

# 1st International Symposium on Catch Identification Technologies

**Regulation**  
**Consumption trends**  
**AI & Innovation**

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Photo: Charly Triballeau/AFP

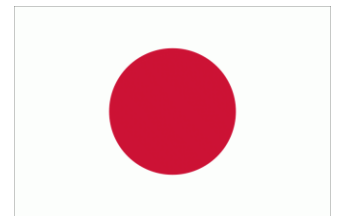
# Part 1



Foto: Flickr (Gilles Messian)

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# Introduction



# Regulation

01



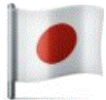
Different regulation for each State

02



Different regulation for each province

03



National regulation

04



EU regulation

Some national regulations can go further than EU regulation

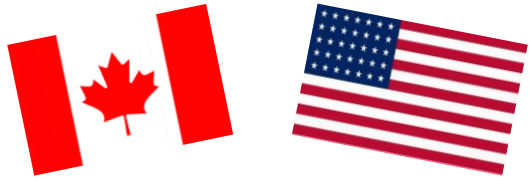


# Why do we need regulation?

- 01 Fight against illegal fishing
- 02 Ensuring the renewal of fish stocks
- 03 Guaranty sovereignty over national fishing areas,
- 04 Enable optimal organization of the value chain from fishing boat to the consumer, including decent working conditions.
- 05 Offer healthy food products to consumers



# Consumer habits and trends



## Canada and United States

- Consume less, but better
- Ecolabels (like MSC blue fish label in Canada)
- Consume local
- Sustainability and environment
- Ready to pay more under some conditions



## France, Italy and Spain

- Consume less, but better
- Ecolabels
- Consume local
- Tradition matters
- Zero waste
- Fair trade
- Organic food
- Low meat diet
- Sustainability and environment
- Ready to pay more under some conditions



## Japan

- The most frequently consumed fresh seafood products have been changing.
- From local to national offer
- Salmon consumption does not vary a lot from one region to another.
- No real demand for traceability for seafood products

# Part 2



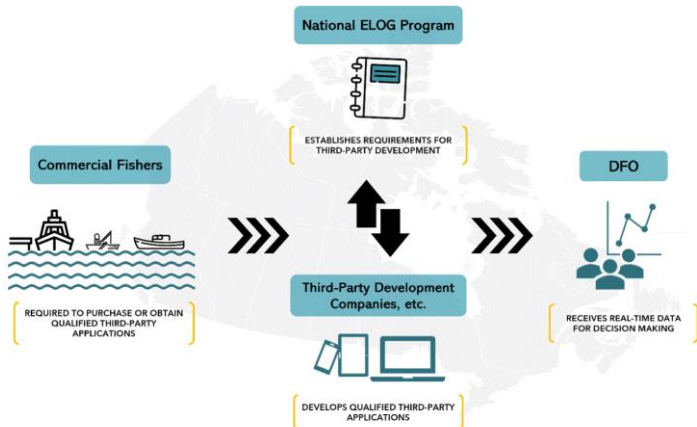
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# Latest technologies at the service of documentation , transparency, and traceability.



## Canada



## United States

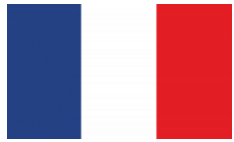
- Global Wi-Fi (i.e., **Starlink**), 5G technology will allow for more precise product tracking
- Product tagging and tracking through **RFID chips** in packaging.



## Japan

- **Smart Echo** identifies the sex of fish such as cod and salmon using ultrasonic echo diagnosis technology, image processing of echo image and AI technology.

# Latest technologies at the service of documentation , transparency, and traceability.

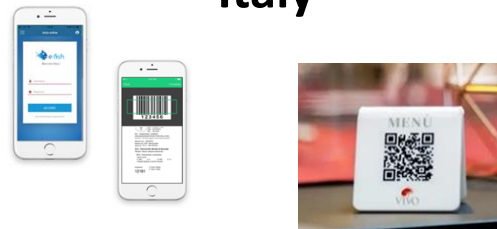


## France

- Proliferation of electronic tools (**Simrad CS90 sonar**)
- Communication tools – **The OceanBox**
- Panel friction indicator on the seabed
- A tool to count the number of fish caught
- Robotization of the **Guilvinec auction** (Brittany).



## Italy



## Spain

- **DeepFish2**: Artificial Intelligence applied to the fishing sector.
- **Pescando 4.0 project**: traceability, food security and sustainability.
- **SICAPTOR 2.0**: New vision technologies - capture monitoring systems.
- **GEOCAP**: Sustainable fisheries catch management.
- **GS1 Datamatrix** for Traceability and consumer information of seafood.
- **M3iGO**, the first satellite buoy for fishing with Artificial Intelligence.
- **Fish World Track**: digital platform to track fish from the sea to table.

# Potential for AI in the fisheries sector



## Canada

- The Canadian market would be interesting for companies developing AI technology.
- Need to present strong arguments that AI technologies lead to increased revenues generation or cost reduction for the users.



## United States

- Potential for this technology in all fishery sectors.
- High initial buy-in will likely be the most prohibitive issue with adoption of this technology.



## Japan

- Fishermen are aging and the number of fishermen is decreasing in Japan. According to a report, the average age of fishermen in 2016 was 56 years old. AI is considered one of solutions for this problem
- Smart Echo identifies the sex of fish such as cod and salmon using ultrasonic echo diagnosis technology, image processing of echo image and AI technology.

# Potential for AI in the fisheries sector



## Main **opportunities** identified for AI in the fisheries sector include:

- Increased transparency and reduced environmental impact.
- Early warning, forecasting and spatial planning systems can help in the planning activities considering trade-offs.
- Accelerated and increased data acquisition and coverage for stock assessments and sustainability indicators evaluation.
- Increased economic sustainability, by reducing operational costs.
- Modernisation of fisheries and its subsequent attractiveness to the younger population.

## Main **obstacles** include:

- Industry trust and reluctance
- Initial costs and lack of expertise
- Legal and bureaucratic uncertainty.

## Market value of transparency and access to data.

**We live in an increasingly data-driven world and organizations need to adapt to this new way of working to collaborate with stakeholders and innovate in their industry.**

**There are several key uses for leveraging the value of data:**

- **Open data** to share information of public interest with as many people as possible but also to give consumers a clear view of a company and its societal, environmental, and economic impact.
- The provision of **self-service data** internally to enable all employees to improve their daily tasks and make more informed decisions.
- The creation of **data services** to share expertise and enable stakeholders to create innovative solutions and generate value.

# Thank you!



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