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GS1 4 Traceability Building and Construction User Manual

The Global Language of Business

Traceability 4 Building and Construction

Laying the foundations of safety, quality and sustainability

The Australian building and construction industry is a critical sector that plays a vital role in the nation's economic growth and development, accounting for a substantial portion of the Gross Domestic Product (GDP). Yet, there are several persistent industry challenges that are apparent, including inefficiencies, delays, cost overruns, safety concerns and quality issues.

The implementation of digital traceability standards will address these challenges whilst significantly improving

project management, safety, quality control and sustainability metrics, improving the overall efficiency and productivity of the industry.

Building product **traceability** and **identification** is required to determine if specified products are the ones actually delivered to site, and that their origins are fully traceable, should problems arise. The implementation of a national industry-wide traceability framework will bring greater certainty to compliance, by ensuring the appropriate information is available, wherever it is needed in the building delivery process.

Building product identification will also help address the problem of counterfeit products and unauthorised substitution. Traceability standards would underpin the framework by providing the `digital building blocks'. It is proposed that these traceability standards are developed for the construction industry by drawing on the experience of other industries, including those operating internationally.

`Currently there are no agreed standards for building product manufacturers supplying the Australian construction industry to follow in relation to the creation, storage, management and exchange of product information. This makes it impossible for the industry to efficiently share reliable and trusted information about building products in a consistent way.'

Ref: Building product safety – National Building Product Assurance Framework (**abcb.gov.au**)

Rodger Hills, Exec Officer BPIC

A national challenge

The building and construction industry is experiencing a significant gap in supply chain transparency. This often leads to inefficiencies and delays in timelines, inaccurate tracking of materials and equipment, resulting in ineffective resource allocation and management.

The lack of tracking safety certifications, equipment, maintenance and worker qualifications can lead to safety breaches and avoidable accidents, resulting in unexpected cost impacts due to wasted materials, labour and time. Whilst the inability to track expenses efficiently can lead to budget overruns.

A wide range of quality-related issues are apparent, including the use of subpar materials, inefficiencies in project management, compliance challenges, safety concerns and difficulties in maintaining and improving building quality.

It is currently challenging to track the origin and specifications of construction materials and products. This can lead to the use of non-compliant materials, which can compromise the structural integrity and safety of buildings.

Manual record-keeping makes it harder to trace and assign responsibility for errors, defects or deviations from project plans. Building codes and regulations are complex and continually evolving and it can be challenging to keep track of warranties, maintenance schedules and component histories.

Common sustainability goals include reducing greenhouse gas emissions, conserving resources, and promoting more environmentally friendly and socially responsible practices. To meet these goals, collaboration between government, industry stakeholders and the community is essential. The development of clear policies, incentives and standards, along with research and innovation, will play a vital role in establishing the way forward.

The Building Ministers Forum `Building Confidence' co-led by Bronwyn Weir, requested an expert assessment of the effectiveness of compliance and enforcement systems for the building and construction industry. The Building Confidence Report called out the need for enhancing confidence and trust with the Australian building and construction industry.

Enhanced traceability based on common standards

Enhanced digitised traceability for the Australian building and construction industry is paramount to enabling the Realtime tracking of materials, equipment and certifications. Precise data will enable accurate resource allocation and scheduling, reducing cost and overruns. Safety certificates and maintenance records can be easily verified and the adherence to environmental standards can be monitored and confirmed.

GS1 is a global non-profit organization. The GS1 traceability standards are widely adopted across a variety of industries and can significantly benefit the Australian building and construction sector, by delivering unique identification for each item and ensuring accurate tracking across the supply chain.

Digital records can easily be created for materials and equipment, providing real-time visibility. GS1 standards can be integrated with existing business systems, including project and procurement systems, making systems interoperable and adoption seamless.

As a globally unique identifier, the GTIN (Global Trade Item Number) enables the required visibility of all products, parts and components used in building projects. As efficiencies grow in construction processes, waste can be minimised and a more sustainable supply chain–down to the construction site–can be realised.

Construction, like many industries today, must guard against counterfeit building materials that can infiltrate their supply chains, causing performance problems down the track. By leveraging GS1 GTINs to uniquely identify an individual building product, all construction partners can verify the authenticity of the product and exchange data on its attributes, performance, maintenance and facilities management activities.

Throughout the entire building product's life cycle, construction stakeholders can trace the product's back to their origins, as well as track the product to its final building destination.

Conclusion

Enhanced traceability is recommended for the building and construction industry in Australia, to address current challenges and drive greater efficiency, safety and sustainability objectives. The adoption of GS1 traceability standards offers a robust digital framework to ensure accurate tracking of materials and equipment. By implementing traceability measures, the industry can overcome current obstacles, positively impact productivity and instil confidence and trust in a more accountable and transparent environment, ultimately benefiting the Australian economy and society as a whole.

GS1 Australia and the National GS1 Traceability Advisory Group (NGTAG) are committed to working with industry and government, to provide practical pathways for enhanced national traceability and help secure a positive future for Australian industry.

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More information

Join the National Traceability Advisory Group and continue the discussion on how traceability can enhance the building and construction industry.

Documents / Resources

	GS1 4 Traceability Building and Construction [pdf] User Manual 4 Traceability Building and Construction, Traceability Building and Construction, Building and Construction, and Construction, Construction

References

- ❖ **Australian Building Codes Board | ABCB**
- **Home | GS1 Australia**
- **User Manual**