

Building data bridges between biological and medical infrastructure in Europe (BioMedBridges)

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Research Areas



Tool Development

Interoperability



Data-Sharing Enabler

At a Glance

- Status: **Active Consortium**
- Year Launched: **2012**
- Initiating Organization: **European Commission Seventh Framework Programme**
- Initiator Type: **Government**
- Location: **Europe**

Abstract

BioMedBridges is a consortium of 12 European government-supported biomedical sciences research infrastructures that are affiliated with the European Strategy Forum on Research Infrastructures (ESFRI). Together, the consortium partners develop the shared e-infrastructure to allow data integration in the biological, medical, translational, and clinical domains, with a goal to link these initiatives and strengthen the biomedical resources established in the European continent.

Mission

BioMedBridges aims to connect and form a cluster of the emerging biomedical sciences research infrastructures (BMS RIs) that are supported by the European Commission. The consortium focuses on developing an infrastructure to connect the data and services that each provide to the European research community.

About the BMS RIs:



- The BMS RIs are part of the ESFRI roadmap.
- The missions of the BMS RIs range from structural biology of specific biomolecules to clinical trials involving thousands of human patients.
- Most BMC RIs serve a specific part of the vast biological and medical research community, estimated to be at least 2 million scientists in Europe across more than 1,000 institutions from more than 36 ESFRI Member States and Associated Countries.
- Each BMC RI brings together its own large community of users to build a coordinated infrastructure.
- Essentially all BMS RIs are distributed infrastructures, with nodes in many European Member States.

BioMedBridges will construct the necessary bridges between the separate infrastructures and the data and services they offer.

Structure & Governance

The managing organization of the consortium, European Molecular Biology Laboratory, organizes the governing board meetings and ensures communication between these boards with the supporting partners. In addition, the consortium also has an Executive Steering Committee (coordinators of the individual ESFRI MBS projects), a Technical Coordination Committee (reports to the coordinator and Executive Steering Committee), and a Scientific Advisory Committee. Separate working groups and task forces also support the overall consortium.

Financing

The BioMedBridges consortium is funded by the European Commission within Research Infrastructures of the FP7 Capacities Specific Programme, grant agreement number 284209. The total cost of the consortium is €13.7, with €10.5 coming from the European Commission.

Data Sharing

BioMedBridges is focused on connecting several European research infrastructures that represent a

diversity of ethical, legal, and security concerns. In its preliminary analysis of data security requirements of the e-infrastructures ECRIN, EATRIS, BBMRI, ELIXIR, EMBL-EBI, Euro-BioImaging, INSTRUMENT, and Infrafrontier, the consortium found that the following e-infrastructures are storing or processing patient-related data (or biosamples): EATRIS, ECRIN, BBMRI, Euro-BioImaging, and EMBL-EBI. INSTRUMENT is interested in secure sample transport and intellectual property rights. Infrafrontier stores high-throughput data from mice. BBMRI, with its focus on the availability of biomaterials, is currently emphasizing aspects such as k-anonymity and metadata management for its data. Sharing of imaging data by Euro-BioImaging poses challenges with respect to anonymization and intellectual property. Therefore, an ethical, regulatory, and security framework for international data sharing that covers these diverse areas and different types of data (e.g., clinical trials data, mouse data, and human genotype and DNA sequence data) is of crucial importance for the consortium.

The consortium will address regulations, requirements, and design aspects as well as security implementation. It will analyze the legal and ethical situation concerning sharing and transfer of data and access to data in a trans-European context for all e-infrastructures. The legal implications and corresponding data exchange strategies will be analyzed on the European, national, regional (e.g., data protection law in Scotland), and local (e.g., hospital law) levels. Legal implications for different types of data and linking of data will be considered, including biobank data, genetic data, stem cell research data, data originating from children and vulnerable populations, and the special situation of clinical trials data (Directive 2001/20/EC and GCP). Specific attention will be paid to personal data (Directive 95/46/EC) and the roles of the data controller and data processor for the data bridges.

Impact/Accomplishment

The latest news can be found at <http://www.biomedbridges.eu/news>

Links/Social Media Feed

Homepage

<http://www.biomedbridges.eu/>

Other website

[http://www.2020-horizon.com/BIOMEDBRIDGES-Building-data-bridges-between-biological-and-medical-infrastructures-in-Europe\(BIOMEDBRIDGES\)-s2318.html](http://www.2020-horizon.com/BIOMEDBRIDGES-Building-data-bridges-between-biological-and-medical-infrastructures-in-Europe(BIOMEDBRIDGES)-s2318.html)

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[#biomedbridges](https://twitter.com/biomedbridges)

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