ELIXIR-UK
National Node of the European Research Infrastructure for Life Science Data

Joint Head of Nodes: Carole Goble, The University of Manchester
Neil Hall, Earlham Institute

Accessing biomedical data for data analysis, SME forum
6 July 2022, The University of Manchester, UK
www.elixir-europe.org
What is ELIXIR?

Coordination, collaboration, mobilisation

Towards a federated digital infrastructure for Life Science Data, coordinating national capabilities

Data & software FAIR and open as possible

Transnational access and analysis

Gateway Communities of Practice, European and Global initiatives, Standards Bodies

23 Nodes

220+ Orgs

Hub
What is ELIXIR?
Coordination, collaboration, mobilisation

National viewpoint
National capability & capacity building

Towards a federated digital infrastructure for Life Science Data, coordinating national capabilities

Data & software FAIR and open as possible
Transnational access and analysis
Communities of Practice

- Systems Biology
- Machine Learning
- Bio Curation
- Cancer
- Biodiversity
- Single Cellomics
- Health Data
- Microbiome
- Toxicology
- Food and Nutrition
- Plant Science
- Biocontainers
- Life Science AAI
- ELIXIR Beacons
- Learning paths
- 3D BioInfo
- Proteomics
- Rare Diseases
- Human Copy Number Variations
- ELIXIR Beacons
- FAIRness of ELIXIR CDRs
- Integration of ELIXIR registries
- Galaxy
- Intrinsically Disordered Proteins
- Microbial Biotechnology
- Bioschemas
- Marine Metagenomics
- Common Workflow Language
- Federated Human Data
- Human Copy Number Variations
- Rare Diseases
- Protocols
- Metabolomics
- 3D BioInfo
- Proteomics
- Life Science AAI
- ELIXIR Beacons
- Learning paths
- Galaxy
- Intrinsically Disordered Proteins
- Microbial Biotechnology
- Bioschemas
- Marine Metagenomics
- Common Workflow Language
- Federated Human Data
- Human Copy Number Variations
- Rare Diseases
- Protocols
- Metabolomics
- 3D BioInfo
- Proteomics
- Life Science AAI
- ELIXIR Beacons
- Learning paths
- Galaxy
- Intrinsically Disordered Proteins
- Microbial Biotechnology
- Bioschemas
- Marine Metagenomics
- Common Workflow Language
- Federated Human Data
- Human Copy Number Variations
- Rare Diseases
- Protocols
- Metabolomics
- 3D BioInfo
- Proteomics
- Life Science AAI
European collaborative digital space for Life Science, Biological and Medical research

Infectious Disease
- BY-COVID
- COVID-19 Data Portal

Cancer
- EOSC
- EOSC4Cancer

Rare Disease
- European Joint Programme
  - Rare Diseases

Biobanking
Translational Medicine
Clinical Trials

Data & Analytic Methods

Structural Biology

Functional Genomics

Bioimaging

Pathogenic Agents

Screening and Medicinal Chemistry
ELIXIR services: capability, capacity, activism

**Trusted Data Resources**
Stewarded and sustained national and community data resources

**Data analytics & platforms**
Tools, software, workflows, compute infrastructure, AI best practice Reproducibility

**FAIR Data and Software Services & Infrastructure**
Registries, ontologies, data management platforms, stewardship tools, standards for metadata and data harmonization & exchange

**Training**
Networks of expertise, Capacity building, RDM & software best practice

**Data and Software Stewardship**
Public dataset access, tools

130+ Data Resources
250+ Tools

UK: 28 services

https://elixiruknode.org/services/catalogue/

https://elixir-europe.org/services/list
Data analytics, platforms, registries

Find tools, software, workflows and data resources

Analyse your data

Benchmark and monitor software

Find workflows from 12+ different platforms
Capacity Building

Find training courses, materials?

https://tess.elixir-europe.org/

RDM stewardship advice?

https://rdmkit.elixir-europe.org/

UK Data Stewardship skills?

FAIR Data Stewards Training Fellowship

https://elixiruknode.org/activities/elixir-dash-fellowship/
Joining the dots of FAIR Data Management

Recipes for making FAIR data, in partnership with pharma

FAIR Stewardship Guidance

Public data sets, Tools & Training
BioFAIR Data and Method Commons

A UK FAIR Data National Infrastructure

UK collaborative digital space for Life Science, Biological and Medical research
Innovation and SME Forums
Knowledge Exchange Scheme
Bioinformatics Industry Forum
Industry Newsletter
Impact of public resources
Biohackathon Europe

https://elixir-europe.org/industry
UK Conference of Bioinformatics and Computational Biology (UK-CBCB)

How to manage biological data and use computational methods to power life science research

27-29 Sept 2022

https://www.earlham.ac.uk/uk-cbcb-2022