
Press release

GS1 study: Europe's logistics digitisation needs more use of standards

The key findings are:

- **95 % rated the role of standards for seamless interoperability with more than 4 of 6 stars**
- **63% say that the biggest hurdle for implementing standards is a lack of knowledge**
- **94% agreed that data exchanged via digital platforms should be interoperable**
- **81% think that GS1 standards are suitable for an open data exchange architecture**

Cologne, 30 March 2022. The transport sector is striving to become more digital. To achieve this, various standards are in use, however, many are not yet interoperable. As part of the European FENIX project, GS1 has investigated where and which standardisation gaps exist in multimodal transport networks and digital logistics platforms and crucially where future opportunities may be found. The basis for these findings stem from an online survey carried out by GS1, which was supplemented by twenty in depth expert interviews.

This new international study aimed to determine how standards affect the logistics industry, especially when using digital platforms. These platforms offer, for example, track-and-trace services, ETA calculations, route planning, services for the exchange of trade data such as invoices or delivery notes and, last but not least, transport management tools for capacity planning.

94% of 112 respondents agreed that data exchanged via digital platforms should be interoperable with their transport management systems or compliance platforms. 44% rate the role of standards for seamless interoperability with 6 out of 6 stars. A further 30.5% gave five and 20.3% four stars. When asked what they would like to see in the future of intermodal logistics, 79% responded that they would like to see less paperwork and more electronic exchanges between the parties involved. 75.4% would like to see more efficiency and real-time information and 70.2% voted for a wider application of existing standards. 81% think that GS1 standards are suitable for an open data exchange architecture such as that offered by FENIX.

Lack of knowledge is by far the biggest hurdle in implementing standards

During the expert interview Dr. Phanthian Zuesongdham, Head of Digital and Business Transformation, Hamburg Port Authority AöR & Member of the EU Digital Transport & Logistic Forum (DTLF), stated "The challenge is to create transparency about the existing standards. There is simply no overview. It is a jungle." 63% confirmed the lack of knowledge is as far the biggest hurdle in implementing standards. Another aspect, with 40.4%, is no or very low compatibility with their own system requirements. As far as optimisation at the technical level is concerned, 66.7% saw a need for standardisation when applying new data exchange methods and 50.9% stated that there is a requirement for new message formats beyond UN/EDIFACT. On

the semantic level, 54.9% focussed on the identification of logistics locations, while 50.9% saw a need for standards to identify goods in transit from the seller to buyer.

When asked which standards might suit an open data exchange architecture, 95.2% answered JSON and XML at the technical level whilst at the semantic level 81% voted in favour of GS1 standards. However, whatever is in place, the core of open data architecture is, according to Rudy Hemeleers, Strategy and Policy Advisor Transport and logistics at 51Biz & PPMB Luxembourg, and Partner of the EU project FEDeRATED, that "All data should be directly updated when the logistic event is happening. For this, we should use UN/CEFACT, eCMR and GS1 identification complemented by the event-based FEDeRATED ontology."

Additionally, in areas where standards can help increase transparency, logistics service providers rate the transport document of highest importance with 90.9%. IT solutions providers consider a standard for locations to be the most important with 71.4%. This is also confirmed by Captain Andreas M. van der Wurff, Port Optimisation Manager at Maersk Line Netherlands B.V., "Standardised identification of logistics locations is extremely important. For various reasons, there is a big gap in the sea freight community's agreement on this in particular." Frank Knoors, Founder and Managing Director of Logit One NV and Partner of FENIX, is convinced that "Visibility is and will become more and more important in the supply chain and currently there is a lack of visibility".

Logistics service providers and IT solution providers find the GLN to be the best standard for identifying a location, with 71% and 75% respectively stating that they apply the GLN in their systems. Furthermore, there is consensus that "The introduction of standardised protocols and data formats will help to increase the speed of execution of operations, reduce manual intervention, decrease complexity and avoid errors", says Panagiotis Papaioannou, International Freight Forwarding Manager at SYNERGY S.A.

Human gaps in data exchange standards a main contributor to interoperability challenges.

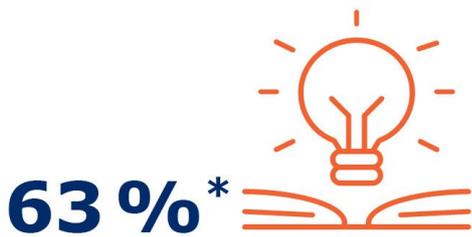
Respondents emphasised in their answers that data standards make an essential and important contribution to an effective, efficient and interoperable digital supply chain. According to the respondents, it is the use of data standards that reduces the effort required for development and implementation and improves subsequent interoperability.

A paradox can be identified here. The reality is that market participants in the logistics industry are less likely to use standardised data exchange formats and more likely to use proprietary solutions. Reasons for this are manifold and range from a lack of knowledge about existing software applications with custom APIs or exchange formats to alleged competitive advantages.

The survey carried out within the framework of the "European Federated Network of Information eXchange in LogistiX", for short, 'FENIX', can be viewed online: <https://fenix-network.eu/research/>



aller Befragten bewerten die Rolle von Standards mit sechs von sechs möglichen Sternen. Weitere 30,5 % würden mindestens fünf Sterne vergeben und 20,3 % sprachen sich für vier Sterne aus.



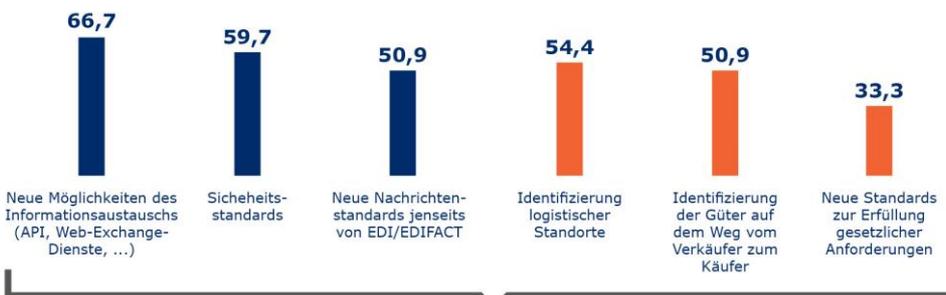
sehen das fehlende Know-how mit Abstand als größte Hürde bei der Umsetzung von Standards.

* Mehrfachantwort möglich
Quellen: GS1, FENIX

OPTIMIERUNG AUF TECHNISCHER UND INHALTLICH-SEMANTISCHER EBENE

Sehen Sie bei der Arbeit mit verschiedenen Plattformen Bedarf für eine Standardisierung? Angaben in Prozent*

■ Technisch ■ Inhaltlich (Semantisch)



Welcher Standard ist für eine offene Datenaustauscharchitektur geeignet?



* Mehrfachantwort möglich
Quellen: GS1, FENIX



European Federated Network of Information eXchange in LogistiX

The current lack of interoperable and networked data exchange in the supply and logistics chain is the main obstacle to making transport and logistics processes in the European transport network more efficient. Many manual entries, non-digital freight documents, cumbersome customs procedures and hardly any neutral and non-overlapping standards make the work of logistics providers difficult.

FENIX is developing the first federated data exchange architecture serving the European logistics community of shippers, logistics service providers, mobility infrastructure providers, cities and public authorities. The goal: Interoperability between all existing and new logistics information systems. In particular, the European logistics community of shippers, logistics service providers, mobility infrastructure providers, cities and authorities should benefit from this. At the end of the project term in April 2023, the not-for-profit, open-source and federated network for transport and logistics should be available to all participants in the EU for practical use.

The project follows the recommendation from the European Commission's [Digital Transport and Logistic Forum](#) (DTLF), which is to provide all players in the transport and logistics industry with a valid, federative platform network to enable the exchange of data in the Business-to-Administration (B2A) and (B2B) sectors. To this end, FENIX draws on findings from the H2020 projects, [Aeolix](#) and [Selis](#), which are now finished.



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GS1 – It started with a beep.

The first barcode ever to be scanned in a supermarket in 1974. This was the beginning of the automated check-out and the first chapter in GS1's success story. The machine-readable GS1 barcode, which also includes the GTIN, has since become the universal standard in the global exchange of goods. Six billion of these barcodes are scanned on products each and every day. The GS1 standards are the global language for efficient and secure business processes – a language that is spoken among different companies and across all continents. As part of a global network, we work with our customers and partners to develop market-driven and future-oriented solutions that have a direct impact on the success of their business. Today, two million companies from over 20 sectors worldwide use this language to uniquely identify their products, sites and assets, so that they can collect relevant information and share it with business partners within value-added networks. GS1 – The Global Language of Business.

www.gs1.de

Press Contact Details

Pascal Weide

T +49 221 94714 256, **M** +49 151 22152181

E pascal.weide@gs1.de