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## WORK PACKAGE 7 – KEY PERFORMANCE INDICATORS (KPIs) IMPACT ASSESSMENT AND CODE OF CONDUCT

### The Challenge

While aquaculture is recognised as an important sector for the local economy in the Mediterranean, there is a need for a reliable system to measure its environmental and technical performance at a local and regional scale. Existing performance indicator systems depend on information that can be difficult to collect, or that producers are reluctant to share publicly. Several initiatives are currently being developed, such as the Global Aquaculture Performance Index (GAPI) and the World Aquaculture Performance Indicators (WAPI) – though none specifically addressing Mediterranean sea bass and sea bream. Hence the need to develop a system to cover these species in collaboration with the producers, ensuring reliability of data and uptake by the industry.

### Proposed Solution

**PerformFISH** has developed a KPI-based benchmarking system specifically designed for European sea bass and gilthead sea bream production. This system has been validated by industry and is based on 55 KPIs that can be easily measured by producers.

Based on the benchmarking system results, **PerformFISH** will also develop a Code of Conduct to increase the transparency of objectives and practices of the Marine Mediterranean Fish Farming (MMFF) sector. The MMFF Code of Conduct will provide guidelines to formulate industry Best Management Practices (BMPs) to ensure responsible performance, set harmonised standards and improve consumer perception.

### Industry Consultation

To agree on the most informative KPIs and to identify the type and quality of production data that MMFF companies could provide for benchmarking.

- Asociacion Empresarial de Acuicultura de España (APROMAR, Spain)
- Syndicat Français de l’Aquaculture Marine et Nouvelle (SFAMN, France)
- Associazione Piscicoltori Italiani (API, Italy)
- Croatian Chamber of Economy-Croatian Aquaculture Association (CCE-CAA, Croatia)
- Federation of Greek Mariculture (FGM, Greece)

**5** Producers’ Associations



Spain



France



Italy



Croatia



Greece

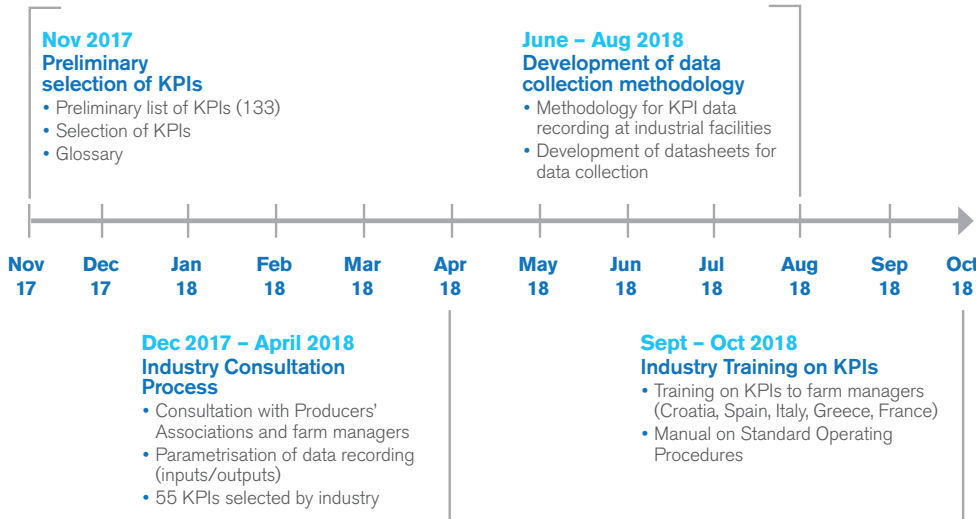
Represents

**93%**

of all sea bream and sea bass production in the EU



# KPI Validation Process



PerformFISH Virtual Research Environment (VRE)



- **Single access point** for Producer's Associations and Companies
- **Security and privacy** ensured by implementing the most advanced IT technologies
- **High-scalable environment** ensuring long-term sustainability
- **Fine-grained user access-control** at farm level
- **Automatic data validation** **anonymisation and encryption**
- **Statistical tools** for KPI analysis

## PerformFISH KPI System

**55**

Key Performance Indicators

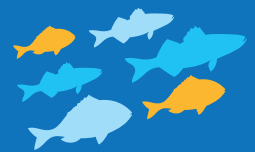
**15** for hatchery



**5** for pre-grow



**35** for grow-out



### Four overarching KPI categories



**35 Technical Performance Indicators (T-KPI)** for ranking

biological performances of batches and technical efficiency.



**14 Environmental Performance Indicators (ENV-KPI)** to assess the impact of farming

practices on the preservation of biodiversity and habitats, the use of natural resources, water, space and energy use, and its ecological footprint.



**9 Welfare Performance Indicators (W-KPI)** to

assess welfare at different life stages and in relation to different culture systems and husbandry practices.



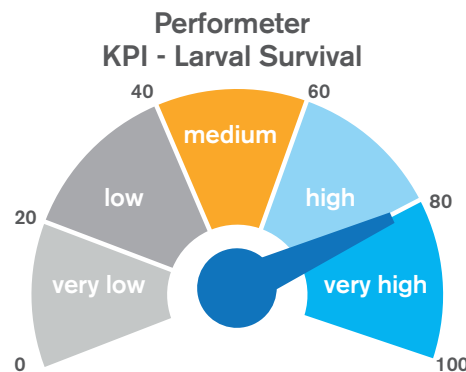
**2 Economic Performance Indicators (E-KPI)** for

estimating productivity and efficiency of aquafarms.

### Going Forward (2019-2022)

The benchmarking system is currently being tested by 20 MMFF companies across 40 farm sites. The resulting real-time data provided by the companies will represent current operational values across the industry. This baseline information will be used, not only to establish realistic quantitative production targets, but also to evaluate the success of the PerformFISH solutions on operational performances. Based on the results of the testing, the KPIs will be adapted to provide a fully validated system that can be used by the industry after the end of the project.

### Carrying out testing of Key Performance Indicators over 3 years



**15** hatchery farms

**25** sites for pre-grow and grow-out

#### Find out more:

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