# ELIXIR Europe: overview and opportunities

Andy Smith, Interim Director and Head of External Relations

*Vienna, Austria*

10 November 2026

*elixir-europe.org*

# Data challenges in the life sciences



Data growth



Diversity of data



Geographic spread



Sensitive data

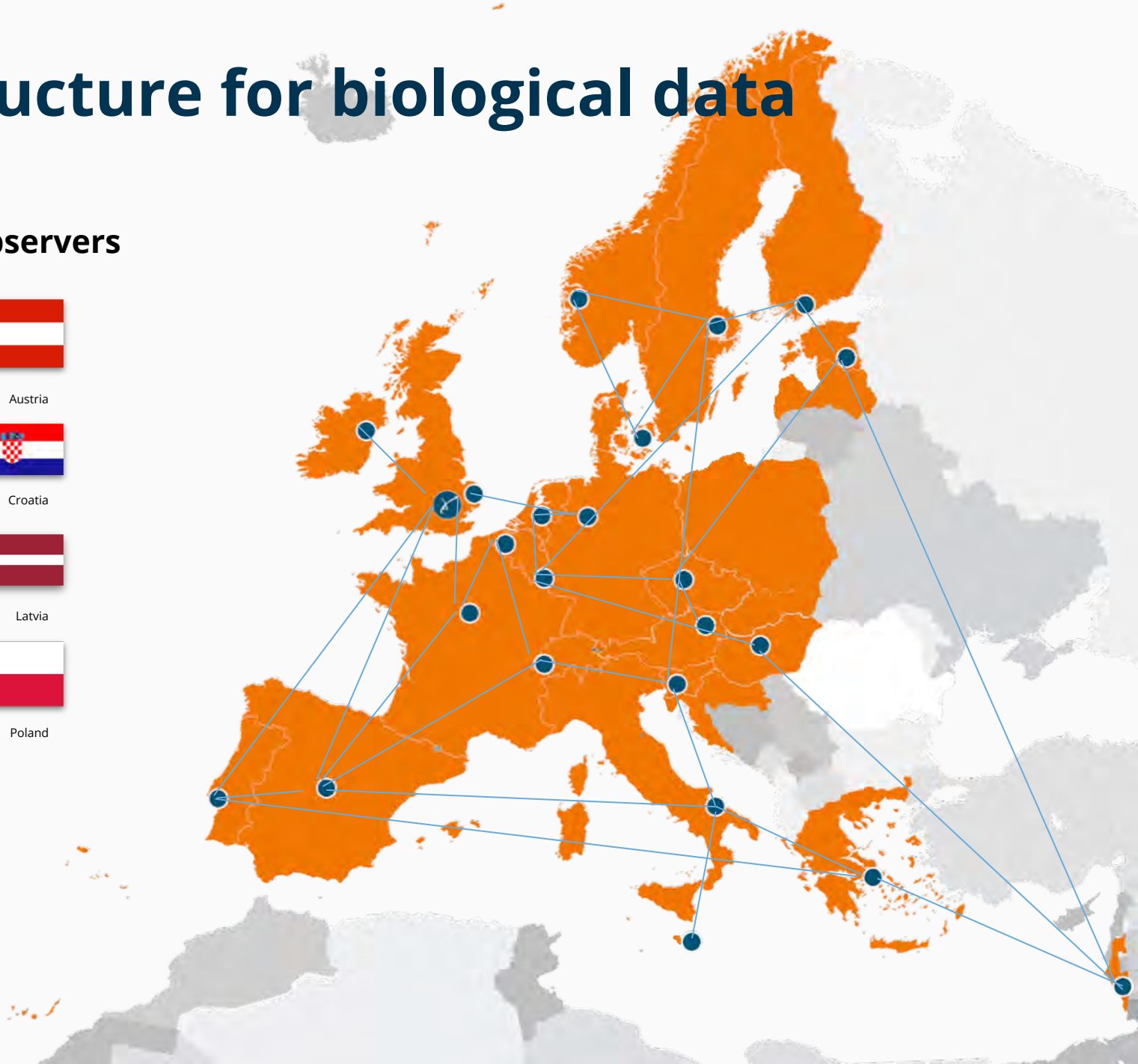
# A sustainable infrastructure for biological data

## Members

- Belgium
- Czech Republic
- Denmark
- EMBL
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Israel
- Luxembourg
- Malta
- Netherlands
- Norway
- Portugal
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- United Kingdom

## Observers

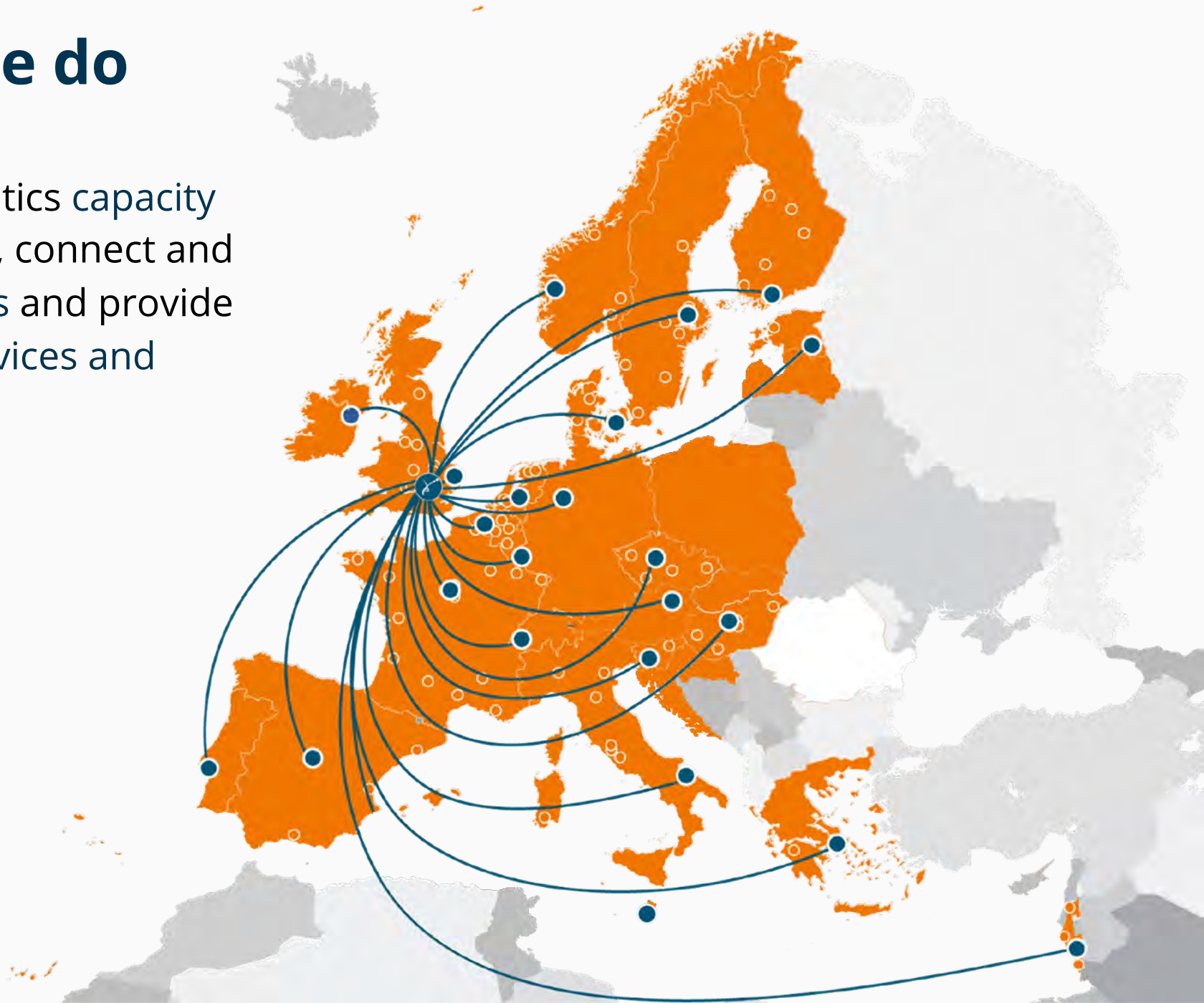
- Austria
- Croatia
- Latvia
- Poland



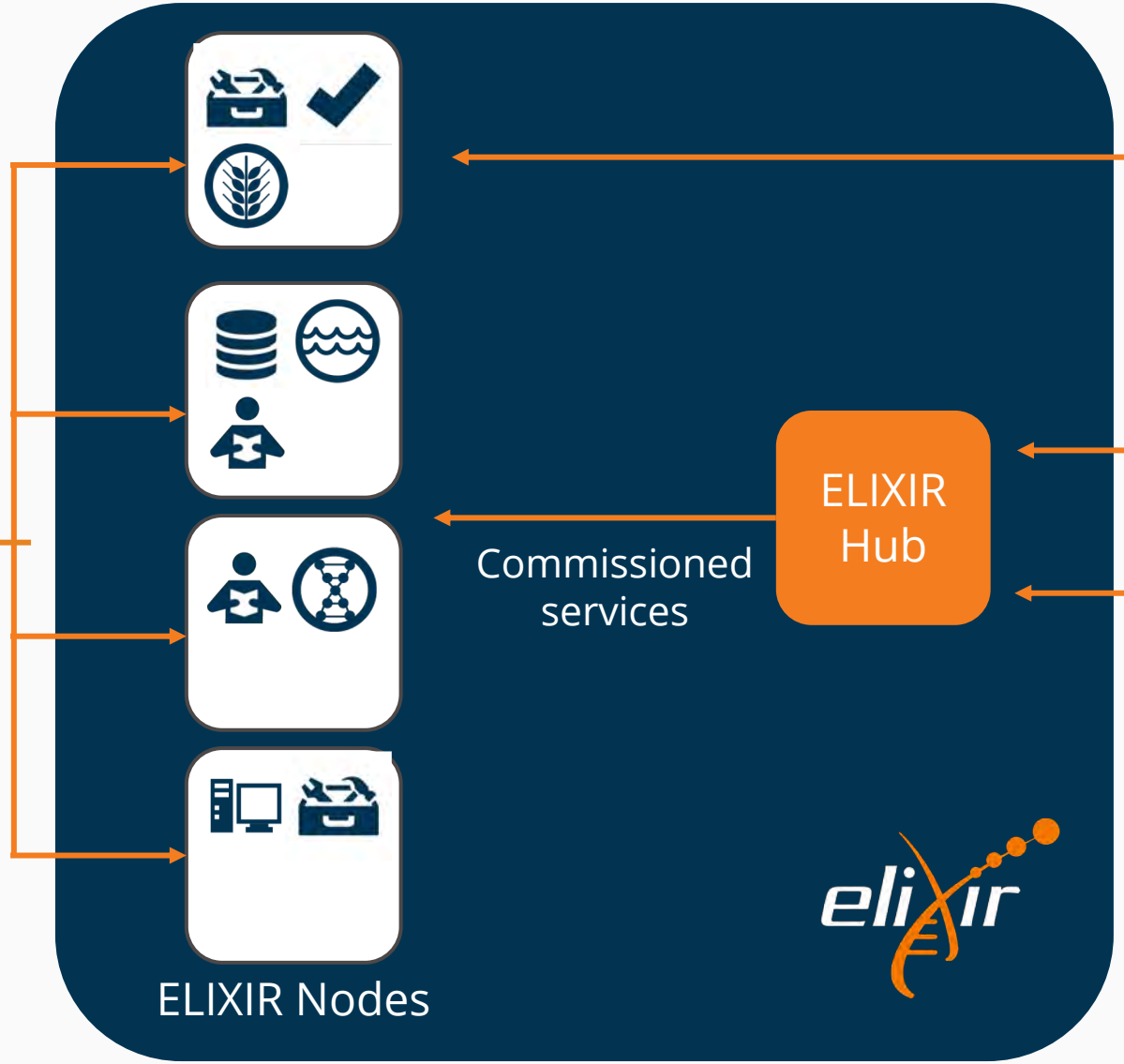
# ELIXIR – what do we do

We build life science informatics capacity and infrastructure in Europe, connect and develop a network of experts and provide hundreds of high quality services and resources available to all

- Databases
- Training
- Software tools
- FAIR resources
- Compute resources
- Scientific & technical experts



# ELIXIR's funding model




Node funding:

- National roadmap funding
- Competitive research grants
- EU Structural Funds or Recovery and Resilience Facility (RRF)
- Trusts and foundations
- Industry collaboration

https://elixir-europe.org/about-us/how-funded/sustainability-plan

Commissioned services

ELIXIR Hub

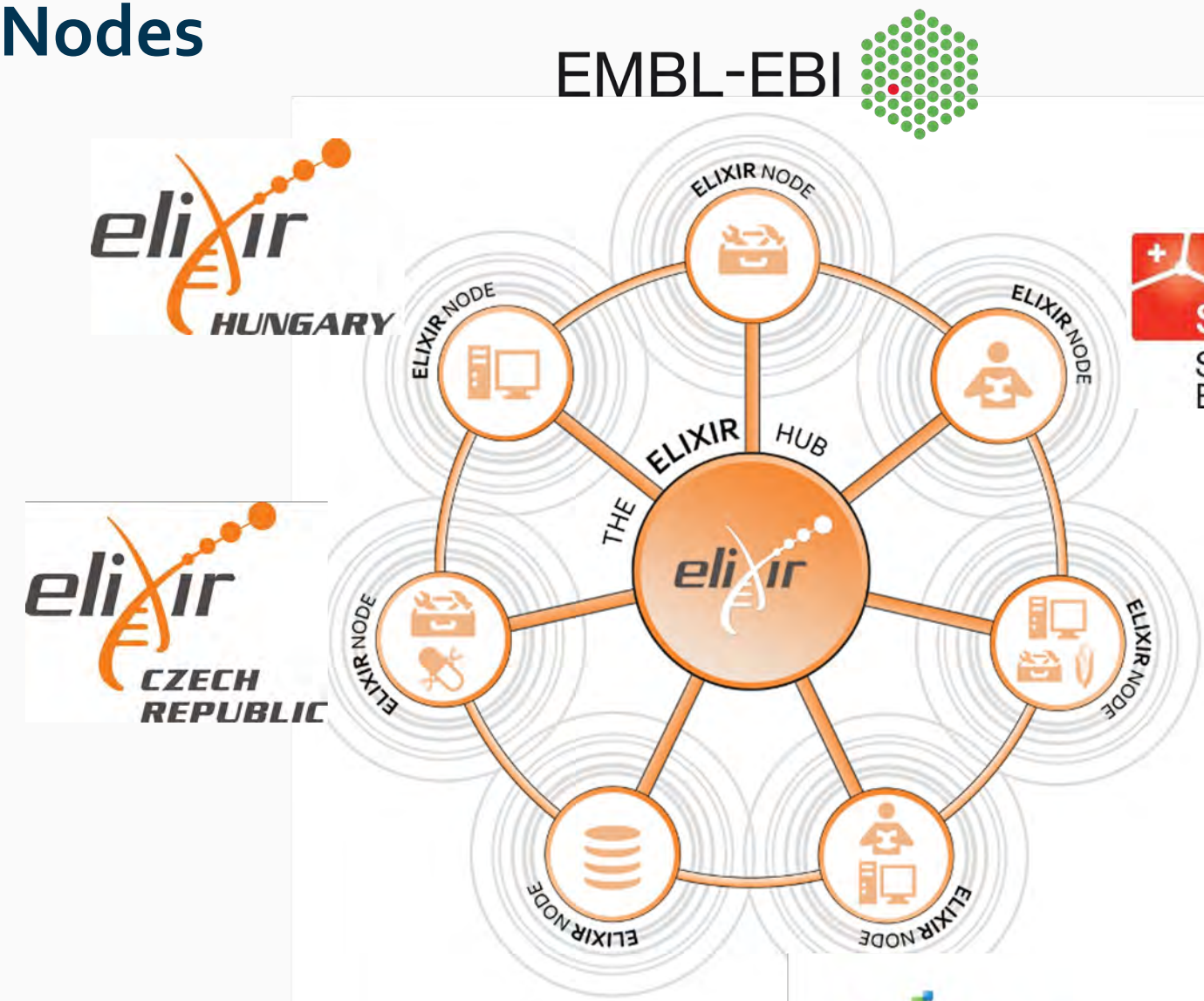
External funding:
(EC funded projects: ELIXIR represented by ELIXIR Hub or by an ELIXIR Node)

- Horizon Europe
- Digital Europe
- EU4Health

Internal funding:
Annual contribution by Member States

# Examples of ELIXIR Nodes

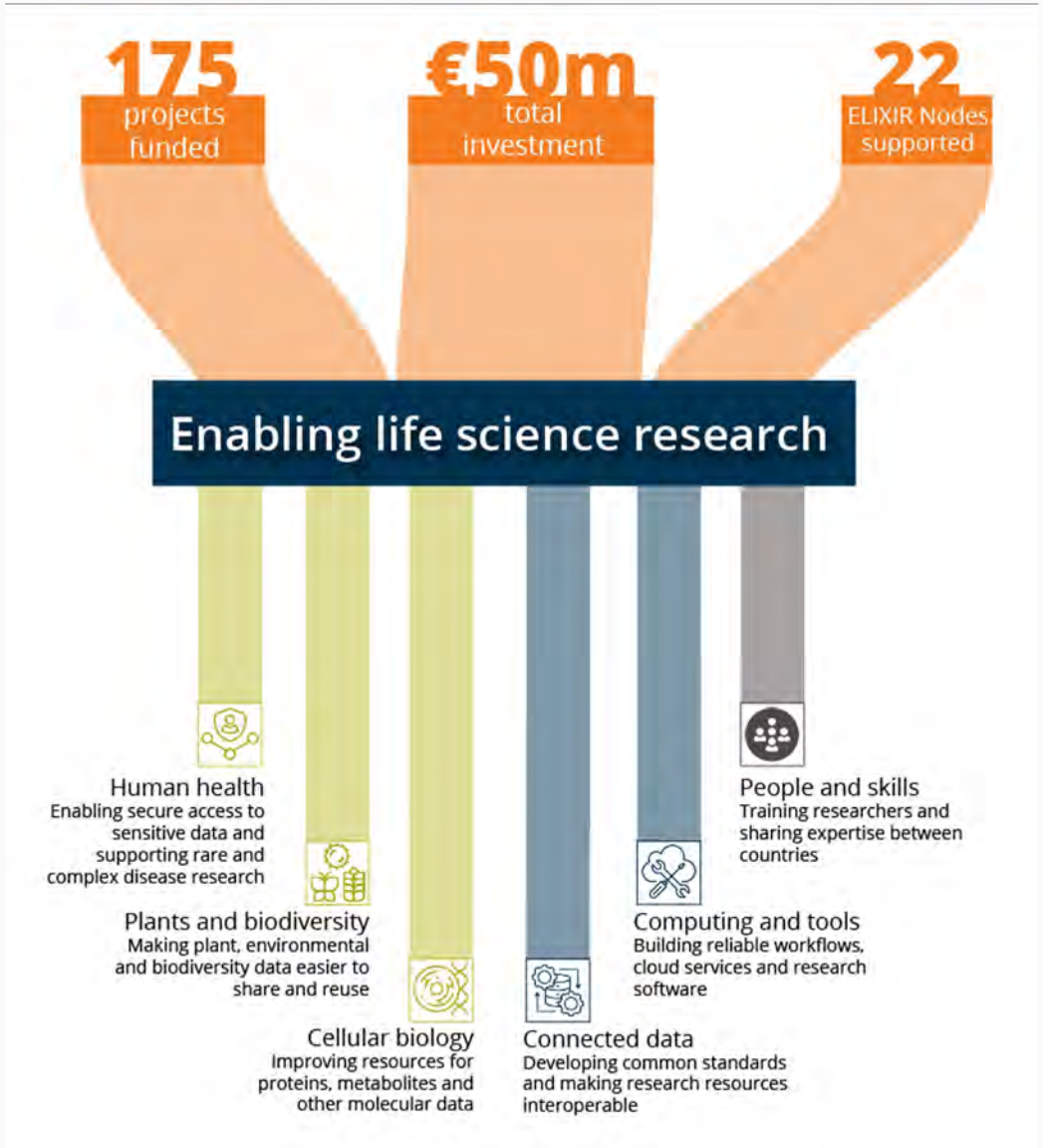
- Typically distributed entities bringing together universities and research institutes
- One lead/representing entity
- Collaboration Agreement signed with ELIXIR Hub
- Nodes can expand Membership and scope over time



# ELIXIR 2024-28 Programme

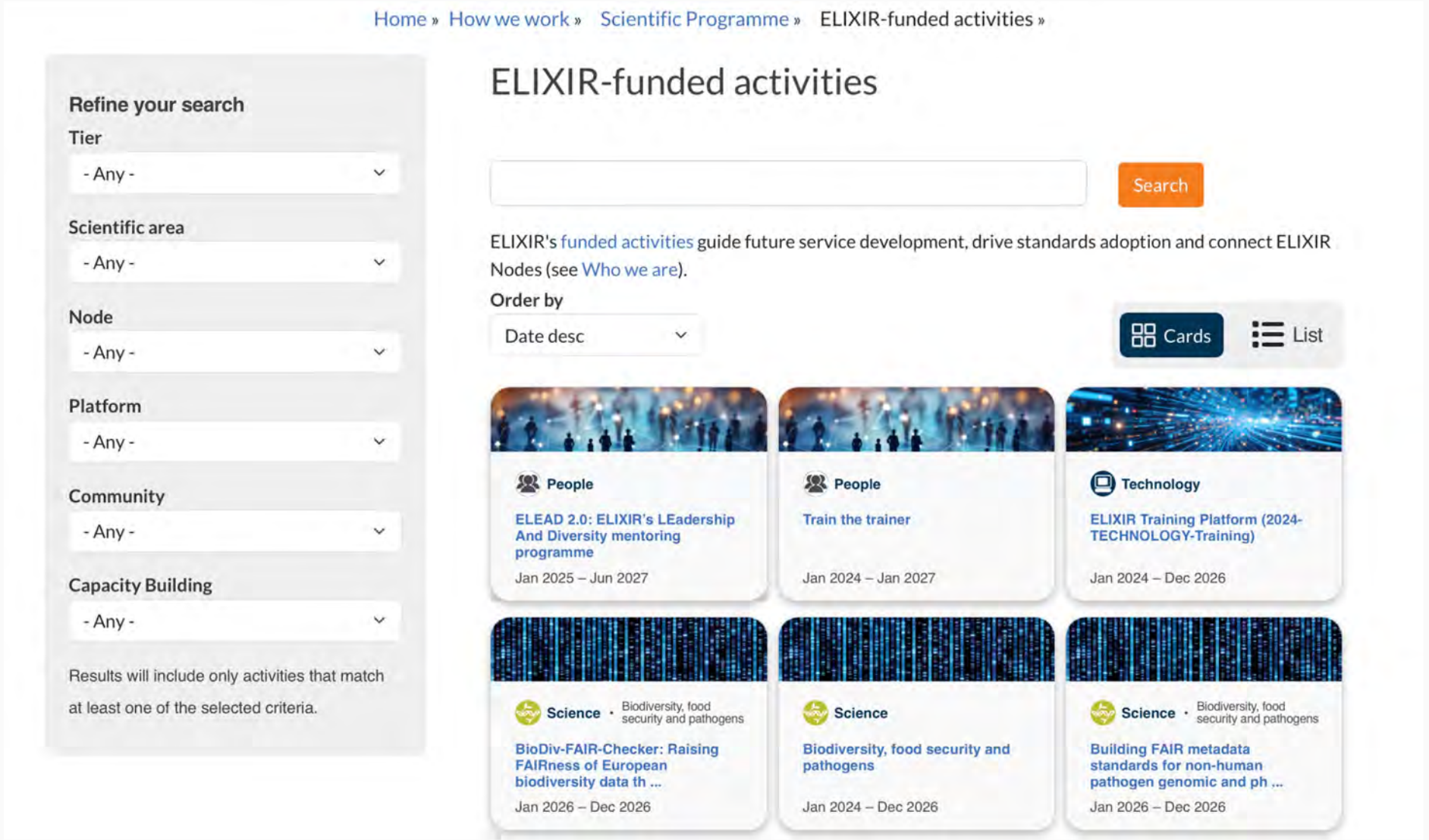


# ELIXIR's Commissioned Services (CoS)




- Commissioned Services **enable collaboration** between ELIXIR partners and services across all areas
- CoS are the **glue of ELIXIR** - a feature that sets ELIXIR apart from other ESFRIs
- Since 2014, **50** million euros has been committed across over **175** CoS involving **22** ELIXIR Nodes.
- CoS support **essential infrastructure activities** that could otherwise struggle to attract traditional research funding.

# Focus on Commissioned Services



# Capacity Building and Knowledge Exchange

- Strengthen the links between ELIXIR Nodes
- Facilitate capacity building in ELIXIR Nodes
- Support the exchange of best practices in bioinformatics service provision



## Travel Grant

Support individuals in ELIXIR Nodes to attend ELIXIR-related events, travel between ELIXIR Nodes and the Hub.



## Staff Exchange

Strengthen the links between ELIXIR Nodes and facilitate capacity building in ELIXIR Nodes and the exchange of best practices.



## Knowledge Exchange

Support collaborations between industry and ELIXIR members to drive innovation in bioinformatics.



## Industry Engagement Days

Provide the Nodes a chance to reach out to industry and forge strong links with the local representatives.

# ELIXIR's EU projects

- ELIXIR coordinates several major EU projects and partners in many more (12-15 projects live)
- Nodes provide data management expertise and infrastructure
- Projects range from cancer through to plant sciences
- ELIXIR is key life science element of the European Open Science Cloud
- Full list: [https://elixir-europe.org/about-us/how-funded/eu-project](https://elixir-europe.org/about-us/how-funded/eu-project)















# ELIXIR Nodes - diversifying funding

elevate dm

BETTER DATA · BETTER RESEARCH · BETTER FUTURES

- A collaboration of ELIXIR Estonia, Netherlands and Finland
- Elevating **data management** for excellence, evidence and sustainable impact
- Further information




## ELIXIR IMPACT

- A collaboration of ELIXIR Czech Republic and Switzerland
- Connecting AI and life science data across Europe
- Further information




ELIXIR IMPACT poster at ECCB 2026

# ELIXIR's key service collections

Trustworthy services and resources passing stringent inclusion criteria

| | | | |
|---|---|---|---|
| elixir Core Data Resource | 39 | **Core Data Resources (CDRs)** | Data resources of fundamental importance for the long-term preservation of life science data |
| elixir Deposition Database | 18 | **ELIXIR Deposition Databases (EDDs)** | Recommended resources for the deposition of experimental data |
| elixir Recommended Interoperability Resources | 22 | **Recommended Interoperability Resources (RIRs)** | Tools and resources to support FAIR research |

elixir

# ELIXIR research data management resources

Guidance for data stewards, project managers and researchers

## Overview of good data management practices

RDMkit

The Research Data Management Kit (RDMkit) guides you through the whole data management life cycle and includes advice specific to your domain, your role and your country.

## Step-by-step instructions

FAIR cookbook

The FAIR Cookbook contains step-by-step recipes to accomplish specific data management tasks and to make your data FAIR (Findable, Accessible, Interoperable, Reusable).

## Data management plan wizard

DSW

The Data Stewardship Wizard (DSW) is an online tool that guides researchers and data stewards through their data management planning.

# Resources to access knowledge and curated digital objects

**bio.tools**

bio.tools helps you find and select bionformatics software and connect it in workflows.

**BioContainers**

Search a repository of containerised software that you can build into workflows.

**WorkflowHub**

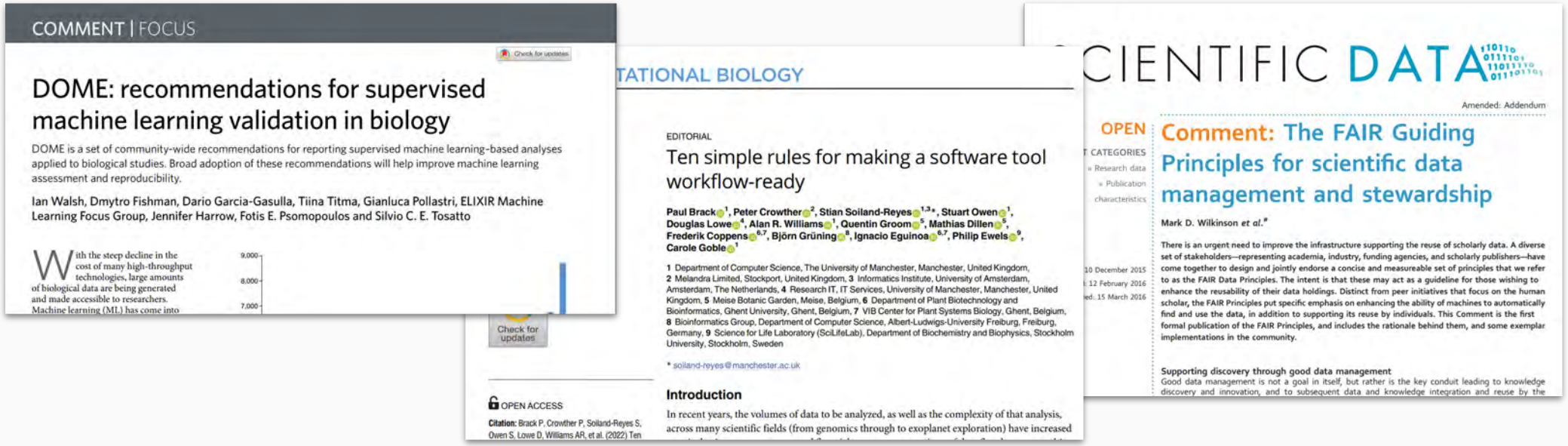
A registry for sharing and publishing scientific computational workflows.

**FAIRsharing.org**

FAIRsharing.org allows you to search for databases and data policies by aspects such as domain, species and country.

**TeSS**

Search for training courses, webinars, training materials and workflows in TeSS, ELIXIR's training portal.



COMMENT | FOCUS

DOME: recommendations for supervised machine learning validation in biology

DOME is a set of community-wide recommendations for reporting supervised machine learning-based analyses applied to biological studies. Broad adoption of these recommendations will help improve machine learning assessment and reproducibility.

Ian Walsh, Dmytro Fishman, Dario Garcia-Gasulla, Tiina Titma, Gianluca Pollastri, ELIXIR Machine Learning Focus Group, Jennifer Harrow, Fotis E. Psomopoulos and Silvio C. E. Tosatto

With the steep decline in the cost of many high-throughput technologies, large amounts of biological data are being generated and made accessible to researchers. Machine learning (ML) has come into

TATIONAL BIOLOGY

EDITORIAL

Ten simple rules for making a software tool workflow-ready

Paul Brack, Peter Crowther, Stian Soiland-Reyes, Stuart Owen, Douglas Lowe, Alan R. Williams, Quentin Groom, Mathias Dillen, Frederik Coppens, Björn Grüning, Ignacio Eguinoa, Philip Ewels, Carole Goble

1 Department of Computer Science, The University of Manchester, Manchester, United Kingdom, 2 Melandra Limited, Stockport, United Kingdom, 3 Informatics Institute, University of Amsterdam, Amsterdam, The Netherlands, 4 Research IT, IT Services, University of Manchester, Manchester, United Kingdom, 5 Meise Botanic Garden, Meise, Belgium, 6 Department of Plant Biotechnology and Bioinformatics, Ghent University, Ghent, Belgium, 7 VIB Center for Plant Systems Biology, Ghent, Belgium, 8 Bioinformatics Group, Department of Computer Science, Albert-Ludwigs-University Freiburg, Freiburg, Germany, 9 Science for Life Laboratory (SciLifeLab), Department of Biochemistry and Biophysics, Stockholm University, Stockholm, Sweden

* soiland-reyes@manchester.ac.uk

Introduction

In recent years, the volumes of data to be analyzed, as well as the complexity of that analysis, across many scientific fields (from genomics through to exoplanet exploration) have increased

OPEN ACCESS

Citation: Brack P, Crowther P, Soiland-Reyes S, Owen S, Lowe D, Williams AR, et al. (2022) Ten

CIENTIFIC DATA

Amended: Addendum

OPEN

Comment: The FAIR Guiding Principles for scientific data management and stewardship

Mark D. Wilkinson et al.*

There is an urgent need to improve the infrastructure supporting the reuse of scholarly data. A diverse set of stakeholders—representing academia, industry, funding agencies, and scholarly publishers—have come together to design and jointly endorse a concise and measureable set of principles that we refer to as the FAIR Data Principles. The intent is that these may act as a guideline for those wishing to enhance the reusability of their data holdings. Distinct from peer initiatives that focus on the human scholar, the FAIR Principles put specific emphasis on enhancing the ability of machines to automatically find and use the data, in addition to supporting its reuse by individuals. This Comment is the first formal publication of the FAIR Principles, and includes the rationale behind them, and some exemplar implementations in the community.

Supporting discovery through good data management

Good data management is not a goal in itself, but rather is the key conduit leading to knowledge discovery and innovation, and to subsequent data and knowledge integration and reuse by the

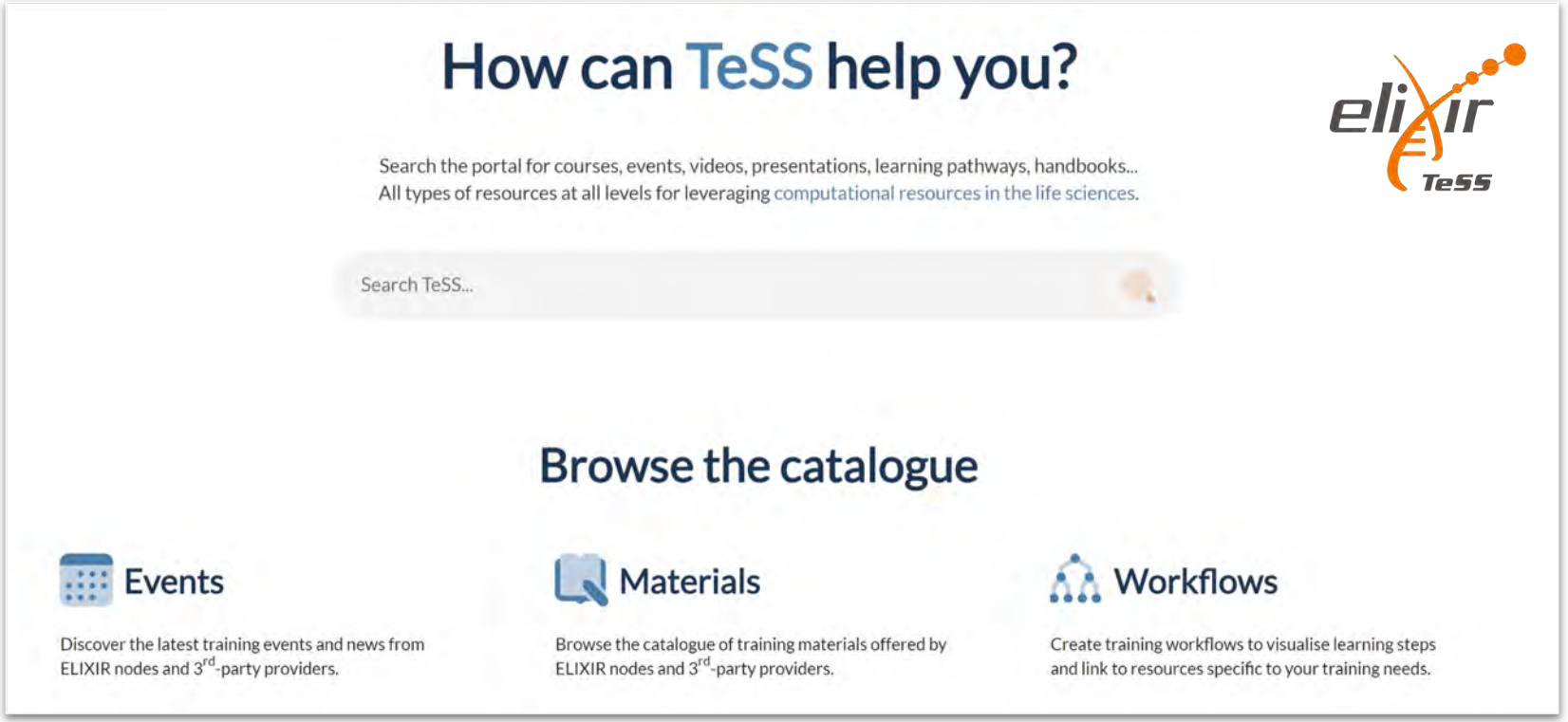
# ELIXIR's Training Portal – TeSS (Training eSupport System)

**Single entry point** for trainers and trainees to discover online information and content

Lists **3500+ training materials** and **180 events+,** plus collections and learning paths

**Training material** collected from **129 content providers**

**Event information** collected from **73 content providers**




Niall Beard, Finn Bacall, Aleksandra Nenadic, Milo Thurston, Carole A Goble, Susanna-Assunta Sansone, Teresa K Attwood
**TeSS: a platform for discovering life-science training opportunities**, *Bioinformatics*, Volume 36, Issue 10, 15 May 2020, Pp 3290-3291
https://doi.org/10.1093/bioinformatics/btaa047

# ELIXIR expert groups - networking effect

ELIXIR brings groups of people together as **Communities, Focus Groups and Platforms**. There are **over 30 individual group**s which interact in a range of different ways.

| | | | | | |
|---|---|---|---|---|---|
| 3D-BioInfo | Metabolomics | Systems Biology | Domestic Animals Genome & Phenome | Pathogen Data | Data Platform |
| Food and Nutrition | Microbial Biotechnology | Toxicology | Biodiversity | Research Data Management (RDM) | Tools Platform |
| Galaxy | Plant Sciences | Federated Human Data | Cancer Data | Environmental Impact | Interoperability Platform |
| Intrinsically Disordered Proteins | Proteomics | Human Copy Number Variation | EOSC | AI Ecosystem | Compute Platform |
| Microbiome | Single-Cell Omics | Rare Diseases | RNA Data | Learning Paths | Training Platform |

# ELIXIR flagship events

## BioHackathon Europe

- Bringing together bioinformaticians for **five days of hacking**
- **Seven successful annual events** since 2018
- Projects to advance **open source infrastructure** for data integration to accelerate scientific innovation
- Supporting operations across ELIXIR Platforms, Communities and Focus Groups through technology implementations (e.g. **FAIR, identifiers, metadata standards, ontologies and metadata catalogues**)



## Innovation and SME Forums

- Approximately **two one-day** events per year
- Providing **Small to Medium Sized Enterprises** (SMEs) the opportunity to present their innovative ideas
- Enabling companies to learn more about **current and emerging ELIXIR services**
- Forging strong links with the **local ELIXIR Node representatives** running ELIXIR services



## ELIXIR Bioinformatics Industry Forum (EBIF)

- **One-day** annual event
- Discussions with industry experts around **visionary ideas, bottlenecks and solutions** to major challenges in the data-driven life science sector
- A forum for **knowledge exchange and collaboration** in the pre-competitive space
- **Networking** opportunities with bioinformatics opinion leaders, academic experts in ELIXIR and the commercial sector

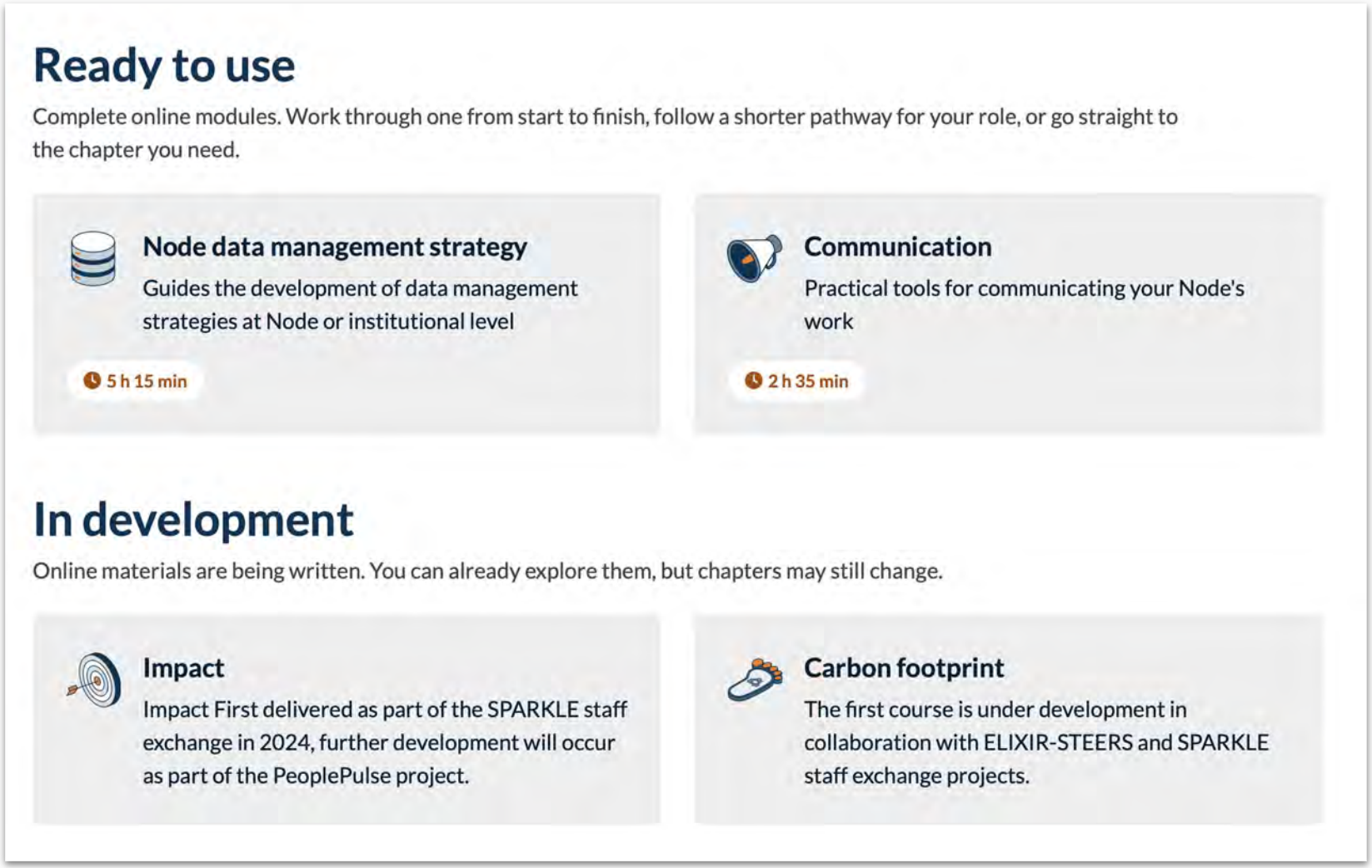


# Handbook of Operations



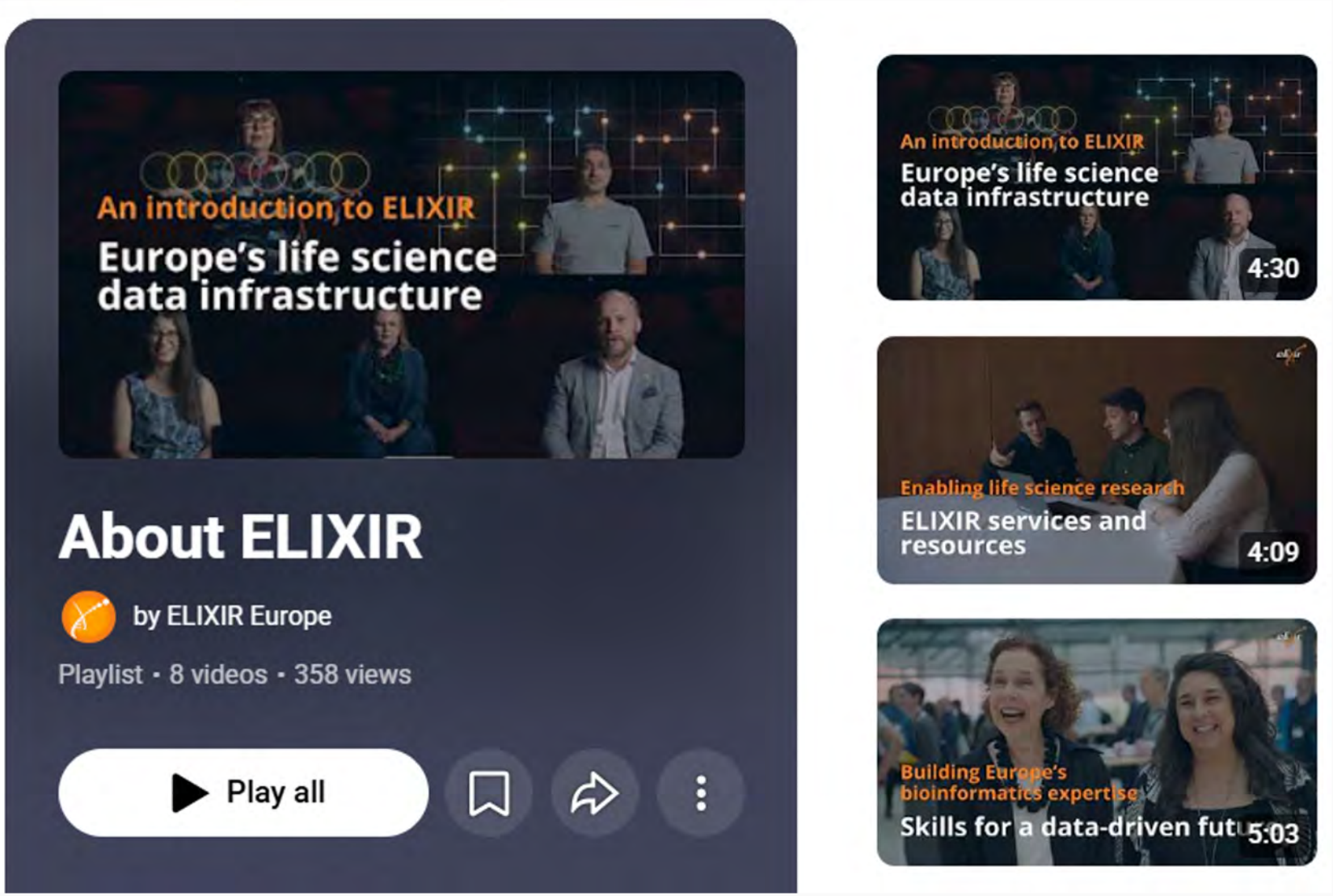

- Guide to all of the processes, policies and structures in ELIXIR
- Useful reference point for any questions on ELIXIR
- Available here

# ELITMa - Training for managers




Check out courses: https://elixir-europe-training.github.io/ELIXIR-ELITMa/

# New ELIXIR videos













- Three new videos
  - Introduction
  - Resources
  - Training

- Filmed at All Hands
- Part of ELIXIR-STEERS

Watch

# Internal newsletters

## ELIXIR Weekly Brief

Send your news, updates and events for inclusion to info@elixir-europe.org»

### This week's highlights

**2026 ELIXIR All Hands registration and call for posters opens**
8-10 June 2026 | Lyon, France

Registration for the 2026 ELIXIR All Hands is now open. Join us from 8 to 10 June 2026 in Lyon, France, to review ELIXIR's achievements and activities with the ELIXIR community from across the Nodes and collaborators from partner organisations. After successful registration, in-person participants can submit an abstract for posters.

Face-to-face participants registration»
Virtual participants registration»

**New ELIXIR Community to coordinate genome and phenome research in domestic animals**

A new ELIXIR Community has been established to advance research linking genomes and phenomes in domestic animals. The Domestic Animals Genome and Phenome Community connects researchers and data scientists working across species and countries to accelerate genome-to-phenome research. It aims to develop a coordinated, open and standardised data life cycle for domestic animal research.

07 October 2026 View this email in your browser

## Key Contributors' Update ("KCU")

This newsletter is sent on Wednesday mornings to ELIXIR key stakeholders. It contains information and requests for actions regarding operations and developments within ELIXIR. Please note that this update is only circulated in weeks in which relevant content is available.

For questions, please contact Jo Wingender».

An ELIXIR Heads of Nodes shared folder, including meeting materials from HoN meetings, reference documents, slides & graphics archive can be found on Google Drive.

### Key updates

**HoN TC meeting summary shared for information**

### For information

**Meeting summary of the ELIXIR HoN TC, 16 September 2026**

The **meeting summary**» of the Heads of Nodes (HoN) Meeting, which took place virtually on 16 September is now available in the shared HoN meeting folder on Google Drive.

If you have any questions about the meeting or the Heads of Nodes Committee, please contact Jo Wingender».

# Connect and stay up to date

## Bluesky

Follow us on Bluesky for daily updates of upcoming ELIXIR events and ELIXIR-related research outcomes.

@elixir-europe.org

## YouTube

Follow our YouTube channel for recordings of ELIXIR webinars and workshops.

ELIXIR Europe

## LinkedIn

Follow our LinkedIn for event information and new job vacancies in ELIXIR Hub.

company/elixir-europe

## Webinars & events

Check out ELIXIR's events page for upcoming webinars and events.

https://elixir-europe.org/events

# ELIXIR Europe: overview and opportunities

Andy Smith, Head of External Relations

*Vienna, Austria*

10 November 2026

*elixir-europe.org*