NOTE – input at the EOOS conference organized by EMODnet

In the earlier presentations we heard some perspectives on the role and value of ocean observations in supporting the ocean economy. How do you see the requirements for ocean information changing as the ocean economy develops?

- Aquaculture is rapidly changing: it is industrialising, scaling up, becoming more specialised.
- Food system approach encourages thinking differently on how we produce food: resource efficiency in all parts of the value chain, linking production to environment, climate and society, linking sea and land, having a global perspective.
- Ocean information needs to fulfil the requirements for this holistic approach: interoperability of data systems and services, cross-sectoral knowledge exchange, and the establishment of evidence based decision support systems – crucial for raising public awareness and social acceptance of blue growth.

How can (better) marine observations better help save costs, generate added value, and improve quality of products/services?

- Digital transformation can unlock the potential of marine aquaculture.
- Aquaculture licensing is based on precautionary principle. Better marine observations, combined with availability of production data, will allow the development of more accurate models predicting the environmental impact of aquaculture sites, and the carrying capacity of its surrounding ecosystem. This enables a location-tailored production type and size.
- Data improve accuracy of complex models (today often simplified due to the lack of data), which contribute to a higher predictability of the production (anticipating hazardous situations like storms, algal blooms, high temperatures, disease outbreaks). This permits the transition from reactive to preventive measures – having a positive impact on the environment, animal welfare and the quality of the product.
- Data is building knowledge about impact of and resilience towards climate change.

How can we facilitate better sharing of data between science, public services and business?

- Sharing of data between stakeholder groups is critical for transparency reasons and for the creation of trust among the society
- Bring into place good systems, guaranteeing confidentiality to the data providers, and delivering services that are applicable on site (short-term decisions) and at head office / authority level (strategic long-term decisions)
- Many companies try to make data sharing their business model by developing their own services. It is important to keep the data cloud open and accessible to all – allowing also SME's to have access

Are there examples of public-private collaborations in data collection and sharing?

- Regular gathering of company data on in-situ sea bottom monitoring data, O2, temp, parasite numbers, feed input, production size is shared with public authorities for the development of better, evidence-based decision making
- Upon the initiative of the sector, company data on fish disease outbreaks are being shared – in order to build knowledge and to allow the authorities to develop better routines and regulations for disease prevention and control
- CADEAU – ISPRA: aquaculture collaborates with the Copernicus MEMS to assess the quality of the coastal waters in the Adriatic sea, and the impact of potential bacterial pollution to fish and shellfish farms in the area

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