

## ReNaBi-IFB: The French Bioinformatics Infrastructure



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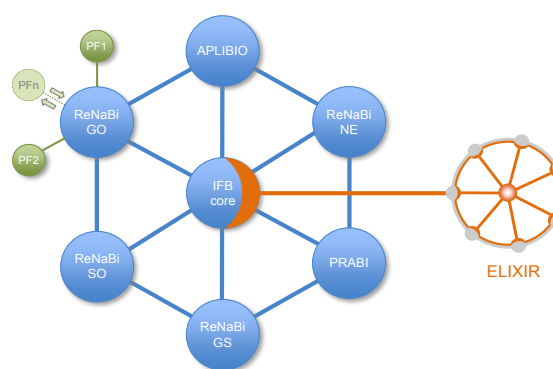
In France, the Group of Scientific Interest (GIS), [Infrastructures in Biology, Health and Agronomy](#)<sup>1</sup> (IBISA) is in charge of implementing a concerted policy in terms of infrastructure for life sciences. In the field of bioinformatics, this strategy has resulted in a network of regional platforms (PFs) aimed at fostering the coordination of their activities. At the moment, 13 PFs clustered into six regional centres belong to this network, the [ReNaBi](#)<sup>2</sup> (French Bioinformatics Platforms Network), which is also the French national node for EMBnet. Those six regional centres span the French territory (ReNaBi-NE, North-East; PRABI, Rhône-Alpes region; ReNaBi-GS, Great South; ReNaBi-SO, South-West; ReNaBi-GO, Great West; APLIBIO, Paris area), and they are all embedded in bioinformatics research laboratories. Their corresponding manpower is about 100 Full-Time Equivalents (FTEs) in terms of permanent staff, and 57 FTEs for people hired on fixed-term contracts; this represents about 30% of the whole French bioinformatics community.

The main limitation of this network is that the resources and know-how are geographically distributed and somehow redundant. This makes the pooling of resources and expertise more difficult to harness. In addition, this 'scattered' structure is not intelligible from outside the French bioinformatics community, particularly for international partners. Therefore, the ReNaBi is moving toward a more centralised structure, the French Bioinformatics Infrastructure (IFB). This will be based on:

- a **national node** (IFB-core), having its own head, staff and IT infrastructure. Its role will be to

serve as the unique entry point for requests of services from the biological community, to coordinate and structure the activities of the PFs and to ensure consistent coordination between IFB and national users (in particular, other large national infrastructures producing 'omics' data);

- existing **regional PFs**, where the methodological and user-training know-how is to be found, and that currently provide support to projects with biologists in their respective regions. PFs will be structured more assertively around thematic poles characterised by their international visibility and/or biological data specificity.



**Figure 1.** IFB structure and its link with ELIXIR. The six regional centres are linked to the IFB-core, and each centre integrates a variable number of PFs. Integration or removal of a PF is under the responsibility of the regional centre scientific board.

In order to fulfill its missions to the French biology and biomedical research community and, in particular, to ensure that IFB will address the proper analysis and data-management challenges, the IFB operation mode will be 'project-oriented'. IFB will provide development, maintenance and training support for clearly defined biological, biomedical or technological projects, based on a transparent reviewing process to ensure the highest quality in project selection. The targeted projects will fall within several categories depending upon their size or strategic status:

- large-scale institutional projects and projects with other national infrastructures;
- biology and biomedical research projects;
- services offered to industry;
- technological projects.

IFB, through the IFB-core, will also become the French node of [ELIXIR](#)<sup>3</sup>. IFB intends to address, at the national level, issues similar to those that ELIXIR

<sup>1</sup> <http://www.ibisa.net/>

<sup>2</sup> <http://www.renabi.fr/>

<sup>3</sup> <http://www.elixir-europe.org/>

aims to tackle: data and computer infrastructure, tools and standards, training. IFB structuring will allow the mobilisation of resources at the national scale, not only to develop or enhance all the components that meet ELIXIR demands for excellence, but also to ensure the sustainability of these components.

Finally, an important task of IFB will involve monitoring the PFs' activities, collecting associated data and figures to help the supervisory

authorities to get a more precise overview of the bioinformatics landscape. IFB, taking advantage of the gathering of PFs' members around thematic poles, will be in charge of commissioning the publication of 'white papers' about bioinformatics issues, especially those regarding the demands of other national infrastructures. It is therefore expected that IFB will significantly contribute to prospective reflection in the field of bioinformatics.