



BioFAIR
Data for Life

BioFAIR Lead Architect

RECRUITMENT PACK



**Earlham
Institute**

Decoding Living Systems

Introduction to BioFAIR.

BioFAIR is supporting the UK's life-sciences federated digital research infrastructure to become an integrated, national BioCommons that places the data, tools and services needed to answer life-science questions directly at researchers' fingertips.

Funded by a £34m UKRI investment over five years, BioFAIR will deliver a step change in 'Findable, Accessible, Interoperable and Re-usable' (FAIR) research data management, providing end-to-end FAIR data and analysis capabilities alongside support and training for UK researchers.

To achieve this mission, BioFAIR is undertaking an ambitious programme to defragment the UK's existing data and service landscape. Guided by a "reuse, don't rebuild" philosophy, this work requires a cohesive architecture capable of onboarding mature services while also providing a framework for developing new, state-of-the-art capabilities. The architecture must evolve over time to meet changing community and research-infrastructure needs.

BioFAIR is structured around a distributed "Hub and Spokes" model.

The BioFAIR Hub is responsible for coordination of the overall programme, project governance, procurement, and core service delivery, ensuring that BioCommons services remain aligned and interoperable.

The Spokes are the primary engines of service delivery, and are organised around three Commons – the Data, Methods, and People Commons – as well as two additional capabilities, the Knowledge Hub and the BioFAIR Portal. A coherent, well-defined architecture is essential to guiding technical work across these spokes, which will be made up of partners from across multiple institutions and service providers.

BioFAIR is now looking to **recruit an experienced Lead Architect** to shape our architectural foundation and to work with technology providers across the UK research ecosystem to turn our distributed BioCommons vision into operational reality.

This role requires someone with deep architectural experience in research or data-intensive environments and a strong understanding of how to deliver sustainable, interoperable services at scale.



Image credit: AIP

Introduction to Earlham Institute

The Earlham Institute harnesses data-driven biology to accelerate solutions for health, biodiversity and food security.

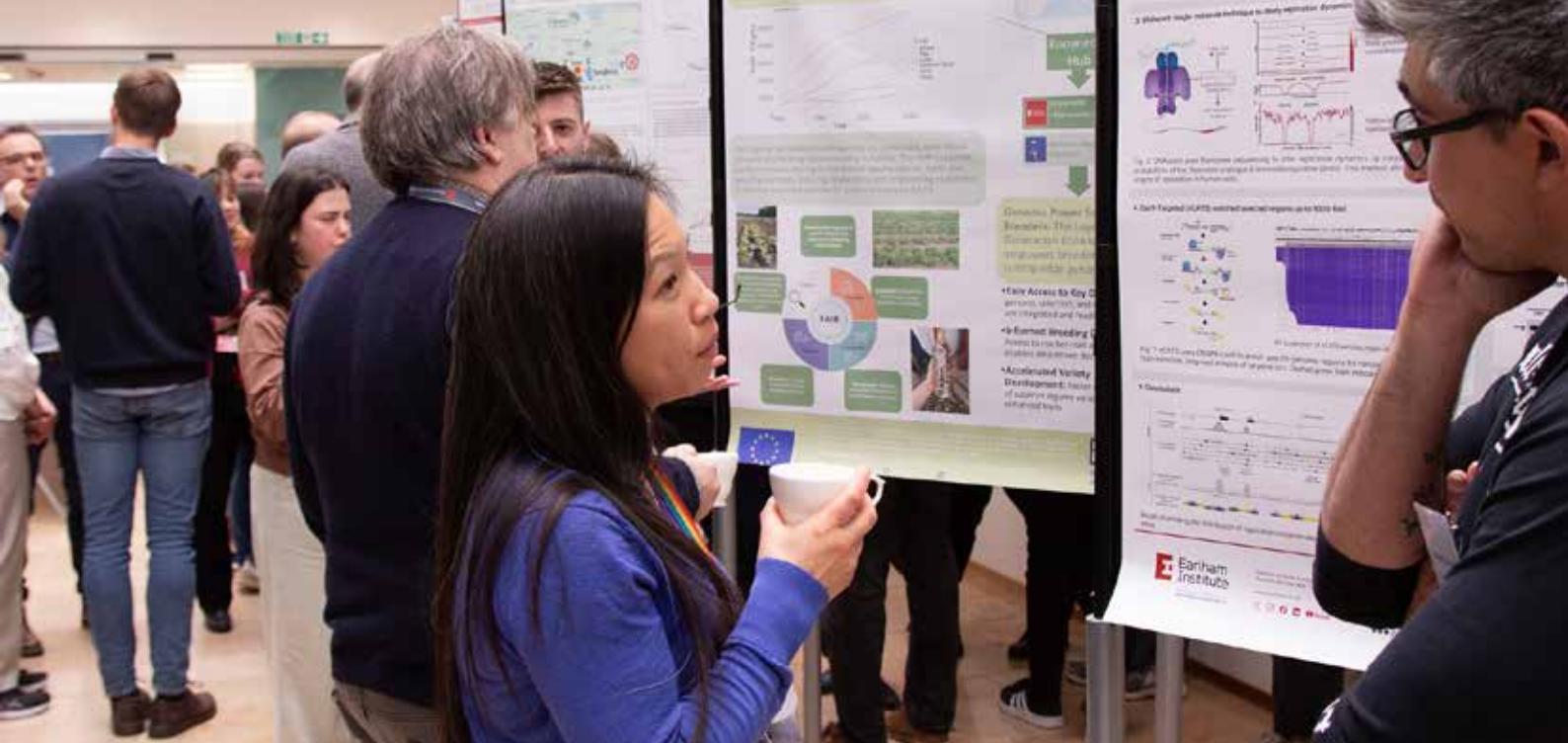
The Institute combines world-class technology and interdisciplinary expertise across genomics, engineering biology and data science to deliver scientific breakthroughs with economic and social impact.

Based at Norwich Research Park, the Earlham Institute is one of eight institutes strategically funded by BBSRC.

earlham.ac.uk



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



Our culture.

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

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.

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.



PROUD SUPPORTER OF THE
Technician Commitment



Appointment of BioFAIR Lead Architect

The Lead Architect for BioFAIR is responsible for defining and guiding the technical vision, architectural strategy, and design principles for a national, federated lifescience digital research infrastructure. This position blends aspects of systems architecture and solutions architecture, ensuring BioFAIR creates coherent, interoperable, sustainable, and FAIR-aligned services, delivered by distributed UK partners, that can be embedded in a variety of different life sciences settings.

This role requires technical leadership, unambiguous decision-making, and strong communication across multiple independent teams and stakeholder groups. The Lead Architect accelerates and supports the work of delivery partners by ensuring BioFAIR's architecture is robust, resilient and loosely coupled, and BioFAIR's technology is interoperable, easy to integrate, and aligned with long-term researchinfrastructure goals.

BioFAIR is trying to build a collaborative network of expertise across the UK, so the Lead Architect must also be able to listen to the needs of delivery partners, adapt to changing requirements, and respond quickly and decisively to adapt the BioFAIR architecture and technology as appropriate. The ideal person for this role brings clear, confident architectural judgement, an ability to make complex ideas understandable, and the calm authority to guide diverse partners toward coherent technical decisions.

They combine systems-level rigour with user-focused pragmatism, build trust quickly, and foster collaboration across institutions. They recognise that in collaborative projects, architecture must be socio-technical: the team structures and the services they deliver are two sides of the same coin. Adaptable and intellectually curious, they mentor others generously and help create a shared sense of direction within a distributed, multi-stakeholder environment.

Main activities and responsibilities:

Architectural Vision & Design

Define and maintain the architectural vision for BioFAIR, blending systems-architecture (infrastructure, interoperability, integration patterns) and solutions-architecture (use-case alignment, user needs, workflow enablement).

Establish core design patterns for APIs, identifiers, metadata, data-flow orchestration, registries, and workflows.

Ensure architectural consistency across infrastructure (cloud platforms, HPC, storage) and software (data repositories, metadata services, registries, workflow systems and authentication/authorisation systems).

Produce high-quality architectural documentation, system models, decision records, and integration guidelines.

Technical Leadership & Governance

Provide strong, clear architectural leadership across a distributed consortium, ensuring aligned decisions and consistent technical direction.

Lead architectural governance processes, including chairing architectural groups, driving consensus, and resolving technical disputes.

Identify and clearly communicate technical risks, dependencies, and trade-offs early.

Main activities and responsibilities:

Service Quality & Delivery

Guide engineering and research software engineering teams as they develop production-quality services with appropriate Service Level Objectives (SLOs) and associated error budgets.

Promote software delivery best practices through approaches such as site reliability engineering, continuous delivery, security-by-design, observability, documentation standards, and operational readiness across all services.

Provide mentorship to engineers and RSEs across institutions, supporting skills development, continuous improvement, and sustainable, delivery-focused engineering practices.

Community Engagement & Landscape Scanning

Rapidly and responsively assess and recommend best-of-breed technologies and components, balancing innovation with operational stability.

Represent BioFAIR in UK and international communities, driving alignment with emerging standards and community practices.



Key relationships.

- **Distributed Consortium Partners:** Provides architectural leadership, drives consensus, and resolves technical disputes across partner institutions.
- **Engineering and RSE Teams:** Mentors and guides teams on best practices to build production-quality services.
- **Architectural Groups:** Leads architectural governance processes, including chairing working groups, keeping focus on emerging priorities, and making timely decisions.
- **Stakeholders (Technical and Non-Technical):** Communicates complex architectural concepts with exceptional clarity to diverse audiences.
- **UK and International Communities:** Represents BioFAIR to ensure alignment with emerging standards and community practices.
- **BioFAIR Delivery Team:** Works with the BioFAIR Hub and delivery partners to align the architecture with long-term research-infrastructure goals.

Person Specification.

Specialist Knowledge and Skills

- Strong knowledge of metadata standards, identifiers, registries, and FAIR data principles, and a proven ability for keeping that knowledge up to date.
- Demonstrated ability to create architectural documentation, models, and integration patterns.
- Awareness of emerging AI/ML technologies and a clear ability to identify how emerging technologies are relevant and can be applied to digital research infrastructures
- DevOps expertise, with a strong track-record of service deployments utilizing containerisation, orchestration, CI/CD, observability, and security by design.
- Deep understand of the role of infrastructure on service delivery, and awareness of trade-offs between cloud and HPC usage in research settings
- Experience with large scale federated compute workload execution, ideally including the use of workflow engines (e.g. Nextflow, Galaxy, Snakemake), and data transfer in these settings (including transfer protocols e.g. Globus and packaging approaches e.g., RO-Crate).
- Understanding of UKRI, DRI initiatives in the UK, ELIXIR, EOSC, or similar research-infrastructure ecosystems.
- Experience with AAI systems (e.g., OIDC, SAML, GA4GH Passports).

Relevant Experience

- Significant experience in senior systems architect or solutions architect roles (ideally both), designing distributed, interoperable, production-grade digital infrastructures.
- Experience driving architectural decision-making in complex stakeholder environments.
- Experience in life sciences or research-computing contexts

Management and leadership

- Proven leadership working across multi-institution, distributed teams.
- Ability to operate with autonomy and provide clarity in ambiguous, distributed settings.

- Commitment to inclusive, community-centric leadership (i.e. ensuring perspectives are heard, captured, turned into prompt decisions, and translated)

Interpersonal and Communication Skills

- Exceptional communication skills, with the ability to articulate complex architectural concepts with clarity to technical and non-technical audiences.
- Commitment to open, transparent communication and consensus building.
- Collaborative and community-driven approach to problem solving.

Additional Requirements

- Attention to detail
- Commits to responsible data stewardship and FAIR/CARE principles.
- Promotes equality and values diversity
- Be an outstanding leadership and technical role model
- Able to present a positive image of self, BioFAIR and the Earlham Institute
- Commitment to a culture of openness, collaboration and excellence
- 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.
- Good time management skills
- Promotes equality and values diversity

Starting salary:
£71,000 to £90,000

This is a full-time post for a contract up until 30 June 2029.

Relocation package: Standard

Closing date: 30 January 2026

Interview date: 03-04 March 2026

How to apply

Contact: eva.wan@earlham.ac.uk

earlham.ac.uk



Life at Earlham.

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.



Norwich Research Park.

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



Living in Norfolk.

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.

www.earlham.ac.uk/living-norfolk



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Earlham Institute
Norwich Research Park
Colney Lane
Norwich
Norfolk
NR4 7UZ
earlham.ac.uk