GS1 Australia Response to DCCEEW Consultation

A national framework for recycled content traceability

GS1 Australia would like to commend the Department for the release of the consultation paper on *a national framework for recycled content traceability*. It is evident from the paper that comprehensive research on local and global best practices in traceability has been undertaken and the resulting proposed framework is well thought through, implementable and practical.

Introduction

It is GS1 Australia's belief that this framework will significantly contribute to the Australian Government's Climate Change commitments, as well as support the digitalisation of our recycling industry, delivering significant operational benefits and innovation outcomes and fuelling growth.

The consultation paper makes clear the distinction between supply chain standards and enabling technology that may be based on those standards to make the traceability of recycled material possible. GS1 is not a technology, and GS1 Australia is not a solution provider. Our objective in providing feedback is to help the Government and industry (including solution providers that may use GS1 Standards) understand what tools are at their disposal. Our response explains the strong alignment between ISO/IEC standards and GS1 and where possible, we have provided practical examples of how the standards are used to achieve outcomes and objectives of the framework based on Australian and international case studies.

GS1 Australia is pleased to provide the following response to the consultation questions, focused on the operational and technical aspects of the framework. Policy-related questions 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.

About GS1

GS1 is an international, not-for-profit industry-led supply chain 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 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 represented in 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. For example, in New Zealand simplified import and export declarations, US, China and Canadian customs processes.

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 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.

Section 3: The Framework

The Approach

1. **Do you currently participate in traceability? If so, please tell us how. If not, how likely are you to adopt or participate in recycled content traceability in the next 2 years?**

   Not applicable to GS1 Australia as a standards body.

2. **Do you support the framework adopting a technology-agnostic approach? Please tell us the reasons for your answer.**

   Yes. 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 traceability solution for their needs, promoting interoperability, innovation and accommodating different technologies used across industries.

   There are, as noted, in the discussion document, thousands of traceability systems and many of these have been designed as closed, internal, closed-loop traceability, rather than open and interoperable systems for external visibility between trading partners.

   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.

   A technology-agnostic approach, leveraging foundational standards that are already proven and in use by industry, emphasising interoperability as a system design priority, is highly desirable.

   Basing the traceability framework on ISO standards also increases global interoperability and decreases the barriers for international trading partners implementing the proposed framework.

   Technology agnostic frameworks are supported by the ISO and IEC International Standards for policy makers guide which documents the advantages and benefits of choosing International Standards to support policy initiatives, including stakeholder buy-in and alignment with WTO member requirements to reduce technical barriers to trade.

   This approach is also supported by the ICC-WTO Standards Toolkit for Cross-Border Paperless Trade, it has been a long standing policy supported by APEC Trade Ministers, and

has been most recently endorsed by G20 Trade Ministers at the Jaipur during this very month (August 2023) where ministers reiterated the importance of trade systems being focused on interoperability rather than any one specific technology or platform.

While the EU regulations on Digital Product Passports and other related initiatives are still evolving, the recently approved regulation EU 2020/0353 concerning batteries specifically includes regulatory text requiring battery product identifiers to comply with ISO 15459 (e.g., GS1 Global Trade Item Number or GTIN). The same requirement is stated in the Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a framework for setting eco-design requirements for sustainable products and repealing Directive 2009/125/ECAs. As mentioned in this submission, all GS1 Identifiers and Traceability Standards (EPCIS) comply with and are referenced in ISO standards.

Finally, technology agnostic frameworks are also aligned with the Australian Government Digital Trade Strategy.

A standards-based technology agnostic approach is also relevant when considering the applicability of the framework for imported recycled materials (as raised by this consultation on subsequent questions).

3. **Do you support the framework adopting an outcomes-focused approach? Please tell us the reasons for your answer.**

   Yes. Industry is much more likely to respond positively if the framework is less compliance-driven and focuses on positive public policy outcomes.

   Focusing on outcomes rather than prescriptive steps allows for flexibility and adaptation to diverse supply chains, encouraging broader adoption of traceability. This approach is in keeping with the national agenda to simplify trade systems and to leverage existing business processes for improved overall system efficiency - rather than adding additional layers of administration.

   For example, leveraging existing supply chain data flows (ordering, shipping and invoicing etc) and using identifiers (products, logistics units as well as places or locations) avoids complexity and regulatory burden - this is especially important for smaller businesses that are disproportionally impacted by activity-centric rather than outcome-focused approaches.

   Finally, a flexible outcomes-based approach allows industry to build on top of minimum traceability requirements to derive increased business value, improve return on investment and foster adoption.

4. **Should the framework include requirements to share data with government to support reporting, for example progress reporting against national recycling targets? Please tell us the reasons for your answer.**

   Not applicable to GS1 Australia as a standards body.

5. **What requirements could be included in the framework to support industry and governments to report against such targets? (For example, what type of traceability information could support reporting?)**

   To support reporting, the framework could consider traceability information on the quantity of recycled materials used, their sources, processing details, and compliance with chain of custody standards.

   In this context, product and location registries could also be leveraged as part of the framework to facilitate the capturing and sharing of key master data related to locations and parties involved in recycling, recycled materials and the end products made with recycled materials.

6. **If reporting were to be included in the framework, what conditions should be attached? (For example, what traceability data would be appropriate to provide to government; should such data be de-identified, or only be used in certain circumstances?).**

   Not applicable to GS1 Australia as a standards body.

7. **Would you adopt a voluntary framework? Please tell us the reasons for your answer.**

   Not applicable to GS1 Australia as a standards body.

8. **What timeframe would be required for you to implement traceability in your own business?**

   Not applicable to GS1 Australia as a standards body.

9. **Do you support recycled content traceability being initially voluntary? Please tell us the reasons for your answer.**

   Yes. We support recycled content traceability being initially voluntary. A voluntary approach recognises the evolving nature of traceability and allows businesses to adapt gradually to the new system.

   Voluntary systems also benefit from ongoing adoption monitoring to ensure implementation is progressing to achieve the ultimate outcomes of the scheme. A current example is the Front of Pack labelling requirements for Health Star rating where the government introduced the scheme as voluntary, and industry has been progressively adopting this without regulation, but with close monitoring and reporting on adoption trends.

   This approach also allows for ongoing discussion and collaboration between industry and government to identify and address any adoption barriers reported by industry as they emerge.

10. **Should recycled content traceability become mandatory for everyone over time? Why/why not?**

    As the benefits (public and private) of recycled content traceability become more evident and traceability practices mature, it may be beneficial to consider making it mandatory for all participants to ensure a consistent and comprehensive approach.

    Over time, it also ensures that there is a levelled playing field.

11. **Should recycled content traceability be mandatory only in specific circumstances or sectors? Please tell us why/why not.**

    No specific comments or recommendations in this area.

12. **Do you support governments requiring consistency or alignment with the framework as a requirement for future initiatives, for example grant funding? If not, why not?**

    Yes. Without this consistency and alignment implementation programs and initiatives can easily take divergent paths and the overall objective of interoperability would be harder to achieve.

Framework objective

13. **Is the proposed objective appropriate for a voluntary approach? If not, what else should be considered?**

    Yes. The proposed objective is appropriate for a voluntary approach provided of course that adoption is achieved and ultimately becomes pervasive. The objective emphasises industry-led initiatives and encourages businesses to adopt traceability systems at their own pace, which aligns with the voluntary nature of the framework.

14. **If the proposed framework were mandatory or to become mandatory, would the proposed framework objective still be appropriate? If not, in what way would it be inappropriate?**

    Yes. The objective of the framework would still be appropriate.

    A mandatory approach may require the framework to consider more stringent measures to ensure compliance and reflect stronger government involvement in driving and monitoring the implementation of traceability systems.

15. **Is the proposed framework sufficient to support collection and sharing of accurate and harmonised recycled content information? If not, what would you like to see from governments to support this?**

The proposed framework is sufficient to support the collection and sharing of accurate and harmonised recycled content information. The framework allows for the initial implementation to focus on the basic capabilities and requirements and the ability for businesses to scale over time.

To support adoption of the framework, governments could provide incentives or grants to businesses that implement traceability, offer technical assistance and training on traceability systems, and facilitate knowledge exchange between businesses to promote best practices.

16. **Do you use traceability systems for other parts of your business, for example to trace food or agricultural products? If so, which system do you use?**

Whilst GS1 Australia does not use traceability systems, as a standards body, we would like to refer the Department to our solution provider directory that contains a list of technology vendors that offer traceability systems and solutions that align with GS1 Standards.

Framework scope

17. **Is it appropriate for traceability to begin at the material recovery step in the supply chain? If not, why not and at which step in the supply chain should traceability begin?**

Yes. Beginning traceability at the material recovery step in the supply chain is appropriate as it allows for the tracking and documentation of recycled materials from their initial collection point.

18. **Does the defined scope of recycled material and recycled content cover all the types of recycled materials that should be traced? If not, what other recycled materials should be in scope?**

Yes. The defined scope of recycled material and recycled content is comprehensive and covers all types of recycled materials that should be traced and in alignment with ISO standards.

19. **Are the supply chain steps in Figure 2 and descriptions in Table 1 sufficient to capture all types of recycled content supply chains (for example, glass, paper, plastics, metals and construction materials)? If not, what additional steps or descriptions should be included?**

GS1 Australia would recommend the Department considers separating the manufacturing step depicted in Figure two, into two separate processes:

1) The manufacture of recycled materials (e.g., packaging materials for food products)
2) The manufacture of products using recycled materials (e.g., manufacturing of food products using recycled packaging).

Whilst both processes are technically manufacturing activities, the separation of these two processes may provide better clarity on the expectations placed on different value chain participants in the implementation of the framework.

20. **Should imported recycled materials be within scope of the framework once they enter Australia? If not, why not? If so, should the framework requirements apply in the same way to imported recycled materials? Please tell us the reasons for your answer.**

Yes. Imported recycled materials should be in scope, this comprehensive and consistent approach to traceability, regardless of the source of the recycled materials.

It also ensures a level playing field and to maintain the integrity of the traceability process. Ensuring traceability for imported recycled materials can also help prevent potential issues related to mislabelling or false claims about the origin and content of recycled materials.

Having said this, applying the framework to imported materials has its own set of more complex challenges. It is important to recognise this in the context of a voluntary system as may require additional effort to achieve the framework objectives. This additional effort should not impede progress in the domestic implementation of the framework.

As referenced in question 10 of our response, developing a technology-agnostic framework for traceability based on international standards supports implementation for imported materials.

Achieving interoperability

21. Is the GS1 Global Traceability Standard an appropriate basis for guiding interoperability in recycled content supply chains? If not, what approach would you suggest?

Whilst it may seem evident that GS1 Australia would support the use of GS1 Standards, we wanted to provide the following justifications:

- GS1 Standards are ISO-compliant and aligned.
- GS1 Standards are proven to deliver interoperability in traceability processes.
- GS1 Standards are already in use by industry in Australia and abroad and thus do not introduce a separate requirement for compliance with the framework.
- GS1 Standards implementation is supported by global and local registries for products and locations.
- There is an extensive community of technology and solution providers that already support the use of GS1 Standards in traceability providing choice to industry, decreasing costs of implementation, and supporting innovation.
- There is support for the use of GS1 standards by Australian government across several sectors.
- Capacity building programs are already available.
- GS1 standards are technology and industry agnostic.
- GS1 is a not-for-profit standards body - recognised as an NGO with consultative status under the United Nations Economic and Social Council (ECOSOC).

22. What other approaches or guidance should be considered for guiding implementation of interoperability in recycled content supply chains?

Consideration should be given to other standards that support data security and privacy in data exchange processes that sit outside the scope of GS1 Standards.

23. Would you require further guidance from governments to ensure interoperability of recycled content traceability systems is achieved? If so, what additional guidance would be required?

Yes. Some areas for further government support could include:

- The development of a traceability implementation guideline would assist industry in their implementation journey. An example of a recently published traceability guideline for soft plastics developed by GS1 Germany in collaboration with the German waste and recycling sector provides an example of the type of guideline that can be developed in Australia to support the implementation of the framework.
- Access to capacity-building programs, tools and checklists including suggested questions to ask solution providers; and
- A registry, or other form of guidance, that can assist industry to identify traceability solutions that meet the framework requirements.

Numerous examples of government guidance material for traceability for food and agricultural supply chains are available including Victoria Agriculture quick start guides and suggested questions to ask traceability solutions providers as developed by GS1 Australia to support industry working groups in primary industries and healthcare.

There is also a significant body of knowledge including training and education materials developed by industry to support international supply chain standards use.

Traceability model

24. Could your business currently achieve 'one step forward, one step back' traceability? If not, please tell us why.

Not applicable to GS1 Australia as a standards body.

25. **Is it appropriate to start with 'one up, one down' traceability? If not, why is it not appropriate and what other approach should be considered?**

    Yes, it is appropriate to start with 'one step forward, one step back' traceability as an initial approach.

    This basic model provides a foundation for traceability, allowing participants to track the movement of goods one step forward to customers and trace the associated inputs one step back to immediate suppliers. It is a widely used model in various industries, including the food and agricultural sector. Starting with this approach enables businesses to gradually build their traceability capabilities, establish data-sharing protocols, and gain experience in implementing traceability systems.

26. **Would 4 years be enough time for industry to adapt to full traceability? If not, what timeframe should be considered and why?**

    Yes. The proposed 4-year timeframe to achieve full traceability appears reasonable, considering that the framework is expected to be voluntary initially. Whilst there could be exceptions to the rule, this duration allows businesses to map their supply chains, invest in and deploy appropriate traceability systems, and ensure interoperability among supply chain participants. Four years would provide sufficient time for businesses to adapt their processes and make necessary changes to achieve full traceability, including engaging with suppliers and possibly re-negotiating contracts to facilitate information sharing.

    As a reference, the US FDA released their traceability rule requirements under the Food Safety Modernisation Act in 2022. "Because the Food Traceability Final Rule requires entities to share information with other entities in their supply chain, the most effective and efficient way to implement the rule is to have all persons subject to the requirements come into compliance by the same date. The compliance date for all persons subject to the recordkeeping requirements is Tuesday, January 20, 2026." In this example, the US FDA also provided industry with 4 years to comply.

    Again, adoption monitoring and reporting would be critical under a voluntary framework.

27. **Would the 4-year timeframe be sufficient if the framework were mandatory? If not, why not and what timeframe would you propose?**

    Yes. As per our response to the previous question.

Key data elements

28. **Would the key data elements provide enough information and assurance about recycled content to encourage its use over virgin materials? If not, what other information should be collected and shared in the supply chain to increase confidence in recycled content?**

    The key data elements identified in Table 4 provide essential information to achieve basic traceability of recycled content in the supply chain. They cover critical tracking events such as receiving, processing, and dispatching, and enable traceability of recycled content attributes like provenance, composition, and quality.

    While these data elements are a good foundation to get started, additional information could enhance confidence in recycled content and may be considered in the future evolution of the framework over time.

    For instance, data related to embedded carbon footprint, modern slavery, safety certifications, and the number of times materials have been recycled could provide further insights into the sustainability and environmental impact of recycled content.

    Including such information, in the future, could encourage greater use of recycled materials over virgin materials.

29. **Is the ISO definition for recycled content (ISO 14021:2016) appropriate to define the**

data point that is captured once recycled material is used to create a new product?

Yes, the ISO definition for recycled content (ISO 14021:2016) is appropriate to define the data point that captures the proportion, by weight, of recycled material in the goods.

30. **Is the information proposed to be shared across the supply chain (Table 2) commercially sensitive? If so, please identify each specific data element and explain why it would be commercially sensitive.**

GS1 Australia defers to specific industry participants to comment on the commercial sensitivity of the suggested data set.

31. **Should the key data elements described in Table 4 also be required for imported recycled materials? Please tell us the reasons for your answer?**

Yes, the key data elements described in Table 4 should also be required for imported recycled materials. As previously mentioned, consistency in the application of the framework domestically and for imported materials is critical in ensuring the objectives of the framework.

32. **If you use a traceability system for a reason other than tracing recycled content (such as modern slavery reporting), could it be expanded to include the data elements in Table 4?**

Not applicable to GS1 Australia as a standards body.

33. **Is the guidance on key data elements sufficient to support accurate and harmonised recycled content information? If not, what would you like to see from government to support this?**

The guidance on key data elements is a crucial step in supporting accurate and harmonized recycled content information. However, to ensure the effective implementation of the framework and widespread adoption of traceability systems, additional support from the government may be required. Governments can provide guidance, resources, and training to businesses, particularly smaller ones, to help them understand and implement the data elements effectively. Additionally, promoting the adoption of standardised data vocabularies and information-sharing protocols can facilitate smooth interoperability among different systems.

34. **If you are an Australian business that uses recycled content, what information would you most want to know about the recycled content you use? (For example, how much recycled content it contains; where it came from; or that the recycled content meets appropriate quality standards)**

Not applicable to GS1 Australia as a standards body.

35. **If you are an end-user of recycled-content goods, what information would you most want to know about those goods? (For example, how much recycled content they contain; where the recycled content came from; or that the goods meet appropriate quality standards)**

Not applicable to GS1 Australia as a standards body.

Tracing recycled content composition

36. **If you are an Australian business that uses recycled materials, how do you determine the recycled content in products made with recycled materials?**

Not applicable to GS1 Australia as a standards body.

37. **Are the four proposed chain of custody approaches appropriate to determine the recycled content in goods? If not, why not and what approaches would you suggest?**

Yes. The four proposed chain of custody approaches (identity preservation, segregation, controlled blending, and mass balance) are appropriate and cover a range of scenarios to determine the recycled content in goods. Each approach caters to different supply chain conditions and complexities. Businesses can choose the approach that aligns best with their operations and supply

chain setup to ensure accurate determination of recycled content.

It is important to consider the outcome of each of the approaches is different. This means that when applying standards for unique identification of the resulting materials, different identifiers are needed to support traceability. As well as different product or materials identifiers, production level data will be required to identify different batches of products e.g.; batch numbers, production dates, etc.

38. **What other approaches could be considered to determine the recycled content of goods?**

An alternative method that may be considered is the use of product master data. This is appropriate for reporting, for example, the % of recycled content used in the final consumer product.

To illustrate, GS1 Australia is working with APCO in the implementation of the National Product Catalogue (NPC) – a national registry of product information administered by GS1 Australia and managed by the products' manufacturer or brand owner.

Under this partnership, GS1 Australia has made several modifications to the NPC to support a range of product attributes related to packaging, the packaging type, recyclability, and recycled content. Brand owners will be able to use the NPC to publish packaging data to APCO as part of meeting their reporting requirements.

This approach provides an alternative mechanism to determine, communicate and share recycled content information in consumer goods.

39. **Should the framework define the mass balance accounting period, allocation of attributes, credit units and other mass balance requirements? If so, what should be the minimum requirements?**

No comments in this area.

40. **Could the framework help to harmonise existing chain of custody certification schemes? If so, please tell us how?**

Yes, the framework could help harmonise existing chain of custody certification schemes by requiring adherence to the international chain of custody standard, ISO 22095:2020.

This standard provides a consistent generic approach to the design, implementation, and management of chains of custody, enhancing transparency in material and product claims. By following this standard, businesses can ensure that their chain of custody approaches align with recognised best practices, leading to greater consistency and reliability in recycled content claims.

The proposed framework's adoption of ISO standards would contribute to the harmonisation of practices across the industry.

Tracing recycled content provenance

41. **Is it sufficient to trace the origin of domestic recycled content to the jurisdiction of origin? If not, why not and what level of origin should be traced?**

Yes. Tracing the origin of domestic recycled content to the jurisdiction of origin (level 2) is a good starting point and provides sufficient visibility of recycled content to support state and territory policies that prioritise local recycled content. Level 2 tracing allows manufacturers to understand where recycled content comes from within a particular state or territory.

However, depending on specific sustainability goals and objectives, some businesses may choose to trace recycled content to even more granular levels, such as local government. areas or suburbs of origin, to support localised initiatives and provide greater detail for sustainability reporting.

GS1 Traceability Standards allows for origin to be tracked to a specific material recovery location or facility. As the starting point in the traceability framework, materials recovery facilities will be identified with Global Location Number that uniquely identifies the facility. Against this GLN, master data about the

facility could be captured and shared, including address details, GPS coordinates, and other relevant information about the facility. This process may also be facilitated using National Registries such as the NLR (supported by the Department of Infrastructure, Transport, Regional Development, Communications and the Arts), making the gathering and sharing of this master data efficient and accurate.

42. **Is it sufficient to trace imported recycled content back to the country of origin? If not, why not and how far back should imported recycled content be traced?**

    Yes. For imported recycled content, tracing back to the country of origin (level 1) would be a practical approach. This requirement aligns with national requirements for country-of-origin labelling for certain products and ensures that businesses have visibility of the country from which imported recycled content originates. Tracing to the country of origin can still provide valuable information to support supply chain transparency and sustainability goals.

    Please refer to the comment in the previous question regarding the use of GLN as it can also apply to imported materials in future.

    Global Registries, similar to the National Location Registry (NLR), are also available to support master data sharing for international facilities whether they be material recovery locations, processing or manufacturing.

43. **What challenges might be involved in tracing imported recycled content further than the country of origin? (For example, to the city of origin?)**

    Tracing imported recycled content further than the country of origin (e.g., to the city of origin) may present challenges due to complexities in international supply chains. Obtaining accurate and reliable data at such a granular level could be difficult, especially if materials are collected and aggregated from multiple locations within a country before export. Additionally, data availability and data-sharing practices in some countries might limit the feasibility of tracing to such detailed levels.

44. **How else could the origin of imported recycled content be traced?**

    To trace the origin of imported recycled content, businesses could explore collaborative efforts with overseas suppliers and engage in data-sharing agreements. Building partnerships and supply chain relationships based on transparency and trust can facilitate the sharing of relevant information. Leveraging technologies like blockchain and smart contracts may also help establish a secure and auditable system for data sharing across international supply chains, enabling more granular tracing of imported recycled content if required.

Tracing recycled content quality

45. **If you are an Australian business involved in processing or using recycled materials, how do you determine the quality of materials you receive and supply?**

    Not applicable to GS1 Australia as a standards body.

46. **Does the proposed definition of 'chemicals of concern' include or exclude substances it shouldn't? If so, what other definitions of 'chemicals of concern' could be considered?**

    No comments in this area.

47. **Does the proposed guidance contradict or duplicate existing practices, such as industry guidance, or state, territory or international requirements? If so, please tell us how.**

    No comments in this area.

Aligning with emerging traceability requirements

48. **Are the standards identified in Table 8 sufficient to guide implementation of recycled content traceability? If so, how should they be used in the proposed framework? If not, why not?**

    The standards identified in Table 8 provide a solid foundation to guide the implementation

of recycled content traceability. They cover various aspects of traceability, chain of custody, and certification and verification. To use these standards effectively in the proposed framework, businesses should consider aligning their traceability systems with the requirements and principles outlined in these international standards. The framework can reference these standards and provide guidance on their adoption to promote consistency and interoperability within global supply chains.

49. Which of the standards in Table 8 do you use in your business?

Not applicable to GS1 Australia as a standards body.

50. How could we align the proposed framework with the standards to provide helpful guidance?

To align the proposed framework with the standards effectively, businesses can be encouraged to follow the principles and requirements laid out in these standards while implementing their traceability systems. The framework can provide helpful guidance by referencing specific sections of these standards that are relevant to recycled content traceability and providing examples of best practices for data collection, sharing, and verification. Ensuring consistency between the framework and the international standards will facilitate the adoption of the framework by businesses aiming to participate in global supply chains.

51. What other international traceability requirements or standards should be considered under the proposed framework?

The traceability of physical products is a primary focus of the framework. At the same time, global standards organisations in concert with governments and industry have recognised the need to address issues of product conformity and claims – especially ESG claims that have been the subject of extensive greenwashing. The traceability of these claims (or rather making sure they are linked to the products and locations they relate to is a critical consideration.

Work is underway and well aligned with the proposed framework to link claims about products, locations and responsible parties with the objects they relate to using ISO/IEC standards. For example, see recent work supported by DISR (national product conformity) and related UNCEFACT publications.

Also note that circular economy standards are currently in development ISO CD 59010/59020

Verification

52. Do you currently verify domestic recycled content information you receive through the supply chain? If so, please tell us how you verify the information.

Not applicable to GS1 Australia as a standards body.

53. Do you currently verify imported recycled content information you receive through the supply chain? If so, please tell us how you verify the information.

Not applicable to GS1 Australia as a standards body.

54. Is it sufficient for verifiers to meet the ISO standard relating to verification bodies (ISO/IEC 17029:2019)? If not, what other requirements should be considered for verifiers?

No comments in this area.

55. What other approaches could be used to provide assurance of recycled content information?

Besides third-party verification, other approaches to provide assurance of recycled content information may include establishing collaborative industry platforms or databases where supply chain participants can share and cross-verify their data. Industry collaborations and certifications can also play a role in ensuring recycled content claims are transparent and verified.

Section 4: Implementing the Framework

Responsibilities

56. What additional stakeholder responsibilities should be considered?

Additional stakeholder responsibilities that should be considered in implementing the proposed framework include:

a) Education and training organisations: Formal and informal training and education service providers have an important role to play in helping businesses and the community understand foundational principles that make traceability possible.

b) Research and Development Institutions: These institutions could play a role in conducting research to improve traceability technologies, develop best practices, and enhance the overall understanding of recycled content supply chains.

c) Consumer Advocacy Groups: Consumer advocacy groups can raise awareness about the importance of traceability and recycled content. They can encourage consumers to support products with transparent and verified recycled content information.

d) Waste Management Companies: Waste management companies can contribute to the framework by ensuring accurate data collection and reporting at the material recovery stage, which is crucial for the traceability of recycled content.

e) Supply Chain Auditors: Independent auditors could be engaged to assess and verify the traceability data provided by stakeholders along the supply chain to ensure compliance with the framework requirements.

f) Non-Governmental Organisations (NGOs): NGOs can advocate for the adoption of the framework, promote sustainable practices, and monitor the implementation of traceability initiatives.

57. What opportunities are available or could be considered to encourage stakeholders along the recycled content supply chain to use the proposed framework?

Opportunities to encourage stakeholders to use the proposed framework include:

a) Incentives: Governments can provide incentives, such as grants or tax breaks, to businesses that adopt traceability measures consistent with the framework. Financial incentives can encourage more widespread adoption of traceability practices.

b) Certification Programs: Establishing certification programs that recognise businesses implementing the framework's traceability requirements can incentivise others to follow suit.

c) Market Demand: As consumers and businesses increasingly value transparency and sustainability, there may be a growing market demand for products with verified recycled content. This demand can encourage more stakeholders to use the framework to showcase their commitment to sustainability.

d) Industry Collaboration: Facilitating collaboration between stakeholders along the supply chain can lead to the sharing of best practices, knowledge exchange, and cost-sharing for implementing traceability systems.

58. Would any additional stakeholders have a role in implementing the proposed framework? If so, please provide details.

Additional stakeholders that could have a role in implementing the proposed framework include:

a) Third-Party Verification Bodies: Independent verification bodies play a crucial role in validating the accuracy and reliability of recycled content information. Engaging reputable verification bodies can add credibility to the traceability claims made by supply chain participants.

b) Industry Associations: Industry associations can promote the adoption of the framework among their members, facilitate the sharing of information and best practices, and represent the

collective interests of businesses in specific sectors.

c) Standards organisations, such as GS1, Standards Australia and ISO, can contribute by aligning their traceability standards with the framework, making it easier for businesses to adopt standardised traceability practices.

d) Regulatory Bodies: Regulatory bodies can incorporate the framework's requirements into relevant regulations or policies, thereby creating a legal framework for traceability practices.

Guiding principals

59. Would the proposed guiding principles provide sufficient guidance to support implementation of the proposed framework? If not, what other principles should be considered?

The proposed guiding principles provide a solid foundation to support the implementation of the proposed framework. These principles emphasise key aspects of traceability and encourage responsible behaviour from all stakeholders involved in the recycled content supply chain. However, there are a few additional principles that could be considered to further strengthen the guidance:

a) Sustainability: The framework could explicitly include sustainability as a guiding principle, highlighting the importance of promoting environmentally and socially responsible practices throughout the supply chain. This would reinforce the overarching goal of achieving greater material circularity and reducing the environmental impact of products.

b) Collaboration and Cooperation: Emphasizing collaboration and cooperation among stakeholders could encourage the sharing of information, best practices, and resources. This would foster a collective effort to improve traceability and enhance the overall effectiveness of the framework.

c) Continuous Improvement: Encouraging a commitment to continuous improvement would urge stakeholders to regularly review and enhance their traceability systems and processes. This principle would promote adaptability to technological advancements and evolving industry best practices.

d) Accessibility and Inclusivity: Ensuring that the framework is accessible and inclusive to all stakeholders, including small and medium-sized enterprises, would promote widespread adoption and participation. This could be achieved through the provision of resources, training, and support tailored to different levels of capacity and resources.

e) Consumer Education: Incorporating consumer education as a guiding principle could emphasise the importance of informing and educating consumers about the benefits of recycled content and the significance of traceability. Educated consumers are more likely to make informed choices and support products with transparent and verified recycled content information.

By incorporating these additional guiding principles, the framework would further enhance its effectiveness and ensure a comprehensive approach to achieving greater traceability and recycled content utilisation.

Implementations costs and timeframe

60. Do you think the benefits of traceability outweigh the costs of implementation for your business? Please tell us the reasons for your answer.

Not applicable to GS1 Australia as a standards body.

61. What additional guidance would you require from governments to support your implementation of the framework?

To support the implementation of the framework, businesses may require additional guidance from governments in several areas:

a) Clear and consistent traceability guidelines: Governments can provide comprehensive and standardised traceability guidelines that align with the proposed framework. These guidelines should clarify the

expected traceability practices and the level of information to be collected and shared across the supply chain.

b) Financial support and incentives: Governments could consider offering financial support or incentives to help businesses offset some of the initial implementation costs. This could encourage more businesses to adopt traceability systems and contribute to achieving the broader objectives of the framework.

c) Training and capacity-building programs: Governments can facilitate training and capacity-building programs to help businesses understand the importance of traceability, learn how to implement traceability systems effectively, and address any challenges that may arise during the process.

d) Access to technical expertise: Governments could support businesses by providing access to technical experts or consultants with experience in implementing traceability systems. This support could be especially beneficial for smaller businesses that may lack the resources or expertise to implement traceability independently.

e) Collaboration platforms: Governments can play a role in creating collaboration platforms where stakeholders from different parts of the supply chain can exchange knowledge, share best practices, and address common challenges related to traceability implementation.

f) Periodic reviews and updates: Governments should commit to periodic reviews of the framework's effectiveness and make necessary updates based on feedback and evolving industry practices. Regular reviews would ensure that the framework remains relevant and effective in achieving its objectives.

By providing such guidance and support, governments can foster a conducive environment for businesses to adopt and implement the proposed framework effectively, leading to improved traceability, greater use of recycled content, and positive outcomes for the environment and the economy.

Measuring the framework's success

62. Are the proposed indicators of performance appropriate? If not, what other indicators should be considered?

The proposed indicators of performance are generally appropriate as they cover key aspects related to the adoption and effectiveness of the framework. However, some additional indicators could be considered to provide a more comprehensive assessment of the framework's impact. For example:

a) Percentage of recycled content in products: Tracking the increase in the use of recycled content in products can directly measure the environmental impact of the framework and its contribution to a circular economy.

b) Reduction in waste and greenhouse gas emissions: Monitoring the reduction in waste generation and greenhouse gas emissions resulting from increased recycled content usage can demonstrate the framework's environmental benefits.

c) Consumer awareness and perception: Understanding consumer awareness and perception of recycled content and the traceability framework can provide insights into the framework's impact on consumer behaviour and preferences.

d) Business cost savings and efficiency gains: Assessing any cost savings and efficiency gains achieved by businesses through improved traceability and supply chain management can highlight the economic benefits of the framework.

63. How could the Commonwealth collect data to monitor and evaluate the proposed framework?

The Commonwealth can collect data to monitor and evaluate the proposed framework through several means:

a) Surveys and questionnaires: Conducting regular surveys among businesses and stakeholders in the recycled content supply chain can provide data on

awareness, adoption, and experiences related to the framework.

b) Collaboration with states and territories: Partnering with state and territory governments can facilitate data collection and monitoring efforts, as they may have existing programs and initiatives related to recycled content and traceability.

c) Data from industry associations and peak bodies: Collaborating with industry associations and peak bodies can help gather data and insights on the adoption and implementation of the framework across the sector.

d) Stakeholder consultations: Engaging in ongoing dialogues and consultations with businesses, environmental organisations, and other stakeholders can provide qualitative feedback and valuable insights into the framework's impact.

64. Would 3 years of framework implementation provide sufficient information to support the first review of the proposed framework? If not, what timeframe would be appropriate?

Three years of framework implementation can provide valuable information for the first review, especially regarding the initial adoption and early outcomes. It would allow businesses to implement traceability systems, start using recycled content data, and provide feedback on their experiences. However, it is essential to recognise that significant changes and impacts may take longer to fully manifest. Therefore, a more comprehensive assessment could be conducted after a longer period, such as five years, to capture more substantial trends and evaluate the long-term effects of the framework.

65. Do you anticipate any changes to the operating or business environment that might have a substantial impact on implementation and review of the proposed framework? Please explain.

The operating and business environment is subject to various factors that might impact the implementation and review of the proposed framework. Some potential changes to consider include:

a) Regulatory developments: Changes in domestic or international regulations related to recycled content, traceability, or circular economy initiatives may influence the framework's requirements or alignment with other standards.

b) Technological advancements: Rapid advancements in technology could introduce new and more efficient traceability solutions, influencing the adoption and implementation of the framework.

c) Market demand and international trade: Evolving market demands and trade requirements for recycled content may drive businesses to prioritise traceability and align with international standards.

d) Economic conditions: Economic conditions, such as changes in resource prices or market volatility, can affect businesses' willingness to invest in traceability and recycled content usage.

e) Consumer awareness and behaviour: Changes in consumer awareness and preferences for sustainable products may impact the demand for traceable and recycled content goods.

Monitoring and considering these changes during the review process will allow for a more informed assessment of the framework's effectiveness and potential adjustments to align with the evolving business and policy landscape.

Contact Information

Peter Carter

General Manager Public Policy and Government Engagement - GS1 Australia

E: peter.carter@gs1au.org

M +61 418 231 997

Or

Marcel Sieira

Chief Operating Officer – GS1 Australia

E: marcel.sieira@gs1au.org

M +61 423 566 843

More about GS1

GS1 is an international, not-for-profit industry-led supply chain 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.

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GS1 and ISO Standards

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