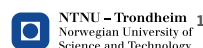




DEVELOPMENT OF AN E-INFRASTRUCTURE FOR REMOTE ACCESS TO RESEARCH FACILITIES IN AQUACULTURE

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BACKGROUND

AQUAEXCEL is a European FP7-funded project with the overall objective of integrating and improving the usage of research infrastructures for aquaculture within Europe. Facilitating remote access to specialised research infrastructures could potentially be a tool for improving the utilisation of these infrastructures and their respective installations. In a dedicated part of AQUAEXCEL, the development of an electronic-infrastructure for this purpose is being studied. In this paper we report on the methodology and first results of this research.

OBJECTIVES

- Develop, implement and evaluate technical solutions for providing remote access to aquaculture research infrastructures.
- Assess the functional requirements for an e-Infrastructure in aquaculture research.
- Develop a prototype for remotely accessing aquaculture research infrastructures.

RESULTS

FUNCTIONAL REQUIREMENTS

AQUAEXCEL partners were surveyed to determine the requirements for an e-Infrastructure within the project. Two main groups of functional requirements can be identified (figure 1):

- Document sharing and version control
- On-line access to measurement data, control systems and data analysis applications

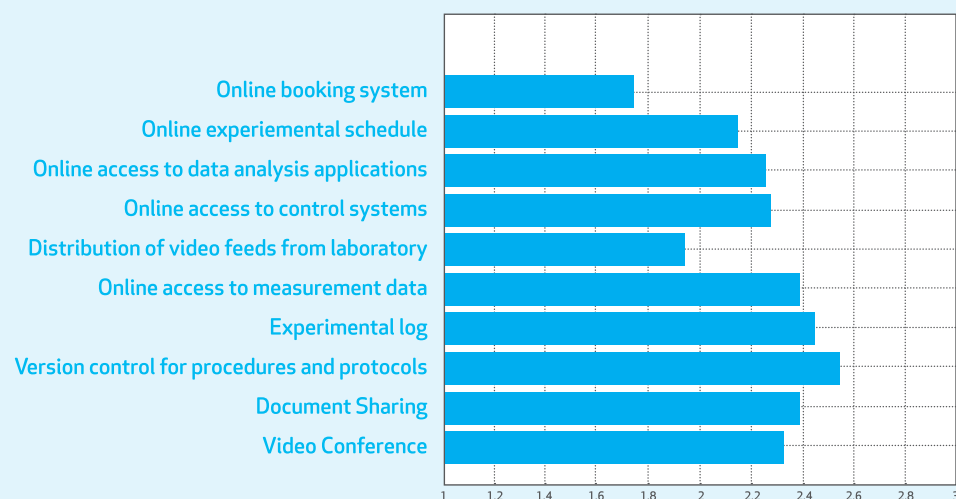


Figure 1. Percentage of the research installations facilities (n=22) for which each use case could be useful or is very useful.

ACCESS TO FACILITIES

An example of the usage of an e-Infrastructure at an aquaculture research installation is shown in figure 2. A central portal for entrance to the different e-Infrastructures was created through a Wikidot site (www.wikidot.com). This provides a user interface which contains the necessary information regarding pre-conditions and login information for each installation (figure 3).

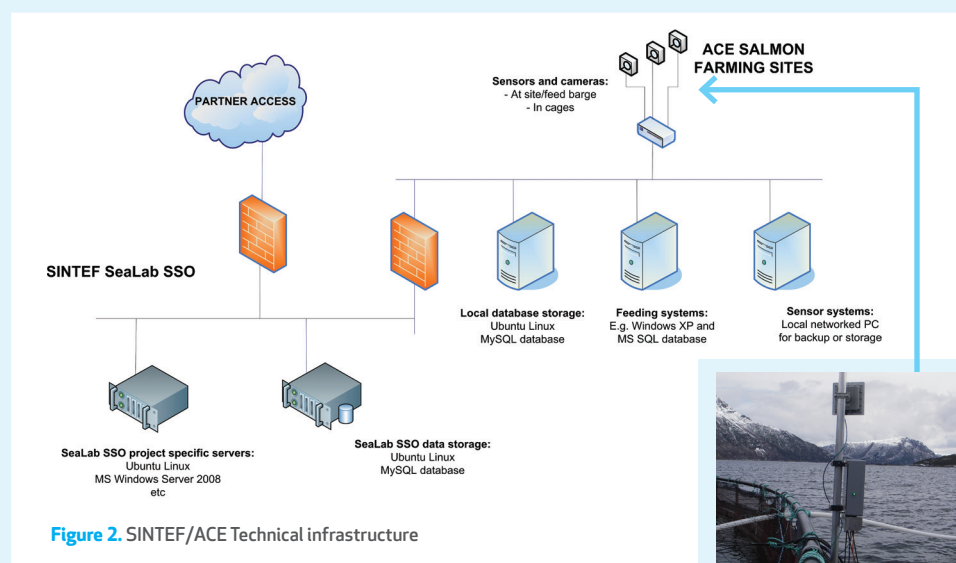


Figure 2. SINTEF/ACE Technical infrastructure

Access to the e-Infrastructures of the various partners is controlled locally in a way that suits the existing technical infrastructure and the required security levels.

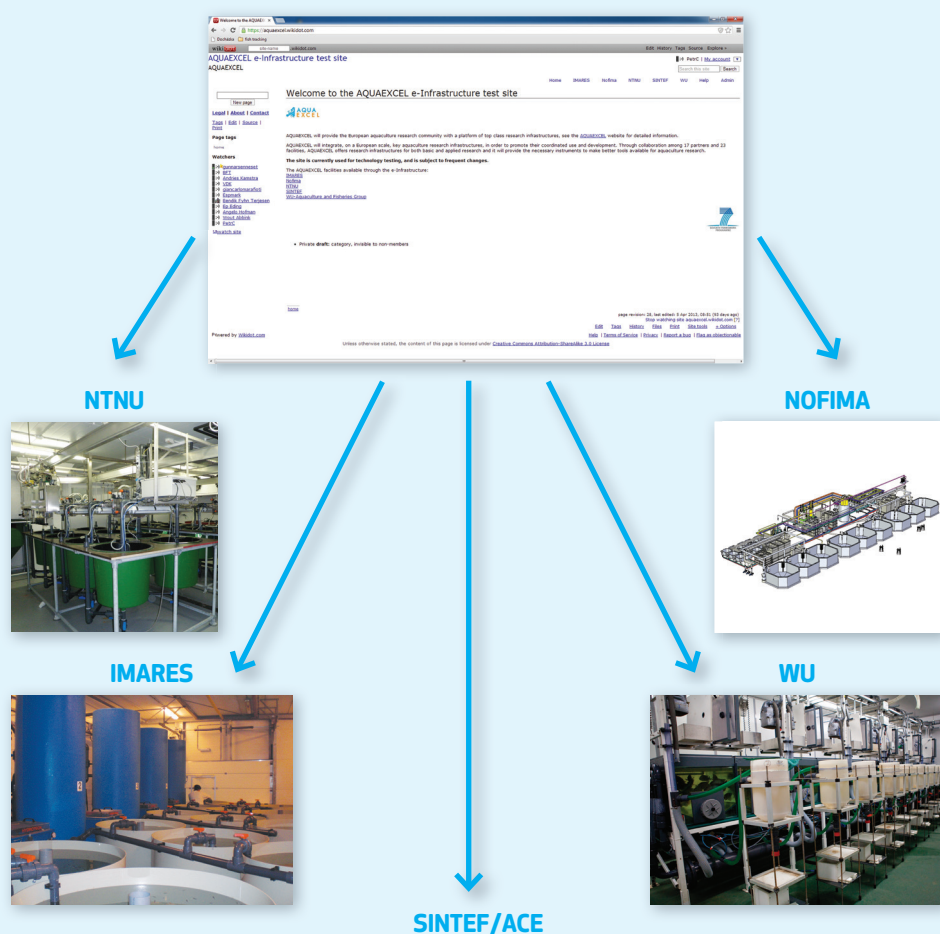


Figure 3. An overview of the access through the Wikidot site and the installations tested.

FUTURE WORK

- Testing of solutions developed
- Implementation in projects for Transnational Access
- Evaluation of usefulness and improvements