



# Scan4Transport Enabling freight to talk

IPIC-2023

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**S4T**  
Scan4Transport

Scan for more information



Delivering digital capability in the transport process

**13-15 JUNE 2023** Athens, Greece  
[www.pi.events/IPIC2023](http://www.pi.events/IPIC2023)

# Agenda

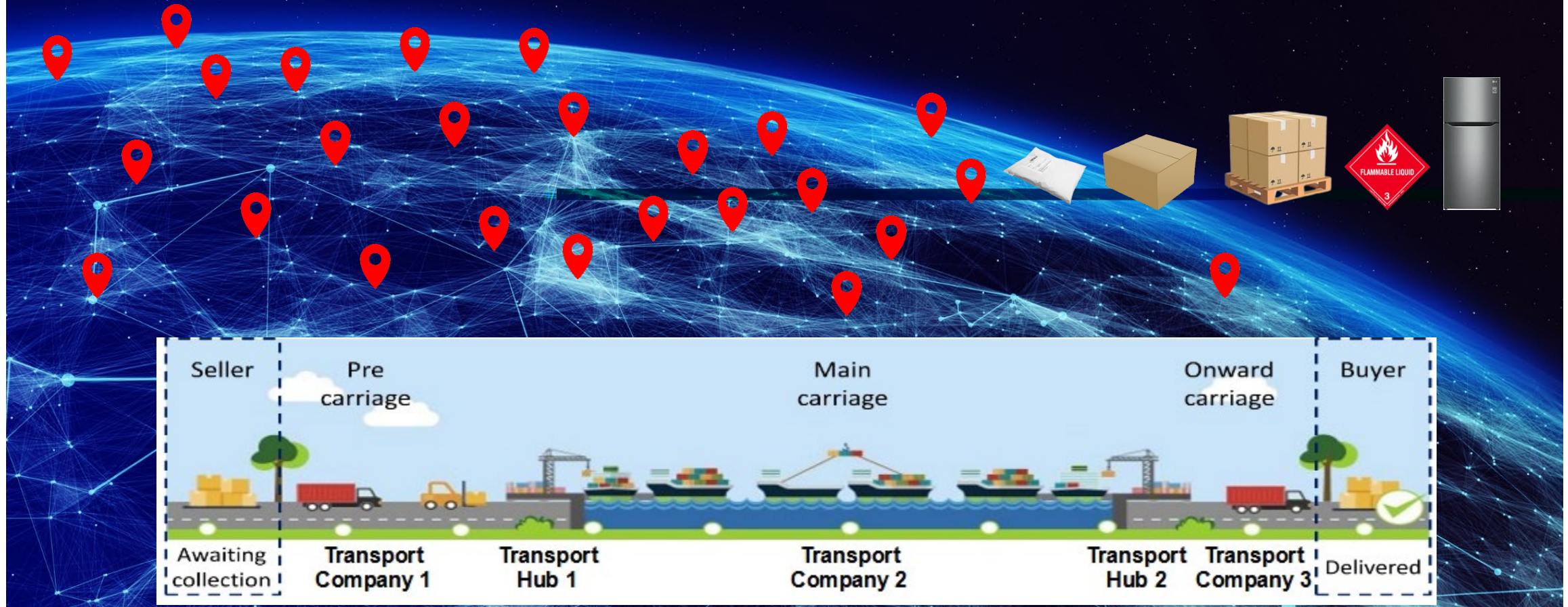
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- The Challenge – What is the Problem?
- What could be the Solution?  
Scan4Transport standard
- How does Scan4Transport help?

# Challenge - Fragmentation

Millions of Transport Companies worldwide  
Running their own Systems



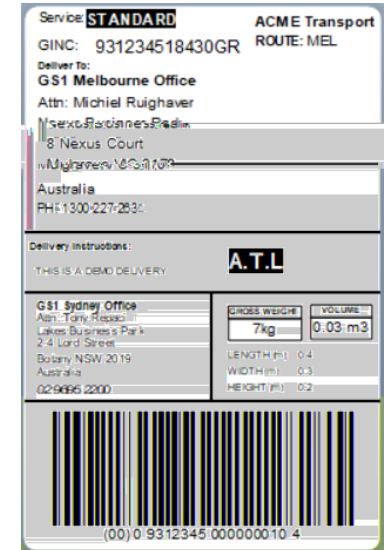
# Overabundance of identifiers & no common data format





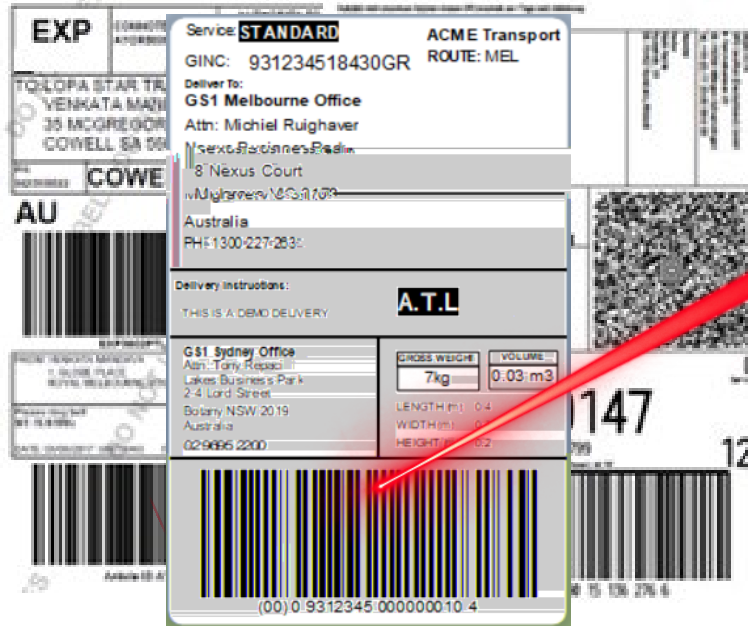
# Multitude of Transport Labels

- Each Logistic Service Provider insists on its own format
  - Causing big headaches for Shippers in Despatch processes
    - Causing relabelling at each handover



# Lack of required information

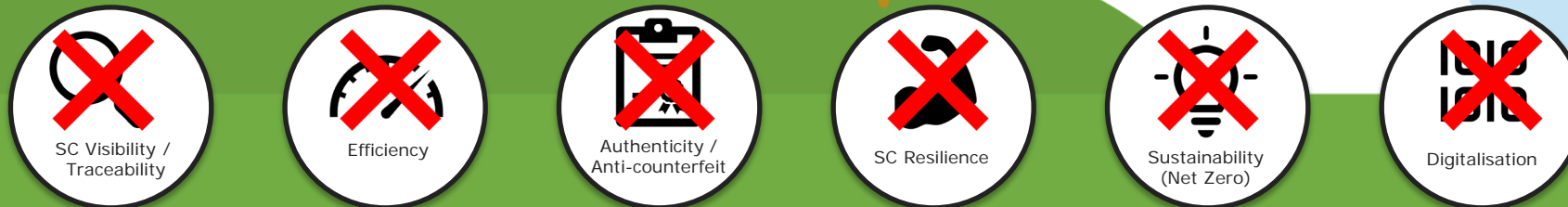
Many (SME) transport operators do **not** receive advance information



Requiring **manual processing** of data on the Transport Label

# Why is this a Problem?

## Transport impacts key business initiatives

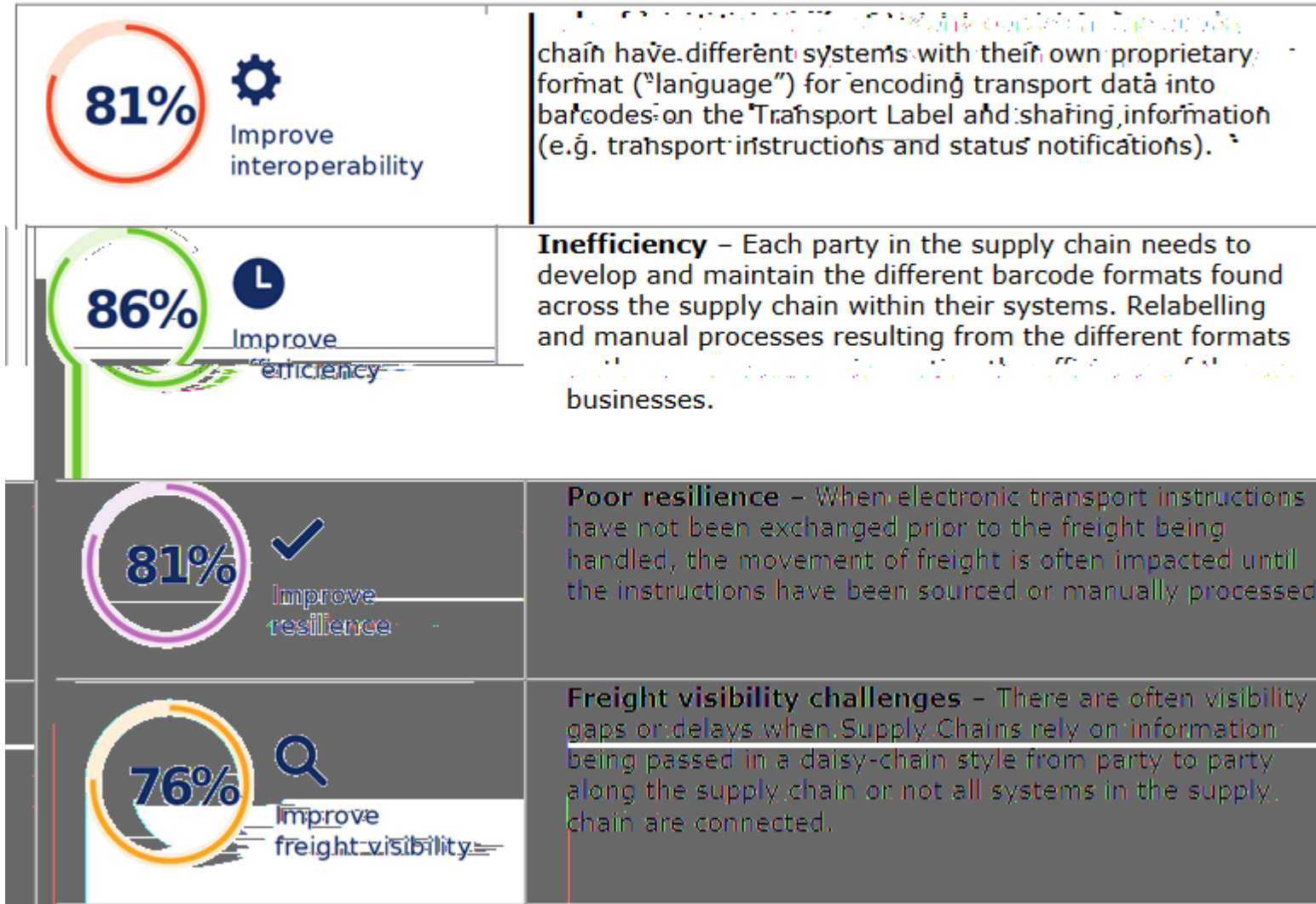


Non value add activities waste time, resources, money and more

Lack of resources is a primary obstacle to many of logistics' most pressing problems

We need ways to reduce the waste

# Industry Survey Confirms



- More than 4 out of 5 respondents indicate major improvements are needed in transport of packaged items related to
  - Interoperability
  - Efficiency
  - Resilience
- 3 out of 4 respondents feel that visibility about the progress of transport execution must be improved



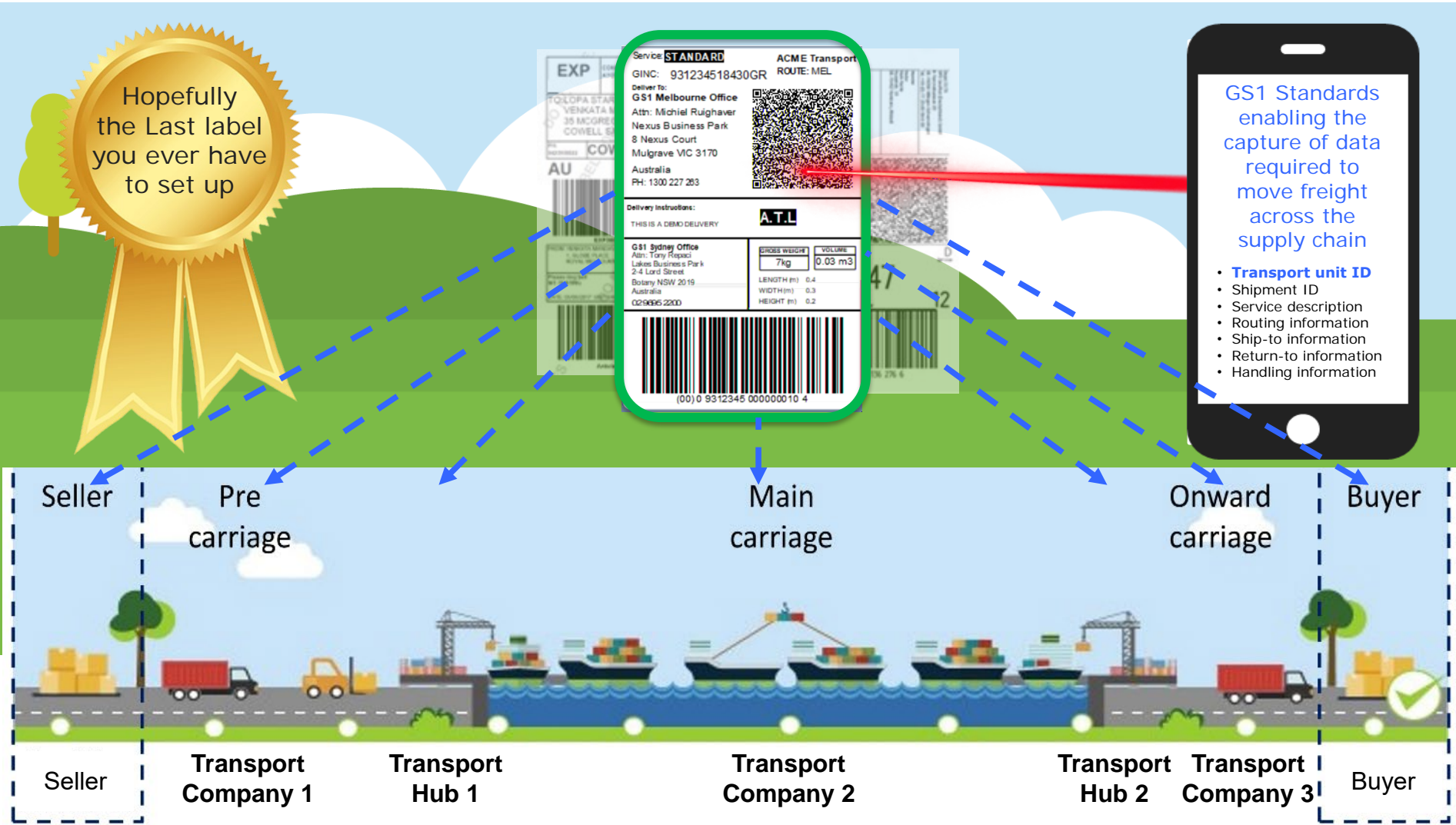
# How may we solve the Problem?

## Scan4Transport

- Making structured data available on the box



# Scan4Transport – Developed by Industry for Industry



# All Required Information is on the box



## The 2D barcode contains the structured data for transport execution

- The globally unique identifier for the transport unit  
This is a mandatory data-element. Without it the S4T standard cannot deliver its full potential
- Basic data about the transport unit  
Weight, dimensions, volume, returnable asset identifier (e.g., for roll-cage, pallet or container)
- Trade and Transport Reference identifiers  
Identifiers for the Trade Transaction (shipment) and Transport Contract (consignment)
- Ship-to / Return-to information  
Address data, geo/GPS-coordinates, identifier for the ship-to location, contact details
- Handling instructions  
Dangerous Goods flag, delivery window, Signature-required, Authority-to-Leave
- A Digital Link (URL / URI)  
This enables the operator to access remote information in case Internet connectivity is available

[https://visibility.Seller.com/00/195212342345678909?3301=000045&3312=000030&3322=000040&3332=000050&4300=GS1+New+Zealand+\(Auckland+Office\)&4302=Level+5%2C+25+College+Hill&4304=Freemans+Bay&4305=Auckland&4307=NZ&420=1011&4308=%2B64098209088&4309=05315182031747494660&4323=1&4324=2306300900&402=95212340000000012&410=9429300016329&s4t](https://visibility.Seller.com/00/195212342345678909?3301=000045&3312=000030&3322=000040&3332=000050&4300=GS1+New+Zealand+(Auckland+Office)&4302=Level+5%2C+25+College+Hill&4304=Freemans+Bay&4305=Auckland&4307=NZ&420=1011&4308=%2B64098209088&4309=05315182031747494660&4323=1&4324=2306300900&402=95212340000000012&410=9429300016329&s4t)



# Scan4Transport

## “enables freight to talk”



[S4T Website](#)





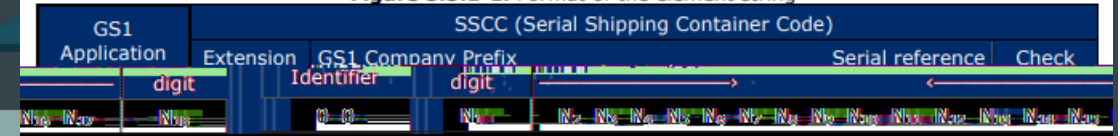
# Improved Interoperability

## Consistent Label Data Standards No Need to Relabel



## Consistent Transport Unit Identifier Across Journey

Figure 3.3.1-1. Format of the element string



I'm globally unique, so you don't need to rename me and you won't confuse me with anyone else



SC Visibility /  
Traceability



Efficiency



SC Resilience



1010  
1010

Digitization



SC Visibility /  
Traceability



Efficiency



Authenticity / Anti-  
counterfeit



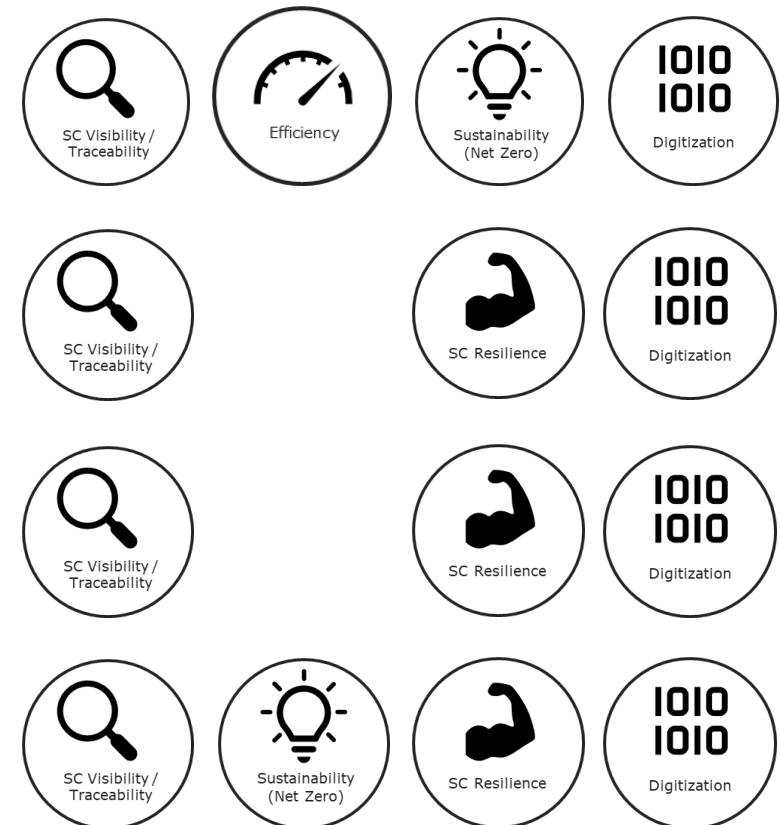
1010  
1010

Digitization

# Enhance Process

## All required info is on the box

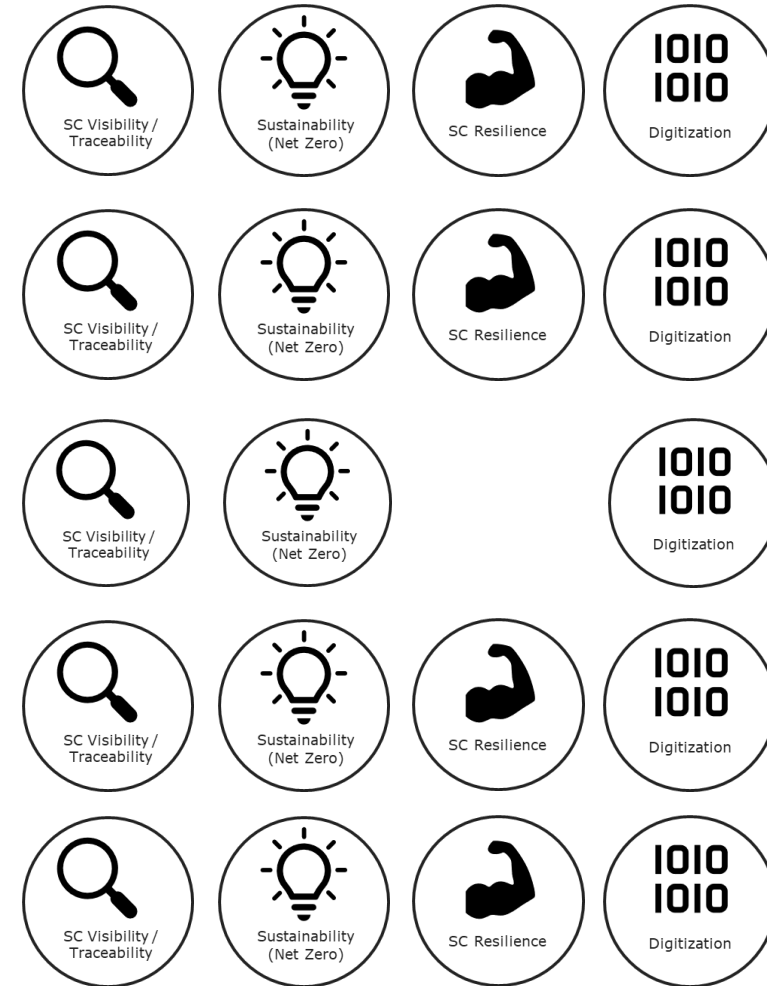
- Weights and dimensions for
  - better planning
  - prevention of injuries
- Prevent (un)loading errors using consignment information
- Improved safety and compliance e.g., hazardous materials
- Geo/GPS-coordinates enabling accurate delivery everywhere



# Increase Customer Satisfaction

## All required info is on the box

- Shipment information to keep transport units together for final delivery
- Understand service requirements
  - Speed of delivery (e.g., express)
  - Delivery Window
- Keep recipient informed  
contact details
- Reduce failed deliveries  
Signature-needed vs Authority-to-Leave
- Simplify Reverse Logistics  
Return address



# How may we solve the Problem?

## Scan4Transport

- Enabling dynamic interaction with stakeholder systems





# What systems may be accessed?



- Any system that is connected to the Internet e.g.,
  - Seller's Delivery Visibility platform
  - Logistic Service Provider (LSP) own system/s
  - Any third-party systems, which includes
    - Other LSP system/s
    - Registry Platforms for Locations or Organisations

# Accessing the Seller's Visibility Platform



## Why should you do it?

- **Delivery location may have changed**
  - Geo/GPS-coordinates may have been added
  - Address details may have been corrected
- **Delivery date and/or time may have changed**
- **Delivery Instructions may have changed**
  - Signature-Required vs Authority-to-Leave
- Information e.g., related to the **Sales Order/Shipment** may not be on the box
- **Confirm Delivery to the Seller**



[https://visibility.Seller.com/00/195212342345678909?3301=000045&3312=000030&3322=000040&3332=000050&4300=GS1+New+Zealand+\(Auckland+Office\)&4302=Level+5%2C+25+College+Hill&4304=Freemans+Bay&4305=Auckland&4307=NZ&420=1011&4308=%2B64098209088&4309=05315182031747494660&4323=1&4324=2306300900&402=95212340000000012&410=9429300016329&s4t](https://visibility.Seller.com/00/195212342345678909?3301=000045&3312=000030&3322=000040&3332=000050&4300=GS1+New+Zealand+(Auckland+Office)&4302=Level+5%2C+25+College+Hill&4304=Freemans+Bay&4305=Auckland&4307=NZ&420=1011&4308=%2B64098209088&4309=05315182031747494660&4323=1&4324=2306300900&402=95212340000000012&410=9429300016329&s4t)

# Accessing a Third-Party Registry



## Why should you do it?

- You may use the **Ship-to Location ID** to access a reliable source (e.g., industry or governmental).
  - Find out more about the Delivery Address**
    - Address details may be checked
    - Geo/GPS-coordinates may be found
    - Opening hours
    - Access restrictions
    - Related Organisation information
    - And much more
- As subcontracting LSP, access the outsourcing LSPs system using the **Transport Unit ID** as the primary key. The LSP system may offer similar functionality as the Seller's system on previous slide. including Confirmation of Delivery

[https://Registry.ThirdParty.org/00/195212342345678909?3301=000045&3312=000030&3322=000040&3332=000050&4300=GS1+New+Zealand+\(Auckland+Office\)&4302=Level+5%2C+25+College+Hill&4304=Freemans+Bay&4305=Auckland&4307=NZ&420=1011&4308=0-2254908320088&4309=053151822317471946608&4323=184334-2206300900&402=95212340000000017&410=9429300016329&s4t](https://Registry.ThirdParty.org/00/195212342345678909?3301=000045&3312=000030&3322=000040&3332=000050&4300=GS1+New+Zealand+(Auckland+Office)&4302=Level+5%2C+25+College+Hill&4304=Freemans+Bay&4305=Auckland&4307=NZ&420=1011&4308=0-2254908320088&4309=053151822317471946608&4323=184334-2206300900&402=95212340000000017&410=9429300016329&s4t)

# Accessing a Third-Party Registry



## How do you do it?

- Directly (knowing the platform address)
  - <https://www.nzbn.govt.nz/mynzbn/opndetails/9429000000000/9429300016329/>  
In this case the NZ Government Platform for Business Numbers & Organisation Parts
  - <https://www.portmasterdata.com/id/9429300016329>  
In this case the Global Location Data Platform demo application
- Indirectly e.g., via GS1 Resolver  
<https://id.gs1.org/414/9429300016329>  
In this case there is a default target associated with the GLN





# Demo GS1 NZ Auckland - NZBN



< BACK TO GS1 NEW ZEALAND INCORPORATED (NZBN 9429000000000)

< BACK TO GS1 NEW ZEALAND INCORPORATED (NZBN 9429000000000)

+ VIEW 4 ORGANISATION PARTS:

— VIEW 4 ORGANISATION PARTS:

ORGANISATION PART (3 OF 4) << PREVIOUS NEXT >>

## GS1 New Zealand (Auckland Office)

Organisation Part Number 9429300016329

Purpose MOH Covid Poster Location

Phone Number 64 09 8209088 (Other)

Email Address support@gs1nz.org (Contact Detail)

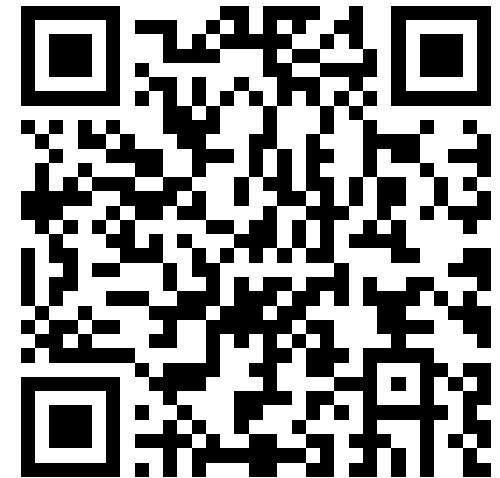
Physical Address  
Level 3, 25College Hill  
Freemans Bay  
Auckland  
New Zealand  
1011

Status ACTIVE

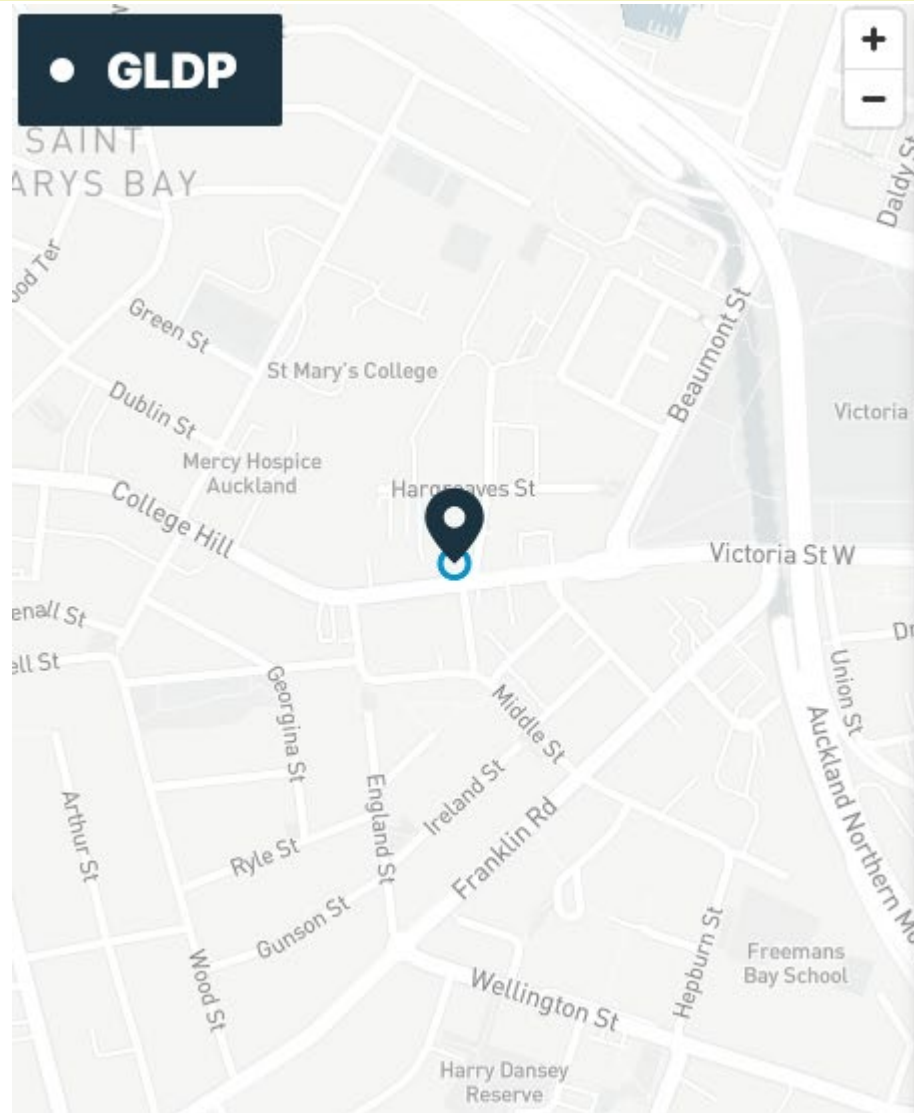
NAME	OPN	PURPOSE
GS1 New Zealand Wellington (Head Office, Ground Floor)	9429302695232	MOH Covid Poster Location, Courier Drop Off
GS1 New Zealand (Christchurch Office)	9429300016626	MOH Covid Poster Location
GS1 New Zealand (Auckland Office)	9429300016329	MOH Covid Poster Location
GS1 New Zealand Wellington (Head Office, 2nd Floor)	9429300016183	MOH Covid Poster Location



Search the NZBN Register



# Demo GS1 NZ Auckland - GLDP



×

## GS1 New Zealand (Auckland Office)

Verified & Audited

### Global reference

Assigned id: 9429300016329  
GCP: 942930

### Position

Latitude: -36.8481797  
Longitude: 174.749466

### Attributes

Name: GS1 New Zealand (Auckland Office)

### GS1 linked data

Title	Link relationship type	Media type	Language
NZ Location Registry	<a href="https://gs1.org/voc/masterData">https://gs1.org/voc/masterData</a>	text/html	

# Demo GS1 NZ Auckland – Seller Site



## Delivery to:

GS1 New Zealand (Auckland Office)  
attn. Michiel Ruighaver  
Level 3, 25 College Hill  
Freemans Bay  
Auckland  
New Zealand (NZ)  
1011

## Delivery Instructions:

Do not deliver before 30 June 2023, 09:00 local time.  
Obtain signature from recipient.

## Tracking ID for your package:

**195212342345678909**

## Package details

Weight: 4.5 KGM (Kilogramme)  
Length: 0.30 MTR (30 centimetres)  
Width: 0.40 MTR (40 centimetres)  
Depth: 0.50 MTR (50 centimetres)

## Your order:

**95212340000000012**

Additional information Deliver to  
**GLN: 9429300016329**

[New Zealand Business Number Registry](#)

[Global Location Data Platform \(GLDP\)](#)



<https://fixlog.consulting/195212342345678909>

## Products included in your package

Product Code	Description	Quantity
95261000003455	Tablet Computer	1
95264000006785	Tablet Computer cover "Don't touch me"	1

## Tracking details for your Package/Item

Event	Where	When
Item in hands of first carrier	Seller's Warehouse Melbourne Australia; GLN: 9526678000124	25 June 2023, 15:45 (local time)
Item	Melbourne International airport, Australia; GLN: 9527080003451	25 June 2023, 22:50 (local time)
Item arrived in destination country	Auckland International airport, New Zealand; GLN: 9528108000896	26 June 2023, 4:05 (local time)

## ACTIONS

[Confirm Delivery](#)

[Confirm Collection](#)

# In Conclusion



- With Scan4Transport the **minimum required information is on the box**
- Scan4Transport facilitates the **seamless collaboration of ALL stakeholders** involved in transporting Goods from Seller to Buyer, be they large or SME operators
- Scan4Transport **helps eliminate waste** from current transport and logistics processes
- Scan4Transport dynamic access to various sources of information **enables new ways of working in transport and logistics**

**Scan4Transport links the Physical Internet with the Digital Internet**



# Discussion

Questions and Answers

IPIC 20

9th International  
Physical Internet Co

June 13-15, 20  
Athens, Greece

**13-15 JUNE 2023** Athens, Greece  
[www.pi.events/IPIC2023](http://www.pi.events/IPIC2023)

**alice** Alliance for  
Logistics Innovation  
Collaboration  
in Europe



**Expanding the logistics Scope**



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# Contact Michiel



## **Michiel Ruighaver**

T&L Manager – Scan4Transport CoE

M: +61 412 830 095

E: [michiel.ruighaver@gs1au.org](mailto:michiel.ruighaver@gs1au.org)

# Back-Up Slides

- Where to find more information



# Leverage the Scan4Transport Website

Home > Industries > T&L > Scan4Transport



Scan4Transport

Learn more about Scan4Transport →

**VIC - MULGRAVE** ACME Transport  
GINC: 931234518430GR Service: STANDARD  
Primary RC: SYD  
Secondary RC: MEL  
Deliver To:  
GS1 Melbourne Office  
Attn: Michiel Ruighaver  
Nexus Business Park  
8 Nexus Court  
MULGRAVE VIC 3170  
Australia  
Ph: 1300 227 263  
Delivery Instructions:  
THIS IS A SAMPLE DELIVERY ONLY  
DO NOT SEND ACTUAL GOODS  
A.T.L. DG  
Return To:  
GS1 Sydney Office  
Attn: Tony Repaci  
Lakes Business Park  
2-4 Lord Street  
Botany NSW 2019  
Australia  
+61 2 9695 2200  
GROSS WEIGHT: 7kg VOLUME: 0.03 m3  
ITEM: 1 of 1  
SSCC: (00)09312345000000012



[S4T Website](#)

Scan4Transport is a global standard for encoding transport data on a Logistics Label. The standard supports companies across the transport process including first mile, sortation and last mile activities and enables them to keep pace with the

[www.gs1.org/industries/transport-and-logistics/scan4transport](http://www.gs1.org/industries/transport-and-logistics/scan4transport)

- Informative docs/videos
- Scan4Transport Guideline
- Pilot report/video
- Demo/implementation tools
- GS1 DigitalLink video



# Scan4Transport – A Tale of Two Labels



**LEOPARD**  
Systems



Typical transport label



The new smart  
Scan4Transport label

Standardised  
2D barcode

<https://www.youtube.com/watch?v=xz1kSiJoK-4>

# Scan4Transport - Full Support from Global Label Creation Solution Provider



**S4T**  
Scan4Transport

Delivering digital capability in the transport process

**GS1 Transport Standards**  
Certified labelling software

## Scan4Transport

Download the BarTender® Scan4Transport label templates for simplified compliance.

Scan4Transport

☒ Data Matrix  
☐ QR Code

URI Stem: <https://id.gs1.org>

Transport Company: GS1 Transport  
Service Code Description: STANDARD

SSCC  
☒ SSCC in full  
☐ SSCC in parts

SSCC: 093123450000000001  
Company Prefix: 093123450  
Serial Reference: 00000002

Ext. Digit: 0

Ship to  
Company: GS1 Melbourne Office  
Contact: Michiel Ruighaver  
Tel: 0412830095  
Address Line 1: Nexus Business Park  
Address Line 2: 8 Nexus Court  
Suburb: MULGRAVE  
Locality: Melbourne  
Region: VIC  
Postal Code: 3170  
Country: Australia

Return to  
Company: GS1 Sydney Office  
Contact: Tony Repaci  
Tel: 0296952200  
Address Line 1: Lakes Business Park  
Address Line 2: 2-4 Lord St  
Suburb: Botany  
Locality: Sydney  
Region: NSW  
Postal Code: 2015  
Country: Australia

Routing Code: MEL  
Ship to GLN: 931234500001  
Ship for GLN: 931234500002

☒ Dangerous goods  
☒ Authority to leave  
☒ Signature required

Release Date: Friday, 22 July 2022  
Delivery not before  
☒ Date: July 25, 2022  
Enter Time: 9:00 AM  
Delivery not after  
☒ Date: July 29, 2022  
Enter Time: 5:00 PM

Delivery Instructions  
This is a Certification Test

Dimensions  
Width: 0.2  
Length: 0.1  
Height: 0.3  
Volume: 0.6

Scan4Transport

SERVICE STANDARD

GS1C: 9312345C001  
GS1N: 93123450000009992  
SHIP TO GLOBAL LOCATION NUMBER: 9312345000012  
SHIP FORWARD GLOBAL LOCATION NUMBER: 9312345000029

TRANSPORT COMPANY: GS1 Transport

ROUTE: MEL

DELIVERY TO: GS1 Melbourne Office  
Attn: Michiel Ruighaver  
Nexus Business Park  
8 Nexus Court  
MULGRAVE, Melbourne VIC  
3170 AU Australia  
PH (041) 2 830 09 5

DELIVERY INSTRUCTIONS  
Release Date: 22-Jul-2022  
Not delivery before: 25-Jul-2022 09:00  
Not delivery after: 29-Jul-2022 17:00  
This is a Certification Test

DELIVERY FROM: GS1 Sydney Office  
Attn: Tony Repaci  
Lakes Business Park  
2-4 Lord St  
Botany Sydney NSW  
2019 AU Australia  
PH (029) 6 952 20 0

A.T.L  
SIG REQUIRED

WEIGHT: 0.20m  
LENGTH: 0.10m  
HEIGHT: 0.30m  
DENSITY: 7.000kg  
ITEM: 1 of 1  
VOLUME: 0.60m³

SSCC: 093123450000000001 2

First name\*

Last name\*

Work email\*

Phone number  
Australia +61

Company name\*

Select country\*

I agree to receive email updates about our latest products, services and events from time to time. I understand I can unsubscribe at any time.

☐ I agree to allow Seagull Scientific to store and process my personal data in compliance with their [Privacy Policy](#).\*

protected by reCAPTCHA  
Privacy - Terms

GET THE TEMPLATE



<https://info.seagullscientific.com/scan4transport>