

GS1 Australia Response to DITRDCA Review of the National Freight & Supply Chain Strategy

GS1 Australia would like to commend the Department for its discussion paper on the first review of the National Freight & Supply Chain Strategy released in August 2019.

We are pleased to provide the following response, focused on the critical action areas and associated action items that specifically relate to our area of expertise. Physical infrastructure, planning and policy-related items are not being addressed in our response not due to lack of interest, but simply due to being outside of GS1's role and mission.

Introduction

GS1 Australia has been working with the Freight, Transport, and logistics industry for well over two decades to develop and administer relevant freight industry data standards that enable interoperability of disparate systems and consistent data formats that improve efficiency and productivity for all supply chains. In most recent years, several collaborative initiatives provided input to the Inquiry into the National Freight and Supply Chain Priorities process, which subsequently informed the National Freight & Supply Chain strategy.

- In 2017, The Commonwealth DIRD facilitated a research report, delivered through Austroads on the benefits of end-to-end supply chain visibility. (*Austroads Research Report AP-R538-17 (2017): Investigating the potential benefits of enhanced end-to-end supply chain visibility*). It concluded a quantitative economic productivity penalty of \$1.63 billion due to the industry's inability to integrate incompatible data formats.
- In 2018, the Australian Logistics Council released a discussion paper "**A Common Data Set for our Supply Chain – Developing & Implementing the National Freight and Supply Chain Strategy**" calling for the adoption of Global Data Standards that would deliver enormous economic benefits through enhanced freight visibility.
- In 2020, a collaboration between the Australian Logistics Council, Transport Certification Authority and GS1 Australia, released "*A Single Freight Data Standard for the National Digital Framework*" to improve both the quality and quantity of data available to policymakers and industry participants regarding the operation of Australia's supply chains.
- In 2021 the Bureau Infrastructure Transport and Regional Economics launched the National Location Registry platform, a National Freight Data Hub initiative in collaboration with industry to support the capture, storage and management of better-quality data about physical supply chain pick-up and delivery locations.
- In 2021, a global cohort of industry stakeholders across 22 countries (inc. Australia) contributed to the development of new "scan4Transport"¹ standards that sought to resolve industry's requirements to improve efficiency, interoperability, connectivity and visibility across the Freight and logistics process.

¹ <https://www.gs1au.org/scan4transport/?viewmode=0>

These collaboration initiatives with industry and Government have led to the creation of a comprehensive body of work in developing relevant data standards to fully support the operational efficiency and digitalisation of the freight sector.

The adoption of global data standards can only be achieved through a combination of carrot-and-stick initiatives that support a systems thinking approach to supply chain activities, and there is an urgent need for the freight sector to establish leadership mechanisms to ensure the benefits of adopting data standards are realised.

About GS1

GS1 is an international, not-for-profit industry-led supply chain data standards-setting body with a global federation of 116 member organisations operating in 141 countries. Representing millions of businesses worldwide, GS1 facilitates the use of global data standards to identify, capture, and share information about goods moving through global supply chains. Renowned for its ubiquitous barcode system in retail trade, GS1 supports simple, efficient, safe, sustainable, and fair-trade practices.

GS1 in Australia started operations in the early 70s and today has over 22,000 business members across 21 sectors, including large multinational corporations, smaller enterprises, and government entities. The organisation promotes trade process alignment using global data standards including unambiguous, unique global identifiers such as barcodes for retail products and logistical units like cartons, pallets, and shipments. Additionally, GS1 manages data standards for various entities, including business identity, locations, assets, shipments, documents, and more.

Collaborating with industry associations, governments, and international trade facilitation agencies like UN/CEFACT, WTO, and WCO, GS1 strives for standardisation, harmonisation, and digitalisation of trade systems. The organisation maintains semantic libraries and information architecture to facilitate electronic trade messaging and data exchange. GS1 Standards have also been adopted by governments in many economies as part of their regulatory frameworks for traceability, supply chain management and trade.

GS1 also supports industry and governments in their implementation of data standards through a range of tools and services including:

- 1) Education and training services to build skills and knowledge in traceability and related standards.
- 2) Development of traceability guidelines and implementation tools
- 3) Development and management of national and global registries supporting traceability through accurate master data related to products and locations involved in traceability.
- 4) Engagement with technology vendors to develop an ecosystem of interoperable solutions, based on GS1 standards, that is available to industry.

GS1 global data standards are technology agnostic and allow the implementation of data sharing across value chains in a manner that is interoperable and allows each participant in the supply chain to make their own, independent commercial decisions in choosing technology and solution partners.

Supply Chain Resilience

1. Do the Strategy's current goals support the needs of the freight and supply chain sector moving forward?

A desired outcome reflected in the National Action Plan's Critical Area 1: Smarter and targeted infrastructure investment is to *"Enable freight's digital future"* supported by Action item 1.3 *"Identify and support digital infrastructure and communication services necessary for improved innovative supply chains"*. This Action item links to Action Item 2.1 in Critical Area 2: *"Enable improved supply chain efficiency"* which calls for the *"adoption and implementation of national and global standards, support common platforms to reduce transaction costs and support interoperability along supply chains"*.

The industry's digital transformation journey has only just begun, and it is imperative that the government provides continued direction, guidance, and support to facilitate this transformation effectively. Moving forward the strategy will need to incorporate goals and actions to support:

Decarbonisation and Sustainability: To address the growing concern of carbon emissions and environmental sustainability, it is essential that the National Strategy includes specific goals and actions related to decarbonisation efforts. This might involve setting targets for reducing carbon emissions, including scope 3 emission reporting within the supply chain, promoting the use of eco-friendly transportation methods, and encouraging the adoption of sustainable practices throughout the industry.

Agility and Vulnerability: Recent disruptions, such as the COVID-19 pandemic and natural disasters, have highlighted the importance of agility and resilience in supply chain operations. The Strategy should acknowledge the need for digital solutions based on global data standards that enhance the industry's ability to respond swiftly to unexpected challenges. This includes mechanisms for real-time data sharing, demand forecasting, and risk management, all of which contribute to a more agile and resilient supply chain.

Emerging Technologies: The freight and logistics sector is witnessing the emergence of transformative technologies such as distributed trust, the Internet of Things, and artificial intelligence. These technologies can potentially revolutionise supply chain management, but their successful integration requires a standardised approach to data sharing. The Strategy should emphasise the importance of adopting global data standards to ensure interoperability and compatibility with these emerging technologies.

GS1 Australia is in full support of these actions as foundational elements of the industry's transition to a digital future.

2. Should other goals be included in the Strategy, and if so, what?

Yes, the strategy will be enhanced by more clearly defining the importance of a technology-neutral approach to achieving end-to-end traceability with a focus on interoperable and open systems.

End-to-end traceability: The freight and logistics sector play a pivotal role in supporting all industries by facilitating the movement of goods. Adopting global data standards not only enhances productivity within the freight sector but also enables end-to-end traceability across the broader economy. It ensures that data related to the movement and handling of goods is standardised, accessible, and transparent, allowing for efficient traceability and accountability.

Incorporating traceability goals into the strategy aligns with the broader objectives of enhancing safety, market access, and transparency across various sectors of the Australian economy. It underscores the

interconnectedness of supply chains and highlights the pivotal role that logistics and freight play in achieving these outcomes.

Technology neutral: In support of point 1 above, the strategy could also consider highlighting an explicit need for industry to implement data standards in their digitalisation efforts and when choosing technologies. History shows us that technologies evolve over time, but the underlying data required to support business processes remains relatively stable over time.

A technology-agnostic approach based on internationally recognised data standards allows for interoperability and technology ecosystems to flourish. It allows businesses to choose the most suitable solutions for their needs, promoting interoperability, innovation and accommodating different technologies used across industries.

Technology-centric approaches, particularly those where industry is forced to use a specific solution or provider have also led to resistance and lack of adoption. Leveraging foundational standards that are already proven and in use by industry is highly desirable.

An ecosystem of open and interoperable systems: There are thousands of systems available in the market, many of these have been designed as closed, internal, closed-loop systems that cater to the individual company, rather than open and interoperable systems for external visibility between trading partners.

Priorities for the next five-year National Action Plan

3. **Should the National Action Plan focus on a smaller number of targeted national actions, or do you want to retain the existing reporting structure?**

GS1 Australia recommends the focus be not so much on the number of actions but rather to be more explicit about outcome expectations across all stated actions.

4. **If we focus on a smaller number of targeted national actions, what action areas should be included in the National Action Plan that require national coordination?**

The freight sector is highly fragmented with many small to medium enterprises providing on forwarding capacity to meet the needs of Australia's vast geography and particularly in the last mile. The industry overall still relies heavily on manual, analogue processes which is impeding its ability to leverage new technologies en masse.

National co-ordination is required for Critical Area 2: Enable improved supply chain efficiency, Action 2.1 *“adoption and implementation of national and global standards, support common platforms to reduce transaction costs and support interoperability along supply chains”* to deliver optimum productivity benefits and lift the digital capability of the freight sector overall. Under Critical Area 2, the National Action Plan recognised the need for Australia to adopt compatible systems and platforms, standards, and technologies. Harmonisation across the supply chain to reduce friction and information pinch points and facilitate smooth transactions with trading partners.

Monitoring the Performance of the Strategy

5. **What KPIs are useful to measure the success of the Strategy?**

Specific to Action item 2.1, the level to which industry has lifted its digital capability could be measured by how many companies adopt global data standards, eg...

- How many companies have registered for the National Location Registry².
- How many transport companies have adopted standardised freight labelling standards³ to facilitate improved end to end visibility of freight movements

6. What data do we need from industry, state and territory governments to measure KPIs?

Number of registrations to the National Location Registry and to GS1 in general would be an indicator of industry's adoption of data standards across the freight sector.

Reviews and Papers this Review will consider

7. What outcomes, findings or principles should the Review take into consideration from related works?

As a service industry, the freight and logistics sector play a pivotal role in supporting the transport and logistics requirements of all national and international supply chains. It is crucial therefore that consideration be given to the traceability initiatives in sectors such as healthcare, construction, agriculture, and more. The freight sector cannot operate in isolation of its customers, and therefore needs to take these initiatives into consideration to ensure it is able to optimally support and integrate with the traceability agendas of its customers. In all cases, the adoption of global data standards is central to that end. Some examples are:

- World Health Organization Policy paper on traceability of medical products
<https://iris.who.int/bitstream/handle/10665/340237/9789240021327-eng.pdf?sequence=1>
- "Towards a National Medicines Traceability Framework"
<https://consultations.health.gov.au/pbs-subsidy-taskforce/nmtf-consultation>
- "A vision for use of data matrix codes and medicines traceability"
https://consultations.tga.gov.au/medicines-regulation-division/consultation-tgo106-data-matrix-codes-on-medicines/user_uploads/better-healthcare---a-vision-for-the-use-of-data-matrix-codes-and-medicine-traceability.pdf
- "Developing a national framework for recycled content traceability"
<https://consult.dcceew.gov.au/developing-a-national-framework-for-recycled-content-traceability>
- "National Agricultural Traceability Strategy"
<https://www.agriculture.gov.au/sites/default/files/documents/national-agricultural-traceability-strategy.pdf>
- "APEC Guidelines and Best Practices for the Adoption of Global Data Standards"
<https://www.apec.org/Publications/2020/03/APEC-Guidelines-and-Best-Practices-for-the-Adoption-of-Global-Data-Standards>

Governance arrangements to support the implementation of the Strategy

8. Are the current governance arrangements appropriate to support the effective implementation of the Strategy going forward?

Not applicable to GS1 Australia as a standards body.

² www.nlr.org.au

³ <https://www.gs1au.org/scan4transport/?viewmode=0>

9. What role, if any, should the Freight Industry Reference Panel have to support the implementation of the Strategy?

Not applicable to GS1 Australia as a standards body.

Contact Information

For more information about this response please contact:

Bonnie Ryan

General Manager Industry Engagement GS1 Australia

[Redacted]
[Redacted]

Or

Marcel Sieira

Chief Operating Officer GS1 Australia

[Redacted]
[Redacted]

More about GS1

GS1 is an international, not-for-profit industry-led supply chain data standards-setting body with a global federation of 116 member organisations operating in 141 countries. Representing millions of businesses worldwide, GS1 facilitates the use of global data standards to identify, capture, and share information about goods moving through global supply chains. Renowned for its ubiquitous barcode system in retail trade, GS1 supports simple, efficient, safe, sustainable, and fair-trade practices.

For more information about GS1 Standards please visit

<https://www.gs1au.org/>

GS1 and ISO Standards

To understand more about the strong alignment between GS1 and ISO standards please refer to

<https://www.gs1.org/docs/GS1-and-ISO-06BD.pdf>

GS1 and Australian Standards

Standards Australia Technical Committee IT34 has been stood up to apply identical adoption of GS1 standards with Australian standards; this work is underway and is expected to provide outcomes by the end of 2023.