National Federation of Compute Services Network Plus Flexible Funding Call

1. Call Headline Details

Total funding for the call	£1.98mill
Maximum award	£150k
Funding level	80% of FEC
Call opens	01/04/25 TBC
Closing date for submissions	01/0525 TBC
Notification of outcomes	17/05/25 TBC
Anticipated earliest project start date	01/06/25
Project completion deadline	31/07/26
Maximum duration of projects	12 months

2. About the National Federation of Compute Services Network Plus

Federation of national, regional, and institutional large-scale computing resources has the potential to realise significant benefits for users, resource and service providers, and funders.

This was recognised in the <u>Government Office for Science report on Large-scale computing</u> which provided a number of recommendations that point towards improved national coordination for large-scale computing, to provide improved efficiency, and reduced barriers to entry.

Large-scale computing is a fundamental and necessary part of modern research across all disciplines. With large investments being made into large-scale computing, both at the exascale, and for AI, it is particularly timely to deliver on a national federated computing service.

The key benefits that federation can deliver are:

- improved accessibility for users,
- enhanced data accessibility and sharing,
- efficient use of deployed resources through pooling and sharing,
- enhanced sharing of expertise and experience across disciplinary boundaries,
- enhanced cybersecurity through joined-up operations and policy,
- enhanced resilience through the distribution of interoperable resources and services
- larger community of highly skilled researchers and technical staff entering UK workforce

This Network-Plus aims to identify the pathway to deliver these benefits through the building of a broad and diverse community around joined-up large-scale computing and leveraging this to develop strategic roadmaps to achieve a national federated compute service that encompasses both computation and data federation.

3. About this Flexible Funding Call

The Flexible Funding call is designed to support projects that:

- (a) collect relevant evidence and documentation to contribute to the development of the federation roadmaps;
- (b) contribute to building the community around NFCS.

The flexible nature of the call will enable the selection of projects on various scales that span the three pillars of the NetworkPlus: Community, Technology, and Governance. The selection of projects will seek to achieve a balance across these pillars and between large and small projects. The Flexible Funding call is the principal mechanism through which the community can contribute to developing the insights needed for the roadmaps, and the project selection will look to ensure that a range of communities of different sizes and maturities with respect to large-scale computing and data services are engaged.

4. Scope of the Flexible Funding Call

Proposals will be expected to identify which of the three pillars of the Network Plus they will address. The following sections describe areas within these pillars that have been identified as being of particular interest. However, this is not intended to be an exhaustive list; proposals addressing other areas of relevance to the pillars are welcomed.

4.1 Community

For the Community pillar, areas of interest include:

- Identifying existing and emerging user stories
- Establishing common nomenclature and standards
- Defining KPIs, community specific and generic
- Engaging with industrial partners
- Investigating skills gaps and training opportunities
- Feedback and co-development of roadmaps via workshops and roadshows

4.2 Technology

For the Technology pillar, areas of interest include:

- Identity and access management (IAM) technologies, standards and protocols
- Secure, standard Application Programming interfaces for accessing HPC, HTC, data and Al services
- Security, data protection and privacy compliance policies and implementation examples and use cases
- Federated resource management, allocation, and accounting solutions across communities
- Distributed workflows across HPC, HTC, data and Al
- Data transfer and sharing platforms and technologies
- Community applications, portals and interfaces for federated services
- Architecture and software stacks enabling federation of services
- Federated training and outreach platforms

4.3 Governance

Areas of interest for the Governance pillar cover both the technical governance that sets conditions for participation in the federation, and the organisational governance

that oversees the management of the federation across the participating organisations. The latter includes the business model that enable the federation to function in a financially sustainable manner. The flexible funding call will support projects that contribute insights that enable the identification of appropriate governance models for adoption by the NFCS.

There are many existing examples of each of these governance aspects in the UK, across Europe, and internationally, Studies that survey existing practice, and provide insight into its relevance to, and potential application within, the NFCS will be an important contribution to developing the roadmaps. Studies that consider mechanisms for engaging non-UKRI communities in federation governance with a view to enabling their participation in the federation will also be important to ensure an inclusive approach.

4.4 Project activities

We anticipate that project activity will comprise one or more of:

- Surveys of existing practice
- Assessment of gaps in existing provision which can be hardware, software, training, services
- Assessment of barriers to entry and on-boarding of new user-communities or providers
- Technical evaluation of existing or prototype solutions
- Community building activities that establish new communities as relevant for the DRI

Other activities that support development of the roadmaps or community building may be included. However, research into, or development of, new technical solutions is not within the scope of activities within the call. Projects that foster community collaboration are particularly encouraged.

The call evaluation will seek to ensure that a broad range of activities are supported.

4.5 Project scale

We anticipate that projects will be categorised by scale:

Category	Financial value	Examples
	(100% FEC)	
Small	<£10k	- Events aimed at building communities
		- Surveying for existing practices.
Medium	£10k to	- More detailed surveying and analysis
	<£60k	- Modest technical evaluations
Large	£60k to £150k	- Technology evaluations requiring significant staff time to setup and execute
		 Surveys of larger communities where multiple events and significant staff time may be needed to collate and process outputs

The call evaluation will seek to ensure a balance across the scale categories.

5. Eligibility

The Flexible Funding Call is open to all higher education institutions, research council institutes and independent research organisations in the UK that are normally eligible for UKRI funding (https://www.ukri.org/publications/organisation-eligibility/research-organisations-eligible-for-ukri-funding/)

6. Expected Project Outcomes

All projects awarded under the Flexible Funding call are expected to result in outcomes that contribute to the development of the federation roadmaps, and/or contribute to the community building aspect of the Network Plus. Proposals should also embed EDI and skills development in the proposed activities. Project teams may be expected to disseminate their findings at a NFCS Network Plus event.

7. Eligible Costs

Eligible costs will include:

- Running and supporting events to generate new communities of practice
- Running and supporting events to gather evidence of existing practice
- Work to survey and compile information on existing practice
- Work to collate, analyse and document evidence for submission to the roadmap development
- Limited hardware and software costs for technical evaluation studies
- Work to set up, complete, and document technical evaluation studies

Queries about eligibility of other costs should be referred to the Programme Manager.

8. Equality, Diversity and Inclusion (EDI)

The Network Plus team is committed to EDI, and we encourage engagement from under-represented groups across the community. This includes inviting applications from researchers at all career stages. Successful proposals will consider and support EDI and skills development as part of their proposed project activity.

9. Submission Process

Proposal should be submitted on the application form, together with any letters of support from project partners. Applications should be submitted by email to: [e-mail address] by [submission deadline]. Receipt of applications will be acknowledged. Any applications received after this date and time will not be considered.

10. Evaluation Process

All proposals will be subject to an initial sift against the eligibility criteria, and the call scope. Proposals will be categorized based on their scale and the identified pillar that they are addressing.

Assessment and selection of projects will be carried out by one panel for each theme who will make recommendations to a single panel that will then moderate the outcomes to ensure consistency, diversity, and balanced coverage of the programme. Each panel will comprise at least three members, selected to ensure an appropriate

level of experience, expertise and balance, with at least one member from the leadteam, and one member from the community board.

Successful proposals will clearly:

- Identify which of the three pillars of the NetworkPlus: Community, Technology, and Governance, that they address.
- Demonstrate how they will support the NetworkPlus in achieving one or more of its three deliverables: federation roadmap, data roadmap, and community building.
- Indicate the project outcomes supported by a fully costed workplan.
- Demonstrate how they will engage with the relevant community to achieve their outcomes.
- Demonstrate the experience and qualifications of the team to deliver the project outcomes.
- Indicate the project risks and how they are mitigated.
- Commit to provide regular reporting to the Programme Manager and Technical Coordinator.

These factors will be considered using the following evaluation criteria:

Criteria	Weighting
Relevance to federation roadmap, data	20%
roadmap, or community building	
Impact on balance of NFCS portfolio	20%
Degree of collaboration or community	20%
engagement	
Suitability of team to deliver	10%
Project management	10%
Value for money	10%
EDI and skills development	10%

Applicants will be notified of evaluation outcomes by 17/06/25?. Unsuccessful projects will be provided with feedback from the assessment panel.

10. Point of Contact for Queries

If you have any questions, please do not hesitate to contact us by emailing [e-mail here]