barcodes).

For more information, see www.lilybeewrap.com
NZBN: 9429046226150



Justin Saunders

Justin joined GS1 New Zealand in August 2018 as the Hardware/DIY Sector Engagement Manager and is based in Auckland. He works closely with companies in the sector to help them add value through use of GS1 standards and solutions. Justin previously held marketing and key account management roles in hardware and related businesses here and in Australia, most recently with Chubb New Zealand. He graduated from Melbourne’s Monash University with a Bachelor of Business and Commerce degree, having majored in Marketing and Management. When not working, he enjoys time with his family and friends, getting out into the great outdoors and doing some DIY at home.



Natalie Judd

Natalie Judd joined in September as Implementation Manager for the Hardware/DIY Sector. Based in Auckland, Natalie manages the Product Information Management (PIM) Connector and she is also the lead GS1 person on master data issues in the Hardware and Agribusiness sectors. Prior to joining GS1, Natalie worked most recently for Ronald McDonald House Charities as Business Intelligence Manager. She led a number of system implementations projects within that organisation. When not at work, Natalie enjoys time with her family and friends, and taking every opportunity to travel to new and different places in New Zealand and overseas.





New Zealand's 'golden opportunity'

From England, the NHS perspective on standardised data collection and analysis in healthcare

New Zealand has a golden opportunity to strengthen efficiency and patient safety in its public hospitals by learning from England's experience with standardised identifiers and data gathering, and integrated e-Procurement, says Keith Jones of the National Health Service (NHS). Mr Jones – a Consultant Maxillofacial Surgeon and Director of Clinical Surgery at the NHS's Royal Derby Trust – met NZ health officials in June.

Interviewed by SCAN in Wellington, he said: "If you adopt a system like the one we're moving to, the benefits to your population would be remarkable in terms of patient

safety and clinical effectiveness, along with operational productivity and other things that come with standardisation ... from my meetings here, I'd say there is a significant amount of interest. The challenge is about where you start the implementation".

🕒 The NHS has been moving on GS1 Standards and integrated e-Procurement for some time. Royal Derby is one of the lead implementors. What does this mean?

Our Department of Health and the NHS were focused on building one procurement catalogue of everything that is required by hospital trusts whether in London, or Derby or anywhere in England. Our Director of finance and performance at Derby could see, because of his commercial background, that actually standardised data and barcodes could be used more extensively for healthcare inventory control. When he explained this to me, I realised we could use them in the clinical setting as well ... that's when exciting changes started to appear.

We looked initially at operating procedures and started to record things like their start and finish times, how many staff were involved, their use of consumable items in theatre and so on. Data on all these things were collected using barcodes and scanning where we could. It started building a composite picture of every operation. We allotted standard identifiers to all our common procedures, it might be a neck dissection, a tracheotomy or whatever ... then we allocated barcodes to each of those. It's led to a complete culture change where, for example, we have a 'scanning lead' in

each theatre – someone responsible for preparation of the operating list, and for scanning people, place, product and procedure as we go through the day.

Since the beginning of 2014, we have data on over 160,000 procedures in the 35 operating theatres of one hospital. That's given us information on many things including theatre productivity and clinical variation – and from there, we're doing things to make better use of resources and enhance patient safety. Things like, for example, having exact identification on all the items implanted in patients.

🕒 That could be intrusive for clinical staff. Any push back?

We started in a small way with a relatively compliant group, then rolled it out across the organisation. Initially theatre nurses felt some threat but when we allowed them to do the scanning, they quickly realised this freed them from laborious chores, so they could do their real jobs.

Traditionally physicians would not accept data that they themselves hadn't been involved in collecting ... but ours also quickly developed ownership when they saw that all this information was about their environment and their teams. Doctors are a

competitive group and quite quickly they wanted to see "their data" and compare it with that of colleagues' teams. Of course they really just wanted to do the best job they could and they quickly saw benefit in having all this extra information. As clinical director I was able to look for areas of significant variation in how we were performing across all teams and procedures – variations that might be cause for concern: Why were we doing something so differently in one team compared with another?

🕒 What does the patient see of all this data gathering?

When someone is admitted to the hospital, they receive a wrist band carrying their barcoded GS1 unique identifier. That becomes the point of reference right along their care pathway. We build a picture of what treatments that patient has received, when and from whom. In the operating theatre, we can see not only who was present and for what purpose, but which instruments and theatre trays were used, which consumables were used and so on. We collect all the right lot numbers and quantities ... everything we do is tracked and traced.



📌 What results have come through so far?

We're not able to look closely at patient health outcomes just yet, but we have started looking at patient length-of-stay times and operating procedure durations ... and at some areas of medical complication. They are areas where we can collect more data and do more analysis as time goes on.

We haven't been able previously to track instrument trays in use with individual patients. Now every tray has a barcode that is scanned and referenced back to the patient. We don't take items out of their (sterile) packaging unless they are actually needed ... that's when they are scanned and we know exactly what we're using. In New Zealand, I had a conversation with a surgeon who admitted they would have 10 sutures open on the trolley, use only six and throw the rest away. We don't do that sort of thing anymore. We have been able to reduce the stock on our shelves ... and all this goes with our much greater efficiency in purchasing and requisitioning. We have only just started with the cost savings and efficiency gains, and also with making changes that will improve patient care and safety over time.

NHS milestones

England's Department of Health (DH) mandated the use of GS1 Standards throughout the NHS in 2014 – one of several big initiatives for making hospitals and their supply chains more efficient, and for enhancing patient safety.

The mandate requires the use of GS1 Global Location Numbers (GLNs) for identifying locations (even within hospitals) and companies, and the assignment of a GS1 Global Service Relation Number (GSRN) to every patient receiving NHS care. The GSRN must be barcoded on a hospitalised patient's wrist band.

The DH also published a landmark e-Procurement strategy in 2014, outlining various moves to standardise purchasing across the NHS, and to require use of GS1 Standard master product data within hospitals and supply chains.

This was followed by the in-depth analysis of NHS productivity and performance carried out by Lord Carter of Coles in 2014-16. Lord Carter looked at "unwarranted variation" in key resource areas (including allocation of clinical staff, administration and procurement). His recommendations for resource optimisation and for management based on "a single version of the truth and an integrated performance framework" could save £5B per annum in 136 hospitals (on a current budget of £55B).



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