



## **Report timeline**

**Developing a guidance document on Fish Health Management to the attention of fish farmers in the light of climate change**

Prepared by: Dr Alain Le Breton, DVM – Vet'Eau  
Presented by: Sara Picon Camacho, PhD, MSc-Vet'Eau

### **GT1- Poisson meeting**

31 January 2023, Zoom online meeting





- ✓ **Created in 2001 by Dr Alain Le Breton**
- ✓ **Located in the Grenade sur Garonne (south of France)**
- ✓ **Vet'eau is currently one of the few independent veterinary practices specialized on aquatic animal health with clients and research projects worldwide**

#### QUI SOMMES NOUS ?

Vet'eau est un cabinet vétérinaire de service dédié au support des productions aquacoles en France et à l'étranger

# Vet'eau team – Funder and CEO of Vet'eau



## Dr Alain Le Breton – DVM

Alain has over 35 years of experience in the Aquaculture sector and is an internationally well-recognized fish health expert. He has worked and continue working with the main aquaculture producers worldwide of marine (sea bass, sea bream, meagre, dentex) and freshwater (rainbow trout, sturgeon) fish species as well as crustaceans (shrimp) and bivalves (clams, oysters, mussels and oysters providing veterinary support. He has advised the public administration of several governments (such as the Ministry for Aquaculture in Malta and Kuwaiti Government) on establishing new policies towards the development of new species and new activities in the Aquaculture sector. He has also collaborated with the FAO, CIHAM over the years giving training on risk analysis in fish aquaculture and actively participated in European funded projects such as Leonardo, FAIR and MedAid. He has over 30 scientific publications in international journals.

**Alain funded on its own veterinary practice- Vet'eau in 2000 which has now 9 employees.**

## Sara Picon Camacho- MSc & PhD in Aquatic Veterinary Science



Sara has an MSc and PhD in Aquatic Veterinary Sciences from the Institute of Aquaculture (University of Stirling, Scotland). After her PhD, she did a post-doc at the University of Southern Mississippi (USA) where she set up a new molecular biology lab and successfully developed a new molecular diagnostic test for the early detection of a dinoflagellate in RAS. In 2013, she went back to Scotland and work for four years in Novartis Animal Health (from 2014 Elanco Animal Health) as the Aqua technical services manager for the United Kingdom providing technical support to the main UK salmon and trout producers (MOWI, formerly Marine Harvest Group), Cooke Aquaculture Scotland, Scottish Salmon Company, Scottish Sea Farms, Dawnfresh Seafoods Ltd) on existing and new Aqua products and best practice application (pharmaceuticals and vaccines). During her career she has focused mainly on the coordination, implementation and management of laboratory, research and industry projects and trials (internal and in coordination with industry and university partners) for product development She joined Vet'eau in January 2020.

She has more than 15 years of experience in the aquaculture sector focusing on research mainly on the development and application of practical new solutions for optimising health, performance and quality.

**Main tasks at Vet'eau: Management of R&D projects (French and European level), Laboratory and field trials set up, management experimental facilities at Vet'eau**



# What do we do – brief overview



 Aquatic health consultancy services

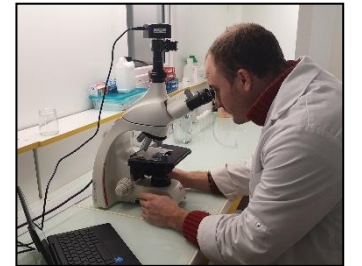
 Diagnostics & Analysis

 Research & Development

 Biosecurity, Cleaning & Desinfection

 Training

 Technical Resources - Experimental facilities



# Project: Developing a guidance document on Fish Health Management to the attention of fish farmers in the light of climate change

## Objectives

- ↻ Focus on the
  - ↻ challenges posed to the professionals by climate change
  - ↻ evolution EU policy framework in the context of aquaculture and climate change in recent years

## Expected outputs

- ↻ Development of code of good practice on the management of aquatic diseases

## Chapter 1 - Revision of the legislation

- ↻ EU legislation - baseline, non species specific
  - ↻ EU Strategy on Adaptation to Climate Change- European Climate Law (2021)
  - ↻ European Green Deal (2019) : Farm to fork strategy (F2F) (2020) / Organic Action plan (2021)
  - ↻ Other key EU policies : Organic Action Plan (2021) / EU Biodiversity Strategy for 2030 (2020) /EU's Blue economy (2021)
- ↻ Legislation's implementation in some key member states
  - ↻ EU-28 main aquaculture finfish species:
    - ↻ Salmonids: salmon and trout
    - ↻ Other marine fish: Gilthead seabream and European seabass, Meagre
    - ↻ FW species: carps

Key EU member states legislation that will be considered on the report

- ↻ France - FW Rainbow trout / SW: sea bass & seabream (Justification: PNES under process to be granted freedom of VHS & IHN)
- ↻ Poland - FW Rainbow trout, carps (Justification: one of the main EU producers)

## Chapter 1 timeline - 2 weeks ½ (1-17<sup>th</sup> February)



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## Chapter 2 - Current prevention measures in place & Potential new ones

- ↻ Proposed work
  - ↻ Revision of current prevention measures
    - ↻ Biosecurity -restricted currently at farm
    - ↻ Vaccination
    - ↻ Immunostimulants
    - ↻ Broodstock selective breeding
  - ↻ Potential new measures
    - ↻ Changes on production systems
      - ↻ open coastal cages
      - ↻ Increase the length of the duration of production cycle in RAS systems : controlled environment parameters / reduction of the production at open environment
    - ↻ Diversification into less currently produced finfish species (e.g. meagre)
    - ↻ Integrate Multi-trophic Aquaculture (IMTA):
      - ↻ Hydroponic aquaculture / COMPOST
      - ↻ Polyculture: Carp aquaculture
    - ↻ Development of local extensive aquaculture
    - ↻ Broodstock selective breeding: Nodavirus seabass (future perspectives)
    - ↻ Improvement on biosecurity measures at farm, regional and transboundary level (national level)



## **Chapter 2 timeline - 4 weeks (20<sup>th</sup> February - 17<sup>th</sup> March)**



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## Chapter 3 - Cases studies

- ☞ Case study 1: Climate change adaptation: development of biosecurity guidelines to help farmers reduce the risk of introduction of new diseases and respond better to emerging diseases: hazards identification and risks evaluation - Prophylactic methods adaptation
- ☞ Case study 2: Climate change adaptation: new biosecurity measures associated to changes on the production system (e.g. increase of land based rearing phase and correlative production scheme adaptation: grading - vaccination - use of well boats)
- ☞ Case study 3: Contingency plan in case of an emerging fish disease occurring in a European country

## Chapter 3 timeline - 3 weeks (20 march - 7 April)

## Chapter 4 - Guidelines responses to new challenges and commission policies, including public expectations, public health issues and zootechnical challenges i.e. PMP-AB / FAO initiative, AMR & One Health approach

### Timeline chapter 4 - 2 weeks (11 April- 21 April)

## Chapter 5 - Develop a FAQ with the producer's questions

### Timeline chapter 5: 1 week (24 April - 2 may)



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## Timeline summary

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
<b>February</b>	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu			
	Chapter 1 : Revision of the legislation																	Chapter 2													
<b>March</b>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr
Chapter 2: Current prevention measures & potential new ones																	Chapter 3: Case studies														
<b>April</b>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	
Chapter 3							Chapter 4														Chapter 5: Develop FAQ										
<b>May</b>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We







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**Thank you for your attention!**

