AQUASMART’s objective is to strengthen the competitiveness and the growth potential of the aquaculture production companies, providing tools to access and analyze global open data, extracting knowledge out of the up to day experience of the sector in order to identify best management practices and rapid solutions of issues/problems revealed.

Indeed, the Objectives of AQUASMART, as outlined to us in the meeting are ambitious, challenging and interesting not only for fish farmers and their supply chain, but also for the technology developers and the aquaculture researchers.

Aquaculture operates and produces by using resources, in a continuous interaction with a constantly changing environment, with limited long term predictability for at least small scale changes at parameters significantly affecting production efficiency Organisms and biological system performance is depended on an enormous number of parameters and in-between interactions (some still unknown) limiting our capability for secure predictions.

Given this complexity, (even for factors with well-studied effects and sufficient background knowledge), the uncertainty remains on predicting the overall performance. The effects of most factors, have been studied in a specific range of conditions and it is possible that are not valid in a continuously changing environment.

An open database accumulating historically the performance of a large number of rearing cycles in variable conditions, together with a multifactorial analysis tool, may allow predictions with reduced uncertainty for specific cases.

Extracting Knowledge from the accumulated experience (with proper analytical tools) will allow fast evaluation of alternative management strategies, of production planning for specific cases, and also predictions on the effect of using different technologies, sources and materials.

As aquaculture evolves old and new problems affect production efficiency and profitability. An additional, important, service that the database can support, is the study of the conditions that these problems are created and also of the potential solutions (from malformation to pathologies and metabolic dysfunctions). For such analysis, it is of great importance, the integration in the database of all available parameters, even those that currently do not seem to be directly or strongly correlated with the overall performance. A relevant structural flexibility is needed for the database in order to be able to host such additional data.

Concerning the environmental issue that was also discussed, AQUASMART may lead the sector to a better practice by increasing the efficiency of the resources used. Due to this increased efficiency, the demanded resources per production cycle will be reduced affecting thus the overall environmental efficiency. This, at long term can also affect the environmental legislation, allowing an increase of the, per area, carrying capacity.

Concerning contradiction between global open data and privacy. The database will provide to the public, anonymous, certified, reliable, row data sets. .Provision of analysis, application tools, and analysis results of any specific case (services) involves, by default, property rights. Therefore, legal agreement between involved parties will be required before any results publication.

The consortium has to decide policies for use of database services from public sector institutions where results may have to be open to public.

Concerning penetration of AQUASMART services to markets. For the discussion about problems that may arise from clients-companies, due the ability of AQUASMART services to increase their production competitiveness, such as the demand for exclusivity of service for a certain region, a few arguments could be:

AQUASMART can service with customized analysis, and can provide suggestions for specific cases, where results will not necessarily coincident with those of a neighbour, since parameters will different, even for same questions concerning their production efficiency. On contrary, for common horizontal production problems, the involvement in common efforts, and the sharing of solutions, are for mutual benefit.