

Life Sciences require a Global Data Research Infrastructure

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EMBL-EBI



EMBL-EBI in an international context

- EMBL-EBI is part of the European Molecular Biology Laboratory, an Intergovernmental Organisation with 20 Member States
- Service Mission: To capture, preserve, enhance, integrate and disseminate life science data to benefit society.
- The data come from Europe and around the world and we are part of multiple international database collaborations
- Development of databases over past 20 years driven by scientific demand:
 - 20 major databases, >14 petabytes of storage
- Data is used globally by a vast user community
 - 4 different million users per year
- Open access, free of charge

Database Collaborations



EMBL-EBI usage on 12 July 2011



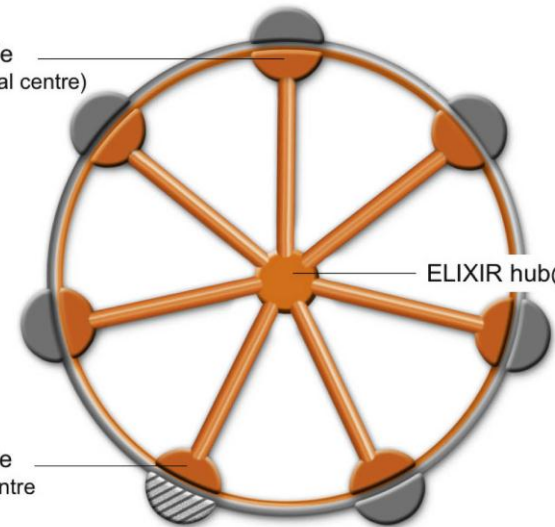
Global Challenges require Global Solutions

The increase in rate and complexity of data being generated presents a huge challenge....

- Collaboration needs to move beyond institution to institution - ESFRI has facilitated this in Europe
- ELIXIR will develop a pan –European distributed infrastructure for biological data
- This will operate in the context of the current global infrastructure and support the emerging life science infrastructures in Europe
- Only by acting together can we respond to the Global Challenges of food safety and security, climate change and the health of the ageing population



ELIXIR node
(not a national centre)



ELIXIR hub@EMBL-EBI

ELIXIR node
+ national centre

Good solutions must be appropriately supported

This distributed infrastructure will address the data burden, integration and collaboration challenges.

- Agreeing the correct legal and governance structure is essential
- Integrating the correct partners is vital

Distributed infrastructures are politically attractive and good value for money but...

- The funding dimension for distributed infrastructures is complex, with long-term core funding needed
- A major threat to their development and operation is lack of financial support for pan-European components
- There is a need to get real political support behind Research Infrastructures to enable their implementation