

»COLLABORATIVE COMPLIANCE«

COMMON FOR LEGAL CONFORMITY

Fraunhofer-Institute Material Flow and Logistics

Department: Information Logistics and Decision Support Systems
Joseph-von-Fraunhofer-Straße 2-4
44227 Dortmund

Contact:

Olaf Vieweg
Head of the Compliance Team
Phone: +49 (0)231/9743-412
olaf.vieweg@iml.fraunhofer.de

We look forward to working with you!

Please visit us on our website:

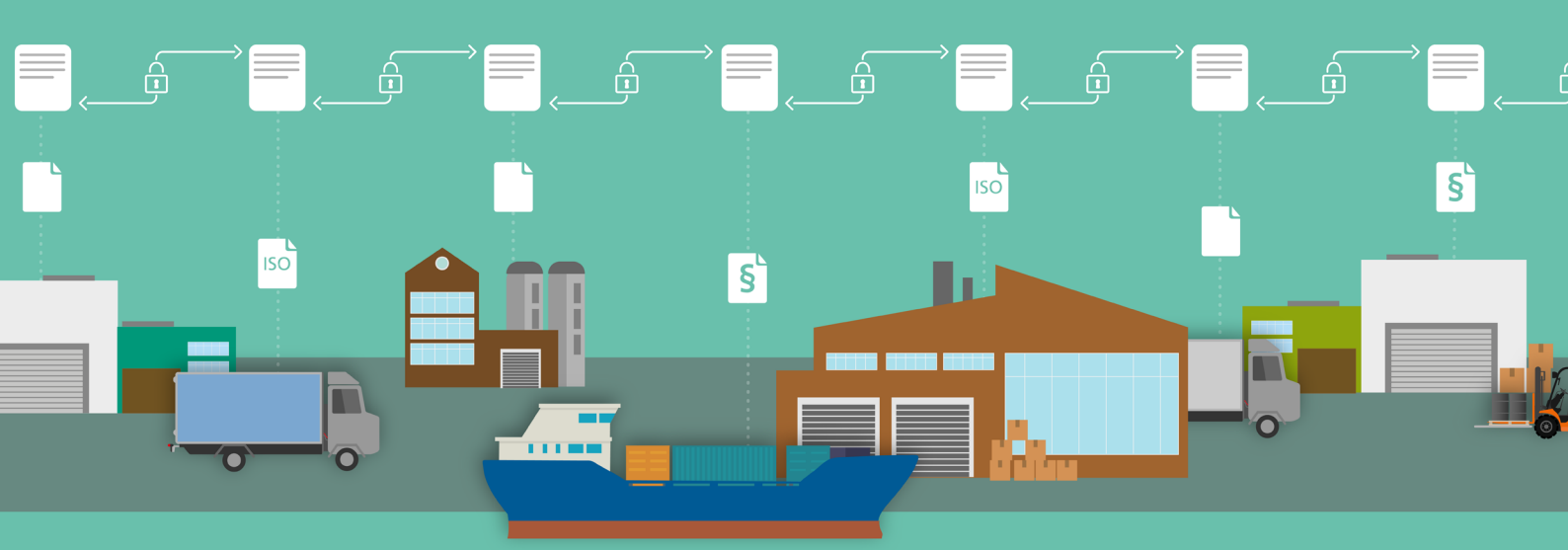


Challenge

The increasing digitalization of processes in logistics and production confronts many companies with the challenge of creating legally compliant processes. This includes the requirement to apply the extensive laws and ISO standards in a compliant manner within the company. Especially within the supply chain of a company or several partners, numerous challenges arise. Particularly with regard to compliance aspects such as data integrity, the conditional trust within value-added networks is a major problem. Evidence-based verification often proves to be a further source of error, since compliance along the supply chain is often not addressed in digital form. This creates the challenge of making the right data available to the right partner at the right time, and especially in the right quality.

Vision

The vision of collaborative compliance is the consistent compliance of companies along the supply chain and the automation of processes based on smart contracts and collaboration technologies such as distributed ledger technology (DLT). The use of these technologies enables a secure and transparent verification of compliance data in production networks and supply chains, since regulatory and contractual verification documents can be exchanged with authorization and, in addition, complete traceability of compliance is guaranteed.



Research objectives

- digitalization of compliance processing along the supply chain by means of blockchain technology
- development of a blockchain based system for the handling of dangerous goods transports
- selection of a modeling language to represent DLT and blockchain solutions
- collaboration under consideration of technical, security and legal aspects

Our services

- analysis and mapping of the company's processes and activities in a collaboration tool e. g. [QUERIS@](#)
- definition of communication processes within the company or across different external partners
- development of a system for information exchange within the company and in the value chain
- creation of functional process landscapes that show how the individual heterogeneous instances in logistically shaped processes exchange information and ensure legal conformity with the help of collaboration tools

Your benefits

- complete overview of relevant legal and regulatory requirements
- creation of a confident database for your compliance data
- legally compliant, digitized processes within production and logistics as well as along the supply chain
- secure and transparent verification of compliance data in production networks and supply chains

Selected references

- **Industry partner:** company in the mechanical and plant engineering sector
Challenge: development of an intranet portal for communication within the environmental and quality management system
Results: Sicherstellung des Qualitäts- und Umweltmanagementsystems (ISO 9001, ISO 14001)
- **Research project:** Blockchain-Europe
Challenge: research and development of a blockchain-based system for dangerous goods handling, automation of dangerous goods processes
Results: collaborative compliance management system (CMS) based on secure blockchain transactions

- **Industry partner:** company of metal processing
Challenge: development of a portal for communication with external partners regarding product requirements and handling of complaints
Results: ensuring quality management (ISO 9001)
- **Industry partner:** company of metal processing
Challenge: development of a system for handling quality inspections and initial sampling within the manufacturing processes, exchange with customers and partners
Results: fulfilment of customer requirements, especially in the automotive sector, in accordance with IATF 16949