



Towards a Shared European Logistics Intelligent Information Space

SELIS Policy Brief – July 2019

“Policy, Standardisation and Research Recommendations”

SELIS project

Welcome to our SELIS Policy Brief - the project is in its final year and exciting results have emerged; - a reminder that the objective of SELIS is to deliver a ‘platform for pan-European logistics applications’ by:

→ Embracing a wide spectrum of logistics perspectives and creating a unifying, operational and strategic business innovation agenda for pan European Green Logistics.

→ Establishing an exceptionally strong consortium of logistics stakeholders and ICT providers, that can leverage EU IP from over 40 projects so as to create proof of concept Common Communication and navigation platforms for pan-European logistics applications deployed in 8 living labs representing the principal logistics communities.

→ Establishing a research and innovation environment using the living labs to provide data that can be used for discovery of new insights that will enable continuous value creation supporting the large-scale adoption of SELIS.



Policy, Standardisation and Research Recommendations

Through the research and explorations undertaken within the Living Labs, the SELIS project has placed the spotlight on a broad cross-section of supply chain, transport and logistics data exchange issues and the role the re-use of globally recognised standards can play in enhancing such exchanges. Conclusions that can be drawn and recommendations that can be made from such experience in terms of data standardisation as well as regulatory and legal implications, are as wide-ranging as the Living Lab projects themselves. The following points group our policy and standardisation recommendations into relevant themes.

Issues and Challenges

- ➔ Need for semantic harmonisation
- ➔ Need for greater interoperability
- ➔ Need to enhance intermediary message structures
- ➔ Need to encourage re-use of global data standards
- ➔ Need to recognise the global nature of international trade
- ➔ Need for current and future technological trends to embrace global data standards
- ➔ Project outcome adoption challenges

Policy and Standardisation Recommendations

A specific supply chain context (mode of transport, stakeholders involved, commercial or regulatory exchanges and so on) may dictate which global data standards are the most relevant to be used. However, great importance should be given to the underlying data dictionary upon which all the data models are based. For the SELIS project, the UN/CEFACT Core Component Library (CCL), as it is common to a number of global data standards, provided a backbone and a sound body of knowledge to support operational information exchanges and collaborations, delivering a tested set of message structures.

Although electronic data exchanges have made the supply chain faster and more efficient, the use of a variety of data formats and standards has become counterproductive, now leading to confusion, inaccuracies and consequently slowing down the supply chain. Where different global data standards need to be used side-by-side, mapping between the various standards is resource-intensive but essential to ensure effective interoperability.

In order to deal with the existing situation, information exchange service providers have introduced an additional layer in the form of intermediate and proprietary data models to and from which they map incoming and outgoing messages. The results of our research indicate that if such intermediary message structures were based on global data standards, then widespread benefits could be gained in enhanced efficiencies through reduced mapping efforts and increased semantic clarity.

As the re-use of global data standards and the interconnectivity between them are essential, so too is the necessity to communicate effectively about the merits of developing data exchange systems based on such standards. For those economic operators and their IT developers manipulating global supply chain data, access to clear information about the data standards available will potentially be of benefit to all supply chain stakeholders and could lead to the greater fluidity, clarity and security in the international trade IT environment. Whichever data exchange technology is used, the value of the underlying semantics is more important than the data formats used to transmit the data.

The globalisation of international trade means that although European standards may be sufficient for Europe-based operations, global standards are critically important for international supply chains, even from a European perspective.

In the fast-moving world of IT innovation, today's new discovery could become tomorrow's legacy system! It is important that from the outset, new technological developments are designed to be modular and to exchange data using standardised API interfaces, ensuring that global data standards are implemented and applied to new technologies, both current and future, from the very start of their development.

Such considerations should apply to Pipeline environments, Blockchain, Big Data and IoT.

Although funded research and implementation projects around the world often highlight the importance of innovation, we recommend that EU funding bodies should consider contributing to international trade facilitation by mandating the re-use of global supply chain data standards in their project grant agreement descriptions of actions, wherever relevant, as this would benefit European legislators and economic operators.

SELIS Partners



www.selisproject.eu

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