

GS1 Australia Feedback – Department of Agriculture, Fisheries and Forestry, Assuring Agricultural Sustainability Claims Discussion Paper.

GS1 Australia welcomes the opportunity to provide feedback to the Department of Agriculture, Fisheries and Forestry on assuring agricultural sustainability claims. As an organisation dedicated to enabling supply chain transparency and interoperability, we recognise that credible sustainability claims are essential for maintaining international market access, fostering consumer trust, and supporting Australia's transition to a more sustainable and circular economy.

The agricultural sector faces increasing demands from international markets to navigate potential trade barriers and substantiate sustainability claims with verifiable, data-driven evidence. Traceability systems and globally accepted data standards play a critical role in ensuring that claims regarding carbon emissions, water use, biodiversity, and circularity practices are credible, comparable, and interoperable across supply chains.

Our submission addresses systemic issues impacting all claims and credentials of relevance to Australian agriculture. It draws on direct research and experience working with NATA, JASANZ, NMI and Standards Australia – pillars of our National Standards and Product Conformity Infrastructure. It highlights recent innovations of relevance to the digital exchange of sustainability claims through global supply chains, including UN Advice to Nations and international protocols designed to address greenwashing at scale.

GS1 standards, recognised as International and Australian Standards and widely used across more than 25 industry sectors, provide an interoperable framework that facilitates the seamless exchange of supply chain data including sustainability and broader ESG claims. These standards enable persistent identification of products and materials throughout their lifecycle, supporting verification processes that align with regulatory and market expectations.

For example:

- Unique product identification through GS1 identifiers allows consistent tracking of agricultural products, manufactured goods and their related sustainability attributes, such as carbon footprint, water consumption, and material composition.
- Global Data Synchronisation Network (GDSN) enables efficient and accurate data sharing across the supply chain, ensuring that sustainability claims are based on real-time, standardised information.
- GS1 Powered QR codes and other data carriers allow end-users, including consumers and regulatory authorities, to access deeper product-specific sustainability data, enhancing transparency and trust.

Given the increasing scrutiny from international markets, particularly in the European Union and North America, the use of standardised, digital traceability systems is critical for demonstrating compliance with emerging regulations such as the EU Deforestation Regulation (EUDR) and Corporate Sustainability Reporting Directive (CSRD). Australia's agricultural exports will benefit from a consistent, scalable approach to data capture that integrates with both regulatory requirements and voluntary sustainability frameworks.

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To strengthen the credibility of sustainability claims, GS1 Australia advocates for:

- **Adoption of globally accepted data standards** – Ensuring alignment with internationally recognised standards will help Australian agricultural products meet compliance requirements and avoid market access barriers.
- **Interoperable traceability systems** – Establishing a common digital infrastructure that enables seamless sharing of sustainability-related data across the supply chain and between trade partners.
- **Integration of digital product passports** – Leveraging GS1 standards to support granular, verifiable claims about agricultural products' environmental and social impact from production through to end users and beyond.
- **Collaboration between industry and government** – Encouraging policy frameworks that incentivise standardised data collection (not necessarily centralised) and verification mechanisms, reducing compliance burdens while enhancing trust in sustainability claims.

As Australia continues to strengthen its agricultural sustainability credentials, GS1 standards offer a scalable, industry-driven solution to support credible claims, improve resource efficiency, and enhance global trade competitiveness. We welcome further collaboration with government and industry stakeholders to drive practical, standards-based approaches for sustainability verification in Australian agriculture.

GS1 Australia is pleased to provide this response. GS1 Australia has chosen to respond to a few select questions, not due to lack of interest, but simply due to being outside of GS1's role and mission. Our response primarily focuses on the use of global open data standards for building trust with third-party certification schemes, and when considering traceability and data systems.

Our submission included 2 parts. Part A responds to selected questions and Part B provides further background and details on GS1 Australia and the GS1 Standards.

We would like to express our appreciation for the opportunity to provide feedback on this important Inquiry. We would be pleased to discuss any aspect of our response with DAFF directly and/or participate in working groups and other forums to help coordinate industry and government efforts.

If you have further queries, please do not hesitate to contact GS1 Australia's Sustainability and Circularity Manager, Dharshi Hasthanayake via dhharshi.hasthanayake@gs1au.org or Peter Carter, General Manager Public Policy and Government Engagement via peter.carter@gs1au.org

Thank you for considering our feedback.



Sincerely,

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Part A - GS1 Australia Response

Consultation question 2: Are you aware of other expectations for evidence (form or subject) that are not included in Section 2.2? Please include in your response which markets and/or sectors the other expectations for evidence apply to.

Section 2.2.1 lists a range of third-party certifications that are often required to underpin sustainability claims for market access (MSC, Fair Trade, Organic etc), and notes that often there is no expectation of evidence other than a certificate. This has been the subject of considerable investigation by NATA, JAS-ANZ, GS1 Australia and the broader product conformity community with support from the Department of Industry Science and Resources. This work has helped inform the development of new [United Nations Business Requirement Specifications for Digital Product Conformity Certificate Exchange](#). This specification covers all conformity certificates, including those relating to sustainability and the environment.

Traditionally, third-party certification schemes have been heavily reliant on trust and the exchange of manual documents and electronic (mostly PDF) certificates. While such documents can be fraudulently altered, even legitimate documents can be misused. For example, a certificate in current circulation may have ceased to be valid because the associated credentials, authority, or standing of the certificate holder have changed. Physical (and PDF) certificates must be verified to determine currency and validity. This is not easy to do when certifiers or scheme operators are unknown or perhaps located abroad.

Australia has a long-standing policy of accepting trusted international standards in line with mutual recognition and other agreements. This convention is well supported by mature global infrastructure to manage accreditation and supporting systems to ensure quality systems integrity. Australian [National Product Conformity Infrastructure](#) providers recognise the importance of digital product traceability through supply chains and the need for globally recognised product identification systems. [As explained in recent reports by NATA, JASANZ, and GS1 Australia](#), third-party certification schemes have not kept pace with digital transformation. This gap between digital product traceability versus traceability of third-party certificate information is now a problem.

Third-party certificate scheme providers rarely associate unique identifiers (defining the subject of the certification – ie. product batches or lots, trade/logistical units, locations of facilities such as factories or farms); with the certification/certificate number, making it challenging for the marketplace or authority to correlate a product to a certification as a prerequisite to including it within the listing.

Some common issues that are being observed include:

- Third-party certification schemes use various proprietary methods to identify and manage the certificates they award to companies and products. Providers do not leverage a common language of identification and attribution that is based on global standards for interoperability.
- Where third-party certification schemes offer a database for searching certified products, globally unique identifiers for products and companies (such as Global Trade Item Numbers, GTINs) are often missing and finding the exact product is inefficient for businesses and consumers.
- Some certification schemes are the output of an organisation that maintains and publishes criteria and methods of assessment, and do not themselves perform the assessment and

award the certification itself. In these cases, associating a certificate to a globally unique identifier is still essential.

- One or more independent organisations are contracted by a company to conduct the assessment of the product against the certification criteria and award a certificate. These providers are independent of each other which presents a discovery challenge for marketplaces and authorities. In this example, there is no central registry of awarded certificates within a category.

The issues noted above are systemic and not limited to Australian agriculture. Other markets and sectors have addressed expectations for evidence through the linking of information about products to the actual product via their identifiers/barcodes.

For example, this 'Linked Data' approach has recently been embraced by TCO Certified, a global sustainability certification for IT products. TCO Certified has included a mandatory requirement on the following:

- Ensure that the certified product must have [a data carrier containing a unique product identifier compatible with the GS1 digital link standard or equivalent](#)
- The range of GTINs assigned for the product must be submitted to TCO-certified

Third-party certification schemes that use product identifiers like GTIN as the key within their certification registry do so at no additional cost to the business but ensure there is unambiguous global identification linking the product or company to the certification, which bolsters the trust and can support assurance processes.

Recommendation: That DAFF consider its role in providing clear guidance to industry regarding the value of adoption of global/Australian standards in third-party certification schemes to overcome trust issues with certificate issuance and validity and bring normal digitisation standards to the wide range of third-party certification schemes that form part of the agricultural sustainability claims landscape.

Recommendation: That consideration be given to a certifier or certification scheme technical capacity uplift grant round – inviting issuers of sustainability and other credentials (testers, inspectors, certifiers) to engage in the national agricultural traceability strategy, evaluate and test new approaches to enhance the issuance and verification of sustainability and related claims of relevance to Australian export markets.

Consultation question 7: Are you aware of any current or emerging approaches to demonstrating evidence-based sustainability claims that should be considered in the next phase of this project (that are within scope)?

Consultation question 7a: Please provide details including a link to further information, or the contact details for the entity responsible so we may reach out to them.

Consultation question 8: What challenges do Australian agricultural sectors face in providing the necessary evidence to satisfy international market demands?

Consultation question 8a: How can these challenges be overcome to ensure market access?

Consultation question 11: In what ways can existing data collection processes be improved to support strong and credible sustainability claims (without adding significant workload to farmers and supply chain actors)?

Consultation question 12: How do international markets assess the credibility and strength of the data provided to support sustainability claims?

GS1 Australia has responded to the questions above with a specific focus on new and emerging market requirements to make information about a product (not limited to sustainability and ESG credentials) accessible via the identifier of the product – and related linked data that may include production facilities, locations or parties involved. This is highly relevant given the current focus on digital product passports in Europe along with new reporting requirements not limited to USFDA traceability rules.

To avoid complexity, our advice and feedback highlight opportunities for Government to:

1. Build on what the industry already does and uses (including the use of GS1 and other identifiers) ie. Barcodes, RFID and GS1 Powered QR codes etc.
2. Leverage Linked Data Standards (Specifically, AS ISO/IEC 18975 - encoding and resolving identifiers over HTTP - based on <https://www.iso.org/standard/85540.html>)
3. Provided direction and standardising the way sustainability and other credentials are made discoverable, resolvable and verifiable by sustainability scheme operators

For clarity, this means working with industry to simplify the way citizens interact with products and related production information. The simple principle here is ‘if I know what the product is then I can find information about the product’, via its unique identifier.

Combined with evidence-based approaches to the exchange of digital credentials (ie. New [United Nations Business Requirement Specifications for Digital Product Conformity Certificate Exchange.](#)), there is a significant opportunity and advantage for Australian Agriculture to deliver data-driven evidence and leverage its strong, green and clean production credentials.

Above all, our feedback stresses the **need to avoid duplication and unnecessary complexity, cost and risk**. This can be achieved by building on what industries already use and do, working with the certification (product conformity) community to standardise the way credentials are managed and made accessible.

Recommendation: DAFF explores simple and effective ways to leverage existing industry systems, linked data standards and new protocols that connect physical products with claims about those products. Specifically, DAFF is encouraged to evaluate how other global industries and national product conformity bodies are exchanging digital credentials in ways that can be easily verified.

Recommendation: DAFF engaged in UNCEFACT Recommendation 49, providing feedback on the framework that aims to enhance the traceability and verification of agricultural sustainability claims.

UNCEFACT Recommendation 49, also called the United Nations Transparency Protocol (UNTP). UNTP is an emerging protocol ([currently open for public review](#)) that is being applied to demonstrate how the data underpinning sustainability claims can be made visible, without having to collate data into one central location. It recognises the limitations of existing systems and the interconnected nature of global supply chains.

The UNTP doesn't necessitate a specific system or platform at any stage of the supply chain. Instead, data is exchanged as portable credentials (product passports) between independent systems. Systems are linked to the identifiers of the shipped products using GS1 keys or whatever commonly accepted identification standards applied in that sector, industry, or supply chain segment. This

marks a significant evolution for interoperability, integrating industries such as agriculture and animal identification where GS1 standards intersect with existing data systems that predate barcodes.

Recommendation 49, promotes connecting to or rather 'pulling data' from its source via GS1 Digital Link (via a Links Registry) and resolvers, tying together information about products, locations, parties, and more. Outputs and inputs from supply chain events provide the glue to connect data sources via identifiers that provide critical 'jump-points' to proprietary data. This means that industries, businesses, and governments do not have to change their systems or platforms to enable interoperability. They can continue using their existing closed and proprietary systems, maintain their own data schemas, and retain control over their data. This helps address data security and privacy issues and dramatically reduces complexity, risk, and cost.

More information about Recommendation 49 and the UNTP can be found [here](#).

Part B - About GS1 Australia and GS1 Standards

The GS1 system of standards is:

- Voluntary
- Multi-sector
- Globally adopted
- Technology agnostic
- ISO/IEC compliant
- Industry governed and led
- Australian Standard
- Not for Profit

Global membership is now close to three million organisations, spanning all segments of industry supply chains across diverse sectors.

At a national level, the GS1 system of ISO/IEC-compliant standards is increasingly adopted by governments to simplify regulatory systems. To illustrate, in New Zealand the local business identifier, or NZBN, is based on a GS1 identifier (the Global Location Number). An increasing number of economies are introducing GS1 standards in single window and trade processes, including the USA, Canada, Vietnam, New Zealand and China. China now uses GS1 keys to enhance the harmonised system (HS) of tariff codes to classify traded products. GS1 and WCO trade code nomenclature is well aligned and increasingly integrated.

Australian government examples include the Australian National Freight Data Hub and the Therapeutic Goods Administration medicines labelling orders both of which are based on GS1 standards. Over 20,000 companies use GS1 Standards in Australia.

From a founding member base of 12 countries, the GS1 federation of not-for-profit member organisations has grown to 118 national offices, supporting 150 nation-states to maintain the currency of data and provide open registers and related services to address economic and public policy priorities. In Australia, this includes national product registries, national product recall and national location registries. As not-for-profit entities, GS1 member organisations cover their operating costs through membership fees and the licencing of identification keys. All GS1 standards are available royalty-free for members and non-members to use.

GS1 also supports industry and governments in their implementation of 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 standards are technology-agnostic and allow the implementation of data sharing across value chains in an interoperable manner. They enable each participant in the supply chain to make their own, independent commercial decisions in choosing technology and solution partners.