Case Study: Vessel Level Collection of EPCIS Data using TrazApp

Use Case Tested
This pilot established that all CTE and KDE data can be collected, stored, and sent using the EPCIS schema starting at the vessel level. This use case was tested in the Peruvian jumbo squid and mahi mahi fisheries using multiple traceability solutions and the GDST standard and could easily be replicated in other supply chain scenarios.

Challenges
Ensuring tools developed for capturing digitized fishing event information are equipped to store and share the key data elements and critical tracking events using the EPCIS and GDST Standard.

Next Steps
While the vessel data collection app, TrazApp, was able to collect, store, and send the GDST KDEs to Trace Register using the EPCIS data model, a subsequent pilot should validate TrazApp’s ability to send and receive live data through an EPCIS Query interface.

Methodology
TrazApp and Trace Register participated in the pilot conducted by the Global Dialogue on Seafood Traceability (GDST) to test interoperable sharing of supply chain data. Traceability data was collected by fishers in the Peruvian mahi mahi fishery using the TrazApp system loaded on their smartphones to digitally record the GDST KDEs for their daily catch. Throughout the course of the pilot, the TrazApp system was modified to support the required KDEs for EPCIS and GDST, to allow for standardized data sharing between TrazApp and Trace Register.

The advantages of EPCIS are that it is designed to be used to represent visibility data within the supply chain and is well-suited for housing traceability data through its Critical Tracking Events (CTEs). Many supply chain partners, especially processors, distributors, and retailers used GS1 standards of identification and data sharing, including EPCIS. WWF-Peru, the developer of TrazApp, worked with Plenumsoft to design the system to collect the data using the EPCIS schema starting from the fishing event. This allows for end-to-end interoperable traceability and represents an important milestone in digitizing data at the beginning of the supply chain in an interoperable way.

Supply Chain

![Supply Chain Diagram]

1. Vessel collects data using TrazApp
2. TrazApp exports data into EPCIS XML file and sends it to Trace Register.
3. Trace Register imports the EPCIS XML file into their system.
**Catch Method**
Longline (mahi mahi) or jigs (jumbo squid)

**Commodity**

**Geographic Region**
Peru EEZ

**Participants**

**The Global Dialogue on Seafood Traceability (GDST)** is GDST is an international, business-to-business platform established to advance a unified framework for interoperable and verifiable seafood traceability. The GDST brings together more than eighty companies from around the globe and across different parts of the seafood supply chain. In March 2020, after a multi-year industry-led drafting process, the GDST released the first-ever global standard (GDST 1.0) governing information content and data formats specifically for seafood traceability systems. Learn more at [traceability-dialogue.org](http://traceability-dialogue.org).

**Plenumsoft Marina** (PM) is a technology-based company committed to the design and development of solutions for the maritime and fisheries sector, through the efficient and effective use of technological tools and innovation. The continuous work of scientific research, technological development and focus on the customers, have been fundamental to build customized products according to the sector-specific requirements. PM is uniquely positioned to support small-scale and industrial fishing fleets to adapt to the evolving traceability requirements to export to the EU and US and to comply with traceability legislations under development. For more information, please visit [plenumsoftmarina.com](http://plenumsoftmarina.com).

**Trace Register** is a leader in full-chain seafood traceability, with clients in more than 50 countries. It serves processors, fishers, farmers, retailers, importers, retailers, and more in the seafood ecosystem. Trace Register’s latest release, TR5, transforms seafood supply chains with an unprecedented approach by utilizing cutting-edge technologies and industry standards such as GDST and GS1. TR5 smart traceability builds value by helping to satisfy regulatory and customer requirements resulting in less risk, higher margins, and satisfied customers. For more information, please visit [traceregister.com](http://traceregister.com)

**WWF** is one of the world’s leading conservation organizations, working in 100 countries for over half a century. With the support of more than 5 million members worldwide, WWF is dedicated to delivering science-based solutions to preserve the diversity and abundance of life on Earth, halt the degradation of the environment, and combat climate change. Visit [worldwildlife.org](http://worldwildlife.org) to learn more.