European Life Sciences Infrastructure for Biological Information (ELIXIR)

Research Areas

- Tool Development
- Data Sharing
- Data-Sharing Enabler

At a Glance

- Status: Active Consortium
- Year Launched: 2006
- Initiating Organization: European Bioinformatics Institute
- Initiator Type: Government

Abstract

European life sciences infrastructure for biological information (ELIXIR) brings together national bioinformatics capacities and those of the European Molecular Biology Laboratory (EMBL) European Bioinformatics Institute (EBI) to scale up the collective capability to archive, integrate, analyze, and exploit the large and heterogeneous datasets produced in modern life science research.

Mission

ELIXIR’s eight strategic objectives are as follows:

Consortium History

2011: ELIXIR began
2011-2012: Preparatory phase
2013: Interim phase
2014-2015: Coordination
2050-2017: Service deployment
2017 and beyond: Sustained operations

The preparatory phase officially ended in December 2012, and the ELIXIR Consortium Agreement (ECA) was approved by the Interim Board in April 2013. The interim phase saw the submission and review of Node applications, the establishment of five technical pilot actions to test the distributed concept, and a buildup of initial capacity within the Hub. Following approval of the EMBL Council and ratification of the ECA by five countries in December 2013, ELIXIR moved into the permanent phase with the ECA's entry into force in January 2014. This will be characterized by implementation of the construction and operation period, which begins in 2014. During this five-year period, building of the permanent research infrastructure will proceed through three phases of coordination (2014), service deployment (2015), and sustainable operations (2016-2018).

Structure & Governance

ELIXIR is an intergovernmental organization that builds on existing data resources and services within Europe. It follows a Hub and Nodes model, with a single Hub located alongside EMBL-EBI in Hinxton, Cambridge, UK, and a growing number of Nodes located at centers of excellence throughout Europe.

Governments and ministries of countries are ELIXIR members, and the scientific community in each member country develops the national Node.

On Dec. 18, 2013, ELIXIR became a permanent legal entity following ratification of the ELIXIR ECA by EMBL and the first five countries. The countries that have signed the ECA are full members of the ELIXIR Board.

The ELIXIR members are EMBL, United Kingdom, Sweden, Switzerland, Czech Republic, Estonia, Norway, Netherlands, Denmark, Israel, Portugal, and Finland.

A further six countries have signed a Memorandum of Understanding to participate in ELIXIR. This is a nonbinding agreement, which commits Member States to work toward signing the ECA. Observer countries will work toward ratifying the ECA throughout 2015.

The ELIXIR observers are Belgium, Slovenia, France, Greece, Italy, and Spain.
Financing

The first five years of ELIXIR, the preparatory phase, were funded by the European Union’s Seventh Framework Programme.

ELIXIR is coordinated from its Hub, which is jointly funded by contributions from its members. Legally, ELIXIR is a Special Project of the EMBL and benefits from existing administrative and legal structures. ELIXIR’s structure and legal and financial models were determined during the preparatory phase and approved by the Interim Board. The ELIXIR budget is ring-fenced from other EMBL activities, and executive management reports to the Board on budget use.

ELIXIR’s Nodes are located at existing centers of excellence in participating countries throughout Europe. They are funded through national contributions.

Data Sharing

Under the umbrella of the BioMedBridges project, 14 research infrastructures in the biological, biomedical, and environmental sciences, including ELIXIR, developed commonly agreed principles of data management and sharing. The document makes key recommendations on how data management and sharing via the research infrastructures (RIs) can be supported and encouraged:

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Homepage  https://www.elixir-europe.org/

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