# General architecture

One strong technical requirement is that people from each project must have fast access to the application (not using Internet), and must be able to work even if Internet connection is not working.

This means we need to deploy the application in each project, on the respective local network.

This constraint will not allow to have a single database for all projects. However most of the time, someone in a particular project only needs to access data regarding the project on which he/she is working. But we still want to make people from any project able to consult data from other projects.

For this, the proposed solution consists in:

* The software is deployed locally in every project
* The data of each project is separated into different databases:
  + 1 database corresponding to the local project, which is writable
  + A copy of the databases of other projects, which are readable only. These copies of other projects’ databases can be synchronized on a regular schedule (for example every night).

However, the software of every project will be made accessible from Internet. Even the speed will probably be quite slow, this will still allow anybody from other projects to

* Consult the latest information (in case we exceptionally need it)
* Edit an information, in case we have this requirement in the future, for any reason.

Each project will also provide an authentication system, accessible from outside. This will allow for example, a PNC staff to connect to the software in PNV.

Regarding users, the administrator of each project will maintain the access rights of users for the database of its project. As the rights will be stored in the database, and thus duplicated in the copies in other projects, if someone from a project A wants to access data of project B, he needs to have this right, and this right is managed by the administrator of project B.

For example, if the project manager of PNV wants to access to PNC data, first PNC administrator needs to allow it.

