

Theme Session K

The application of science for ecosystem-based management of aquaculture

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The Aquaculture industry is the fastest growing food production sector in the world today, with the FAO estimating annual growth in fish, shellfish and aquatic plant production increasing globally at a rate of 8.4%. Aquaculture is therefore a significant component of world food security in the 21st Century. The global rate of growth has not been observed in EU-27 though, and the European commission is addressing the reasons why this may be the case within the reform of the Common Fisheries Policy. CFP Reform will likely drive strategic growth of the sector at Member State level, and there is a continuing need for a strong science and knowledge base informing management practices and guiding the development of Aquaculture in an efficient and sustainable way. This will facilitate increased food production both for direct human consumption and as feed and raw materials for the human food chain. This theme session is designed to act as a platform for interaction between the main groups involved within the aquaculture sector, namely; Scientists who develop the evidence and knowledge base, Regulators and policy-makers who set the management and regulatory frameworks and Those in the aquaculture industry who work within the regulatory framework and depend on the development of an appropriate knowledge base to enhance and improve production of aquaculture products. The session will open with key note papers on relevant case studies demonstrating the needs and solutions from both a governance and development perspective. Papers are welcome on the following topics: Environmental impact and the development of more accurate management thresholds for aquaculture Baseline determination; by whom, on what scale, representative temporal coverage, accounting for natural variations/variability. Decision support tools (validation and measurement of uncertainty) Zonation as it applies to application of Marine spatial planning for aquaculture management Marine protected areas/Natura 2000 and implications for aquaculture management. (DGMARE key note and Invite FEAP to provide current status) Regulatory framework which reacts to /addresses WFD, MSFD, Habitats & Birds Directives in a coherent way... DG ENV/DGMARE Case studies: use and application of science for risk assessment – (could invite keynote speaker from within EFSA) Knowledge transfer to improve production and governance strategies in line with principles of sustainability. Transfer of knowledge from Researchers to Managers/regulators (e.g. SMILE ; DEPOMOD; Epidemiological models sea lice, ISA. Integrated ecosystem approach, how to address externalities socio-economics. Evaluation of the significance and impacts of emissions towards a risk management approach.

Suitable manuscripts will be accepted for publication in a special issue of a peer reviewed journal.