



In partnership with



Enzo Blonk

Director Industry Engagement Technical Industries

GS1 Global Office

<http://standardsdays.afnet.fr> - AFNeT Standards Days 2020 : 6 & 7 October 2020 – team@afnet.fr



DSCiBE

Digital Supply Chains in Built Environment
Unir nos forces

Enzo Blonk, GS1 Global Office

but first....

GS....what ?



GS....what ?



- **International, not-for-profit** and **neutral** organisation
- developing and maintaining **global standards**
- enabling all industry stakeholders to **identify, capture** and **share** information smoothly
- focussing on increased **efficiency, productivity** and **safety** through traceability and visibility in:
 - **Supply Chain**
 - **Full Product Lifecycle**



GS1 by the numbers



2 million

**Developing standards
for over 2 million
companies worldwide**

150 countries

**25 industries served
across 150 countries**

6 billion

**Barcodes scanned more
than 6 billion times per
day globally**

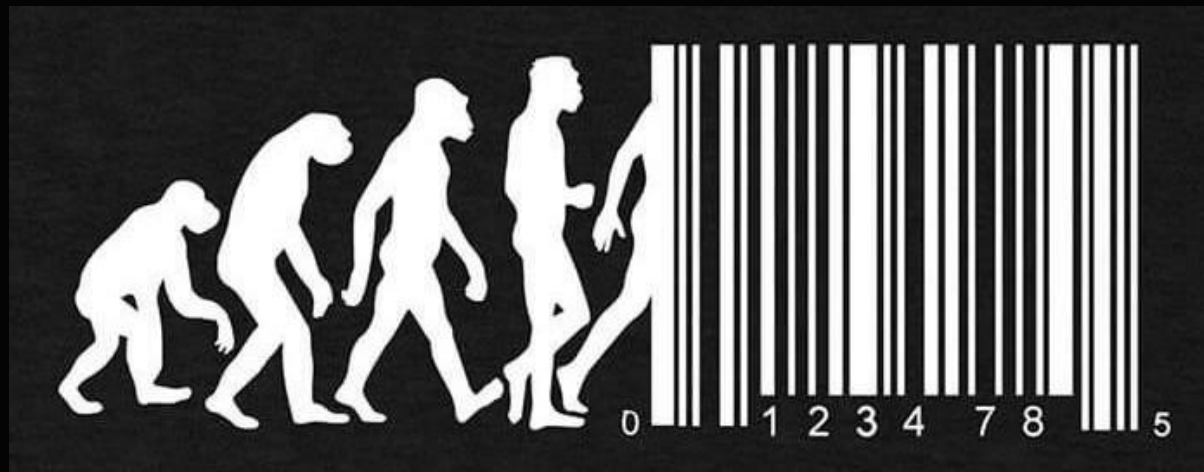
115 MOs

**115 Member
Organisations
around the world**





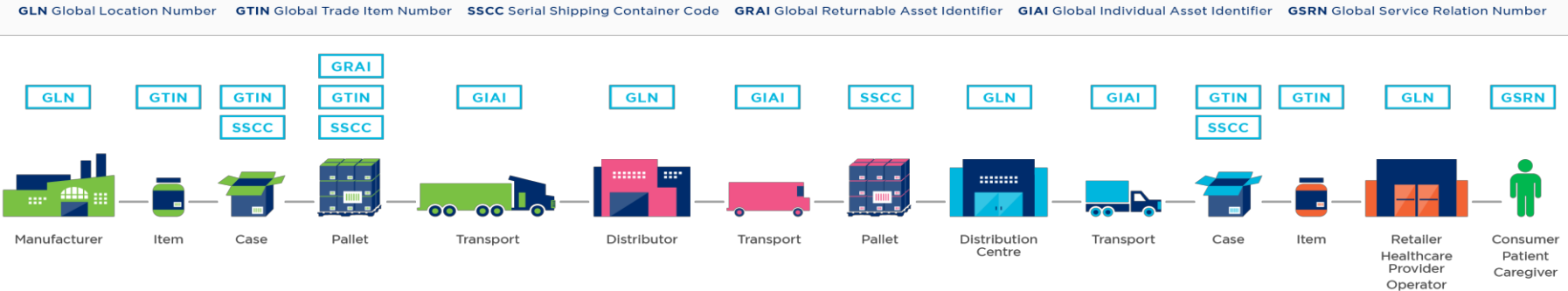
Some call us the
“Barcode People”



Identify—Capture—Share



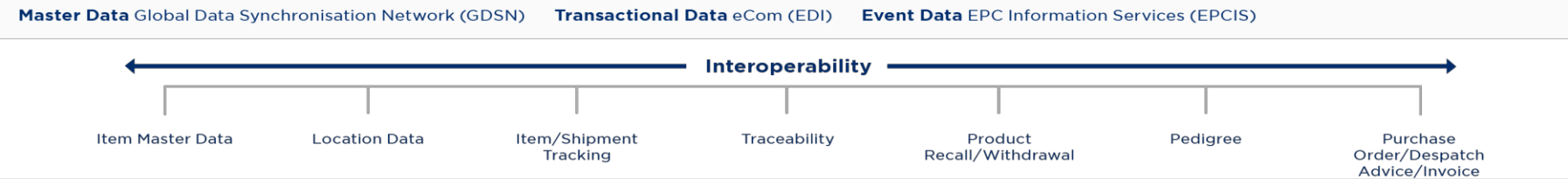
Identify: GS1 Standards for Identification



Capture: GS1 Standards for Barcodes & EPC/RFID

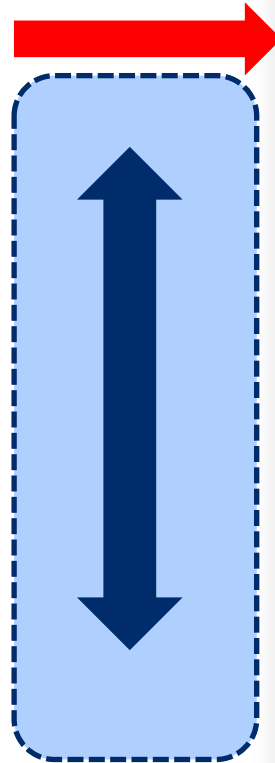


Share: GS1 Standards for Data Exchange



Level of Digitisation...

Target status **BIM Regulation**



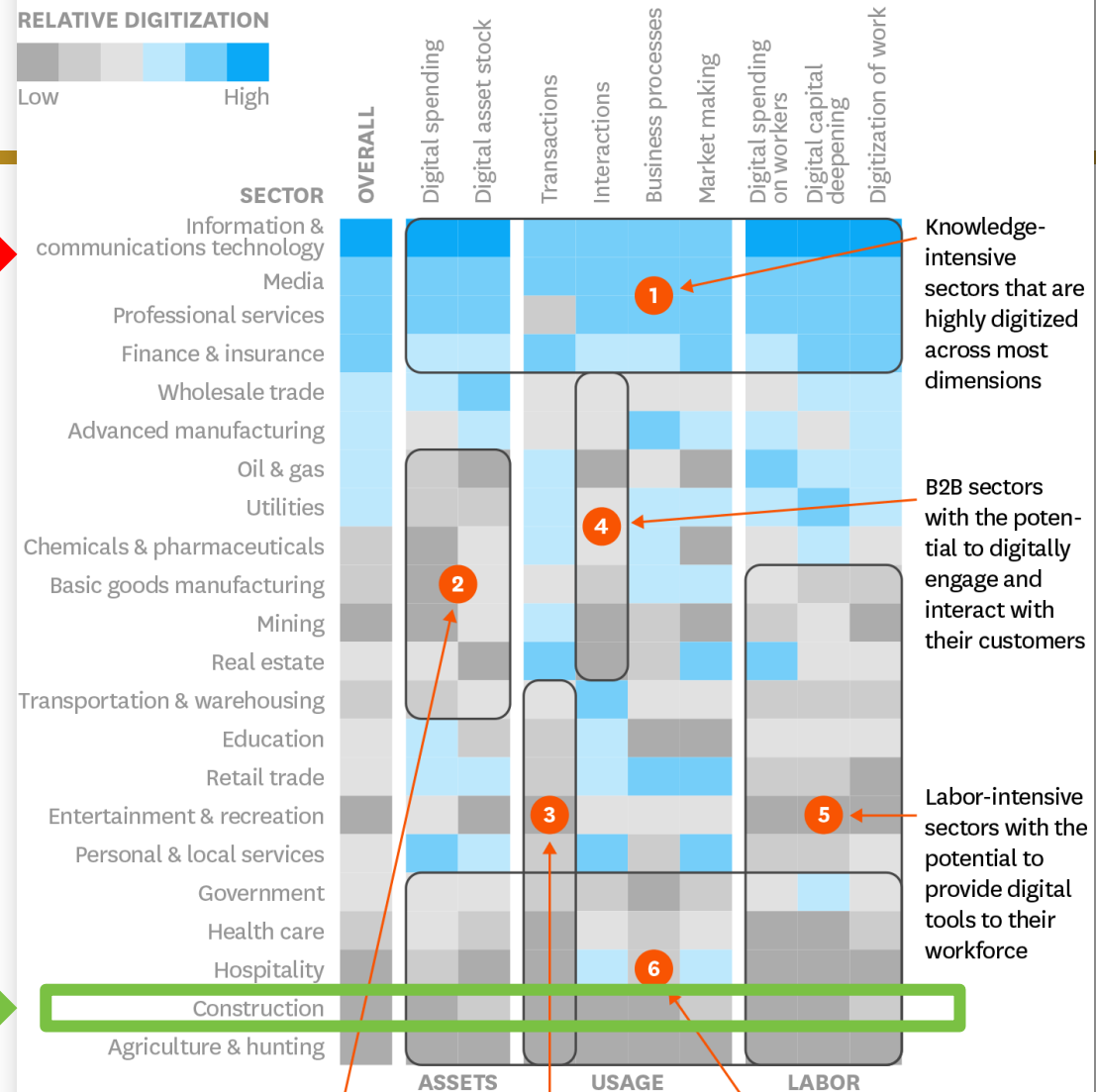
The digital Gap that needs bridging

Actual status **Construction**

How Digitally Advanced Is Your Sector?

An analysis of digital assets, usage, and labor.

RELATIVE DIGITIZATION



Knowledge-intensive sectors that are highly digitized across most dimensions

B2B sectors with the potential to digitally engage and interact with their customers

Labor-intensive sectors with the potential to provide digital tools to their workforce

Capital-intensive sectors with the potential to further digitize their physical assets

Service sectors with potential to digitize customer transactions

Quasi-public/highly localized sectors that lag across most dimensions

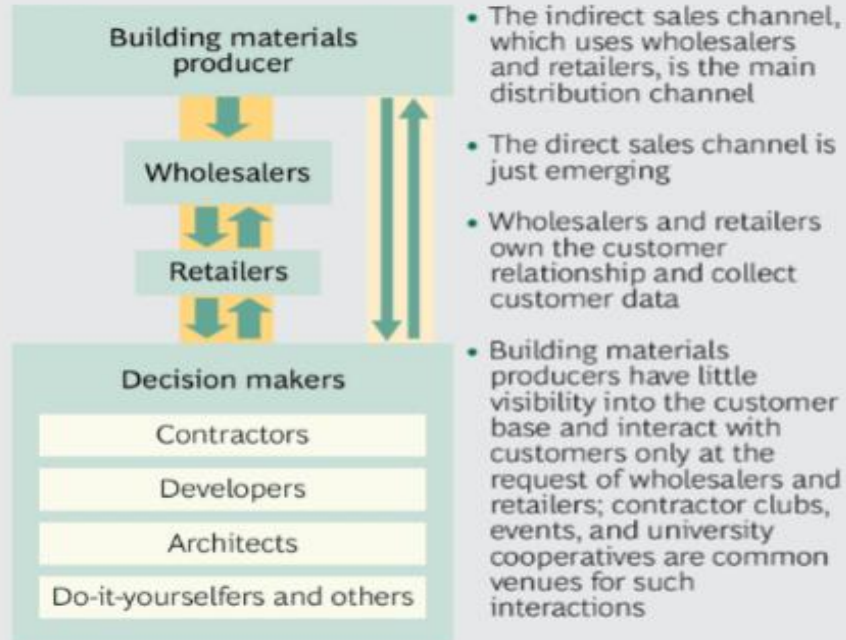


How DSCiBE addresses the challenges faced by the sector !

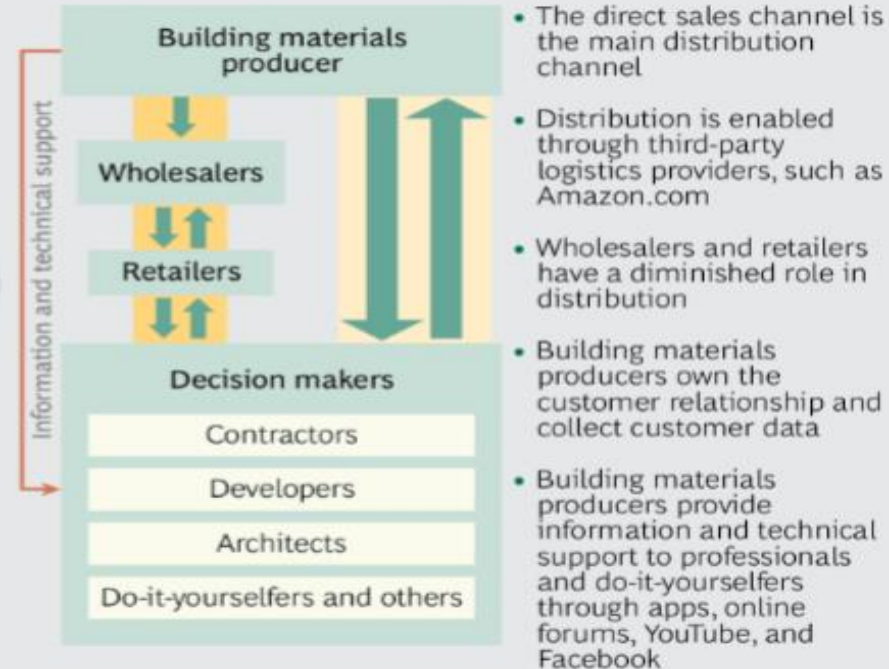


EXHIBIT 1 | Direct Distribution Will Transform the Building Materials Industry by 2030

TODAY, THE TRADITIONAL INDIRECT MODEL DOMINATES



BY 2030, DIGITALLY ENABLED DIRECT DISTRIBUTION WILL BE COMMON



Technology enables producers to bypass traditional distributors

Indirect sales channel Direct sales channel ↓ Sales ↑ Customer data

Source: BCG analysis.

Identification > Digitalisation



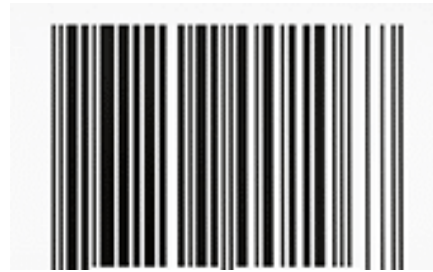
GTIN
Global Trade
Item Number
(EAN/UPC)

Globally Unique

Key used worldwide to **identify, capture** and **share** different types of information

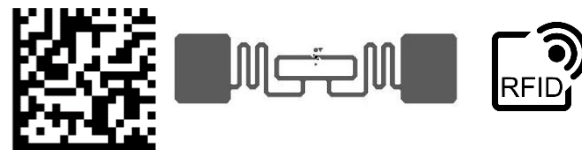
- **Master Data**
- **Transactional Data**
- **Event-based Data**

Identification > Digitalisation



sGTIN

serialised



Globally Unique

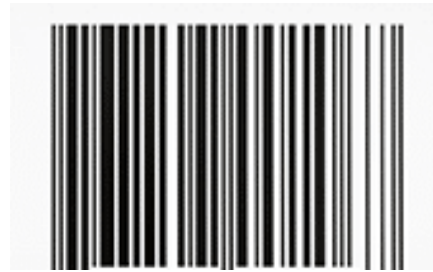
Key used worldwide to **identify, capture** and **share** different types of information

➤ **Master Data**

➤ **Transactional Data**

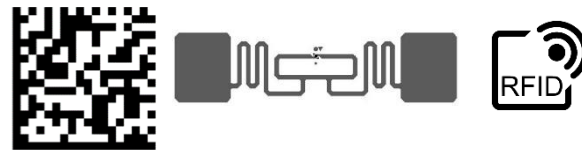
➤ **Event-based Data**

Identification > Digitalisation



sGTIN

serialised



Globally Unique

Key used worldwide to **identify, capture** and **share** different types of information

➤ **Master Data**

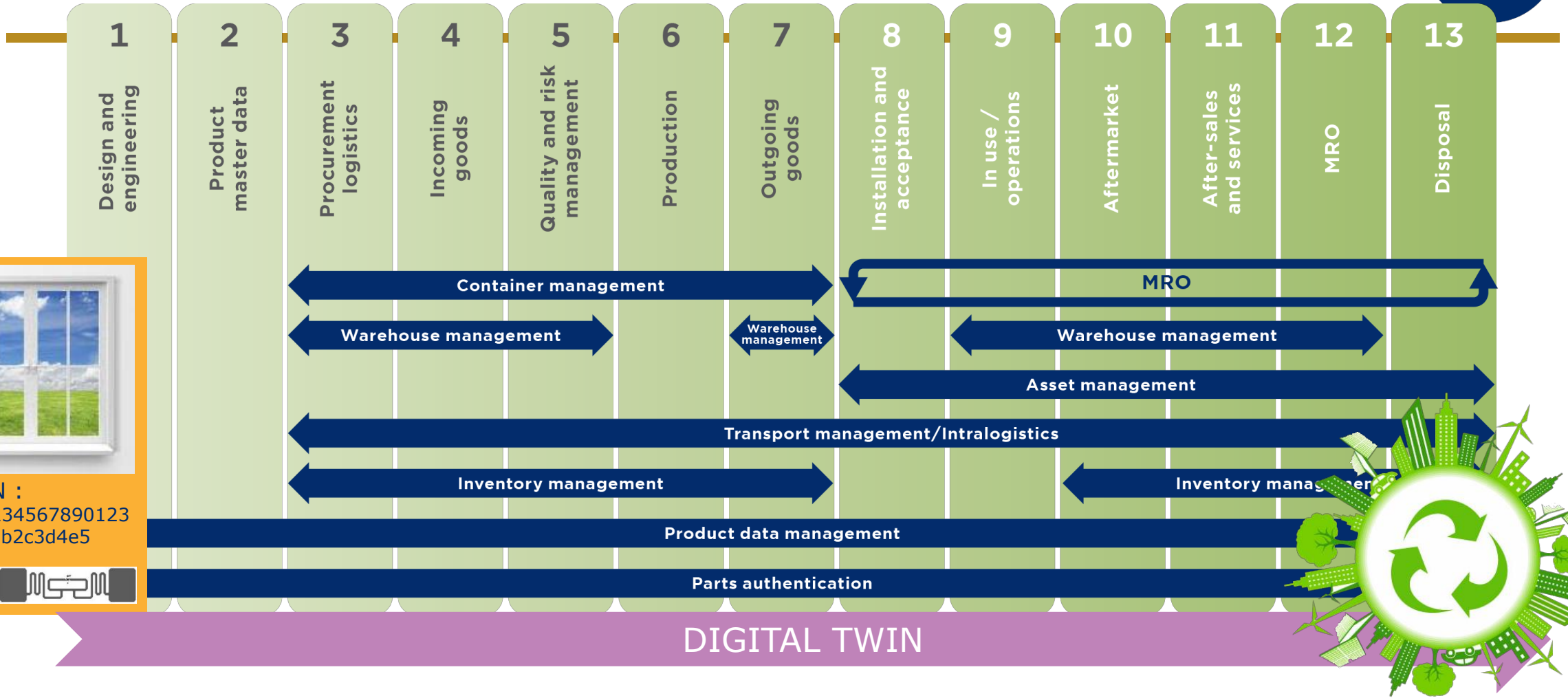
➤ **Transactional Data**

➤ **Event-based Data**

What Construction is from a Product Lifecycle point of view



sGTIN :
(01)1234567890123
(21)a1b2c3d4e5



WHY (DSCiBE)?



It all started with....an MoU



The Memorandum of Understanding between bSI and GS1 was signed in October 2018. Key points :

1. Work together to jointly develop a **common initiative** in respect of the buildingSMART Data Dictionary (bSDD) and the use of GS1 standards, in particular for product instance (serialised) identification
 - Launch of **Digital Supply Chains in Built Environment (DSCiBE)** WG (March 2019)
2. Identify a prioritised set of additional cooperative activities based on the use cases
3. Jointly investigate potential areas of collaboration for standards development
4. Joint outreach and education.

Scope / Vision of the DSCiBE workgroup



The primary scope of the DSCiBE workshop is :

- **An initiative to develop and document open digital workflows** to enable all stakeholders to **access product information** based on manufacturers' data, using industry standard product attributes (a.o. based on CPR etc).
- outline possibilities offered by **buildingSmart Data Dictionary (bSDD)**, use of **product data templates** and the **use of GS1 standards**, (in particular for serialised product' identification, data capture and exchange of product master data), to assist workflow requirements.
- Identify prioritised set of additional activities based on **use cases**

As a secondary scope the group has brought forward **topics referring to Logistics** (from order to goods receiving on-site).



Collaboration at local level buildingSMART & GS1



In the meantime **regional MoU's** have been signed by buildingSMART Chapters with GS1 in :

- Australia
- France
- Hong Kong (*signing ceremony planned for October*)
- Poland

Collaboration in :

- **Norway**
- **Sweden**
- Austria
- Brazil
- China
- Germany
- Japan
- Portugal
- Spain
- Switzerland
- Turkey

Digital Supply Chains in Built Environment

Workshops (face-to-face)

- 1st : Mar. 26th 2019 Düsseldorf
- 2nd : May 8th 2019 GS1 GO Brussels
- 3rd : Jun. 12th 2019 GS1 Norway Oslo
- 4th : Sept. 11th 2019 Lisbon (GS1 I&S)
- 5th : Nov. 25th 2019 IBM IoT Centre Munich
- 6th : Jan. 30th 2020 GS1 France (Paris)
- 7th : Mar. 26th 2020 online (i/o bSI Summit Oslo)
- 8th : June 10th 2020 online (i/o BUILD 29020 Amsterdam)
- 9th : Nov. 25th BIM World Munich
- 10th : Jan. 2021 online ???
- 11th : March 15-18 2021 online ??? (~~bSI Summit Zürich~~)

Deliverables

1. Develop a **Value Proposition** for the Industry - in progress
2. Develop a **1-pager** on linking the dots IFC-bSDD-PDT-GS1

Digital Supply Chains Data Driven Collaboration

Introduction

The current ways in which we gather and manage construction product data are inefficient. The construction industry needs to adopt standardised information management processes to streamline the relationships between supply chain stakeholders and thus provide means to unlocking the high economic value of data.

The Problem

Members of the supply chain often work with different versions of reality in their own information silos which makes it difficult to share data and automate time-consuming processes.

The Solution

Choosing a data strategy based on commonly agreed international standards is the most efficient, if not the only way to achieve future-proof, machine-readable product information within the supply chain.

Current standardisation work addresses this challenge and provides guidance.

Standards need to be largely implemented in order to build a firm basis for the future benefits of digital supply chains.



The Digital Supply Chains in the Built Environment User Group (DSCiBE)

An international effort to bring experts together in order to align approaches and utilise existing and upcoming standards to achieve digital supply chains in construction.



Strengths / Opportunities

Enabling the supply chain to:

- Bridge the information gap between what's planned and what's built
- Comply with regulations and clients' requirements
- Achieve substantial time and cost savings by offering future-proof digital solutions
- Enter a new digital marketplace

Weaknesses / Threats

Standards often seen as "too complex" for the everyday work context. Difficulty convincing supply chain partners in collaborating more closely by making their solutions (more) interoperable.

Market potential

Grow revenues by adding value for the customer. Bring numerous efficiencies by using shared information resources, information modelling, smart analytics and by adopting automation.

Next Steps

1. Producing case studies and whitepapers to drive awareness of the existing standards for data management in the industry.
2. Growing member base and getting more industry actors involved with the user group.
3. Establishing relationships with ICT providers to ensure supply chain interests and needs are represented.



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Deliverables

1. Develop a **Value Proposition** for the Industry - in progress
2. Develop a **1-pager** on linking the dots IFC-bSDD-PDT-GS1
3. Focus on developing more and more **use cases** where bSI & GS1 standards are being used → 6 use cases currently in development
4. Develop a **White Paper on Data-Driven Collaboration** (3rd ed.)



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Digital Supply Chains in the Built Environment –
(DSCiBE) User Group







Digital Supply Chains

Data Driven Collaboration

Use cases in the Pipeline



Industry Use Cases

- **China State Construction Engineering (CsCeC)** : Prefabricated component coding project
- **Holte** : [More time for the most important things](#)  - the Digital Construction Industry in practice
-  • **NCC** : Digital supply chain from contractors to manufactures (Egil Berg – NCC)
-  • **Nordan** : Reinvention of Nordan sales process, supported by DSCiBE work (Dag Kroslid - Nordan)
-  • **Pipelife** (Wienerberger Group) : The GTIN and Sensors Data delivering the Digital Twin
- **SBB** : Product data requirements for asset / facility management
- **Statsbygg** : digital supply chain
-  • **Swedish Wood** : 4 steps to the GTIN
-  • **Wienerberger Building Solutions** : Use of Data templates combined with GS1 standards
- **Yunnan Construction and Investment Logistics (YCIH-China)** : Construction material Master Data Management Project

 = use cases developed under DSCiBE activities

Team members of the DSCiBE are from...



- buildingSMART International
- GS1 Global Office



.....and many other industry stakeholders



Main DSCiBE initiatives in Q3 & Q4 2020



1. Launch of DSCiBE **Digitisation in Construction survey**
2. Launch of DSCiBE **working subgroups**

1. Launch of DSCiBE Digitisation in Construction survey



Purpose : analyse current degree of digitisation in the construction sector on three levels; AVAILABILITY, ADOPTION and BENEFIT of digital solutions

Input will result in the a digitalisation heatmap similar to the one from McKinsey.

- Launched 1st half of September, the survey to be shared via social media
- deadline for input October 23rd



2. DSCiBE Subgroups – Proposal

- Many new topics arising at each workshop, all with some level of urgency.
- Full-day physical workshops → 3-hour virtual “workshops” (every 2 months)
- Proposal to create working subgroups on dedicated topics
 - Subgroup 1: Data Management Structure and Data Template (DT) Consolidation
 - Subgroup 2: Agreement/Definition of product identifiers in design Software tools
 - Subgroup 3: Definition of Use Cases
 - Subgroup 4: Material Identification (e.g. GS1 standards GTIN, GMN, Digital Link/Dynamic Data,...)
 - Subgroup 5: Circular Economy in construction (impact of regulations, initiatives, funding, on sector)

Kick-off : October 23rd



THANKS



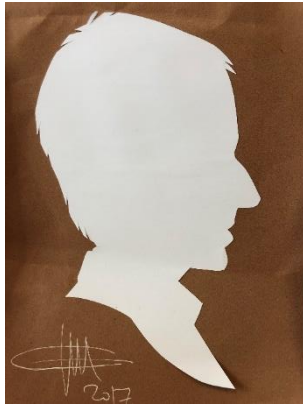
Who to contact



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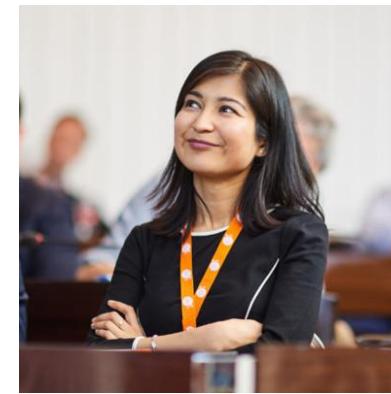
More info :

- [GS1 Global website](#)
- [DSCiBE LinkedIn](#)

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