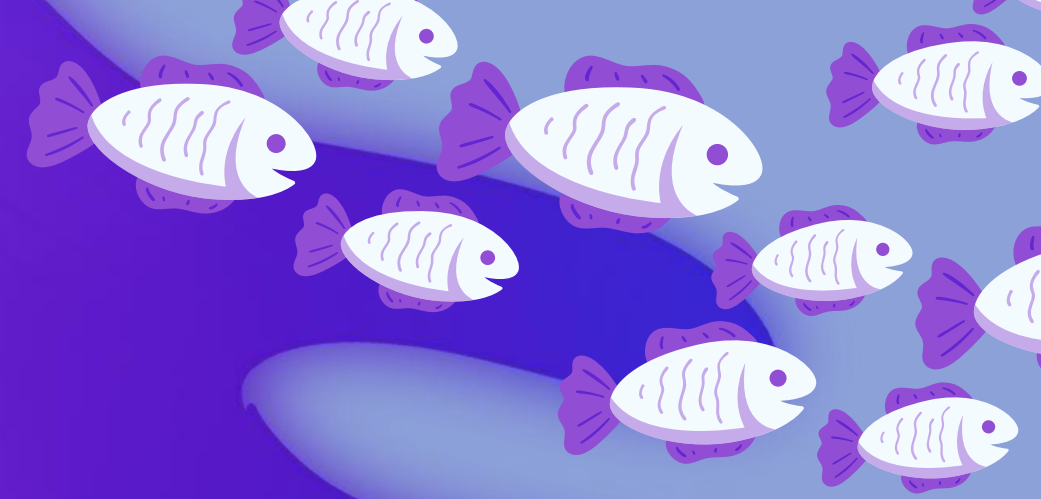




SEAFOOD TRACEABILITY

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WHAT IS SEAFOOD TRACEABILITY?

What do you think?

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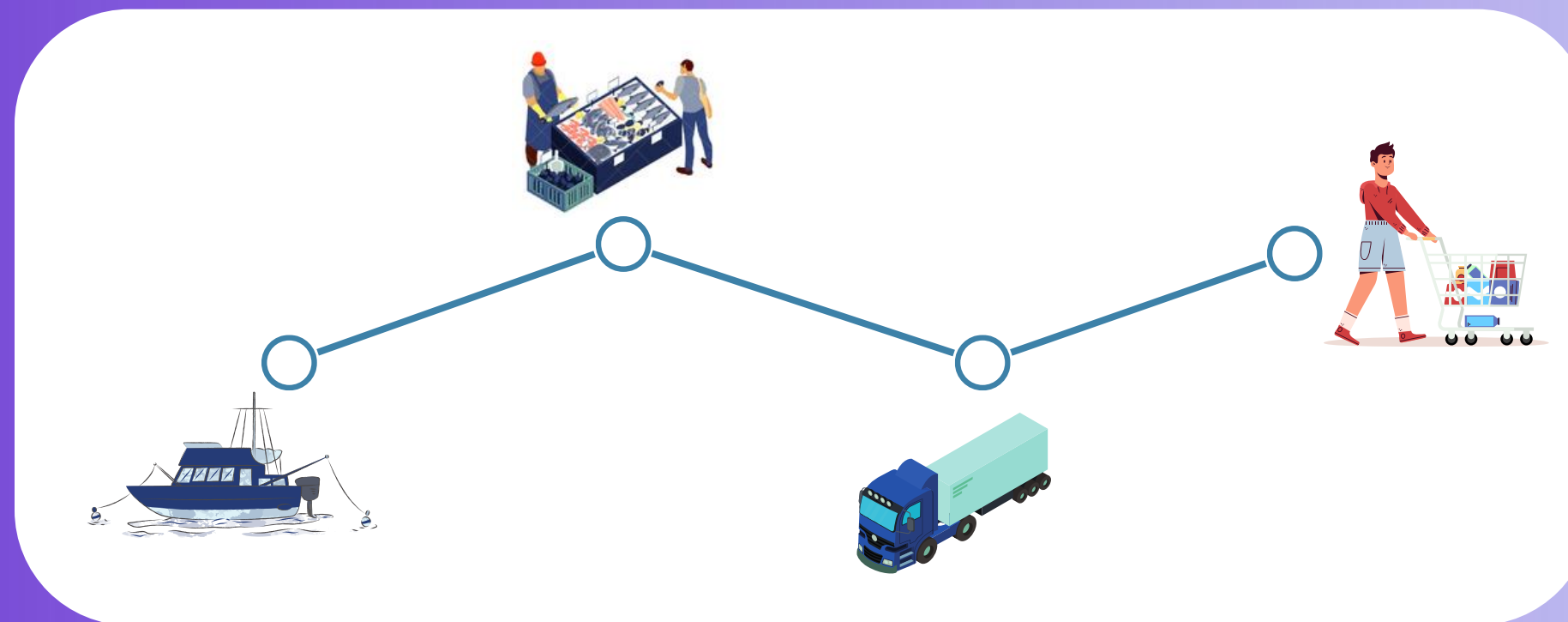
WHAT IS SEAFOOD TRACEABILITY?

Several definitions:

- ISO: “the ability to trace the history, application or location of that which is under consideration”
- EU: “the ability to trace and follow food, feed, and ingredients through all stages of production, processing and distribution”

WHAT IS SEAFOOD TRACEABILITY?

Traceability is the collection and verification of information on a product, as it moves through the supply chain

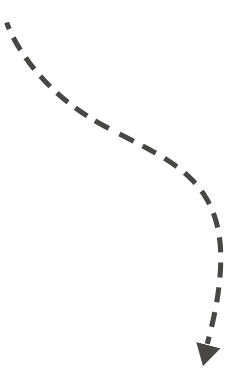


EXISTING TRACEABILITY LEGISLATION IN THE EU:

Article 18 of Regulation (EC) No 178/2002 of the European Parliament and Council

1. The traceability of food, feed, food-producing animals, and any other substance intended to be, or expected to be, incorporated into a food or feed shall be established at all stages of production, processing and distribution.

2. Food and feed business operators shall be able to identify any person from whom they have been supplied with a food, a feed, a food-producing animal, or any substance intended to be, or expected to be, incorporated into a food or feed. To this end, such operators shall have in place systems and procedures which allow for this information to be made available to the competent authorities on demand.

- 
- No transfer of information between value chain actors
 - Simple 'one-step back'-'one-step forward' approach
 - Lack of additional information

EXISTING TRACEABILITY LEGISLATION IN THE EU:

Implementing Regulation (EU) No 931/2011

1. Food business operators shall ensure that the following information concerning consignments of food of animal origin is made available to the food business operator to whom the food is supplied and, upon request, to the competent authority:

- (a) an accurate description of the food;
- (b) the volume or quantity of the food;
- (c) the name and address of the food business operator from which the food has been dispatched;
- (d) the name and address of the consignor (owner) if different from the food business operator from which the food has been dispatched;
- (e) the name and address of the food business operator to whom the food is dispatched;
- (f) the name and address of the consignee (owner), if different from the food business operator to whom the food is dispatched;
- (g) a reference identifying the lot, batch or consignment, as appropriate; and
- (h) the date of dispatch.

EXISTING TRACEABILITY LEGISLATION IN THE EU:

Implementing Regulation (EU) No 931/2011

3. The information referred to in paragraph 1 shall be updated on a daily basis and kept at least available until it can be reasonably assumed that the food has been consumed.

(...)

The appropriate form in which the information must be made available is up to the choice of the supplier of the food, as long as the information requested in paragraph 1 is clearly and unequivocally available to and retrievable by the business operator to whom the food is supplied.

- 
- No digital information or interoperability¹
 - No transfer of information between value chain actors

¹ Interoperability refers to the functionality of information systems to exchange data and to enable sharing of information.

https://edps.europa.eu/data-protection/our-work/subjects/interoperability_en

EXISTING TRACEABILITY LEGISLATION IN THE EU:

COUNCIL REGULATION (EC) NO 1005/2008 OF 29 SEPTEMBER 2008, ANNEX II:

Other EU tools:

- **Catch certificates**

Mandatory for all fisheries’ products entering the EU, to prevent illicit, unreported, and unmanaged fishing catches from entering the EU common market.

Demands information such as fishing vessel name, species, catch areas and dates, transshipment information, etc.

- **CATCH**

Tool to digitalize the paper-based certification process.

10. Transport details <i>(see Appendix)</i>					
11. Importer declaration					
Name and address of importer	Signature	Date		Seal	Product CN code
Documents under Articles 14(1), (2) of Regulation (EC) No .../2008	References				
12. Import control — authority	Place	Importation authorised (*)	Importation suspended (*)	Verification requested – date	
Customs declaration (if issued)	Number		Date	Place	
(*) Tick as appropriate.					

EXISTING TRACEABILITY LEGISLATION IN THE EU:

Other EU tools:

- **Rapid Alert System for Food and Feed (RASFF)**

To allow food safety authorities to rapidly exchange information on health risks derived from food or feed so that they can take immediate action to avert the risk.

European Commission

RASFF Window

-- Help --

iRASFF



SEARCH

CONSUMERS

TRACES

15 NOTIFICATIONS

CSV

XLS

Ref. ↓ ↑	Category ↓ ↑	Type ↓ ↑	Subject ↓ ↑	Date ↓ ↑	Origin	Notifying ↓ ↑	Class. ↓ ↑	Decision ↓ ↑	
2024.0664	Fish and products thereof	food	Fish product without gutting from Poland	30 JAN 2024		 Hungary	alert notification	serious	Details >>
2024.0613	Bivalve molluscs and products...	food	Escherichia coli oltre i limiti (790MPN) in mitili (Mytilus galloprovincialis)//Escherichia coli beyond limits (790MPN) in mussels (Mytilus galloprovincialis)	26 JAN 2024		 Italy	information notification for attention	serious	Details >>
2024.0594	Fish and products thereof	food	High content of mercury in tuna from Italy with raw material from Spain	26 JAN 2024	 	 Austria	alert notification	serious	Details >>

EXISTING TRACEABILITY LEGISLATION IN THE EU:

Other EU tools:

- **TRACES**

Online platform for sanitary and phytosanitary certification required for the importation of animals, animal products, food and feed of non-animal origin and plants into the European Union, and the intra-EU trade and EU exports of animals and certain animal products.



EXISTING TRACEABILITY LEGISLATION IN THE EU:

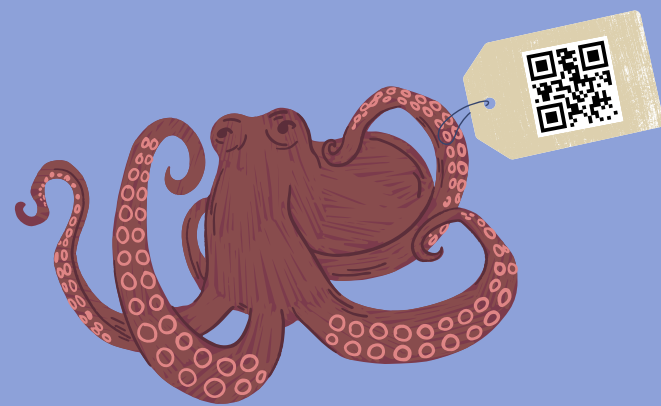
Mandatory seafood information available for the consumer:

- The commercial and scientific name of the species,
- The fishing gear used or the production method,
- The production method
- The area where the product was caught or farmed,
- The category of fishing gear used,
- Whether the product has been defrosted
- Date of minimum durability ('best-before' date)

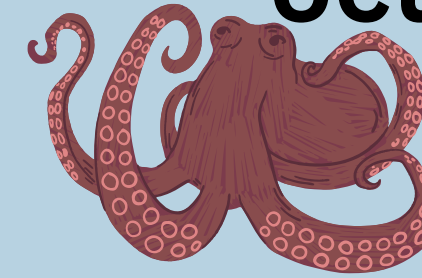
Regulations (EC) No. 1224/2009 and (EU) No. 1379/2013



IMAGINE KNOWING YOUR
SEAFOOD'S JOURNEY
THROUGH YOUR
PHONE...



Common octopus



Octopus vulgaris

Origin: 

Type: Wild

Fishing Boat



Boat: Captain hook
Fishing Zone: FAZZZ
Gear: Pots and traps

Port



Fuzeta
Algarve, Portugal

1st Buyer



Supermarket X
Algarve
Portugal

EXISTING TRACEABILITY LEGISLATION IN THE EU:

Regulation (EU) No 2023/2842 of the European Parliament and of the Council of 22 November 2023

- **Article 58 – Traceability**

- Came into force on January 9, 2024 and its application will be gradual, until 2029.

Set the minimum information that has to be made available for products falling under Chapter 3 of the Combined Nomenclature.

For e.g.: id. no. of the lot; unique fishing trip identification number/unique fishing day identification number(s) (for fishery products not imported into the EU) or IMO/unique vessel identifier of the catching vessel(s) (for fishery products imported into the EU); name and registration number of the producer or aquaculture production unit; relevant geographical area(s); the date(s) of catches for fishery products or date(s) of harvest for aquaculture products; etc.



• Combined Nomenclature: eight-digit coding system used to classify goods for the purposes of trade

EXISTING TRACEABILITY LEGISLATION IN THE EU:

Regulation (EU) No 2023/2842 of the European Parliament and of the Council of 22 November 2023

- **Article 58 – Traceability**

This information is to be made available in a **digital** way to the operator to whom the fishery or aquaculture product is supplied, and, upon request, to the competent authorities.

“The Commission shall conduct a study on feasible traceability systems and procedures, including minimum traceability information, for fishery and aquaculture products (...). The study shall include an analysis of available digital solutions or methods which meet the requirements on traceability in this Regulation, while taking into account the impact on small operators.”

TRACEABILITY SYSTEMS

- Paper-based
- Computer-based

Technology examples:

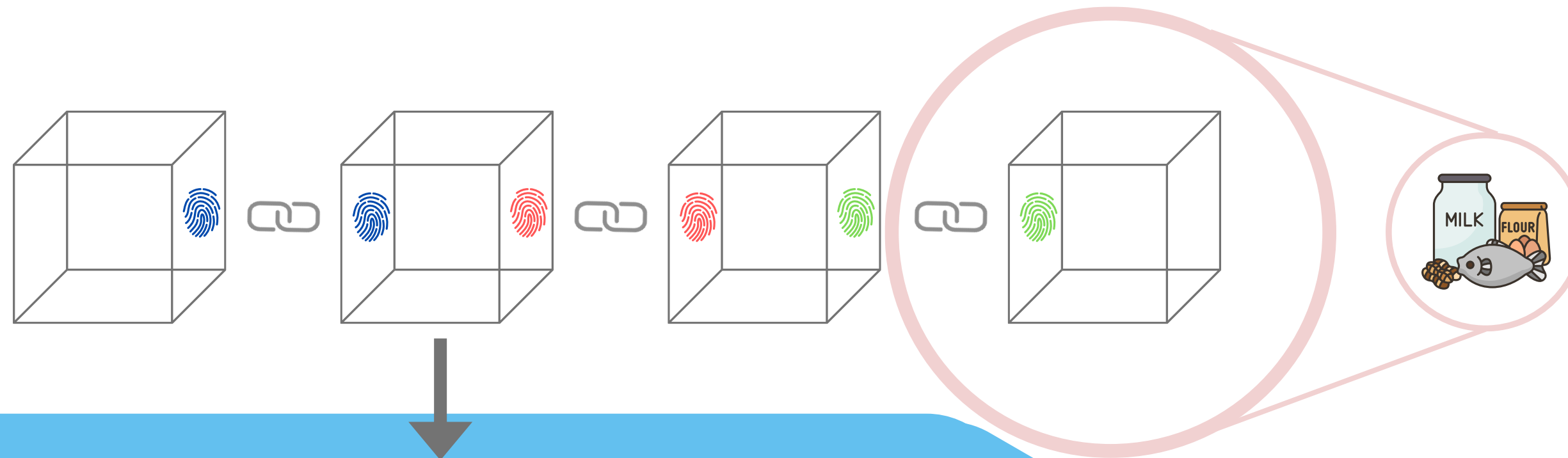
- Internet of Things (IoT)
- Radio Frequency Identification (RFID)
- QR code
- Web applications
- **Blockchain**



BLOCKCHAIN

is a chain that connects blocks of information.

This technology is a decentralized ledger.



Data stored inside each block can change depending on the Blockchain's application.

E.g., using blockchain to track food along the value chain

Each block contains:



Data



A hash (digital fingerprint)



The hash of the previous block

It's a secure database:

- Recorded transactions are immutable
- Tampering with a block changes its hash and the chain becomes invalid

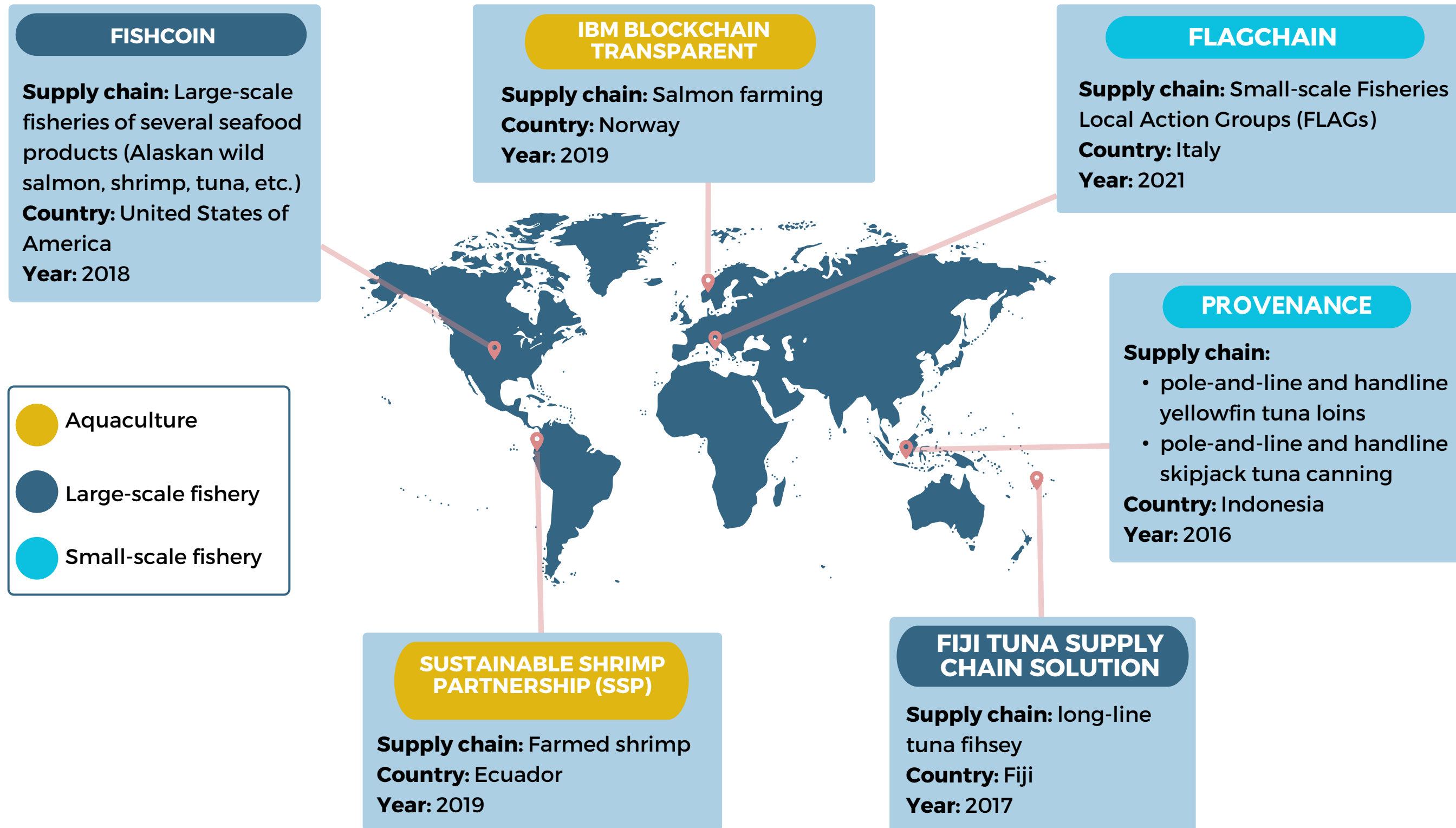
From: 

To: 

Origin: 

Amount: 

BLOCKCHAIN TRACEABILITY CASE-STUDIES

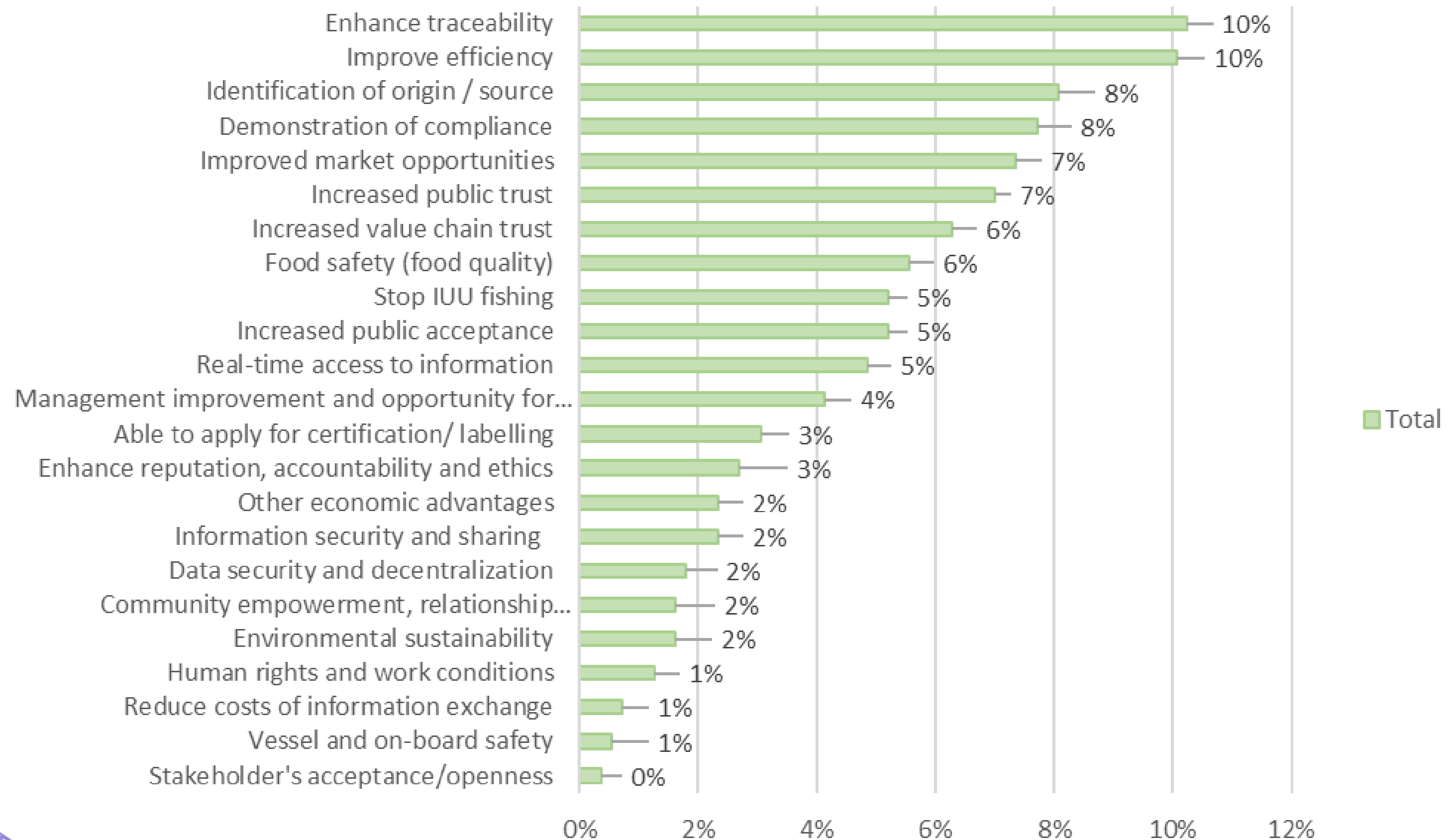


WHAT ARE THE OPPORTUNITIES TRACEABILITY BRINGS?

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Opportunities mentioned

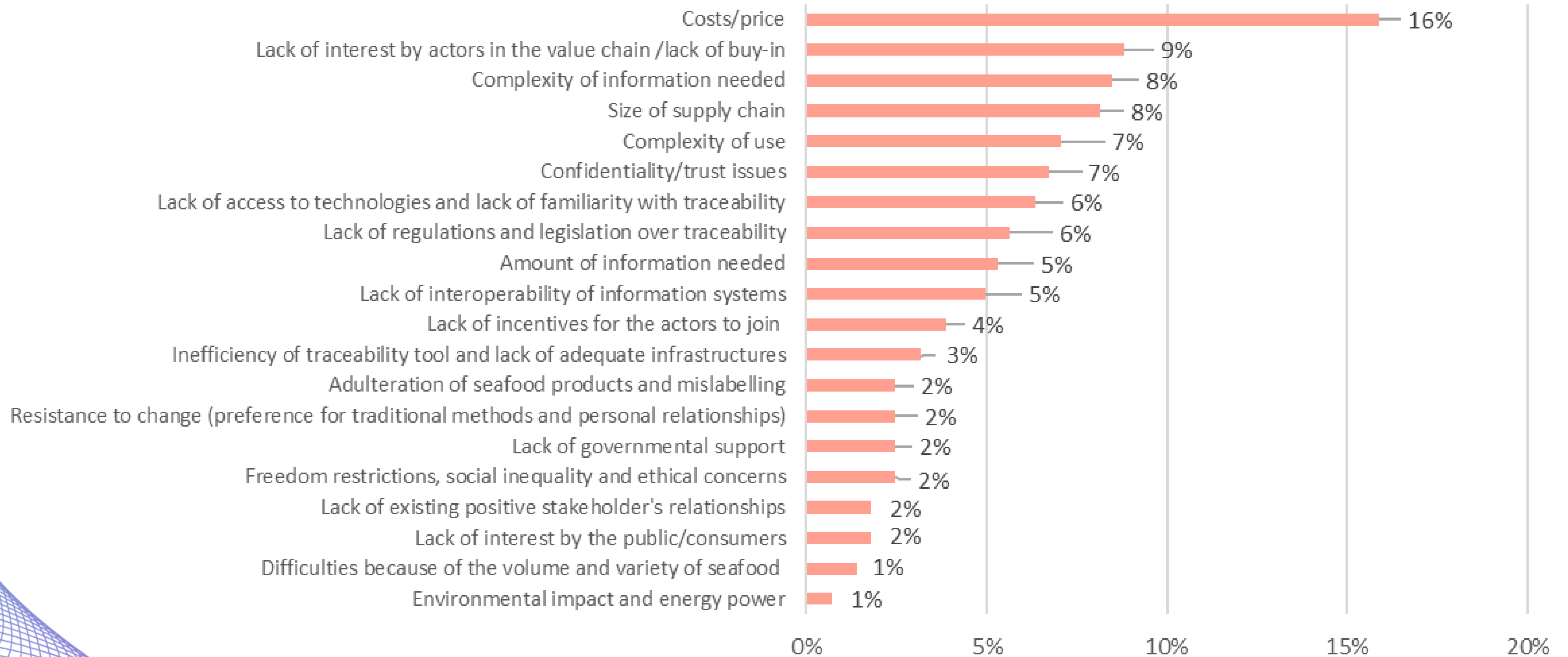


WHAT ARE THE CHALLENGES TRACEABILITY BRINGS?

What do you think? Go to menti.com
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Challenges mentioned



CERTIFICATION SCHEMES AND TRACEABILITY



For the Sea2See project, we analysed some of the main seafood Certification Schemes (CS) and looked at their traceability requirements (often referred to “chain of custody”). This is a way for retailers to prove they provide seafood from credible and responsible sources.

We found that:

- CSs appear to lack a complete track-and-trace solution for end consumers to track their labelled seafood products.
- Most CSs used for both the aquaculture and the fisheries industries have traceability requirements more focused on the production stages of the supply chain.

Check it here: <https://sea2see.eu/wp-content/uploads/2024/01/D1.5.pdf>

HOW WILL SEAFOOD TRACEABILITY SYSTEMS DEVELOP IN THE FUTURE?

Factors that might condition seafood implementation:

- Access
- Profitability
- Regulation

“Given the global nature of seafood supply chains, any market that creates too high a barrier to access (through price, or compliance with third-party certifications) will be out-competed by markets without these barriers.”

“The state remains the key regulator for fisheries and needs to bridge the gap between a faceless regulator, and a consumer-facing entity.”

CORPORATE SOCIAL RESPONSIBILITY

Down-stream value chain actors (e.g. retailers) have a lot of influence regarding the seafood production practices and what final consumers have available, but are also the ones highly sensitive to reputational risk.

“Recently, these brands have formally incorporated social and environmental values into business practices as a defined Corporate Social Responsibility (CSR) programme to remain competitive”

BAILEY, M., PACKER, H., SCHILLER, L., TLUSTY, M., & SWARTZ, W. (2018). THE ROLE OF CORPORATE SOCIAL RESPONSIBILITY IN CREATING A SEUSSIAN WORLD OF SEAFOOD SUSTAINABILITY. FISH AND FISHERIES, 19(5), 782-790. [HTTPS://DOI.ORG/10.1111/FAF.12289](https://doi.org/10.1111/FAF.12289)

However, have in mind corporate interests can have a lot more “layers”

“(…) retailers decide what constitutes sustainability and choose what products and information will or will not be available to consumers: in fact a move away from democracy of information.
(…) Retailers seem increasingly interested in primarily managing reputational risk by being able to provide traceability information if asked, but controlling that information through a need-to know basis.”

BAILEY, M., BUSH, S. R., MILLER, A., & KOCHEN, M. (2016). THE ROLE OF TRACEABILITY IN TRANSFORMING SEAFOOD GOVERNANCE IN THE GLOBAL SOUTH. CURRENT OPINION IN ENVIRONMENTAL SUSTAINABILITY, 18, 25-32. [HTTPS://DOI.ORG/10.1016/J.COSUST.2015.06.004](https://doi.org/10.1016/J.COSUST.2015.06.004)

CORPORATE SOCIAL RESPONSIBILITY

Inequalities in the value chain can be observed because of the demand for “sustainable” seafood:

- Upstream actors have to put a considerable amount of effort to carry those demands
- There is optimal investment in CSR:
 - Large companies with a high public profile can afford to do traceability investments. But it is also important not to invest too much – seafood has to be affordable until a certain point.
 - Small-scale and developing world fisheries and businesses have unequal access to expensive traceability systems and therefore to valuable seafood markets (even though they can be very “sustainable”)



TRACEABILITY INTEROPERABILITY

Seafood supply-chains are complex and there is a lack of common standards and agreed upon guidelines to report information. This leads to incompatibility between individually developed traceability systems.

In 2017, WWF joined with the Global Food Traceability Center (an entity within the Institute of Food Technologists) to launch the Global Dialogue on Seafood Traceability (GDST).

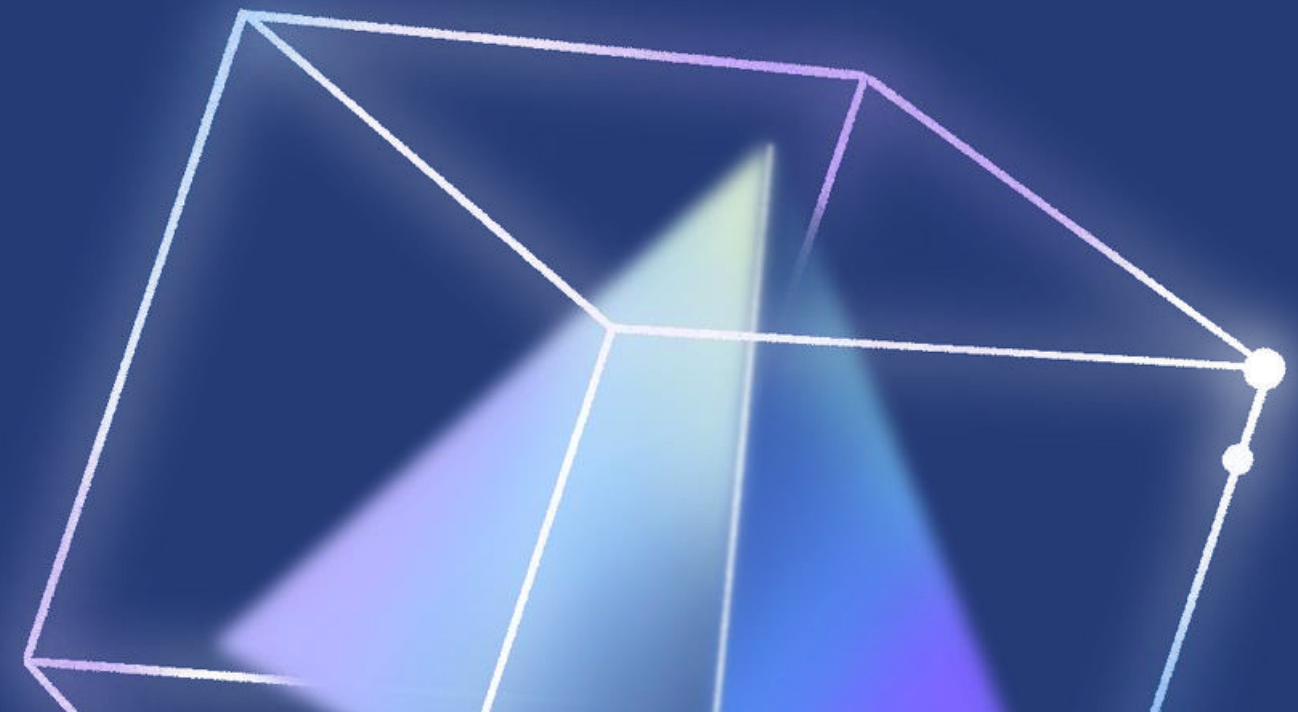


TRACEABILITY INTEROPERABILITY

In 2020, GDST released its **Standards and Guidelines for Interoperable Seafood Traceability Systems**.

Check them at: www.traceability-dialogue.org/gdst-standards-and-materials/

These standards are endorsed by different organizations as a guide to follow and implement seafood traceability globally and key data elements include information about catch, vessel, transshipment, processing, certifications and traceable object information.



FOOD FOR THOUGHT...



- Seafood traceability systems are important to provide food safety, prevent IUU, promote responsible practices, among other advantages.
- However, traceability implementation faces many challenges, such as costs or the complexity of the information, technology or supply chain.
- The onus of traceability many times is put on the up-stream part of the supply-chain, when it should be throughout all supply chain actors.
- Big retailers often control what information consumers have access to, while also collecting a large portion of seafood market profits.
- It is necessary to ensure small-scale sectors can access these systems and compete.
- It is also necessary to ensure interoperability in digital traceability.
- We should be looking at new digital traceability advancements in the EU in the next couple of years.



THANK YOU!

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