



GDST Standards and Guidelines for Interoperable Seafood Traceability Systems

Executive Summary

Reliable and affordable seafood traceability has become a “must-have” for any company seeking to remain competitive in today’s global seafood industry. Whether for meeting company social responsibility policies or for addressing core operational issues such as supply chain visibility and risk management, there is a daily need for rapid access to verifiable information about product origins across the sector.

New digital technologies make traceability more possible and affordable than ever. But effective and widespread traceability has, until now, faced two major obstacles:

- (i) Inconsistent demands for information coming from governments, NGOs, and even retailers or other downstream companies themselves are leading to confusion, higher compliance costs, and lower motivation among producers; and
- (ii) Incompatible digital information management systems, resulting from the large number of uncoordinated traceability solutions and solution vendors, impede information flow while causing rigidity in business relations and raising barriers to on-boarding new suppliers and customers.

To solve these problems, in April 2017 two dozen companies came together to launch the Global Dialogue on Seafood Traceability (GDST) to draft new industry-led standards that will enable **interoperability** and **significantly increased verifiability** for all seafood traceability systems. The GDST quickly grew to more than five dozen companies from around the world and across the entire seafood supply chain.

Today **GDST is one of the largest and most diverse B2B seafood industry forums**, including some of the most important retailers, brands, and mid-supply chain processors in the sector. The GDST was convened and supported by two leading international NGOs: WWF and the Institute of Food Technologists (Global Food Traceability Center).

After three years of consensus-based dialogue, the GDST released its *Standards and Guidelines for Interoperable Seafood Traceability Systems*.

The GDST Standards have **two main parts**:

1. Standards identifying **the minimum data elements** that need to be documented and transmitted within GDST-compliant seafood supply chains. These are described in technical detail in the GDST’s “Basic Universal List of Key Data Elements”, covering both wild-capture and aquaculture products.
2. Standards governing **the technical formats and nomenclatures for sharing data** among interoperable traceability systems.

In technical terms, GDST is built as an extension of the international traceability standard known as **GS1 EPCIS**, which is widely used by major retailers, brands, and supply chains

across food and non-food product classes (e.g., heavily used in the pharmaceutical industry). GDST has **refined and adapted** the EPCIS standard to be “fit for purpose” for the seafood industry, and to include innovations that allow companies to integrate with GS1-based systems without making commercial commitments to use proprietary GS1 traceability solution products.

The GDST Standards are designed to **meet operational business needs** while helping ensure that products entering the seafood supply chain originate with legal production practices. They enable companies to have visibility into their supply chains while allowing them to maintain **data access controls** to protect business-sensitive information. The Standards are also adapted to facilitate regulatory compliance with import controls such as the US Seafood Import Monitoring Program and the EU IUU Regulation.

Importantly, GDST **does not impose a “one size fits all” solution**. GDST provides design standards that can be flexibly implemented in multiple proprietary (and even competitive) systems, including cutting-edge technologies like blockchain. It is also understood that implementation will take time and may involve a phased approach for some companies based on their own business decisions and conditions.

Similarly, the GDST takes a balanced approach to digitization. Digital supply chains are the future of the seafood industry, with companies who remain dependent on paper-based systems facing increasing competitive disadvantages. But digitization may remain a challenge, especially for smaller actors in developing countries. This is why **GDST does not require complete digitization** of internal company operations, but only focuses on digital data transfer between supply-chain partners.

The GDST Standards are **technically solid and have been “road tested”** through a series of hackathons and pilot projects examining how the Standards work in diverse business use cases. These activities involved multiple experts and stakeholders, including third-party vendors who are already preparing GDST-compliant solutions. In short, GDST Standards are “ready to use” by both supply chain companies and third-party solution providers.

The GDST Standards offer **a watershed opportunity for the seafood industry**. As companies face increasing commercial and regulatory demands for traceability, the GDST Standards will not only enable interoperability, but also increase predictability and create a level playing field. The implementation of GDST Standards will help companies meet their commitments to responsible sourcing while ensuring that future investments in their traceability systems are in step with industry trends and technology developments.

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NOTE: The GDST Standards are being released along with supportive documents that include a set of **Explanatory Materials** giving a non-technical presentation of the Standards, their context, and some of the underlying questions confronted, as well as a **Technical Implementation Guidance** to assist technical experts with the practical challenges of GDST implementation.

To download the GDST Standards and guidelines, or for more information, visit the GDST website at traceability-dialogue.org/gdst-standards-and-materials/ or email the GDST Secretariat at info@traceability-dialogue.org.

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