

ELIXIR: A European Distributed Infrastructure for Life-Science Information

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ELIXIR connects National Bioinformatics Institutes and EMBL-EBI into a distributed European infrastructure for biological research data. The structure is formed by 20 “Nodes” (National Bioinformatics Institutes) and a Hub (a central coordination Office). ELIXIR services, most of which are run from ELIXIR Nodes, include data resources (data access, archives), bioinformatics tools (Registry: bio.tools.org), compute provision, standards development and training.

Global Initiatives

Currently, EMBL-EBI, which is the largest “Node” in ELIXIR, receives over 22 million requests a day from global users. Human Protein Atlas (HPA) (ELIXIR Sweden) received more than 750,000 visits during 2013, of which approximately 60% was from outside of Europe.

From the International point of view, ELIXIR is identifying a set of Core Data Resources that are globally competitive and of critical importance to the life science community and will actively promote their integration and sustainability.

In addition, ELIXIR provides researchers all over the world with information about the bioinformatics training courses and materials available in Europe, and where they can be found. It does this through the Training eSupport System (TeSS) portal.

In the field of human genomics ELIXIR is establishing a sustainable and global infrastructure for Human Genomics and Translational Data, establishing solutions to support data access and sharing such as Beacons in the European Genome-phenome Archive and genomics resources in ELIXIR Nodes with individual-level data from biomedical research projects, supporting a three-level access system. This work is core in the Global Alliance for Genomics and Health (GA4GH)-ELIXIR collaboration.

BD2K Collaboration

ELIXIR has developed a range of collaborations and alignment with BD2K. A Collaboration Strategy for Training is in place, with joint workshops between ELIXIR and BD2K, for example in Research Object Identifier- ROI. The latter points to common efforts in interoperability, as ELIXIR and BD2K have similar aims, especially in Data FAIR-ification.