



**EUROPEAN COMMISSION**  
DIRECTORATE-GENERAL FOR MARITIME AFFAIRS AND FISHERIES

FISHERIES POLICY MEDITERRANEAN AND BLACK SEA  
**Fisheries Control and Inspections**

Brussels,  
MARE/D4/SN (2019)

**REPORT**  
**EXPERT GROUP ON FISHERIES CONTROL**  
**WORKSHOP ON TRACEABILITY OF FISHERIES AND AQUACULTURE PRODUCTS**  
**BRUSSELS, 10 OCTOBER 2019**

## **Introduction**

The European Commission (DG MARE) organized, in close cooperation with EU Member States, (MS) a workshop on traceability of fisheries and aquaculture products in Brussels on 10 October 2019. Representatives of DG MARE, DG SANTE, MS, the European Parliament, the Council of the European Union, Advisory Councils and other EU stakeholders participated in the discussions. The content of the workshop covered the proposed changes to the traceability requirements in the ongoing revision of the Fisheries Control Regulation, as well as presentations of different systems and technologies, currently implemented by MS and industry, in the area of fish product traceability. All presentations from the workshop are available on the DG MARE website<sup>1</sup>.

## **Report**

The workshop was opened by **Veronika Veits, Director of “International Ocean Governance and Sustainable Fisheries”, DG MARE**, who set out its intended goals. Firstly, the workshop would detail the provisions on traceability, in the framework of the current EU Control Regulation (EC) No 1224/2009<sup>2</sup>, as well as in the Commission proposal for a new Fisheries Control System<sup>3</sup>, so that operators and MS better understand what is required of them. Secondly, it would provide an opportunity for MS and operators to share knowledge and best practices; as well as to discuss trends and developments in digital traceability systems designed for the benefit of both the control authorities and the final consumer.

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<sup>1</sup> [https://ec.europa.eu/fisheries/press/traceability-fisheries-products-know-what-you-buy\\_en](https://ec.europa.eu/fisheries/press/traceability-fisheries-products-know-what-you-buy_en)

<sup>2</sup> Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy, amending Regulations (EC) No 847/96, (EC) No 2371/2002, (EC) No 811/2004, (EC) No 768/2005, (EC) No 2115/2005, (EC) No 2166/2005, (EC) No 388/2006, (EC) No 509/2007, (EC) No 676/2007, (EC) No 1098/2007, (EC) No 1300/2008, (EC) No 1342/2008 and repealing Regulations (EEC) No 2847/93, (EC) No 1627/94 and (EC) No 1966/2006, OJ L 343, 22.12.2009, p. 1–50

<sup>3</sup> Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Council Regulation (EC) No 1224/2009, and amending Council Regulations (EC) No 768/2005, (EC) No 1967/2006, (EC) No 1005/2008, and Regulation (EU) No 2016/1139 of the European Parliament and of the Council as regards fisheries control

## **Session 1: Traceability – Setting the scene**

**Frangiscos Nikolian (Head of Unit, DG Mare / Unit A4), the moderator** of this session, underlined that the aim of the session was to outline traceability requirements for fisheries products, emphasising that these are requirements for all MS, including landlocked ones.

### **Presentations:**

**On-going revision of EU Fisheries Control System, Laurence Cordier (DG Mare / Unit D4):** The Commission's proposal for a new Fisheries Control System aims to strengthen traceability rules, including for imported products, in order to prevent illegal fish being placed on the market. This will reduce the risk of fraud, enhance consumer confidence in what they buy, while also aligning requirements with food safety law. It also promotes a level playing field amongst operators. To this end, the proposal introduces a fishing trip identification number that will be linked to a lot. Furthermore, the introduction of a digital regime for fisheries product traceability information aim to ensure that information is available at all stages (from vessel to retail). Equally, Catch Certificates (CC) for imported products will require data to be in digital format and a central database for storing CC information was launched in April 2019. The above-mentioned Commission proposal was presented in the spring of 2018 and is at this time under review by the co-legislators.

**Traceability of fishery products from a sanitary perspective, Paolo Caricato, Deputy Head of Unit for Food Hygiene (DG Sante / Unit G4):** The main objective of traceability from the sanitary point of view is to provide the basis for a high level of health and consumer protection in relation to food as a means of protecting the safety of European consumers. It is important to be able to withdraw faulty food from the market and to provide consumers with targeted and accurate information. It is the responsibility of operators to comply with food law, and Competent Authorities must ensure adequate controls. Food safety traceability operates with a 'one step backward, one step forward principle'. In practice this means that exporters (in a non-EU country) are not themselves bound by EU traceability requirements, but they do apply from the importer to the retailer. This means that the importer must be able to identify their supplier from a third country.

**Presentation of the findings of the joint missions on traceability conducted by DG Mare and DG Sante in 2016-2017, Saba Nordström, Inspector (DG Mare/Unit D.4) and Maria Lyons Alcantara, External Auditor, (DG Sante/Unit DDG2.F.1.003).** The objectives of the missions were to evaluate the labelling of fishery products to the consumer and evaluate the traceability systems in place throughout the whole production chain of six MS (ES, FR, LV, PT, UK). The key findings were: 1) limited cooperation and coordination between fisheries and public health authorities, 2) different methods used to transmit information which impacted the efficiency of information-sharing between operators and Competent Authorities, 3) the merging and splitting of lots after first sale is a significant risk to losing information, and 4) the 'one step backward, one step forward' verification resulted in untimely verification. More pertinently, the missions found that the control of traceability often involves different authorities before and after first sale. There were also a number of good practices identified such as the ongoing developments in digital traceability systems. The presenters concluded that despite being able to trace one step forward and one step back, the accompanying information for the fisheries product might be inadequate, and that none of the visited MS had coherent traceability systems aligned with both the food legislation and the fisheries control regulation. As a consequence, final information provided to the consumer may be inaccurate or misleading.

**Tools & role of the Spanish Administration** Juan M. Elices López, Jefe de Área, S.G. Acuicultura y Comercialización Pesquera, D.G. Ordenación Pesquera y Acuicultura, Secretaría General de Pesca. The Spanish traceability system *Trazapes* records the data laid out in the Control Regulation as well as a unique fishing trip identifier (since 2015). It was noted that the system had been costly to develop (approx. 500.000 EUR plus maintenance). The challenges encountered so far included the unique fishing trip identification which does not work well when using paper logbooks and the difficulty in accessing information of sales occurring outside the EU. The presentation underscored that for effective traceability of fisheries products, it is fundamental to have good identification of lots and that the point of first sale is crucial, as it is there that traceability information is first recorded (i.e. articles 58 and 64 in the existing Control Regulation).

**Regional Administration,** Diego Arana Mesa, Agencia de Gestión Agrícola y Pesquera, Consejería de Agricultura, Ganadería, Pesca y Desarrollo Sostenible de la Junta de Andalucía, Spain. The main purpose of the Andalusian Programme for Control of Traceability of Fisheries and Aquaculture Products is to make sure that each lot is recorded in the sales note, and that supporting documents are secured for each stage of the value chain. Controls are done at the site of the operator with a checklist including the delivery note or invoice, the sales note, transport document and take-over declaration. The controls carried out are based on risk analysis. Certain issues were encountered in the implementation of their traceability system such as traceability requirements often being ambiguous when it comes to identification tools and the provision of information of lots to the buyer. They also had problems when receiving information from outside the region when it is not digital. For this system, the main portion of its costs goes towards staff (175.000 EUR annually) whilst the technical resources cost 8.900 EUR annually.

#### **Questions/discussion among participants covered the following questions/issues:**

- The manner in which proposed changes to traceability requirements would impact on **consumer labelling**. Questions centred around how the consumer would benefit or be impacted by these changes. It was clarified that the Regulation (EU) 1379/2013<sup>4</sup> on the Common Organisation of the Markets of Fishery and Aquaculture Products (CMO Regulation), which covers consumer labelling for fishery products, is not undergoing any review for the moment. The point was made that, differentiating from consumer labelling, traceability is firstly a tool to verify that the fish was legally fished.
- How this would apply to **foreign vessels** when landing in the EU, and whether lots would be linked to particular landing points in the EU. DG Mare clarified that different sets of rules apply to EU vessels and foreign vessels. A foreign vessel landing in the EU would be regarded as imported products whereby a Catch Certificate would be required.
- There was **concern raised regarding lots** as defined in the food safety legislation, in the existing Control Regulation, and in the proposal for a new Fisheries Control System. The existing definition includes ‘of a *given* species’ while the proposed new definition includes ‘of a *single* species’. The Commission offered the possibility to discuss this issue in detail with relevant stakeholders in order to understand better their concerns regarding this particular issue.
- How to maintain the **lot-level traceability information** when merging or splitting lots after first sale. This is especially a concern when producing mixed products such as surimi, which relies on mixing lots. It was noted that in the Andalusian system, lots can be mixed but only after first sale and only if lots come from the same geographical zone. The Spanish traceability programme noted that they had not yet decided how they would deal with this, but envisioned that information from multiple vessels can be recorded in one lot (if they are consistent with the same

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<sup>4</sup> Regulation (EU) No 1379/2013 of the European Parliament and of the Council of 11 December 2013 on the common organisation of the markets in fishery and aquaculture products, amending Council Regulations (EC) No 1184/2006 and (EC) No 1224/2009 and repealing Council Regulation (EC) No 104/2000

marketing standards). It is noteworthy that later presentations by GS1 and the Global Dialogue on Seafood Traceability indicated that this concern could be resolved by a so-called ‘event-based solution’ which allows for lot information to be transferred when splitting or merging.

## **Session 2: Existing Digital Traceability Systems**

**The Moderator Ms. Elisa Roller, Head of Unit, DG Mare Unit D3**, highlighted the advantages of digitalisation of traceability over a paper-based system. It was underscored that digitalisation increases transparency and accessibility of information, facilitating monitoring and enforcement while simultaneously reducing the administrative burden of collecting and storing information. The purpose of this panel was to explore existing examples of digital traceability systems already in place in the EU, by both national administration and private operators.

### **Presentations:**

**The Swedish SE national traceability system – technology and legal framework, financed by EU control funds, Anders Bogelius, Swedish Agency for Marine and Water Management:** the SE national system was developed between 2012- 2020 and co-financed by both EU control funds and the European Maritime Fisheries Fund (EMFF). A legal framework supported the national system in 2017. The year 2019 has been the phasing in year. The system cost 6 million EUR to develop and maintenance costs represent 10% of that yearly. The system is built on event reporting standards and is GS1-based. Operators report traceability events, starting at first buyers. Traceability ends at the business-to-consumer (B2C) relationship. Information is received through a label. There are specifications on labelling and lot information, as well as the requirement of a barcode.

The presentation raised a number of issues. There was consensus to develop a national system, despite industry scepticism. The complexity and the time needed to launch a digital system should not be underestimated and more than one technical solution should be offered to operators. Cross-border traceability was also noted as being demanding. Missing information due to different interpretations can be an issue. It is difficult to determine imports as well as determine if a lot should be part of the system. Operators need time to adapt their manufacturing processes. It is also necessary to define “lot” precisely.

**National digital traceability system in Latvia (LV), financed by EU, Miks Veinbergs and Varis Vitols, Department of Fisheries Control:** The LV national system was based on an existing system from 2014 and was developed from September 2016 to December 2017. Traceability was launched in 2018 and applies to LV fishing vessels and foreign fishing vessels that land in LV ports and sell to first buyers that are registered in LV registers. The system is used by national authorities and operators. The system uses the lot ID number, FAO and QR codes. Traceability covers landing, first sale, sorting by species, merging of lots, exporting of lots, and sales, and it ends when the lots are exported outside of LV or if they have been withdrawn from the market. Transactions must be sequenced, otherwise products cannot be sold to wholesalers/retailers or exported. The total cost was 419.000 EUR, while maintenance represents 27.000 EUR per year, plus a warranty service.

In terms of challenges, it is difficult to explain to operators the importance of data input in real time; there can be weight mismatches per species between landing and real sorting; and paper logbooks used by coastal fisheries present specific challenges. As for advantages, the system facilitates the work of the inspectors; there is an immediate data flow and less paperwork; it provides information on active lots and provides a structure for inspections; different types of inspections can be combined; and consumers can use the QR codes to receive fisheries product information.

**Lessons learned in the Danish SIF project, financed by EU, Hanne Christiansen, Danish Fisheries Agency:** the project is a private initiative involving Danish fishermen organisations. There is no national law underpinning the system, which was initiated in 2012 with full implementation

achieved in 2014. It is a full digital traceability system for lots that goes from fishing vessel to retail. The system provides a joint database that is accessible to all operators. Lots can be found by an accompanying ID number. The system provides easy access to obligatory traceability data, operators only need one system and inspectors are able to trace lots from anywhere, while retailers can use the data to inform consumers.

The presentation showed that an effective digital traceability system can support legal and sustainable fisheries. However it also noted a number of challenges, including the fact that fewer operators than expected used the voluntary system, which affected the strength of a single joint database. It was suggested that a legal framework, underpinning the system, should be considered. Additionally, difficulties were encountered upon export. Questions remain over the financing, with the suggestion made that the users could contribute to financing the maintenance costs.

**Irish bar-code system – GS1, Denis O’Brien, Director of Standards & Solutions, GS1 Ireland:** the presentation provided an overview of the challenges and potential solutions to developing a European framework for the traceability of lots. There are a variety of technologies available for data sharing, such as barcodes, Electronic Data Interchange (EDI), Global Data Synchronisation Network (GDSN), and Electronic Product Code Information Services (EPCIS) and the technology to be used must be determined with several issues in mind. It is necessary to be able to input and manage data from across the EU and so interoperability should be a consideration from the onset of any digital traceability system. The presentation raised the difficulties around interoperability as a potential critique of the blockchain technology. In order to minimise the administrative burden and increase industry “buy in”, new systems should consider what the industry is using and work with the existing standards rather than create one from scratch. GS1 were technical partners on the e-LOCATE project, administrated by the Irish Sea Fisheries Board and funded by the Sea Fisheries Protection Authority Ireland (SFPA) and the EU Control Funds. It is an Internet of Things (IoT) -based traceability infrastructure and uses EPCIS to provide a barcode to search which stakeholder has information about the product. The total expenditure for the development of e-LOCATE was almost 2 million EUR.

**Traceability system implemented by the Bolton Group (Italy), Davide Vernacotola, Quality Assurance Supervisor.** The Bolton Group is an Italian multinational company that works with suppliers of fish from the whole world. Their tuna traceability system records fishing data (including the species of tuna, the vessel, IMO number, fishing method, which ocean) as well as key information on the transit through different operators (including the port of landing, transshipment data, numbers of items in lot) as well as data regarding the quality of the product (salt, histamine levels). The technical system used for traceability of lots is owned by IBM and managed by the Bolton Group. Data confidentiality is guaranteed. The system is based in English, with multiple languages available and training is provided to suppliers. The single platform system allows the Bolton Group to include information on the label to the consumer. It also functions as a management tool allowing for easy consultation of information in response to requests from Control Authorities. Several strengths were noted such as enabling selective acceptance criteria, the collection of data, fast reporting, ability for continuous improvement and the use of the tool by suppliers. It was entirely self-financed and required 2 years of study, 1 year of tests, and another 2 years to achieve full integration.

As for issues, suppliers must use the fish lot definition as a basic traceability unit, the system requires a reliable internet connection and automatic data imports. The importance of defining a “fish lot” was underlined, which the Bolton Group defined as “a single lot of fish, belonging to the same species, caught by the same fishing vessels in a single fishing trip”. In addition it must correspond to the information in the related catch certificate.

#### **Discussion among participants highlighted the following issues:**

- Digital systems improved reporting and possibility to respond to questions from control authorities, stakeholders, and consumers.

- The challenges of managing cross-border traceability information the current a “patchwork” of systems across the EU.
- There are multiple possible technologies but when choosing one, interoperability must be a priority.
- Operators also discussed the definition of a “lot” and how best to manage traceability information / costs when splitting or merging lots.
- Some operators raised the issue of costs / administrative burden, especially for small-scale operators.

### **Session 3: Technology, global initiatives and standards**

**The Moderator Marta Moya Diaz, Deputy Head of Unit, DG Mare/Unit D4**, explained that the aims of the session were to look at some digital tools that have been developed so far and evaluate what works and what does not. The session would present three examples of Business-to-Business (B2B) projects which would underscore the power and potential of existing technologies to provide solutions.

#### **Presentations:**

**BLOCKCHAIN, Carrefour-España by Jorge Alberto Martínez (Director Pescadería, Carrefour España)**. The presentation explained how blockchain could be used to help increase quality standards through collaboration with both suppliers and clients; provide innovative mechanisms for assuring food traceability; and help eliminate noxious substances in products. Blockchain provides a private network, allowing the creation of restricted access and separate channels (or lines within the same network), enabling rapid and flexible development of business solutions. Using the example of “**merluza de pincho Calidad y Origen**” (Hook and Line Caught Hake of Guaranteed Quality and Origin), the presentation illustrated how information can be fed in and accessed all along the value chain, linking catch to landings, processing, distribution and sale. Information is recorded electronically on the date of capture, the geographical zone of capture, the time and place of landing as well as the subsequent steps of storing and transporting before being sold in Carrefour stores. Each actor at the different stages is responsible for the input of this information. Information can be structured and adapted to industry needs and demands for traceability, the interphase is user friendly, does not require any particular skills, and users can be trained quickly. Once approved, the project took 4 months to set up.

**Global Dialogue on Seafood Traceability (GDST), David Schorr, Senior Manager for Transparent Seas (WWF)**. This is a “global, precompetitive, B2B platform”, launched in 2017, with the primary goal of establishing voluntary industry standards for interoperable seafood traceability. It was set up to overcome obstacles to data creation and acquisition, to address technological confusion, blocks to interoperability (non-interoperable silos), diverse information reporting requirements, proliferation of regulations, increasing and shifting consumer and NGO demands. Initiated in 2015, the GDST project has become a significant B2B platform with 67 companies involved. The GDST has identified specific “key data elements (KDEs)” and the need for IT guidance on digital interoperability. KDEs for fisheries products including vessel registration number, unique vessel ID (IMO number) and gear type. Examples of interoperability uses include: enabling interoperable digital data capture on small scale vessels (linking logbooks to landings); linking case/pallet identifiers with downstream systems; linking GS1 with non-GS1 systems; ensuring blockchain pilots are not treated in siloes; linking legacy systems and new web and blockchain systems; enabling digital Chain of Custody certification; matching labelling requirements with inputs from suppliers. GDST standards are already being road-tested in multiple environments and use cases, and “GDST 1.0” voluntary standards should be available for adoption and release in early 2020.

**METRO AG “Pro-Trace”, Traceability Solution for fisheries products by Britta Gallus, Director of Programs & Risk Assessment, Supply Chain Management METRO AG.** The third presentation gave a description of Metro’s “Pro-Trace” traceability solution for fisheries. It was explained that Metro’s engagement with traceability is driven by EU legislation (legal requirements), by food safety and security requirements (logistical requirements), sustainability (efficient use of resources), and consumer demand (growing demand to know that food comes from sustainable sources). Pro-Trace has evolved through a series of steps from 2015. It uses a GS1 barcode system that is built up along the supply chain by producers, processors, and distributors, with the possibility of inputting or uploading information at any point along the chain, manually, semi-automatically or automatically. The 4 key ingredients to success are: supplier commitment/ “on-boarding” (willingness to share relevant data); good and reliable data quality (“garbage in, garbage out”); interoperability; and last but not least cooperation.

#### **Discussions among participants included the following issues:**

- The presentations and subsequent discussion helped to identify a number of key ingredients for success. These include the following:
  - Commitment to a system: all the actors should be on board and there should be effective cooperation between all actors along value chain/ traceability process.
  - The systems which are established to manage traceability of fish products should be interoperable, allowing the relevant actors to input, access and manage the data, as opposed to multiple systems where recorded information is in formats that are not interoperable.
  - Trust (security/ tamper proof) in a system is necessary.
  - Data quality/ data reliability are key.
  - No additional upstream or downstream costs.
  - User friendliness, simple to use and scalable.

#### **Other comments included:**

- Traditional systems of traceability, based on the “one-step forward, one step back” idea, are now obsolete in terms of consumer and other demands;
- Operators also highlighted the benefits of digital traceability information, which includes consumer appreciation. Especially among the new generations/millennials, interest in non-commercial product information also leads to positive impacts on sales volumes.

#### **Session 4: Final discussion and conclusions**

Rapporteurs presented the main conclusions of each sessions<sup>5</sup> to the **Moderator of this session, Francesca Arena, Head of Unit, DG MARE Unit D4**. Based on those conclusions, discussions among participants included the following contributions:

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<sup>5</sup> Published at: [https://ec.europa.eu/fisheries/press/traceability-fisheries-products-know-what-you-buy\\_en](https://ec.europa.eu/fisheries/press/traceability-fisheries-products-know-what-you-buy_en)

- Regarding the issue of lots, the following are the relevant comments raised by participants:
  - When assigning lot numbers, these should not be repeated during a minimum 10-year cycle. This will avoid potential confusion of having two lots in circulation – each with the same number.
  - The difficulty with managing traceability requirements<sup>6</sup> when merging lots.
  - The Commission reiterated that the Bolton Group presentation has shown the difference between a fish lot and a production lot and expressed its willingness to meet operators at a future date to further discuss issues regarding the definition of a lot.
- Representatives of a number of Swedish operators commented that their experience with national traceability requirements was challenging, stating that requirements were disruptive, costly and changed trade-flows.
- It was suggested that the multiplication of data would create a burden on resources in terms of storage and management. The Commission was asked to consider calculating the carbon footprint of introducing traceability data systems.
- The Commission reminded attendees that digital systems have the consequence of alleviating substantial administrative burden associated with paper-based systems and that the carbon-footprint of any new digital system would result in a favourable comparison with the footprint of the current paper-based system.
- The issues of scalability and interoperability were flagged again as an important issue. It was reiterated that a single use system rather than a fragmented patchwork of incompatible systems is essential.
- It was raised that operators shared the same objectives as the Commission but were concerned more with the pathway of how this was reached.
- It was suggested that among the advantages of new digital tools for traceability of fisheries products, was that operators could make use of them not just for control purposes but also for other commercial purposes.

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<sup>6</sup> Article 67, of COMMISSION IMPLEMENTING REGULATION (EU) No 404/2011 of 8 April 2011 laying down detailed rules for the implementation of Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the Common Fisheries Policy, refers to how to deal with the merging of lots.