



## TECHNOLOGY OFFER

**cLab: a web portal to access, use and manage computational resources.**



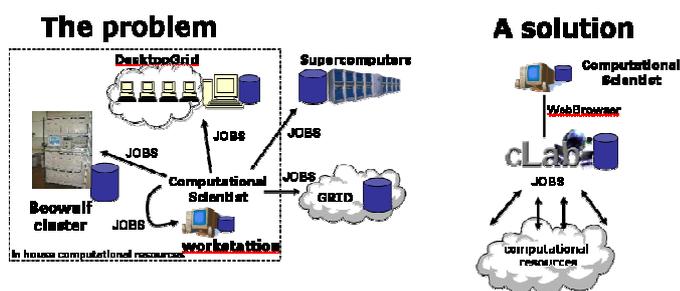
The Computational Laboratory Web Manager (cLab) is a web portal that permits the access and the management of a computational laboratory, which is a high performance hypercomputation center based on heterogeneous clusters of computers and used by multiple users simultaneously for the execution of computational jobs.

### Give your projects a strong starting IP position:

At ICIQ, we consider that patents are safe and solid tools to provide protection from competitors. This is why we file patents for our developed technologies: to give our co-development projects with industry a **strong starting IP position**. As a research centre our goal is always to co-develop our technology adapting it to the industrial partner's specific needs and ultimately transfer the technology to this company, with a **flexible licensing strategy** adapted to each case.

We believe these elements are essential to a **healthy open innovation framework** and to a growing knowledge-based economy.

In the last recent years, computational platforms have developed into cheaper and more powerful processors. However, management and optimal exploitation of this equipment faces certain obstacles. From the users point of view there is a need for a system that facilitates file management and jobs in a distributed and heterogeneous environment. Traditional queuing systems are not flexible enough to achieve the optimal use and distribution of the resources. On the other hand computational chemistry is moving towards the union of computational resources in different locations in order to create virtual super computers. This goal, currently referred to as "Grid" (but that has been referred to by many different names before) is a concept that opens new opportunities. Several "Grid" platforms have proved to give interesting answers to the needs of computational chemists. cLab is an internet based application that allows users to manipulate files and folders, prepare computational tasks, submit and control them while they are running, as well as visualize or store results. cLab therefore provide tools for the users as well as for the system administrator.



cLab manages users, files and jobs and provides a highly flexible queuing system. cLab is perfectly integrated with Linux OS and acts as a web interface between the scheduling and archive systems. It also provides tools for the user and the administrator, a user-friendly interface, a complete files manager, the graphical visualization of results and also adapts to external different scheduling systems. cLab was developed under "Network queue system" and the registered version adapts to "Sun Grid Engine".

References  
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