



Belgium & Luxembourg

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:
 - FMCG & Foodservice
 - Healthcare
 - DIY & garden & pet
 - 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



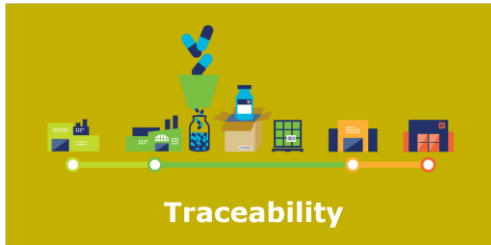
It's about bridging the physical world with the digital world.

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



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



















Data security and 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 TECHNOLOGY ENABLERS

 <p>Data security and privacy</p>	 <p>IoT, sensors and biometrics</p>  <p>Autonomous logistics</p>  <p>Order more...</p> <p>Voice recognition</p>	 <p>Artificial intelligence</p>	 <p>Open, structured & linked data</p>
 <p>Traceability</p>		 <p>Blockchain & distributed data</p>	 <p>Computer vision</p>
 <p>Sustainability</p>		 <p>Robotics</p>	 <p>Augmented & virtual reality</p>
 <p>On-demand logistics & services</p>			
 <p>Automation & Smart Everything</p>			
 <p>Empowered consumers</p>			
 <p>Order of one</p> <p>Mass customisation</p>			

The Innovation Café


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



IoT, sensors and biometrics



Artificial intelligence



Open, structured & linked data



Autonomous logistics




Blockchain & distributed data




Computer vision



Voice recognition



Robotics

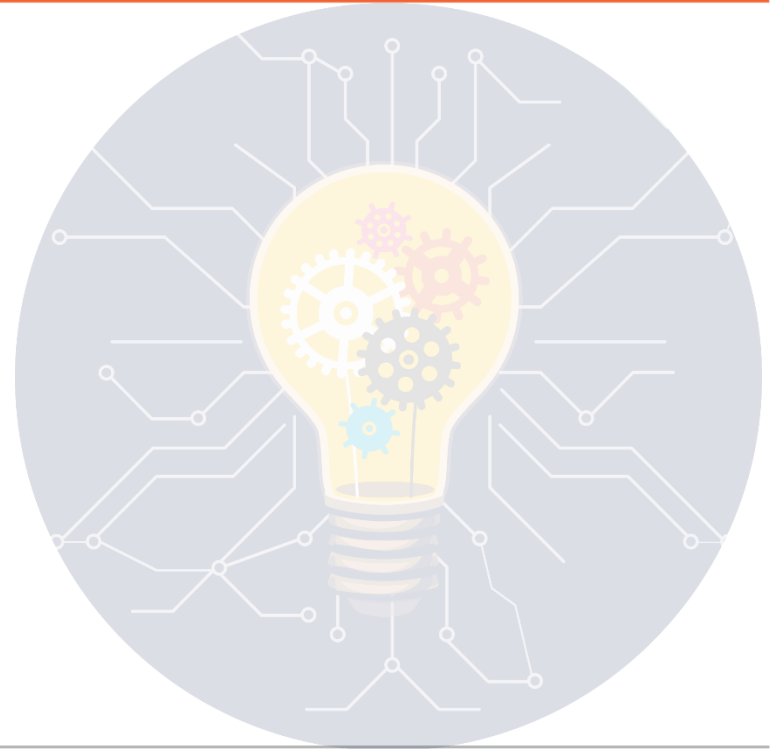


Augmented & virtual reality

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



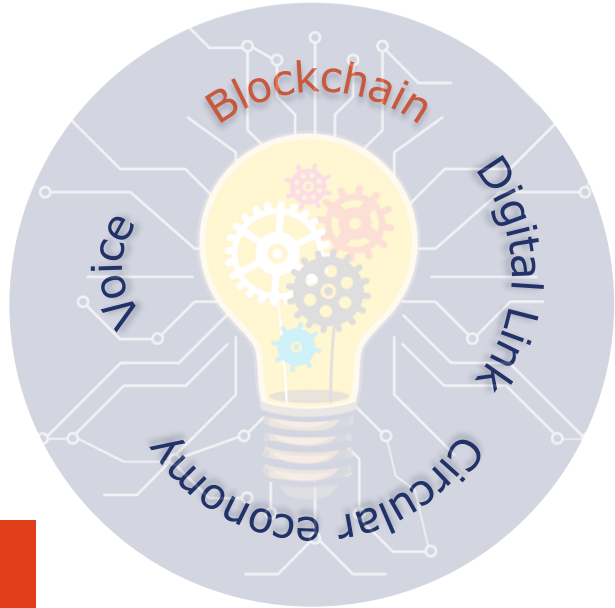
The Innovation Café



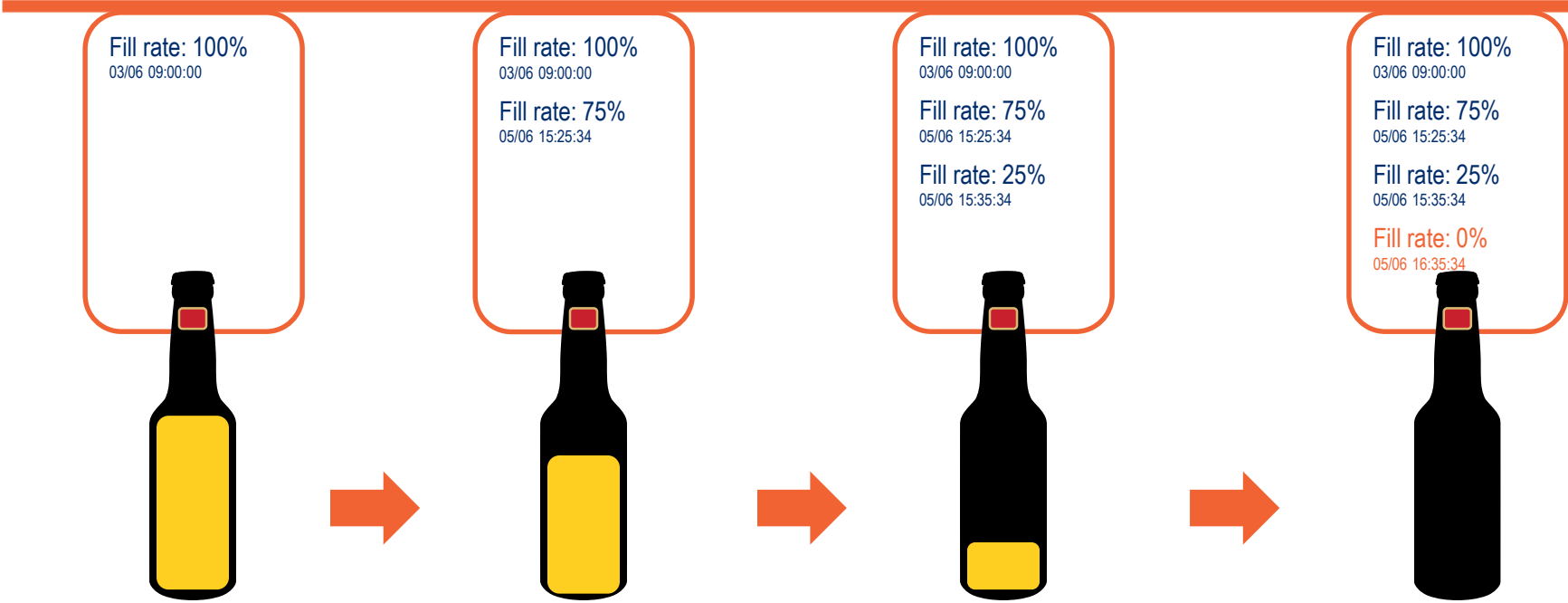
Informal
Open Agenda
Open Discussion
GS1 related
Min. 2x per year

YES
Press

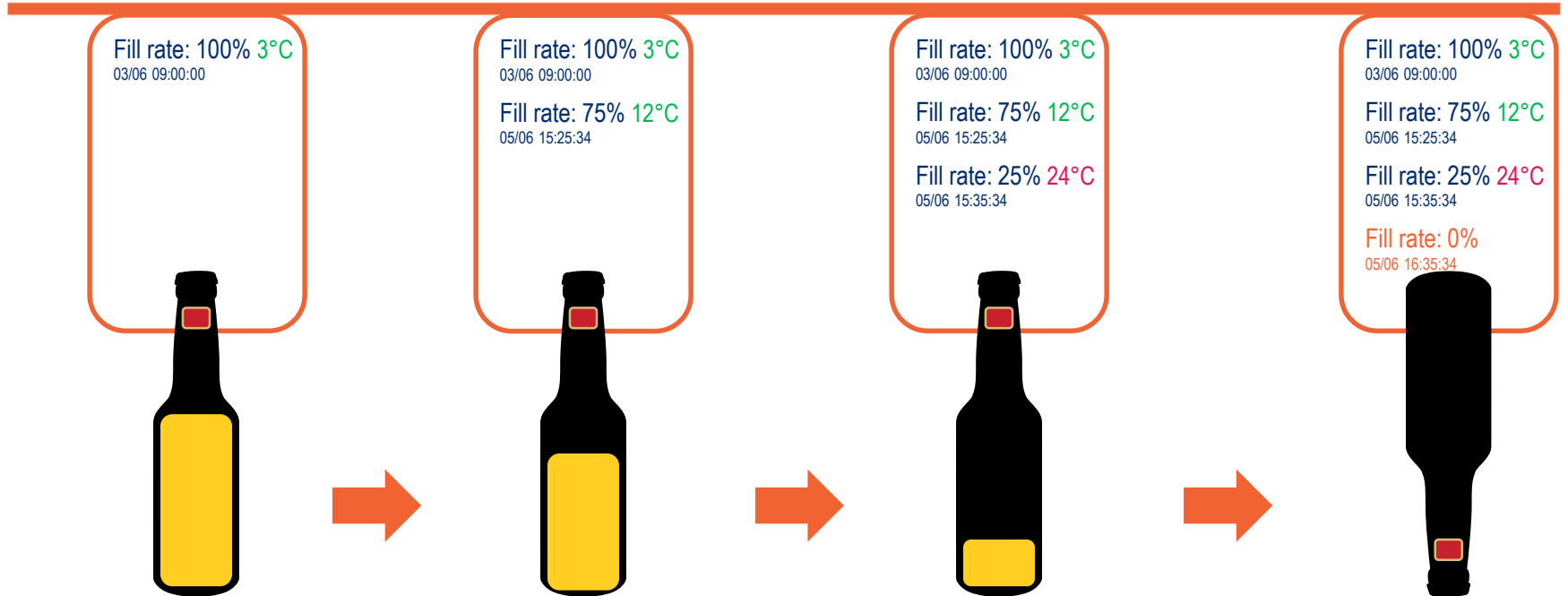
NO
Advertising talks



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

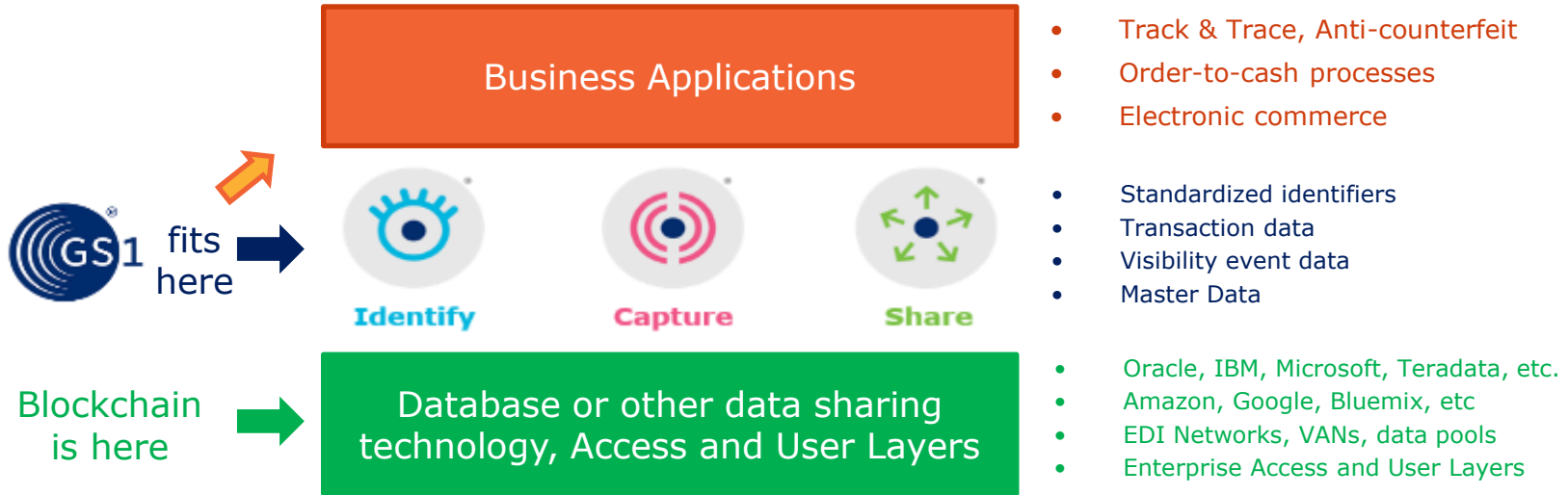
Brussels, 13 September 2017: GS1[®], the global business communications standards organisation, today announced a collaboration with IBM and Microsoft to leverage GS1 Standards in their enterprise blockchain applications for supply chain clients.

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...

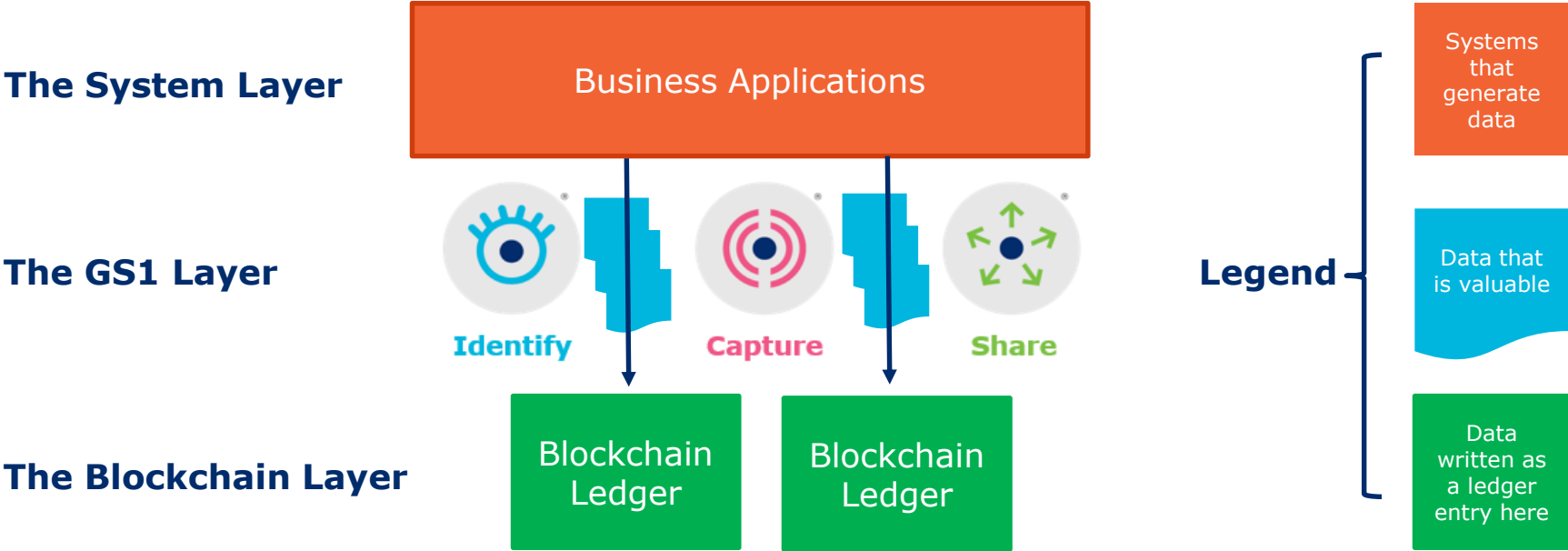
and where does "blockchain" fit?



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**

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.

The infographic is divided into three main sections. The top left section, titled 'IBM is tapping blockchain for a more transparent, authentic and trustworthy global food supply chain,' features a bowl of turkey. Below this is a flowchart titled 'Disparate sources and lack of transparency in the supply chain post food arrival,' showing a process from 'Farm' to 'Retail' with various steps like 'Harvest', 'Process', 'Distribute', and 'Retail'. The bottom left section states 'Blockchain can help digitalize track and substantiate food products from an ecosystem of suppliers to store shelves and ultimately to consumers.' The right side of the infographic displays logos for Walmart, Tyson, Unilever, Driscoll's, McCormick, Nestlé, McLane, Kroger, Dole, and Golden State Foods. The bottom right section, titled 'IBM brings Walmart, Tyson Foods into blockchain fold,' explains that this summer, IBM announced a consortium with 15 major food suppliers to apply blockchain to the food supply chain to improve food safety and ingredient transparency, and that blockchain can help brands track sources of contamination for more quickly reducing the impact of compromised foods.

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

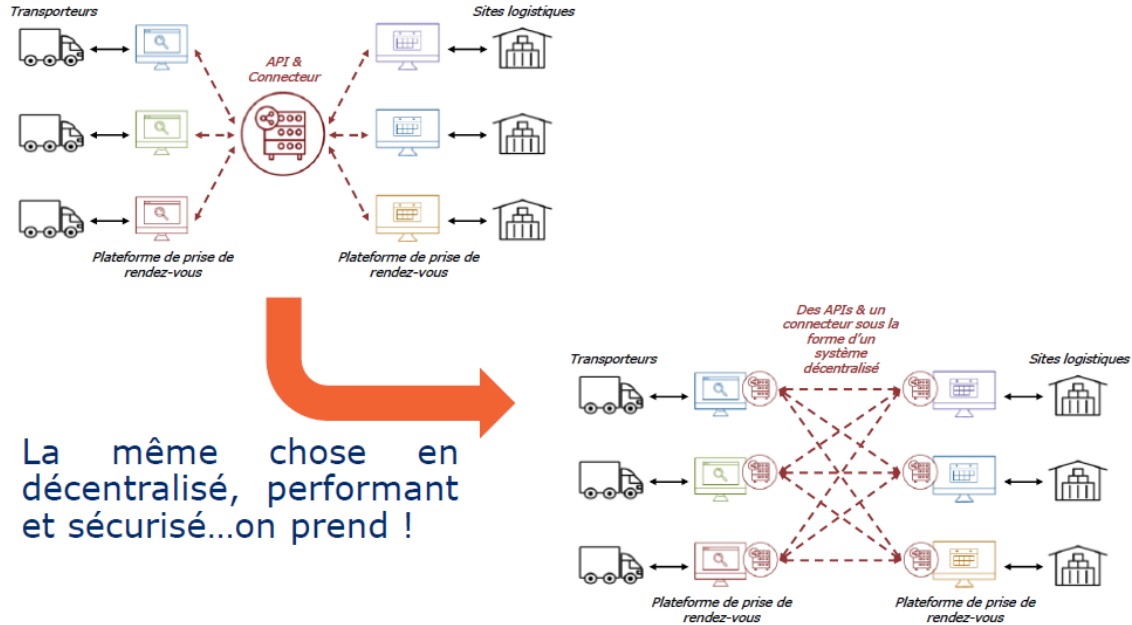
1. Construire une **vision collective**
2. Consolider les **retours d'expérience**
3. Offrir un **lieu de concertation** pour identifier
 - **Cas d'usage** les plus prometteurs pour chaque secteur,
 - **Avantages** mais aussi **défis et inconvénients** de la technologie,
 - **Enjeux à relever** pour développer la technologie, passer des projets pilotes à la mise en oeuvre 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

**Blockchain publique
vs. Blockchain privée :**
d'où viendront les grandes ruptures ?

Extrait Participants



GS1 France – Appointment Scheduling



La même chose en décentralisé, performant et sécurisé...on prend !

GS1 France – Tire Retreading

TIRES RETREADING TRACEABILITY USING BLOCKCHAIN AND GS1 STANDARDS



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📄 General Informations

🕒 Events History

🏢 Manufacturer Warranty

+ Add Event

GENERAL INFORMATIONS

Property	Value
NAME	GOODYEAR EFFICIENTGRIP PERFORMANCE SUV
WEBSITE	https://www.goodyear.co.in/tyres/goodyear-efficientgrip-performance-suv

UNIQUE IDENTIFIERS

Property	Value
GTIN	urn:epc:id:lgtn:311233.0666777

← Back

Manufacturer Warranty Status

Date	Action	Blockchain Key	Trust
11/06/2015	Retreading	8c661d43bc25d11432516129f3b	🟢
04/12/2015	Retreading	2cf24dba5fb0a30e26e83b2ac5b	🟢
06/11/2016	Retreading	fceac367216ad8d1154e929a93	🟢
22/10/2017	Retreading	b709ebbce1b402e2bbd711edfc	🟢

ITEM UNDER WARRANTY