



# BioFAIR Architect

**RECRUITMENT PACK**



Decoding Living Systems

# Introduction to BioFAIR.

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BioFAIR is a new UK government-funded investment of £34M to develop and operate a federated digital research infrastructure connecting existing life sciences infrastructures which will largely be assembled through the integration of existing services, resources and knowledge.

BioFAIR is funded for five years and will focus on four core capabilities: Data Commons, Method Commons, Knowledge Centre, and Community Centre.

The BioFAIR's Commons will be shared places, built to incorporate FAIR (Findable, Accessible, Interoperable, Reusable) principles and allow researchers to collaborate and connect with colleagues to work on research projects.

- The Data Commons will catalogue sources of existing datasets, storing user datasets as required, making them easily accessible to life sciences researchers, supporting FAIR data management throughout the data life cycle and streamlining data deposition into public community archives. Working with thematic communities and datahubs, supporting harmonisation of high value data based on user requirements.
  - The Method Commons will facilitate the collaborative use of shared computational workflows with a national workflow capability using multiple systems.
  - The Knowledge Centre will enable the collection and curation of existing knowledge resources, registries, and training materials in research data management, including data analysis, curation and stewardship.
  - The Community Centre will provide a focal point for sharing expertise, good practice and troubleshooting within disciplines, building Communities of Practice.
- The concept of BioFAIR was developed by ELIXIR-UK working with the UK Life Sciences research community. This led to a proposal, **BioFAIR; A data commons infrastructure for biological and biomedical sciences**, submitted to the Biotechnology and Biological Science Research Council (BBSRC) Big Ideas Pipeline which was then refined into a full business case which has been approved by United Kingdom Research and Innovation (UKRI) and Department for Science and Technology (DSIT). This community approach will continue to be reflected in the delivery of BioFAIR with
- Continuous stakeholder engagement to ensure the priorities of the project reflect the need of the UK Life Sciences research community
  - A commitment to assemble and reuse existing services, tools and capabilities whenever possible, harnessing capabilities already developed across the UK. Funding the enhancement of these capabilities and ensuring they form a cohesive infrastructure.
  - Delivery through a Hub and Spoke model. With a lean Hub based at the Earlham Institute providing coordination, project and relationship management but with a distributed leadership and delivery model through a network of spokes with the expertise and experience to deliver and operate best of breed capability.
  - Collaboration with other UK and international initiatives to ensure the sharing of best practices and ensure interoperability across disciplines.





# Introduction to Earlham Institute

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The Earlham Institute is a hub of life science research, training, and innovation focused on understanding the natural world through the lens of genomics.

Embracing the full breadth of life on Earth, our scientists specialise in developing and testing the latest tools and approaches needed to decode living systems and make predictions about biology.

The Earlham Institute (EI) is based within the Norwich Research Park and is one of eight institutes that receive strategic funding from UKRI BBSRC, as well as support from other research funders.

EI operates as the coordination office of ELIXIR-UK, the national node of the European Research Infrastructure for Life Science Data.

[earlham.ac.uk](https://www.earlham.ac.uk)



Decoding Living Systems



The Earlham Institute is a registered charity (No.1136213), strategically funded by the Biotechnology and Biological Sciences Research Council.



## Our vision and objectives.

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Our vision is to build a federated Digital Research Infrastructure (DRI) consisting of a Data Commons, Method Commons, Knowledge Centre and Community Centre built from the capabilities and best practices already established in the life sciences community in the UK and beyond. This will support the effective adoption of FAIR principles and democratise access to data and methods across all of the UK life sciences research producing organisations. We are committed to being community led and agile in our delivery.

### The objectives of the BioFAIR project are

- **Culture change:** To drive adoption of FAIR principles and open data across the UK life sciences to provide high quality FAIR datasets ready for uptake and reuse.
- **Defragmentation:** To increase the coordination, collaboration and cohesiveness of the UK's life sciences related data landscape, enhancing its effectiveness and efficiency.
- **Access:** To enable democratised access to data and data methods within UK life sciences via a national capability.
- **Skills:** To attract, develop and retain excellent research data management skills and capacity for UK life sciences.
- **Data reuse:** To improve the efficiency of research and enabling new research by increased re-use of data in the life sciences.

BioFAIR has been developed by the UK Life Sciences community over the past six years, and will be delivered as a distributed digital infrastructure harnessing the expertise and services of the UK, European and international partners.

BioFAIR will operate as a Hub and Spoke organisation. The BioFAIR Hub will be based at EI, who will be responsible for coordination, establishing and managing delivery partnerships and governance.





## Our culture.

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The BioFAIR culture reflects the six core values of the Earlham Institute; Openness, Technical Excellence, Developing and Rewarding Talent, Innovation, Collaboration and Equality, Diversity and Inclusion.

For BioFAIR, this means that every member of the BioFAIR team is expected to live this culture as it is these values that will be at the heart of the success of the project.

To read more, see [earlham.ac.uk/our-culture](https://earlham.ac.uk/our-culture)

**Openness** - The BioFAIR project has a key objective of driving culture change through the adoption of the FAIR principles. We will ourselves promote the dissemination of knowledge, data and methods. However, we will also operate openly in our leadership and decision making to promote collaboration across the Life Science community. We will continuously engage with our stakeholders and communicate openly around all opportunities.

**Technical Excellence** - We are committed to delivering the highest standards of quality and continuous improvement. We will work with our partners to assemble the BioFAIR infrastructure based on the highest quality services and tools available. Technical priorities will reflect the needs of the Life Science Research Community.

**Developing and Rewarding Talent** - We aim to recruit, train and retain highly skilled and talented people, with our alumni acting as ambassadors for the Institute.

**Innovation** - We will deliver capabilities based on the requirements of the Life Science Research Community. We are open to change and adaptation as new requirements and priorities emerge.

**Collaboration** - BioFAIR will build from the excellence already established by many existing infrastructures, service providers and communities. We will work collaboratively with these teams across the UK and Internationally through mutual respect and openness.

**Equality, Diversity and Inclusion** - We recognise the value of a diverse team with a commitment to creating a fair and welcoming environment for everyone.



# Our Commitment to Equality, Diversity, and Inclusion.

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The Earlham Institute is strongly committed to being a force for change with reference to furthering Equality, Diversity and Inclusion. We welcome applications from anyone regardless of ethnicity, heritage, disability, gender, sexuality, religion, socio-economic background or other differences.

We are committed to inclusive working practices.

During the application process we commit to:

- paying for childcare and care costs whilst you are at interviews
- paying for your travel costs to the office and back for interviews
- making any reasonable adjustments – for example ensuring we have a sign language interpreter organised in advance if you'd like them
- providing this document in a Word document format readily available to download
- offering a guaranteed first stage interview with Inclusive Boards for disabled candidates who meet the minimum requirements for the role.

You can find more about our commitment to [Equality, Diversity, Inclusivity and Accessibility](#) on our website.

If there is anything else you are concerned about or think we could provide, please let us know.



# Appointment of BioFAIR Architect

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The BioFAIR Architect will provide the key technical leadership for the initiative through collaboration with the technical leaders in the BioFAIR spokes and across from the UK life sciences community. They will work closely with the Director to provide consistent technical leadership for the project. The Architect will be responsible for establishing a strong community-led culture of collaboration and collective responsibility. They will use the skills and experience of the delivery team to ensure a clear modular architecture that can be deployed and operated at scale, and that can adapt to the changing requirements of UK life science researchers.

This role requires a strong technical leader who can work with the stakeholders to refine key technical requirements, and can work with the technical teams in the spokes to ensure that these are delivered in a consistent and cohesive way, with production level quality. This will require the ability to build and maintain excellent technical relationships and a focus on building a flexible, distributed infrastructure assembling from best of breed capability from across the UK.

The Architect will need outstanding relationship management skills, experience of delivering and operating research computing infrastructure and a commitment to community delivery reusing existing services and capability whenever possible.

## Main activities and responsibilities:

- **Strategic Planning:** They will be responsible for developing and refining the technical vision and overall architecture for BioFAIR in collaboration with key stakeholders, including UKRI, Research Performing Organisations, research teams, and the broader life science community.
- **Architecture Group:** They will be responsible for establishing and leading a BioFAIR Architecture group from across the hub, spokes and partner organisations. They will lead stakeholder engagement to ensure that the Architecture Group is responsive to evolving user requirements and remains collaborative in its delivery.
- **Technology Evaluation and Selection:** The Architect with the support of the Architecture Group will work across the community to identify potential services, tools and capabilities to support BioFAIR. The Architect will lead feasibility studies to evaluate potential services and tools. From these studies they will identify the technical requirements for the competitive spoke selection calls working with the BioFAIR Director to ensure fairness and transparency in this selection. They will work to ensure that BioFAIR maintains a core approach of assembling for best-of-breed services and reuses wherever and whenever possible.
- **Technical Leadership:** They will provide oversight and guidance to the delivery team and support the spokes in the development of services that can be deployed at scale with production capability through defined service level agreements (SLAs). They will be responsible with the delivery team for setting and monitoring these SLAs. They will have responsibility for communicating the technical impact of the BioFAIR project and ensuring that the BioFAIR Director can communicate this to the UKRI Executive leadership through the BioFAIR Project Board. They will have responsibility for the recruitment, retention and development of technical professionals within the hub and will ensure that the hub and spokes work as a cohesive high performance distributed technical team.



## Main activities and responsibilities:

- **Trusted Advisor:** The Architect will provide technical advice and guidance to the Director and Project Board. They will actively participate in and engage the Scientific and Technical Advisory Group.
- **Partnerships and Collaborations:** The Architect will identify, establish and coordinate technical partnerships with relevant organisations, both nationally and internationally, to leverage expertise, resources, and best practices in data management, analytics, and FAIR principles. This will include collaborating with ELIXIR, UK Reproducibility Network, Software Sustainability Institute, Digital Curation Centre, Galaxy Community, and other relevant stakeholders and other complementary Digital Research Infrastructures (DRIs).
- They will ensure that the project embeds a culture of equality, diversity and inclusivity across all aspects of delivery and throughout all of its activities



## Key relationships.

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- Evangelist for BioFAIR Nationally and Internationally
- Point of Contact for key community organisations such as ELIXIR, SSI and Society for Research Software Engineering
- Point of contact for peers in Health Data Research UK, Data and Analytics Research Environments UK, Natural Environment Research Council, and other UKRI DRIs projects
- Lead the BioFAIR Architecture team
- Leading and coordinating the technical leaders across the hub and spokes
- Member of the BioFAIR Technical and Scientific Advisory Group
- Career and functional reporting to the BioFAIR Director



# Person Specification.

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## Specialist Knowledge and Skills

- Degree in a relevant discipline
- Track record of building federated infrastructures and services, through collaboration and cooperation
- Practical knowledge of modern compute, storage and cloud technologies
- Practical knowledge of modern metadata approaches
- Proven ability to build, grow and retain high performing distributed teams
- Strong relationship management skills

## Relevant Experience

- Track record of open technical collaboration
- Ability to provide technical leadership through influence across a distributed delivery team
- Significant experience of leading the development of federated research infrastructure through collaboration
- Experience of discovering new ways of working and solutions through personal initiatives and challenging prevailing ideas and assumptions
- Experience of work of horizon scanning and delivery of new technologies
- Commitment to maintaining up-to-date specialist technical knowledge
- Experience of supporting and collaborating with academic research communities
- Experience of supporting and collaborating with academic research communities

## Interpersonal and Communication Skills

- Committed to the principles of FAIR and open science data sharing
- Outstanding proven experience of collaboration
- Ability to create, build and sustain networks of collaborators
- Open-minded, determined and resilient
- Ability to communicate effectively and appropriately at all levels
- Able to represent BioFAIR and EI to a high standard externally with a wide range of stakeholders
- Strong team player; working together to reach common goals; sharing information and supporting colleagues and collaborators.
- Strong negotiating skills

## Additional Requirements

- Commitment to a culture of openness, collaboration and excellence
- Promotion of equality and valuing diversity
- Be an outstanding leadership and technical role model
- Committed to stakeholder engagement activities and to a user led approach to development
- Attention to detail with good time management skills
- Able to present a positive image of self, BioFAIR and the EI
- As this is a key leadership role in the Hub, on average the Architect would be expected to spend one day a week in EI.

## How to apply

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**The closing date for applications will be 23:59 22 September 2024**

**Contact:** [eva.wan@earlham.ac.uk](mailto:eva.wan@earlham.ac.uk)



# Life at Earlham.

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## **People and culture**

Our success relies on each individual achieving their potential.

We do this by striving to create an environment where everyone feels meaningfully connected to their work, colleagues, and the wider mission of the Institute.

Through a diverse programme of training and support, regular feedback and reflection, committees and working groups, and a commitment to learning and improving, we constantly strengthen our work culture and identify opportunities for improvement.

## **Championing Equality**

We are committed to building and maintaining a workplace that treats every individual with dignity and respect.

By taking an active approach to fostering inclusivity, diversity, equality and accessibility, we will empower our community to achieve more.

The Earlham Institute's Inclusivity, Diversity, Equality and Accessibility (IDEA) Committee brings together people from all levels and areas of the organisation to advise on, and assist with, the development and implementation of the IDEA strategy at EI.

## **Family Life**

The Earlham Institute offers a supportive working environment for parents and carers, with policies, initiatives, and facilities to help you manage both your career and caring commitments.

From priority places at an on-site nursery to flexible working patterns, we work with each individual to try and help them achieve the right work/life balance.

## **Pay and Benefits**

Come to work in a beautiful part of the UK, where you can enjoy the vibrant and historic city of Norwich while benefiting from having the Norfolk broads and picturesque coastline on your doorstep.

We'll offer a competitive salary, attractive pension, and a range of benefits, including:

- Flexible working arrangements
- Generous annual leave entitlement, along with public holidays and privilege days
- Voluntary Employee Benefits Scheme
- Discounts and special offers for staff
- On-site sports and leisure facilities, including the Rec Centre and swimming pool
- Mentorship, training and development opportunities.

# Living in Norfolk.

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Norwich is an historic city with a rich culture of art, literature, and sport. This 'city of stories' is also a hub of research excellence - home to some of the leading scientific centres in the UK.

With regular trains to Cambridge and London, plenty of city bus routes, and an international airport, the city is well-connected. Consistently voted as one of the best places to live and happiest places to work in the UK, you're sure to fall in love with Norwich and create your own stories here.



Living and working in Norfolk is generally considered to be more affordable than other places in the UK and South-East, such as Cambridge or London, giving you greater flexibility with living options, whether that's renting or purchasing property.

If you are relocating to Norfolk for work at EI, our Business Support Team is available to help provide support and information of sourcing places to stay.

Norfolk is also a great place for those with children. Not only are there plenty of things to do, but there are also many excellent nurseries, schools, and colleges in the area. There is an excellent network of high schools and colleges for 16-18 year olds, as well as two universities - the University of East Anglia and Norwich University of the Arts.







# Norwich Research Park.

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We are partner Institute of the  
Norwich Research Park.

Situated on a campus that stretches across  
1 kilometre, the Norwich Research Park is a  
world leading location for research, innovation  
and business.

The park is home to six research organisations:  
the Earlham Institute, John Innes Centre, The  
Sainsbury Laboratory, the Quadram Institute,  
the Norfolk and Norwich University Hospital,  
and the University of East Anglia.

For more on Norwich Research Park see:

[norwichresearchpark.com](http://norwichresearchpark.com)







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