



Istituto Zooprofilattico Sperimentale  
dell'Umbria e delle Marche "Togo Rosati"

# Institute report: training on prevention. Successful report of projects.

Francesco Agnetti – IZSUM  
[f.agnetti@izsum.it](mailto:f.agnetti@izsum.it)



World Organisation  
for Animal Health  
Founded as OIE

Regional Workshop for WOAH National Focal  
Points for Aquatic Animals V Cycle  
Alesund (Norway)  
September 3-5, 2025

[www.izsum.it](http://www.izsum.it)

# TRAINING



# PROJECTS



# PREVENTION



# The Italian II.ZZ.SS. network



IZS PIEMONTE-LIGURIA-VALLE D'AOSTA

IZS VENEZIE

IZS LOMBARDIA-EMILIA ROMAGNA

IZS UMBRIA-MARCHE

IZS ABRUZZO-MOLISE

IZS PUGLIA-BASILICATA

IZS LAZIO-TOSCANA

IZS SARDEGNA

IZS MEZZOGIORNO

IZS SICILIA

IZS Brescia

IZS Torino

IZS Pisa

IZS Venezia  
NRL

IZS Terni

IZS Teramo

IZS Roma

IZS Napoli -  
Salerno

IZS Taranto

IZS Sardegna

IZS Palermo-Catania



ISTITUTO ZOOPROFILATTICO SPERIMENTALE  
DELL'UMBRIA E DELLE MARCHE "TOGO ROSATI"

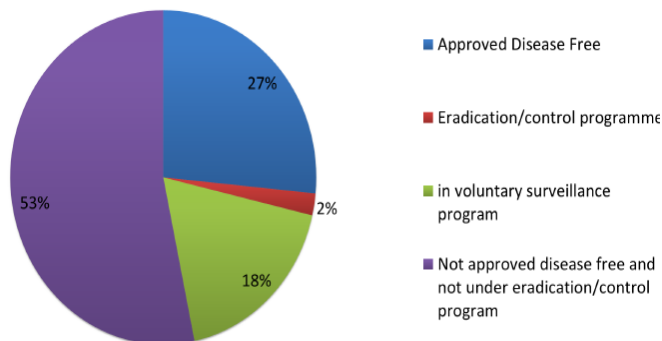
Regional Workshop for WOA National Focal Points for Aquatic Animals V Cycle  
Alesund (Norway) - September 3-5, 2025

[www.izsum.it](http://www.izsum.it)

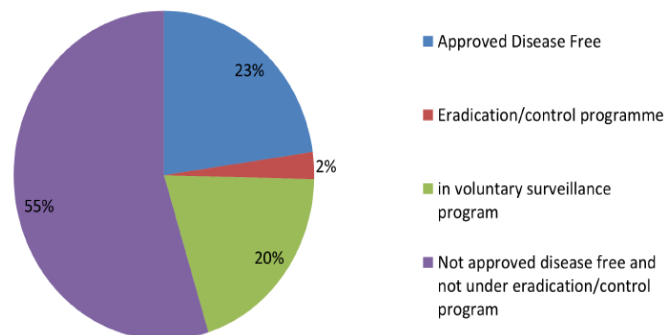
# • Health situation of aquaculture establishments in Europe

From A. Marsella – IZS Ve, 2025

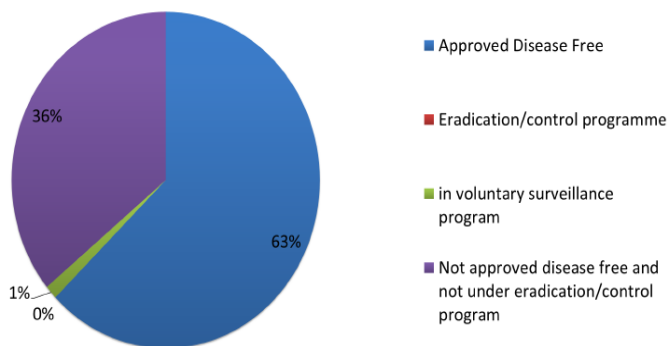
VHS



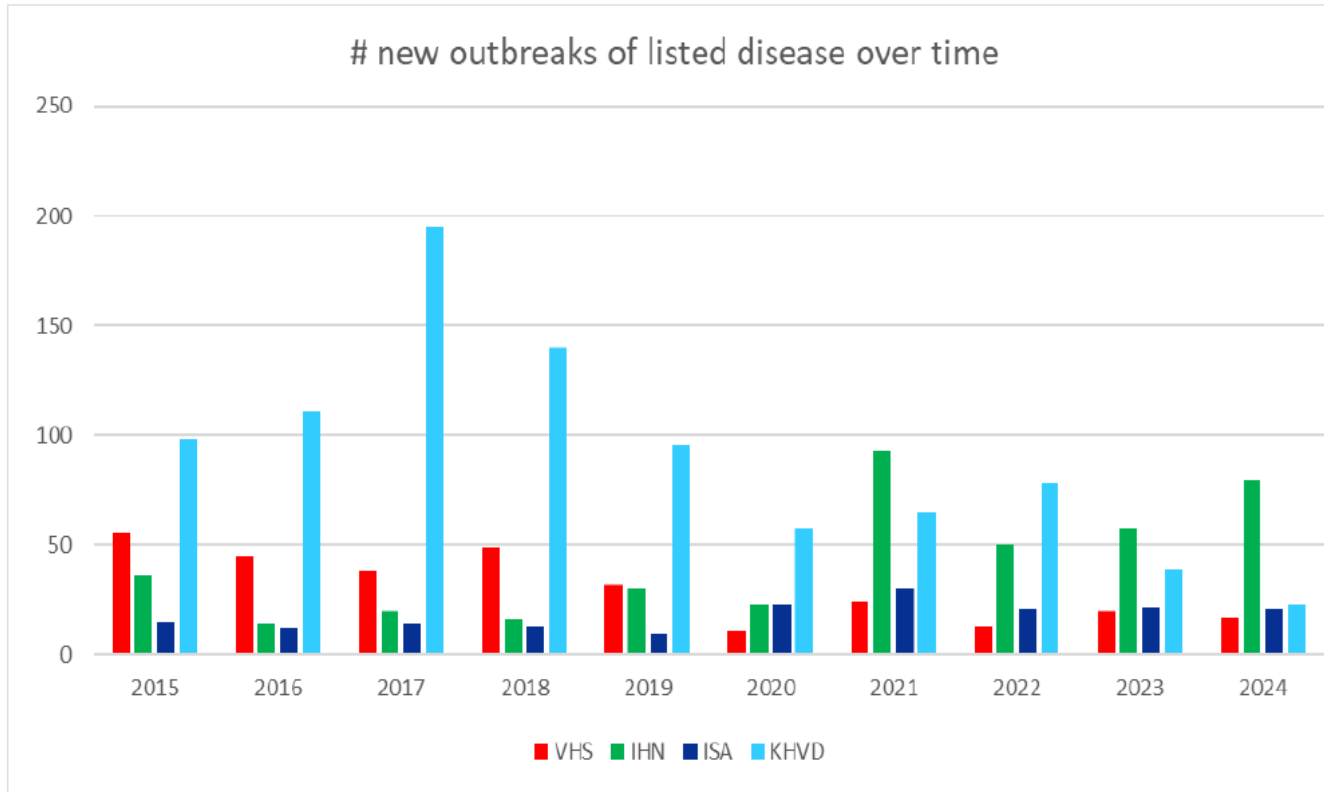
IHN



ISA



# Disease outbreaks in Europe in 2024



## KHV

- 9 countries with eradication programs
- 1 Member State officially free
- Free zones and compartments in Italy and Germany
- National surveillance programs in Bulgaria, Lithuania, and North Macedonia



# Other sanitary problems in European farmed fish



BKD  
RTFS  
Lactococcosis



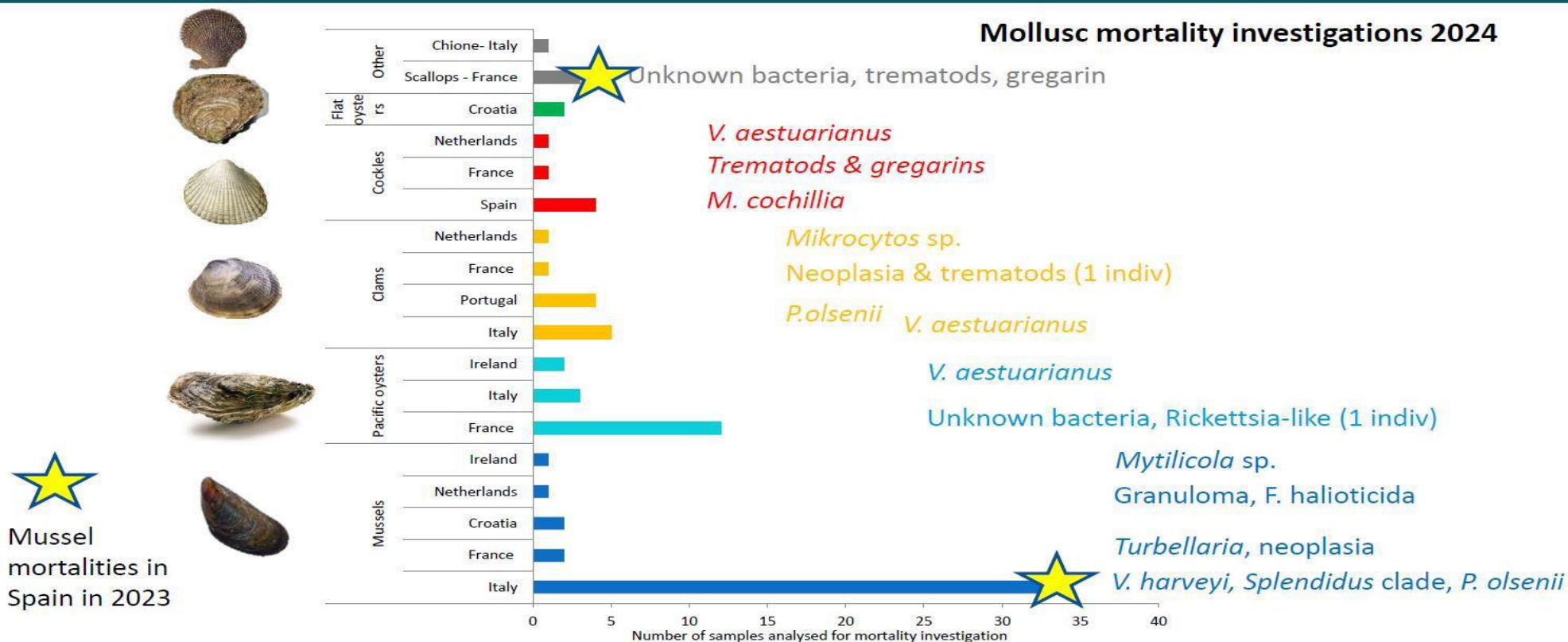
Infection by:

- *A. veronii*
- *V. harveyi*
- *Sparicotyle* spp.
- *L. garvieae*



# Mollusc - Synthesis of main epidemiological facts in 2024

## Monitoring of mollusc mortality



From A. Vetri – IZS Ve, 2025

# Crustaceans - Synthesis of main epidemiological facts in 2024

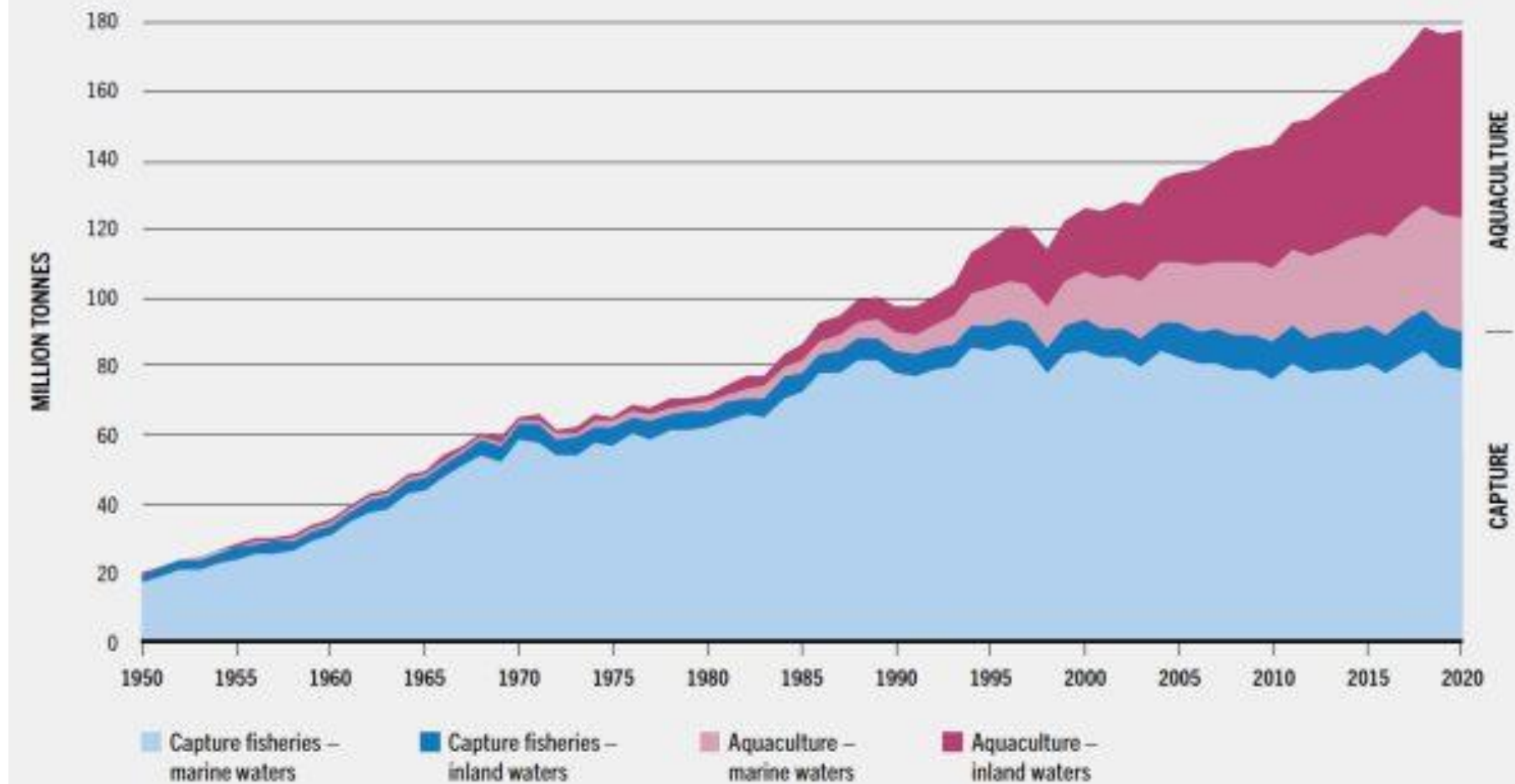
Country	Diagnostics	Diagnostic samples	Positive tests
Croatia	Aphanomyces	12	0
Finland	WSSV	5	0
	Aphanomyces	12	8
Germany	WSSV	19	0
	Aphanomyces	201	29
Ireland	WSSV	9	0
	Aphanomyces	9	2
Italy	WSSV	26	0
	Aphanomyces	27	9
	Thelohania contejeani	19	15
	Hematodinium	117	16
Norway	WSSV	1	0
	Aphanomyces	12	3
Netherlands	Aphanomyces	10	0
Serbia	Aphanomyces	2	0
Slovakia	Aphanomyces	1	0
Switzerland	Aphanomyces	46	19
Sweden	WSSV	113	0
	TSV	1	0
	YHV	1	0
	Aphanomyces	147	10

From T. Pretto – IZSVe, 2025 - modified





**FIGURE 1** WORLD CAPTURE FISHERIES AND AQUACULTURE PRODUCTION

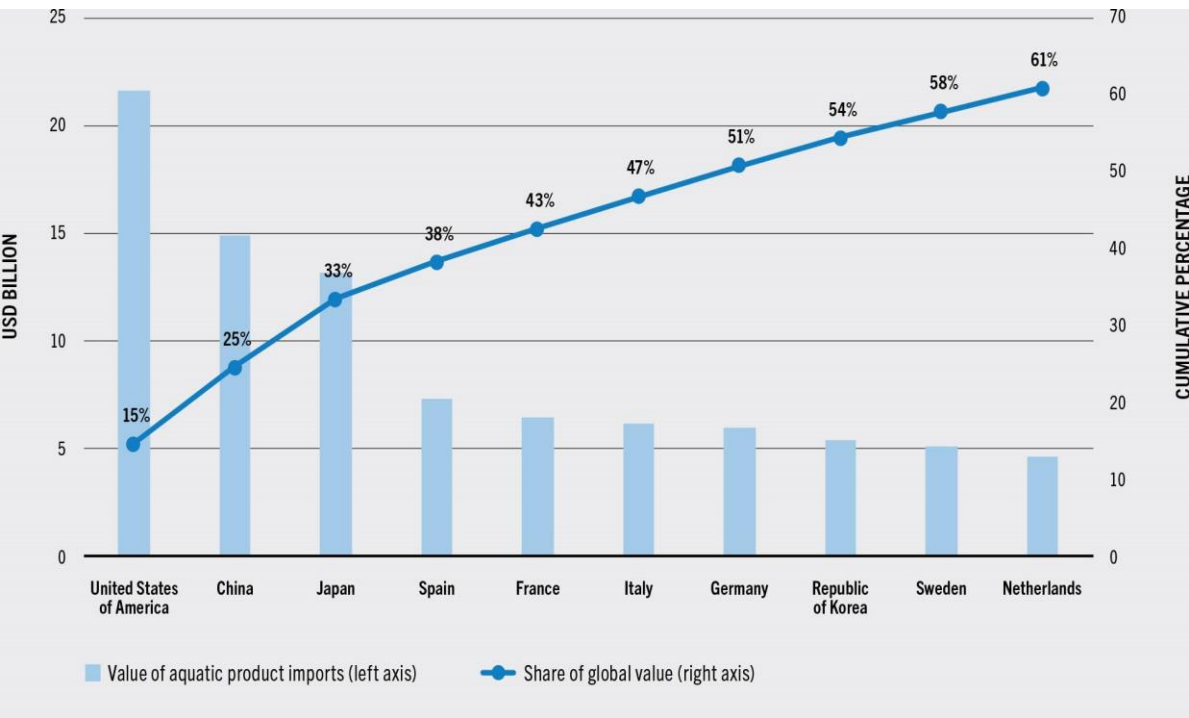


NOTES: Excluding aquatic mammals, crocodiles, alligators, caimans and algae. Data expressed in live weight equivalent.  
SOURCE: FAO.

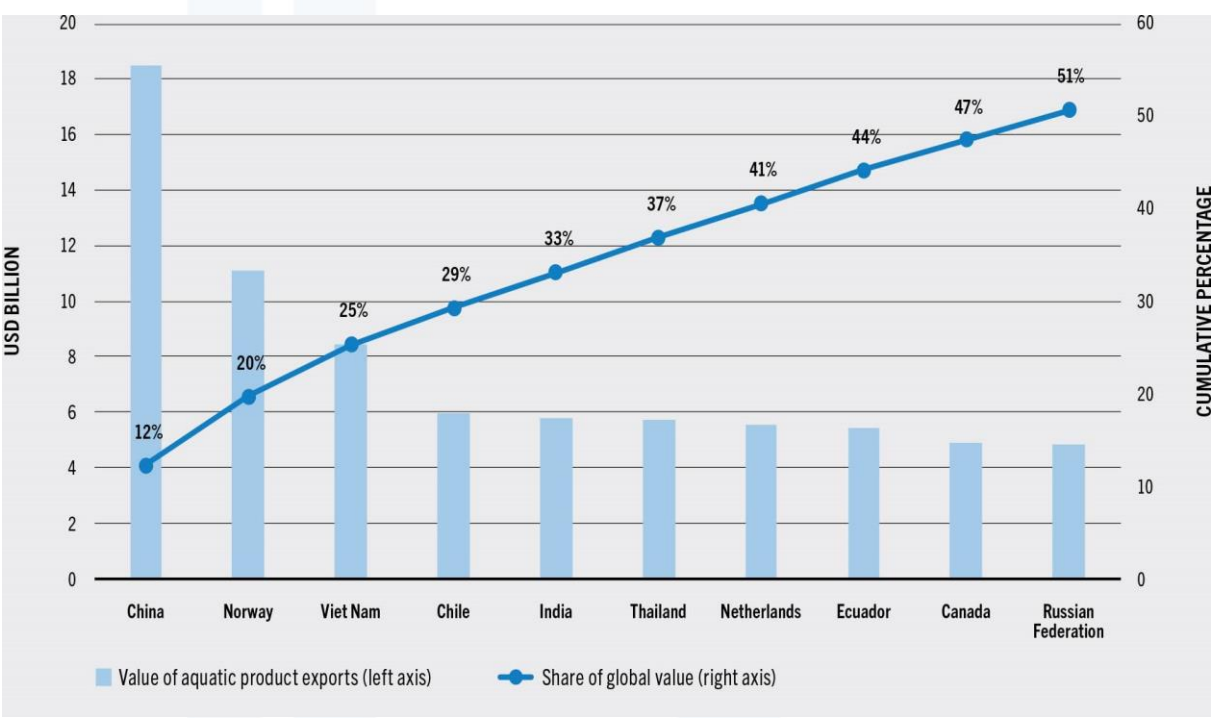
**From: The State of World Fisheries and Aquaculture 2022 – FAO Report**



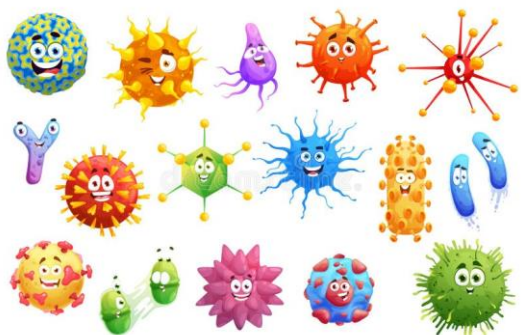
# TOP TEN IMPORTING COUNTRIES OF AQUATIC PRODUCTS BY VALUE, 2020



# TOP TEN EXPORTING COUNTRIES OF AQUATIC PRODUCTS BY VALUE, 2020

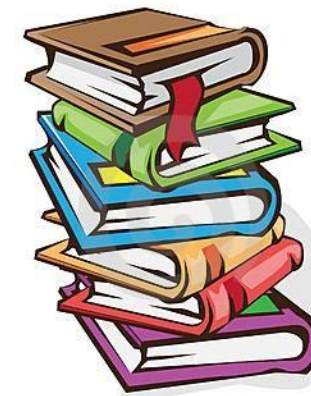


From: The State of World Fisheries and Aquaculture 2022 – FAO Report



New o re-emerging pathogens

Different health  
legislation systems

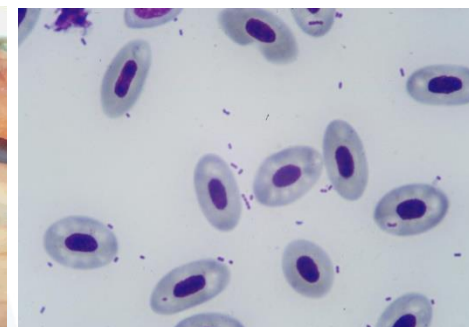
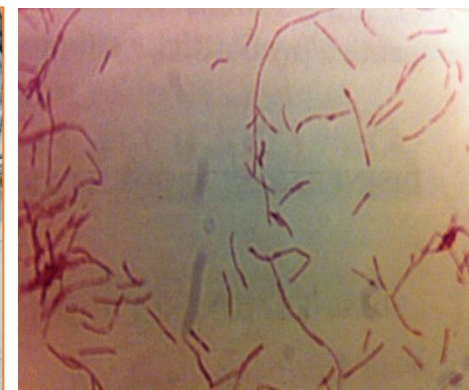
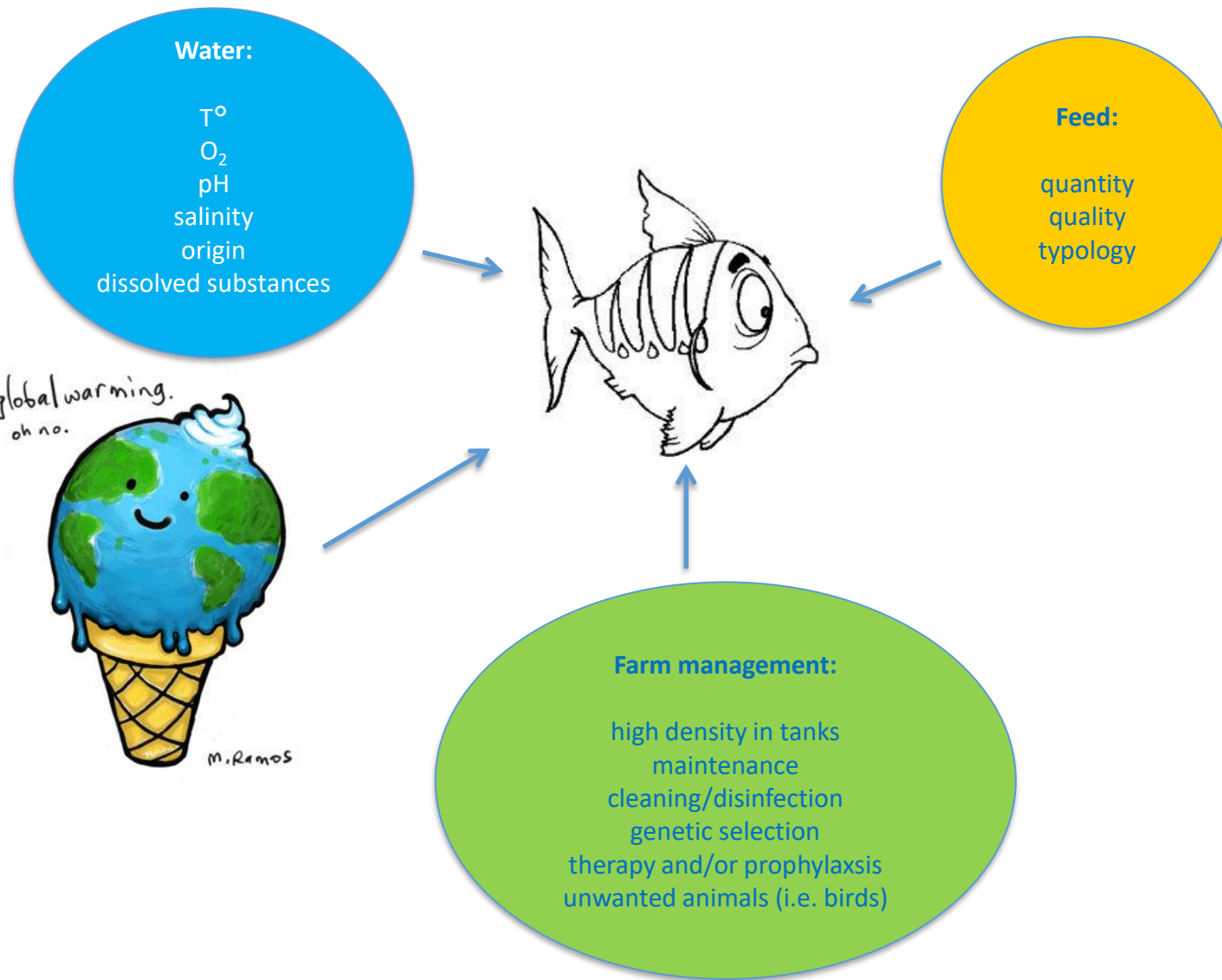


Different diagnostic protocols



IT IS NECESSARY TO STANDARDIZE AS MUCH AS POSSIBLE!







# Prevention – Training – Projects - Standardization



Field training for farmers and local veterinary services

Knowledge of different realities

Sharing common problems

Birth of project ideas





Ministero degli Affari Esteri  
e della Cooperazione Internazionale

Italian Ministry of Foreign Affairs  
and International Cooperation

## CALL FOR JOINT ACTIONS AND PROGRAMMES IN THE FRAMEWORK OF THE MEMORANDUM OF UNDERSTANDING ON COOPERATION IN FIELDS OF SCIENCE, TECHNOLOGY AND INNOVATION 2025-2027

BETWEEN  
ITALY – UZBEKISTAN



Project: Strengthening in the Management and Diagnosis of Diseases Affecting  
Aquaculture Fish Species in Uzbekistan



Objective: Reinforce the system for managing and diagnosing diseases affecting fish species in Uzbekistan by developing specialized diagnostic protocols, manufacturing autogenous vaccines, and training local personnel in contemporary diagnostic and preventive methods.



ISTITUTO ZOOPROFILATTICO SPERIMENTALE  
DELL'UMBRIA E DELLE MARCHE "TOGO ROSATI"

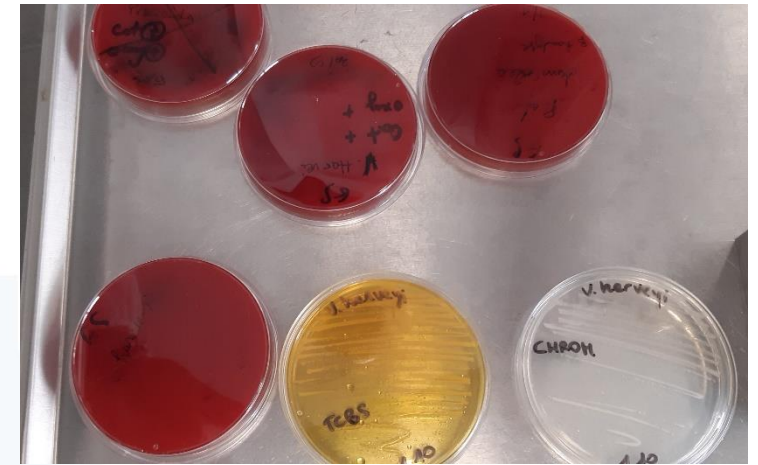
Regional Workshop for WOA National Focal Points for Aquatic Animals V Cycle  
Alesund (Norway) - September 3-5, 2025

[www.izsum.it](http://www.izsum.it)



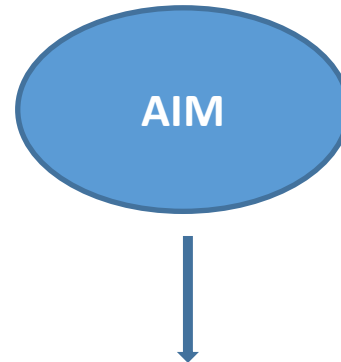








Project: *“Integrated strategies for reduction of the use of the drug in aquaculture”*  
financed by Italian Ministry of Agricultural, Food and Forestry Policies (PO FEAMP  
2014-2020 MIPAAF)



Enhance the possibilities of using autogenous vaccines, which in many cases represent the only real alternative to the use of antimicrobials

# Project: “Dietary supplementation with olive mill waste in farmed fish” - RC2021

financed by Italian Ministry of Health



- 1) evaluate the possibility of integrating the diet with polyphenolic extracts from vegetation waters and the effects on production performance, of fish (sea bream, *Sparus aurata*);
- 2) evaluate the effects on animal welfare and **immune response**;
- 3) estimate the presence of polyphenols in feed and in the meat of fish subjected to a controlled diet and their effects on the oxidative status.



**possibility of reducing drugs in aquaculture**



Let's not forget the final consumer...

Project: “**New water-born zoonoses: molecular diagnostic screening of fish products, potential carriers and bioindicators of re-emerging zoonotic pathogens**” - RC2024  
financed by Italian Ministry of Health



Trasimeno Lake – Perugia (Central Italy)



*Carassius carassius*



*Anodonta* spp.



*Dreissena polymorpha*



*Tinca tinca*

Aims: perform an epidemiological-diagnostic screening with highly sensitive molecular approaches aimed at the detection/quantification, even in traces, of re-emerging pathogens as *Toxoplasma* spp. and *Leptospira* spp. in lake fish and molluscs.



An effective health prevention program can be developed through a combination of innovative research projects aimed at understanding the causes of health problems and training activities aimed at providing professionals in the sector with the skills necessary to implement evidence-based prevention strategies and promote behaviors in the final consumer.







**Thanks for your attention!**

