CONSTRUCTION PRODUCTS EUROPE

Digital Construction

Workshop
Brussels, 7th October 2025

GS1 in Europe

Powering digital product passports:

How GS1 standards enable trusted and interoperable product data

Shervin Yousefzadeh

October 2025



GS1 Competition Law Caution

GS1 operates under the GS1 Competition Law Caution. Strict compliance with competition laws is and always has been the policy of GS1.

The best way to avoid problems is to remember that the purpose of the group is to enhance the ability of all industry members to compete more efficiently.

This means:

There shall be no discussion of prices, allocation of customers, or products, boycotts, refusals to deal, or market share.

If any participant believes the group is drifting toward impermissible discussion, the topic shall be tabled until the opinion of counsel can be obtained.

The full caution is available via the link below, if you would like to read it in its entirety:
www.gs1.org/gs1-competition-law-caution

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We are global

120
GS1 member organisations

10 billion
GS1 barcodes scanned daily

2 million +
Companies use GS1 standards

200 million+
Products carry GS1 barcodes



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Everything we do is built on standards

GS1 standards enable the **identification**, **capture** and **sharing** of information in a common format.



IDENTIFY **CAPTURE** **SHARE**

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GS1 system
Identification



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GS1 system
Capture

EAN/UPC	ITF 14	GS1-128	GS1 DataMatrix	EPC HF Gen 2
				

QR code powered by GS1	GS1 DotCode	GS1 DataBar	GS1 Composite	EPC UHF Gen 2
				

GS1 system
Share



Master data	Transaction data	Visibility event data
Global Data Synchronisation Network (GDSN)	GS1 EDI	EPC Information Services

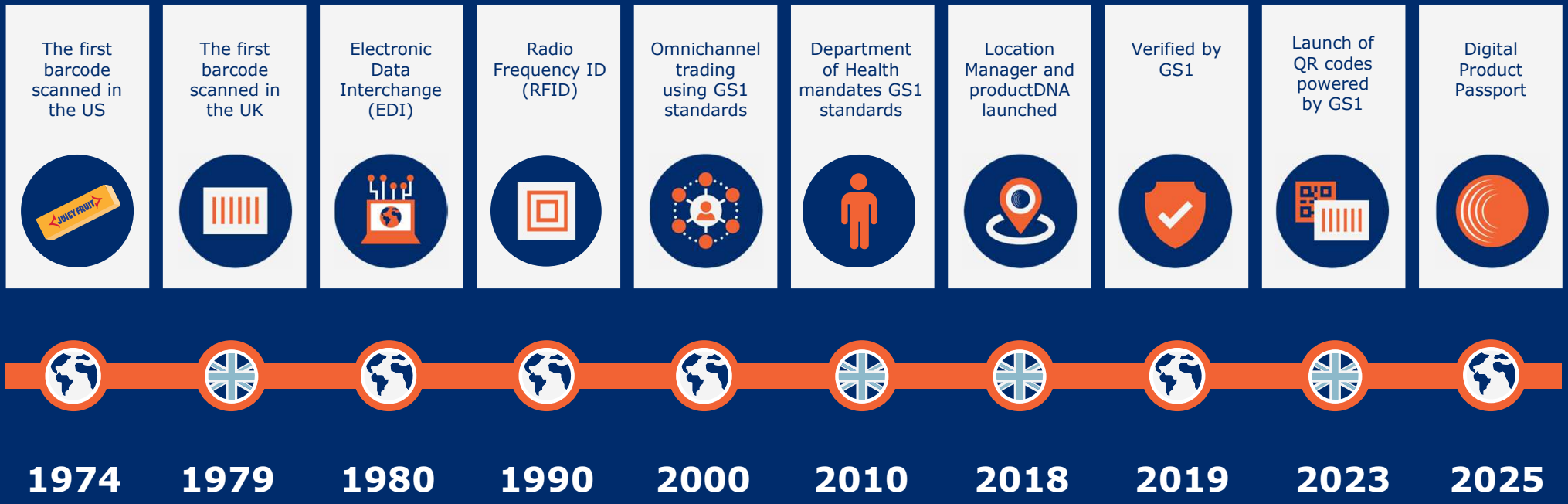
Interoperability

- Item master data
- Location data
- Item/shipment tracking
- Traceability
- Product recall/withdrawal
- Pedigree
- Purchase order Dispatch Invoice

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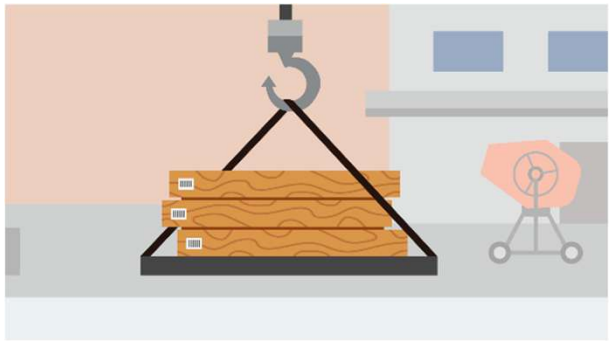
We have been solving industry problems for over 50 years



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GS1 standards in construction

Products



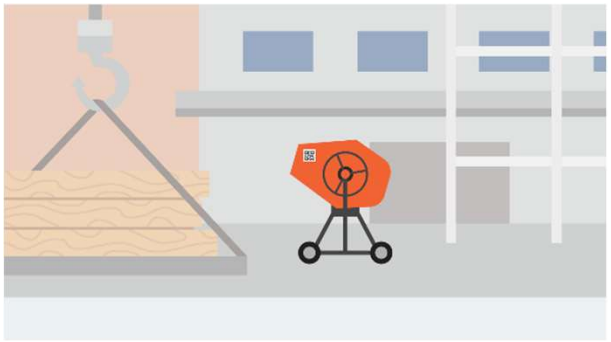
GS1 standards enable the identification, capture and sharing of product data across the supply chain and built environment.

Places



Global Location Numbers (GLNs) enable the unique identification of parties and locations, improving processes such as EDI and traceability.

Assets

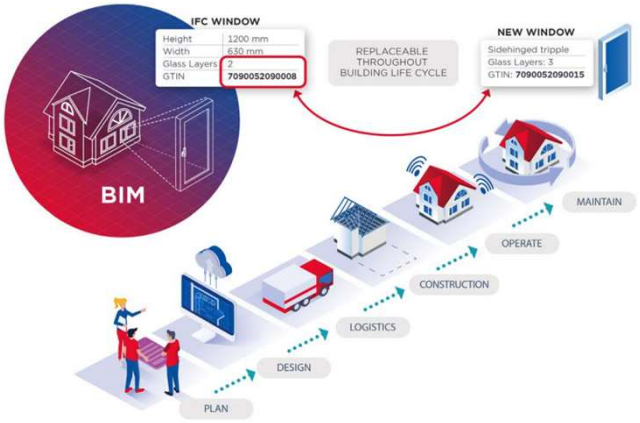


Assets such as air handling units, boilers and plant equipment can be uniquely identified using the Global Individual Asset Identifier (GIAI), meaning they can be better managed throughout their lifecycle.

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Powering digital transformation





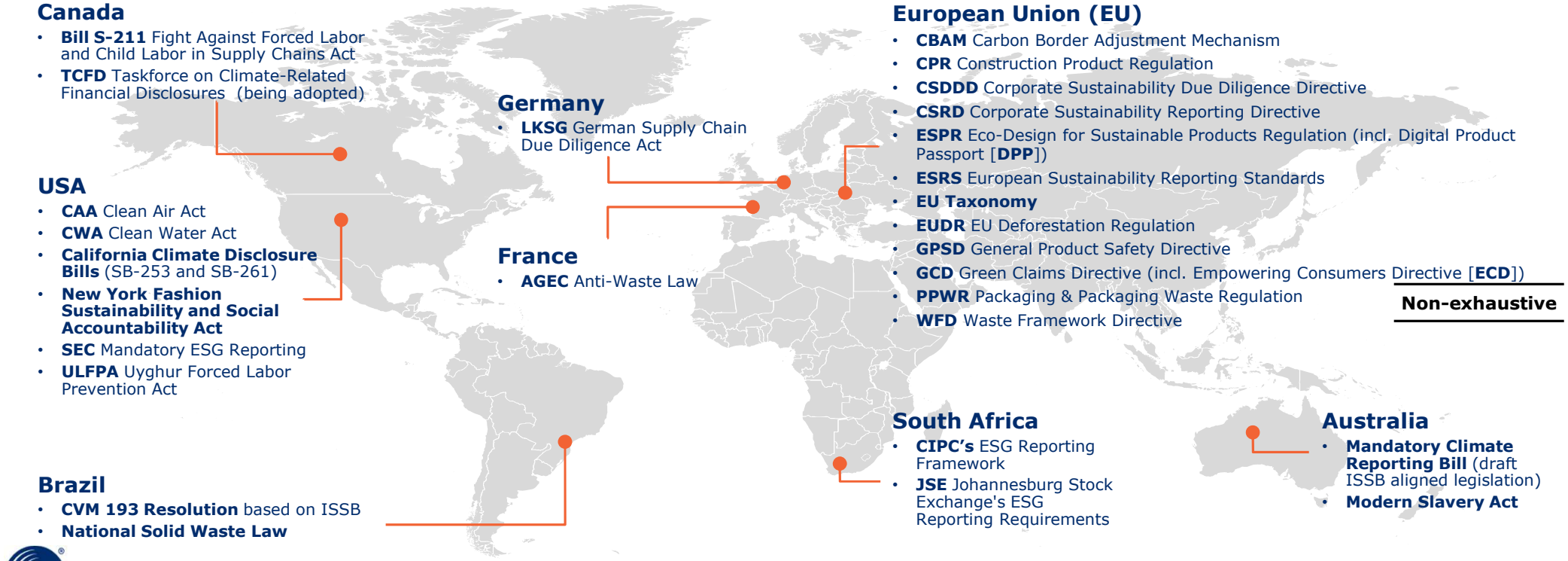


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Global regulatory pressures

Regulatory pressure comes from all corners of the world, with the European Union (EU) leading

A high-level, non-exhaustive, overview of current mandatory regulations and voluntary disclosures that have high impact on organisations. The purpose is to exemplify the current complex regulatory sustainability landscape*.



Canada

- **Bill S-211** Fight Against Forced Labor and Child Labor in Supply Chains Act
- **TCFD** Taskforce on Climate-Related Financial Disclosures (being adopted)

USA

- **CAA** Clean Air Act
- **CWA** Clean Water Act
- **California Climate Disclosure Bills** (SB-253 and SB-261)
- **New York Fashion Sustainability and Social Accountability Act**
- **SEC** Mandatory ESG Reporting
- **ULFPA** Uyghur Forced Labor Prevention Act

Brazil

- **CVM 193 Resolution** based on ISSB
- **National Solid Waste Law**

Germany

- **LKSG** German Supply Chain Due Diligence Act

France

- **AGEC** Anti-Waste Law

European Union (EU)

- **CBAM** Carbon Border Adjustment Mechanism
- **CPR** Construction Product Regulation
- **CSDDD** Corporate Sustainability Due Diligence Directive
- **CSRD** Corporate Sustainability Reporting Directive
- **ESPR** Eco-Design for Sustainable Products Regulation (incl. Digital Product Passport [**DPP**])
- **ESRS** European Sustainability Reporting Standards
- **EU Taxonomy**
- **EUDR** EU Deforestation Regulation
- **GPSD** General Product Safety Directive
- **GCD** Green Claims Directive (incl. Empowering Consumers Directive [**ECD**])
- **PPWR** Packaging & Packaging Waste Regulation
- **WFD** Waste Framework Directive

Non-exhaustive

South Africa

- **CIPC's** ESG Reporting Framework
- **JSE** Johannesburg Stock Exchange's ESG Reporting Requirements

Australia

- **Mandatory Climate Reporting Bill** (draft ISSB aligned legislation)
- **Modern Slavery Act**

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*some of the regulations have not yet been adopted

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Digital product passport (DPP)



Slide 13

AS1 [@Owen Harding] - can you work with design to find a good image that we can use. Needs to be construction related
Alex Smith; 2025-09-15T15:47:07.126

What is a digital product passport?

Digital **container** of information
about a **product** and its **manufacturer**

Data points

Technical and environmental data in a **machine-readable format**

Documents

Link to all documents required by the regulations



Certificates

Certifications for a specific product in a machine-readable format

References

References to **other DPPs** as in the case of **parts** used

A first DPP example

Solenoid Plate Valve ™

English ▾ Navigation ▾

Go to myFleet customer portal

Download DPP ▾

Plate Valve™

Product identifier (GTIN)
07649997749603

Serial number
4711

Digital product passport ID
da39a3ee5e6b4b0d3255bfef95601890afd80709



General properties

Economic operator identifier
GLN (414)7649997749610

Facility identifier
GLN (414)7649997749627

Economic operator
Burckhardt Compression (Deutschland) GmbH
Kruppstrasse 1C
41469 Neuss
Germany

EORI number of the economic operator
DE5115418

E-mail address of the economic operator
aftersales@burckhardtcompression.com

General product description

- **This product is a controlled suction valve which is one of the main components of a reciprocating compressor.**
- Made of X12 stainless steel (AISI 416)
- Made of Hastelloy C276 for very corrosive gases
- Made of high performance thermoplastic polymers (e.g. PEEK and polyimide with appropriate fillers)
- Up to 20 revisions of valve seat achievable, therefore very low life cycle costs
- The springs are secured inside the valve guard to achieve minimum spring wear
- Unequaled valve plate lifetime through careful material selection and special heat treatment.
- Lowest possible leakage rates thanks to a premium surface refinement
- 100% quality control: Every single non-metallic valve plate is leakage tested with a proprietary procedure
- With non-metallic plates the following additional advantages apply:

(01) 07649997749603
(21) 4711

Burckhardt Compression

Manufacturing site: Winterthur
GLN: 7649997749627

CE 24 NB 1139

Digital Product Passport Data

Technical product description

- Valve installation and removal instructions
- Tools and special tools for valve replacement
- Valve disassembly instructions
- Troubleshooting manual
- Material handling and on-site storage instructions
- Bill of materials

Lifetime history

- Installation
- Repair
- Maintenance
- Upgrade
- Refurbishment

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Why it matters



Greater transparency



Improved sustainability & circular economy



Regulatory compliance made easier



Enhanced supply chain efficiency



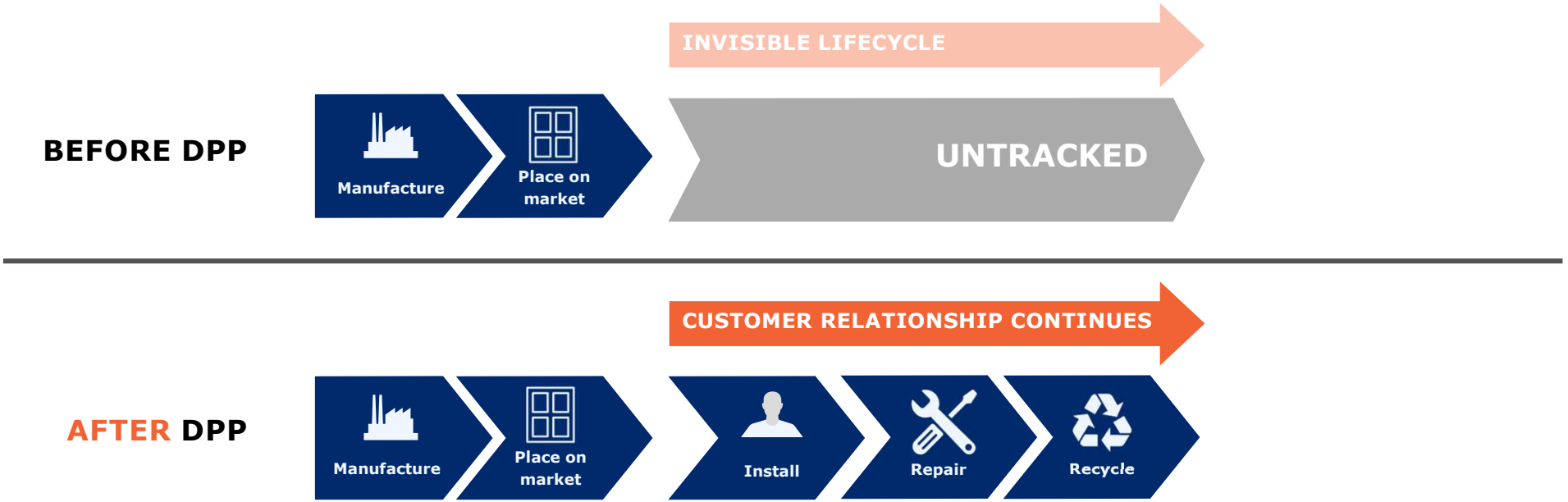
Ensuring trust

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Slide 16

AS1 [@Owen Harding] - can you work with design to find a good images that we can use for these points
Alex Smith; 2025-09-15T15:47:28.337

Unlocking consumer value through circularity



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Why GS1 standards are key for DPP?



Trusted, neutral partner

GS1 is a trusted, non-profit organisation providing global standards for manufacturers, brand owners, marketplaces, retailers and consumers.



Open global standards & interoperability

The European Commission's proposal highlights the need for open, interoperable passport standards.



Widely adopted

GS1 identifiers like GTINs are widely used, reducing costs, simplifying implementation and known throughout industry.



ISO compliance

GS1 GTIN-based product identification complies with DPP requirements, aligning with ISO/IEC 15459 and ISO/IEC FDIS 18975 standards.

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Slide 18

AS1 [@Owen Harding] - can you work with design to find relevant icons that will work with these points

Alex Smith; 2025-09-15T15:48:33.675

GS1 standards supporting DPP



Global Trade Item Number (GTIN)

Used to identify products. It’s the number you see beneath barcodes in stores.



Global Location Number (GLN)

Used to identify parties and physical locations, like buildings and rooms.



GS1 Digital Link

Used to convert GS1 identifiers into web links, connecting products to digital content while remaining scannable.



EPCIS

Used to capture and share data about the movement and status of products, assets, or events across supply chains in a consistent and interoperable way.

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Current initiatives & involvement



Industry & regulation engagement

We are working with stakeholders and regulators to support the DPP rollout.



Pilots & prototypes

Running pilot projects, including a construction-sector prototype by GS1 Norway and GS1 UK, to test DPPs on real materials.



Guidelines & tools

Supporting CPR-2024 readiness through guidance papers, research on construction product passports and global training.



Continual evolution of standards

We are refining robust core standards to support evolving DPP needs.



EU tenders

Actively engaged in EU-funded projects on DPP and circularity.

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Next steps for industry

Understand what product categories are in scope, and prioritise

Find the data you have that might be in scope (we have examples), assess the gaps, and assess collection methods (standards, digital, manual)

Having assessed broad capabilities, gaps and needs, engage one or more solution providers that can support with the data gaps, product identifiers and QR and Digital Link generation

Pilot with a priority product, to assess and fine tune any challenges ahead of scale (e.g QR printing, solution capabilities, traceability gaps, scanning issues)

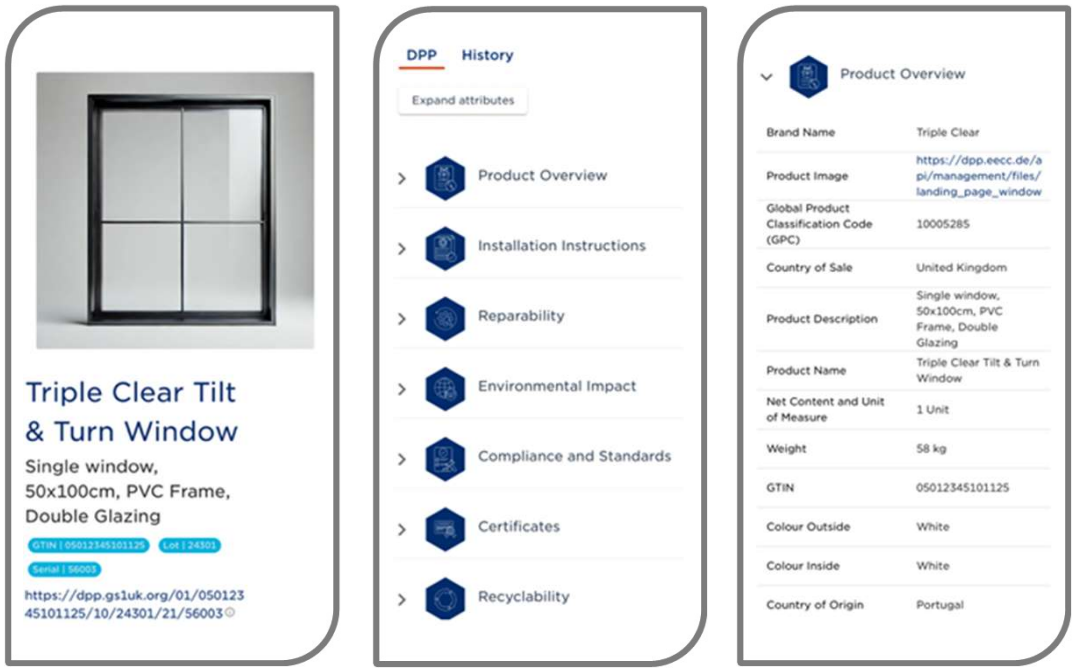
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Demonstrator

Companies should be able to create EU-compliant digital product passports based on GS1 standards.

GS1®

(01)05012345101125



Learn more

- **Contact us - Find your local GS1**
- **GS1 standards in Construction - Plant Room Setting**
- **GTIN Management Guideline for Construction Products**



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Thank you

Grow your business with GS1.
Get in touch with the team now.

https://gs1.eu