



The Global Language of Business

Standards Driving DPP Interoperability

Informative Webinar Session
Part II - Data sharing

GS1 Global

16 July 2025 (08:00-09:30 EDT / 14:00-15:30 CEST)



Agenda

- Introduction and General Information
- Meeting Etiquette and Format
- Specific Topics
- Future Events and Contacts



Meeting Format

- Non-GSMP Format – open to all for informative session
- Materials | Recording session #1 ID AIDC is available [here](#)
- Materials | Recording session #2 Data Sharing will be available
- Leave your questions in the chat and we will answer separately
- Poll for your feedback - Mentimeter
- Follow-up with us with any questions gs1publicpolicy@gs1.org

NEW: GS1 Provisional Application Standard for DPP is available NOW!



- The GS1 Provisional Application Standard for Digital Product Passport (DPP) is now available to support GS1 users implementing the EU's DPP framework.
- Built on trusted GS1 standards for identification and data sharing, this standard offers a structured, web-enabled approach for encoding and sharing key product information.
- It enables manufacturers to make DPP data accessible through a simple smartphone scan, helping consumers instantly retrieve reliable, product-specific details.

Join GSMP DPP MSWG

GSMP GS1 Circularity - Digital Product Passport - WR 23-103

Global Standards Management
Process
GS1 Circularity - Digital Product
Passport
Mission-specific working group



This group will develop and update GS1 standards to support new regulatory requirements for the circular economy model. This evolving model raises questions about how to ensure globally interoperable, persistent product and component identification; how to track and trace needed information across entire circular product lifecycle from upstream raw materials through consumption and beyond; how to avoid a proliferation of single-purpose barcodes and tags; etc.

The overall aim of the new regulatory requirements is to reduce the lifecycle environmental impacts of products through efficient digitalisation. It also aims to enable the objectives of EU industrial policy, such as boosting the demand for sustainable goods and supporting sustainable production. It is estimated that the European Commission will introduce several new delegated acts between 2024-2030 to enable the potential of the DPP regulation across multiple sectors.

This group will focus on understanding and addressing these requirements in the near term and invites participation to gather requirements related to the broader scope of circularity from all sectors and regions.

Standards Development Leader: [John Ryu](#)

Call to Action: [12 April 2023](#)

Scorecard: Available 30 days after groups official launch

To join the group: [Click here](#)

Reminder to join via this link:

<https://www.gs1.org/standards/development-work-groups>

DPP Informative Session Agenda

16 July (08:00-09:30 EDT / 14:00-15:30 CEST)

Time	Speaker	Topic	Desired outcome
5'	John Ryu (GS1 GO)	Welcome	Agenda
10'	Francesca Poggiali (GS1 GO) Nora Kaci (GS1 GO)	Introduction	Goals of the session
10'	Andreas Fübler (GS1 in Europe)	Public Enquiry Summary	Process and participation
2'	Francesca Chiovenda (GS1 GO)	Resource Materials	Content
10'	Andreas Fübler (GS1 in Europe)	GS1 Data Sharing principles	Overview
50'	Piergiorgio Licciardello (GS1 GO)	Data Sharing Standards Summary	Highlights
3'	Francesca Chiovenda (GS1 GO)	Close	Summarise Poll Next steps

Introduction

10' (08:05-08:15 EDT / 14:05-14:15 CEST)

Francesca POGGIALI (GS1 GO)

VP Global Public Policy

Nora KACI (GS1 GO)

Public Policy Europe Senior Manager

Goal of today's meeting

- A. GS1 reiterates its support to the initiatives developed by:
 - the European Commission to make digitalisation and the DPP possible for companies of all sizes
 - CEN/CENELEC process under JTC 24
- B. Both the EU legislation in this area, such as ESPR: Ecodesign for sustainable products regulation, and the CEN/CENELEC standards have a global impact because:
 - the legislation applies to all products positioned on the EU market and
 - The European standards will be published on the EU Official Journal and provide presumption of conformity
- C. Other countries around the world are developing requirements to introduce DPP in their legal frameworks and our goal is to avoid global fragmentation on identification, data capturing and data sharing standards

DPP upcoming product-specific rules



DPP delegated acts

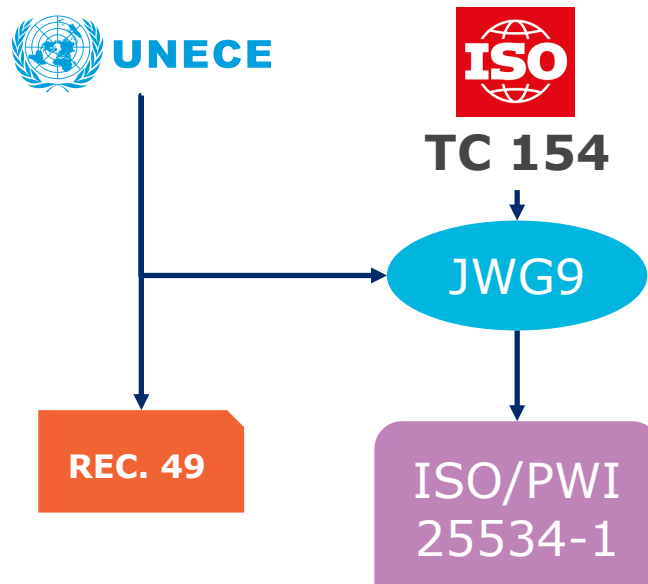


*Indicative
timeline for
adoption

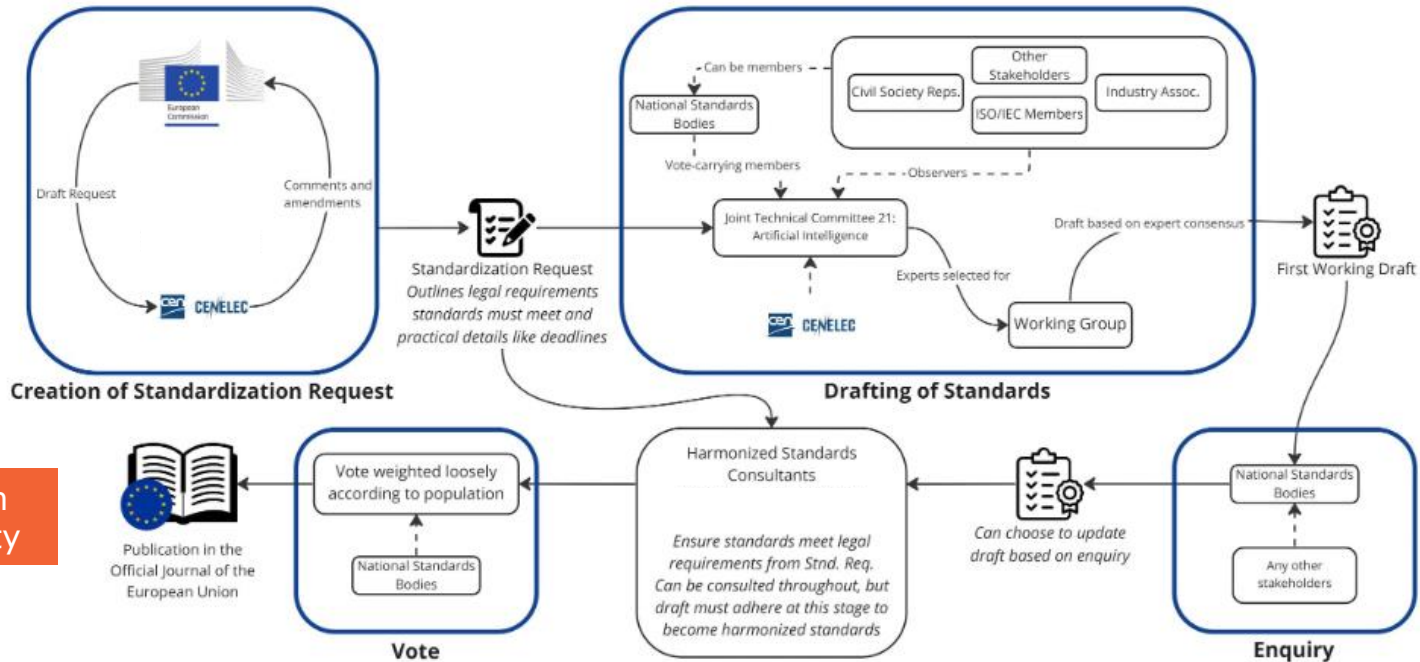
DPP chapter in vertical legislation

ISO-UNECE TC/154 JW9 - ISO/PWI 25534-1

- The ISO/PWI 25534-1 is a project aiming to create a global approach to DPP
- Currently in the works: **Digital Product Passport - Part 1: Overview and Fundamental Principles**
- The declared scope of the project is: «As the foundational part of the DPP standards series, this standard will provide a comprehensive overview and establish core principles for developing a global DPP standard system. It aims to foster a unified understanding of DPP architecture at the international level and support subsequent standardization efforts.»



European standardisation process



Presumption
of conformity

GS1 Assessment Continues

Previous webinar (held on 9 July):

- Last week GS1 completed an assessment on Unique Identification and Data Carrier Standards – If you missed it recording available at <https://gs1.eu/events/gs1-standards-driving-dpp-interoperability/>

Today's Informative Session focus is on: Data Sharing

Status Update on CEN Modules:

- Modules 3 and 7 not yet released by CEN (Stay updated via JTC-24 communications)

What's Next from GS1

- Once published, GS1 will provide an overview [here](#)



GS1 in Europe's liaison to CEN/CENELEC JTC-24

GS1 in Europe is one of the liaison partners of JTC 24

This liaison partnership is an expression of

- long-standing commitment to standardization on European level,
- underlying the importance of the DPP for GS1 in Europe,
- actively contribute to the EU standardisation environment

Please find here the contact details of
Dr Andreas Füßler - andreas.fuessler@gs1eu.org

Public Enquiry

10' (08:15-08:25 EDT / 14:15-14:25 CEST)

**Andreas Fübler (GS1 in Europe)
Liaison to CEN/CENELEC JTC-24**

Topics of the Standardization Mandate on DPP

CEN/CENELEC JTC 24 Secretariat: DIN (German NSB)		module # according to ESPR	Preliminary EN standards #	JTC 24 working group # in charge
8 topics				
• unique identifiers		1	prEN 18219	WG2
• data carriers		2	prEN 18220	WG2
• access rights management, information system security, and business confidentiality	not yet in public enquiry	3	prEN 18239	WG3
• system interoperability		4	prEN 18223	WG4
• data exchange protocols		5	prEN 18216	WG4
• data storage, archiving, and data persistence		6	prEN 18221	WG4
• data authentication, reliability, integrity	not yet in public enquiry	7	prEN 18246	WG3
• APIs for the DPP lifecycle mgmt and searchability		8	prEN 18222	WG4

NSBs members of CEN and CENELEC

Austria



Denmark



Greece



Latvia



Poland



Slovenia



Belgium



Estonia



Hungary



Lithuania



Portugal



Spain



Bulgaria



Finland



Iceland



MALTA COMPETITION AND CONSUMER AFFAIRS AUTHORITY

Republic of North Macedonia



Sweden



Switzerland



Croatia



Cyprus



France



Ireland



Netherlands



Serbia



Türkiye



Czech Republic



Germany



Italy



Norway



Slovakia



United Kingdom



What is an Enquiry in CEN CLC JTC 24

Objectives and Responsibilities



- ▶ For the Enquiry ...
 - ▶ the National Standardisation Bodies (NSB) of every Member State are asked to publish the drafts for standards to be harmonized and to collect comments
 - ▶ Every National Mirror Committee is organizing the acquisition and evaluation of national comments on its own responsibility
- ▶ JTC 24 Secretary is managing the distribution of comments to WGs and respective convenors and project leaders
- ▶ In WGs all distributed comments will be discussed and decided (accepted, rejected (partly), postponed to next version)

CEN/CLC JTC 24 on DPP – process phases



- Timeline is different for Modules 3 and 7, as dependant on the completion of their drafts and translations.
- For status of development see [JTC24 on CEN/CLC Website](#).

CEN/CLC/JTC 24 Work programme

Project reference [▲]	Status [▲] _▼	Initial Date	Current Stage	Next Stage	Forecasted voting date
prEN 18216 (WI=JT024003) Digital product passport - Data exchange protocols	Under Enquiry	2025-01-29	2025-06-26	2025-09-18	2025-11-21
prEN 18219 (WI=JT024001) Digital product passport - Unique identifiers	Under Enquiry	2025-01-29	2025-06-26	2025-09-18	2025-11-21
prEN 18220 (WI=JT024002) Digital product passport - Data carriers	Under Enquiry	2025-01-29	2025-06-26	2025-09-18	2025-11-21
prEN 18221 (WI=JT024006) Digital product passport - data storage, archiving, and data persistence	Under Enquiry	2025-01-29	2025-06-26	2025-09-18	2025-11-21
prEN 18222 (WI=JT024004) Digital Product Passport - Application Programming Interfaces (APIs) for the product passport lifecycle management and searchability	Under Enquiry	2025-01-29	2025-06-26	2025-09-18	2025-11-21
prEN 18223 (WI=JT024005) Digital Product Passport - System interoperability	Under Enquiry	2025-01-29	2025-06-26	2025-09-18	2025-11-21
prEN 18239 (WI=JT024007) Digital Product Passport - access rights management, information system security, and business confidentiality	Under Approval	2025-04-02	2025-06-27	2025-07-31	2026-03-04
prEN 18246 (WI=JT024008) Digital product passport - Data authentication, reliability and integrity	Under Approval	2025-04-02	2025-07-11	2025-08-14	2026-03-04

How to contribute to the Public Enquiry 2' (08:25-08:27 ET / 14:25-14:27 CET)

**Francesca CHIOVENDA (GS1 GO)
Public Policy Manager**

How to contribute to the Public Enquiry phase

1. Different timelines for different NSBs within the timeframe provided by JTC-24.
2. Different processes for different NSBs on how to collect comments.
Commenting template [available here](#).
3. Please note that once sent in, the National Committee will review the comments received and decide which ones to send in to JTC-24 to be resolved.
4. If you are part of a National Committee you can submit your comments through the National Portal according to the local timeline.
5. Reach out to the NSBs if you have more questions and they will explain their process more in detail.
6. A full list is [available here](#), under **Nationals Portals for Public Consultations**.

GS1 resource materials

- [GS1 Provisional Application Standard for ESPR DPP](#) and [GTIN Management Rules](#)
- GS1 in EU White Paper on [GS1 Standards enabling the EU digital product passport: Empowering industry's circular transformation and green product choices for consumers](#)
- [GS1 Interoperability & Implementation Considerations for DPP Product Identifiers](#)
- Industry's [Joint statement on the Draft standardisation mandate on Digital Product Passport](#)
- [GS1 in Europe – Graphical Symbols](#)
- [Deloitte Research Study](#) on the use of International Standards for the circular economy

Upload for 17 July

- **GS1 comments on DRAFT prEN 18219 (CEN/CENELEC Unique Identifiers Standard)**
- **GS1 comments on DRAFT prEN 18220 (CEN/CENELEC Data Carriers Standard)**
- **GS1 summary of main comments to the CEN/CENELEC JTC-24 draft standards**
- **All comments documented in a comment table to assist NSB processing**



GS1 on Data Sharing

10' (08:27-08:37 EDT / 14:27-14:37 CEST)

**Andreas Fübler (GS1 in Europe)
Liaison to CEN/CENELEC JTC-24**



GS1 in Europe DPP White Paper

GS1 standards for automatic identification and data capture (AIDC), and data sharing support ESPR requirements of the European Union and other jurisdictions as well.

To increase understanding of GS1 standards conformant systems, GS1 is providing a White Paper explaining the different aspects of **how GS1 standards**, widely implemented today or planned for implementation by 2027, **can support the evolving circular economy with little to no disruption to industry or consumers.**

The sections in the White Paper focus on Product Identification and AIDC carriers, on Facility and Economic Operator Identification, and on Data Sharing.

Paper available [here](#)



GS1 Standards enabling the EU digital product passport

Empowering industry's circular transformation and green product choices for consumers

Release 2.2, January 2025



Aim of the GS1 in Europe DPP paper

1

Explain the role of GS1 standards in supporting the implementation of the DPP.

2

Highlight the benefits of using ISO/IEC 15459 conformant GS1 identifiers for product identification, locations and entities in line with ESPR requirements.

3

Describe the GS1 data sharing principles and standards.

4

Outline the 2D barcode migration GS1 user companies are making to ensure one 2D barcode can support legacy supply chain applications, enhanced consumer communication, and regulatory compliance by 2027.

Structure of the DPP paper

1

**Chapter 2:
Unique Product ID (UPID) and Web enabled, structured path
identification**

2

**Chapter 3:
AIDC carrier landscape**

3

**Chapter 4:
Economic Operator (EOID) and Facility Identification (FID)**

4

**Chapter 5:
Data Sharing**

Data sharing



Figure 5.2-2: A single data carrier that is connected to multiple pieces of information

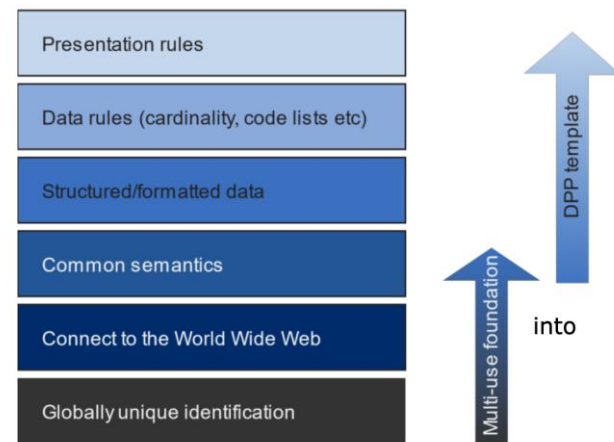


Figure 5.4-1: The layered approach

Key drivers in the GS1 DPP approach

Interoperability

- **Interoperable semantics:** common semantic anchors and interoperable data models
- **Linked data:** standardized access to decentralized resources through web enabled structured path, leverage of Linked Data, like JSON-LD, to link the data to their semantics and definition

Avoid disruption

- **Reuse the existing:** being open to the reuse of the existing technologies, avoiding to force industry to migrate to new implementations simply for compliance reasons

Data Sharing Summary

60' (08:37-09:27 ET / 14:37-15:27 CET)

Piergiorgio LICCIARDELLO (GS1 GO)

Director, EDI (Subject Matter Experts team)

Background

- Standards covered today
 - DRAFT prEN 18223 : Digital product passport – **Interoperability**
 - NN material comments - NN editorial comments
 - DRAFT prEN 18216 : Digital product passport – **Data Exchange**
 - NN material comments - NN editorial comments
 - DRAFT prEN 18221 : Digital product passport – **Data Storage**
 - NN material comments - NN editorial comments
 - DRAFT prEN 18222 Digital product passport – **APIs**
 - NN material comments - NN editorial comments
- The GS1 Global Office comments will be made available:
 - Inline comments and edits in the actual standards (available by 17 July)
 - Within a comment sheet that may aid NSBs in processing (available by 17 July)

Topics we will (and will not) cover today

DPP Data Sharing

1. Data exchange protocols
2. Persistence and Data storage
3. API interface

2 missing modules

- Module 3 and 7 not yet in public enquiry

Presentation format for major topics today

CEN/CENELEC Standard

High-level implementation factors

Opportunities for greater clarity

Interchange protocols

prEN 18216

prEN 18216 (E)

Annex A (informative)

Systems compatible with data exchange protocols

The requirements on data exchange protocols can be compatible with the following systems.

This list is non-exhaustive. Other solutions are possible.

- a) AS4 Profile of ebMS 3.0. The OASIS ebMS 3.0 Standard combined multiple Web Service standards to create a single comprehensive specification for defining the secure and reliable exchange of documents using Web Services. ([AS4 Profile of ebMS 3.0 Version 1.0 \(oasis-open.org\)](https://www.oasis-open.org/committees/standards/ebMS30/AS4ProfileofebMS30Version1.0/))
- b) Asset Administration Shell: The Asset Administration Shell (AAS) is the digital representation of an asset. The AAS consists of a number of submodels in which all the information and functionalities of a given asset – including its features, characteristics, properties, statuses, parameters, measurement data and capabilities – can be described. It allows for the use of different communication channels and applications and serves as the link between objects and the connected, digital and distributed world. The AAS is designed to be flexible and interoperable allowing it to operate over various data exchange protocols suitable for industrial environments.
- c) EDI (Electronic Data Interchange): It is the computer-to-computer exchange of business documents in a standardised electronic format between trading partners. EDI relies on various data transfer protocols to transmit documents.

The Annex A provides a short list of standards that serve different purposes, moving from data exchange infrastructure to master data management and transactional data sharing

The Annex provides a very incomplete list of entirely unrelated systems. Although only informative, this section can result misleading and then it would be better to remove it

Data Storage and Persistence

prEN 18221

Table ZA.1 — Correspondence between this European Standard and Commission Regulation (EU) No 2024/1781 of 28.06.2024 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements digital product passports in support of Union policy on ecodesign requirements for sustainable products and on batteries and waste batteries and Commission's standardisation request C(2024) 5423 final of 31.07.2024

part 6: European standard(s) on data storage, archiving, and data persistence

[Essential]/ [interoperability]/[...] Requirements of [Directive]/ [Regulation]/[Decision] [...]	Clause(s)/sub- Clause(s) of this EN	Remarks/Notes
Article 9.1	4.1	définés requirements for storage of DPP data and assets
Article 10.4	4.3	définés rules for data persistence
Article 11.c	4.5	ensures replication EO --> back-up DPP service provider
Article 11.d	4.2	définés rules for archiving or historical data
Article 11.e	4.5	ensures replication from EO to back-up DPP service provider
Article 13.1	4.1	définés requirements for storage of DPP data and assets
Article 13.2	4.4	définés handling of additional digital documentation
Article 13.4	4	définitions of general principles and requirements
Article 13.5	4.1	définés requirements for storage of DPP data and assets
Annex III.l	4.5	ensures replication from EO to back-up DPP service provider

The chapter 4 defines a set of responsibilities in charge to the operators involved in the product lifecycle. The Annex ZA provides an attempt to match these responsibilities with the regulation prescriptions

Some responsibilities described by the standard, as described in the examples, do NOT have a direct legal basis in ESPR. References to ESPR articles are not enough because the standards assumptions will need to be confirmed by the delegated acts or other prescriptions in ESPR itself. There are also some use cases not addressed.

Examples of identified gaps

- The standard should address use cases like a Backup DPP service provider going out of the market, especially in case it has become the primary copy and the brand acquisition, that is something happening often.
- Example of reference in Annex ZA

Referenced article	Draft Standard	Comment
10.4 The economic operator , when placing the product on the market, shall make available a back-up copy of the digital product passport through a digital product passport service provider.	<p>Clause 4.3: The back-up digital passport service provider shall store all versions to the digital product passport, unless exempted by any requirements specific to the product.</p> <p>If the economic operator creating the passport is no longer active on the market, then the back-up digital product passport service provider shall be responsible for integrating updates to the digital product passport, when changes are made by an authorized third party.</p>	<p>The ESPR article 10.4 only refers to the responsibilities of the economic operator placing the product on the market both for the primary copy and for the back-up.</p> <p>Then a clear indication, with clear references to law, of what the EO can require to / expect from a solution provider is important.</p>

API interface

prEN 18222

Table 9 — ReadDataElementCollection

Method Name	ReadDataElementCollection			
Explanation	Returns the Data Element Collection			
semanticId	https://jtc24/dpp/API/ReadDataElementCollection/1/0			
Name	Description	Mand.	Type	Card.
Input Parameter				
dppId	DPP <u>identifiér</u>	yes	<u>Identifiér</u>	1
elementId	Collection <u>identifiér</u> within the DPP	yes	<u>Identifiér</u>	1
Output Parameter				
statusCode	Status code	yes	<u>StatusCode</u>	1
payload	Requested Data Element Collection	yes	<u>DataElementCollecti</u> <u>on</u>	1

The module defines the set of APIs for the DPP lifecycle management

The proposed draft standard introduces a level of granularity, the data element collection, that introduces the need for an additional level of identification and complicating the management. Would be better to simplify the interface, reducing the complexity, referring only to the DPP as a whole or to a single element, identified by a proper elementID

Summary

3' (09:27-09:30 ET / 14:27-14:30 CET)

Francesca CHIOVENDA (GS1 GO)

Public Policy Manager

Instructions

Go to

www.menti.com

Enter the code

2458 6909



Or use QR code

Availability of GS1 comments

- Documents, presentation and recording are and will be shared [here](#)
- All questions in the chat will be answered, and in case of other questions or comments please reach out to gs1publicpolicy@gs1.org
- To the GS1 users, if you share our comments, you are invited to contact your NSB directly (see [here](#) for contacts). In case of questions on this regard please write to francesca.chiovenda@gs1.org

