



GS1 Global Standards Contribute to Greater Energy Efficiency

In the coming years, drastic changes in the ecologic and economic development, demographic growth, technological innovation as well as new regulation will have a decisive influence on the global economy. Society as a whole and enterprises in particular will increasingly have to face crucial challenges such as rising costs for energy and transportation, resource scarcity, climate change or security. These challenges can hardly be managed in isolation: cooperative strategies and innovative concepts are in greater demand than ever before. Global standards such as the GS1 system can contribute significantly to greater energy efficiency in the economy's supply chain and hence help to prepare its actors for future challenges.

The GS1 System

The GS1 System is an integrated system of global open standards, processes and enabling technologies that provide for accurate identification and communication of information regarding products, assets, services and locations. It is the most frequently implemented supply chain standards system in the world.

The GS1 System is the foundation of a wide range of efficiency-building supply chain applications and solutions. Based on GS1 identification keys, a common recurring set, the GS1 System is composed of the following key elements: a unique, standardized global numbering system for identification, GS1 barcodes and data matrices for labelling, global standards for electronic business messaging, a global data synchronization network as well as an immediate tracking and tracing solution based on the RFID technology.

Therefore, the use of GS1 standards facilitates cross-company collaboration and streamlining the entire value chain.

Contributing to greater energy efficiency through supply chain optimization

The transport and logistics sector is characterized by very high overall energy consumption. Ongoing endeavours by the European Commission and the member states thus seek to improve the energy efficiency and rationalization in this sector. In its Communication¹ of 12 March 2009, the European Commission highlights the enabling role information technologies can play in providing tools for more energy-efficient business models, calling upon ICT and logistics enterprises to work together in developing sustainable solutions.

Hence, intelligent logistics concepts that efficiently manage supply and demand will be in greater need than ever before against the background of a growing resource shortage, of climate change as well as of increased costs for energy. From production to transport all the way to the points of sale and even throughout the waste management process: The consequences of economic, societal and ecological changes can already be noticed throughout the entire value chain. A redesign of the supply chain can help lower CO₂ emissions, reduce energy consumption and traffic congestion.

Nowadays, information technologies are indispensable for managing logistic processes. To fully exploit all potential for optimizing the supply chain, standardized exchanges of information play a crucial role. GS1 standards can contribute significantly to a future-oriented redesign of the supply chain, which should involve greater collaboration and a structured data exchange

¹ COM(2009) 111 final





among key stakeholders such as consumers, suppliers, manufacturers, logistics service providers and retailers. Yet collaboration can only be effective with sufficient information transparency. Furthermore, it requires that the right piece of information is available at the right time with the right quality. Inevitably, logistic service providers have to be integrated into the data exchange process between sender (e.g. the industry) and receiver (e.g. retail). Hence, enterprises have to organize the exchange of data with business partners and customers on the basis of common standards. Global standards and new technologies such as RFID help manage large amounts of information and guarantee the required transparency.

Moreover, logistics have become a decisive factor in organizing an efficient value chain. In this process, anticipatory planning is just as crucial as precise coordination of the different processes between all stakeholders. By using global standards and solutions such as those for tracking and tracing stakeholders can exchange the relevant data more easily and thereby avoid resource and time inefficiencies. CO2 emissions, transport costs, energy consumption, handling costs as well as lead time can be reduced significantly by standardized data exchange.

Contributing to greater energy efficiency through dematerialization

In its resolution on the challenge of energy efficiency through information and communication technologies of 4 February 2009, the European Parliament calls on the member states and the European Commission to make further use of green procurement and promote dematerialization. GS1 in Europe strongly supports this approach.

The use of global standards can help to save energy as well as scarce resources by allowing for a dematerialization of goods and services, most obviously for example in paper consumption. In particular, governments' increased take-up of such technologies by their public services and systematic replacement of all B2G / G2B communication by electronic means can effectively promote energy-efficient solutions and lead to environmental benefits.

A successful example of implementing an eInvoicing system based on GS1 Global Logistics Numbers (GLN) in Denmark, for instance, shows that annual savings of approximately 120 million Euros are to be expected in Denmark² through this adoption alone.

Conclusion

In conclusion, GS1 in Europe strongly supports all initiatives taken by the European Commission, the EU member states and the European Parliament to prepare Europe's economy for the ecological challenges of the future. GS1 in Europe calls on the representatives of these institutions to consider the positive impact global standards such as the GS1 system can have in attaining the objective of improving the energy efficiency of Europe's economy. The implementation of GS1 standards in business processes optimizes supply chain management, leading to a better use of scarce resources and greater energy efficiency.

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² A Danish government best practice case study, „eInvoicing in Denmark“

