GS1 Innovation Café

Trusted Supply Chains & Blockchain

05 June 2019
GS1 system: set of standards & solutions

Standardisation of communication between different actors in the supply chain
GS1 Belgium & Luxembourg

• Established in 1977

• +6,700 members, active in different sectors:
  o FMCG & Foodservice
  o Healthcare
  o DIY & garden & pet
  o Transport & logistics

• Driven by our members:
  • Board defines priorities in plural annual plan
  • Committees and work groups make agreements on local implementation of GS1 system

• www.gs1belu.org
GS1 and Innovation

An era of unprecedented business & technology change has prioritised the need for GS1 to innovate around our core, for the benefit of users in every business sector.

We have launched a comprehensive program to identify, organise and prioritise trends, opportunities, and threats,

to ensure that GS1 adapts
It’s about bridging the physical world with the digital world.

What was once about getting a barcode for your products – is now about connecting your products and your business to the world.
Future Proofing GS1

THE BUSINESS TRENDS

- Traceability
- Automation & Smart Everything
- Sustainability
- Empowered consumers
- Data security and privacy
- On-demand logistics & services
- Mass customisation
The business trends - Traceability

Traceability is increasingly a key enabler for **trust** and **safety** in the supply chain, both between consumers and brands, but also between manufacturers and their suppliers.

While the promise of end-to-end supply chain traceability has been possible with GS1 standards for some time, companies are now looking for greater opportunities to improve automated visibility across their supply chains.
The business trends – Data security & privacy

With the proliferation of connected devices on track to reach as many as 500 connected devices in the average home, the security of information is more important than ever.

Security and cyber security are important underlying business trends that are driving significant investment across the GS1 value chain.
The Innovation Café

- IoT, sensors and biometrics
- Artificial intelligence
- Open, structured & linked data
- Autonomous logistics
- Blockchain & distributed data
- Computer vision
- Voice recognition
- Robotics
- Augmented & virtual reality

Data security and privacy
Traceability
Sustainability
On-demand logistics & services
Automation & Smart Everything
Empowered Consumers
Mass customisation
GS1 Belgium & Luxemburg & Innovation

• A new but important domain
• Aligned to the GS1 Global Innovation Strategy
• A workplan 2020 is work-in-progress

• The Café is a communication platform for innovation, the aim is to have a two-way conversation
The Innovation Café

Informal
Open Agenda
Open Discussion
GS1 related
Min. 2x per year

YES
Press
NO
Advertising talks
The Beer Game
The Beer Game
What is blockchain?

The word “Blockchain” is used in a variety of ways:

- To refer to technologies that are, basically, “shared ledgers” of data
- As the name of algorithms that help achieve decentralized consensus which validate entries on a ledger
- To refer to a deployed shared ledger system: e.g. “the blockchain”
- A general purpose magic word
What is blockchain?

“Blockchain and DLT represent a family of different approaches to creating supply chain applications with different properties around immutability, confidentiality, energy consumption and scalability.”

DLT = Distributed Ledger Technology
ref. George Lawton, 10 blockchain problems supply chains need to look out for, April 2019.
PRESS RELEASE

GS1, IBM and Microsoft Announce Collaboration to Leverage GS1 Standards in Enterprise Blockchain Applications

GS1 Open Standards Promote Interoperability of Blockchain Applications Across Supply Chain Networks

Brussels, 13 September 2017: GS1®, the global business communications standards organisation, today announced a collaboration with IBM and Microsoft to leverage GS1 Standards in their enterprise blockchain applications for supply chain clients.

GS1’s global standards for identification and structured data enable blockchain network users to scale enterprise adoption and maintain a single, shared version of the truth about supply chain and logistics events—increasing data integrity and trust between parties, and reducing data duplication and reconciliation.

Data stored or referenced by blockchain networks can be structured for shared communications and interoperability through the use of standards. For example, the GS1 and ISO open standards of Electronic Product Code Information Services (EPCIS) and Core Business Vocabulary (CBV) enable standardised exchange of data and item-level tracking.
Where does GS1 fit... and where does “blockchain” fit?

Blockchains are shared, secure, distributed ledger that allows for the exchange of data between parties.

GS1 facilitates standards for data and some business applications.
The Role of Standards in Blockchain

Blockchain is a replicated, secure, distributed ledger; GS1 facilitates standards for data and some business applications.

The System Layer

The GS1 Layer

The Blockchain Layer

Business Applications

Identify

Capture

Share

Legend

Systems that generate data

Data that is valuable

Data written as a ledger entry here
Pilots, Pilots, Pilots...

- Enterprise Blockchain pilots are quite popular at the moment (this is an understatement)
- GS1 is very involved

Cargill blockchain lets you get to know your Thanksgiving turkey

By Jerry Bowles  November 22, 2017

SUMMARY: Just when you thought the blockchain mania could not possibly get weirder, Cargill has launched a blockchain project that will let some lucky consumers trace their main course’s journey from family farm to family table. Seriously.
Pilots, Pilots, Pilots...

Forrester estimates that more than 90% of the enterprise DLT projects started between 2015 and late 2017 have already been discontinued or will never result in an operational system.

“...It's much better to start by understanding what an enterprise is trying to achieve by using blockchain to improve a supply chain before choosing a particular technology.”
The Common Theme

- Most every Enterprise Blockchain pilot is going to reveal that:

Basic business processes in pilot organisations will need to be adapted before distributed ledgers will bring the expected value.
GS1 France – Visioning Project

SCALECHAIN

1. Construire une **vision collective**
2. Consolider les **retours d’expérience**
3. Offrir un **lieu de concertation** pour identifier
   - **Cas d’usage** les plus prometteurs pour chaque secteur,
   - **Avantages** mais aussi **défis et inconvénients** de la technologie,
   - **Enjeux à relever** pour développer la technologie, passer des projets pilotes à la mise en œuvre générale
   - Besoin **d’interopérabilité et de standardisation** pour passer à une industrialisation à grande échelle
   - Éléments éthiques, réglementaires, etc. supplémentaires à prendre en compte lors du déploiement
La même chose en décentralisé, performant et sécurisé... on prend !
# Tire Retreading Traceability

**Using Blockchain and GS1 Standards**

## General Information

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