



RAI UK

Keystone Projects

Opportunity status:

Open

Funders:

UKRI via RAI UK

Funding Type

Grant

Total fund:

£10m

Award range:

£2,000,000 - £3,500,000

Full Call Announcement

30 November 2023

Expression of interest deadline (mandatory):

15 December 2023 16:00 GMT

Notification of invitation to full proposal:

5 January 2024

Submission open (invited full proposals only):

8 January 2024

Submission due date:

16 February 2024 16:00 GMT

Project start date:

1 May 2024

Apply for funding for consortia-led research into Responsible Artificial Intelligence (RAI) to ensure that AI technologies are designed, deployed and used responsibly within societies.

This funding is intended for world-leading researchers from across all disciplines to undertake a variety of activities focusing on one strategic research theme.

You and your organisation must be eligible for UKRI funding.

Please note, we are aiming to extend and enhance the diversity of the network of researchers engaged in Responsible AI through this call. Applicants can therefore only be named in one proposal.

Funding is available for 3-5 grants. Successful projects must begin by 1 May 2024 and last up to 47 months.

RAI UK will fund between £2m and £3.5m at 80% full economic cost. This opportunity is part of the RAI UK programme which supports research on the technical, social, legal and ethical challenges surrounding responsible artificial intelligence.

A briefing webinar will be held on 11 December 9:30AM GMT to highlight the key things we are looking for in these Keystone Projects. Please sign up [here](#) if you would like to attend.

Who can apply

Responsible Artificial Intelligence needs an interdisciplinary ecosystem that adopts Equality, Diversity and Inclusivity (EDI), Trusted Research, and Responsible Research and Innovation (RRI) as fundamental principles. We are therefore particularly interested in supporting diverse, multidisciplinary teams that co-create research with industry and the public. Successful applicants will be expected to collaborate with the wider RAI UK programme (see www.rai.ac.uk).

We would encourage researchers from all the disciplines that are supported by UKRI to apply, including but not limited to:

- Applied Ethics
- Management Science
- Computer Science
- Engineering
- Humanities
- Innovation Studies
- Medicine and health studies
- Law
- Organisational Management
- Philosophy
- Politics
- Psychology

- Sociology

RAI UK is leading this call on behalf of UKRI. Standard UKRI eligibility rules apply. Research grants are open to:

- UK higher education institutions
- public sector research establishments
- research council institutes
- UKRI-approved independent research organisations and NHS bodies with research capacity.

[Read the guidance on institutional eligibility.](#)

Please note, applicants from non-academic organisations and academic organisations outside of the UK are not eligible to apply for this funding call.

You can apply as Principal Investigator (PI) if you are resident in the UK and meet at least one of the following conditions:

- are employed at the submitting research organisation at a level equivalent to lecturer or above,
- hold a fixed-term contract that extends beyond the duration of the proposed project, or the host research organisation is prepared to give you all the support normal for a permanent employee,
- hold a senior UKRI, or appropriate learned society fellowship (non-industrial),
- hold fellowships under other schemes which will be considered on a case-by-case basis - please contact us to check eligibility.

Holders of postdoctoral level fellowships are not eligible to apply as PI.

Due to the nature of this underlying funding, we are looking for high-quality bids that extend and enhance the diversity of the network of researchers engaged in Responsible AI. **Therefore, applicants can be named in only one proposal.** While there is no restriction on the number of Expressions of Interest that can be submitted by different PIs at a single institution, we will only invite one of them to submit a full proposal. UKRI reserve the right to reject proposals which do not meet the requirements of the funding opportunity.

What we are looking for

This call aims to support projects that address strategic themes that underpin Responsible Artificial Intelligence. It aims to grow the network of researchers engaged in these topics and complement other key aligned programmes already funded by UKRI (e.g., Alan Turing Institute, Ada Lovelace Institute, AI Hubs, Centres for Doctoral Training) and other institutions in the UK considering the development and deployment of AI technologies. Keystone projects will form core research pillars of RAI UK which seeks to bring together the best talent to address multi and interdisciplinary challenges posed by Responsible AI.

We particularly encourage proposals that fit the RAI UK Vision, which is:

1. **Help enable responsible AI to power benefits for everyday life.**
2. **Work in collaboration with** researchers, industry professionals, policymakers and stakeholders to **drive an ecosystem** that will be **responsive to the needs of society.**

Proposals must clearly articulate how they address at least one of the following themes. These themes have been defined through a range of consultations including the series of roundtables that have been run at townhall events in London, Cardiff, Belfast, and Glasgow; engagements with the AI ecosystem through a series of roundtables; feedback from members of the RAI UK Strategy Group and other key members of the UK AI community:

- **Responsible AI-powered organisations and economies:** organisations and economies are rapidly evolving due to new ways of working in response to AI. This has wide-ranging implications for organisations and their employees, the end-users of the products and services offered by these organisations, and their economies. Responsible AI practices need to include systems-based approaches, beyond testing of individual AI algorithms, to evaluate the wider implications of AI deployment into complex human/AI systems. This includes ensuring that innovators understand the overall consequences and measures, such as the reskilling and upskilling that will need to be developed. What are the responsible AI principles appropriate for sectors (e.g., healthcare and the justice system) and contexts (e.g., where there may be high consequences of failure) so that AI innovations are safe, trustworthy, and provide confidence to organisations, customers, stakeholders, economies, and the wider society?
- **Addressing harms, maximising benefits of AI:** How AI is framed and applied introduces new opportunities but also trade-offs for individuals, industries, and societies where the potential benefit may be outweighed by negative impacts on a wide range of issues. This includes issues such as privacy, bias, accessibility, labour rights, social justice, and sustainability (of people, organisations, and the environment). Many of these trade-offs have direct legal ramifications. Moreover, AI solutions often do not generalise to new settings, exacerbating uncertainties as to whether existing technical successes can translate to new domains, sectors, cultural and global contexts. This introduces the need for deployment, validation, provenance, and auditing regimes for AI, so decision makers can thoroughly understand and manage the limitations of AI systems to ensure they are safe, ethical, and beneficial, while simultaneously highlighting where further development is needed to extend their scope. Dimensions of AI safety (e.g., ensuring the system functions as intended with regards to ethics, policy, legal and technical aspects), AI security (e.g., ensuring the system is robust to malicious interference) and the countering of AI misuse offer may open questions to be addressed. What is needed to be in place so that AI works for the benefit of people and societies while harms are minimised?

- **AI Law, governance, and regulation in an international context:** The UK needs to meet the challenges of when and how to govern and regulate AI within the international digital economy. In the National AI Strategy, the UK government emphasised the desire to encourage startups and SMEs to adopt AI, while acknowledging the increasing need to meet AI regulation. However, there are few established routes to control, transparency and redress for users in relation to automation in digital public services, as well as crucial private sector interactions. For example, the rise of generative AI has posed significant (though not unique) challenges to the creative industries. Currently very different approaches to AI governance are taken by the EU, China, the US, and elsewhere, a global debate to which the UK must make a strong contribution or risk isolation. While longer-term AI safety issues have recently been highlighted by the UK government, short to medium term risks remain outstanding. Against this background, we would seek the most effective research contributions that the UK can make to this global debate, to drive for clarity around AI regulation that is rights-respecting. What are the approaches that promote trust, provide fairness, and accountability for users, and provide certainty for international commerce?

In addressing these themes, projects should consider both the technology development processes that embed responsibility and trust and how these can be shaped to deliver societal benefits through governance, regulation, and education.

Expertise

Each proposal should be a consortium incorporating a diverse range of voices, through engaging different academic institutions and disciplines, policy makers/advisory groups and non-academic stakeholders including commercial enterprises and civil society groups. The team will reflect the strengths represented around the UK, nationally. It is expected this group will have:

- thematic expertise reflecting the communities that will be engaged in the investment.
- in-depth understanding of relevant disciplines, technologies, policy challenges and evidence needs.
- an ability to engage with diverse stakeholders, including non-academics.
- an ability to articulate a clear vision for engagement with communities working in this area and new partners from within the appropriate disciplines or elsewhere.
- an ability to deliver complex projects to time and on budget, considering the variety of activities and outputs.
- specialist expertise (academic or non-academic) to support the desired outcomes, which may include sector representatives, programme management expertise, a communications function, and knowledge mobilisation expertise.

Key features of a Keystone Project

1. Quality and ambition

A Keystone Project is seen as a scheme that matches best with best and allows researchers to tackle bigger, more open-ended problems, addressed through a more coherent or holistic approach.

The stability in tackling a longer-range vision helps motivate teams, provides the freedom required to take risks, and enables longer term planning.

2. Partnership and Ecosystem Development

The scale of activity is seen to create stronger links between the universities involved and greater visibility at a national and international level, leveraging the RAI UK network, partners, and international connections.

The size of keystone projects allows for the assembly of the best team and collaborators, all with complementary expertise leading to the development of effective multi-disciplinary and cross-disciplinary working. The team will be expected to promote and champion RAI UK in their respective domains, to help grow the community across sectors and disciplines.

The duration of keystone projects allows investment by the team in building effective collaborations. The scale of a Keystone project should look to attract partnerships beyond the original project partners and seek greater input from the wider community, including public/private sector, resulting in more external visibility on the research direction for the area.

Keystone projects will form part the RAI UK core pillars and contribute activities that will help connect and drive efficiencies within the UK AI ecosystem. They will have access to the broad network of partners brought together by RAI UK and support international conversations on Responsible AI using the reach that RAI UK affords. They will also bring on other parts of the AI ecosystem that are currently disconnected from national conversations and research programmes. These activities should be specifically costed into the programme to allow for this flow on knowledge across organisational boundaries.

Please make it clear where the project looks to build on connections to existing networks and research programmes. RAI UK are keen to understand how this funding is building new connections and developing exiting relationships within the ecosystem, providing additional value within the landscape.

3. Creativity

The keystone mechanism provides freedom to scope new opportunities, allows the team to cross-fertilise ideas, and build up new skills sets. This allows the team to develop new themes, and to trade ideas and resources. The stability of the grant allows early career researchers (ECRs) in the team to express their creativity and to lead on part of the investigation.

4. Impact and advocacy

Keystone projects are seen to have greater visibility and recognition within the universities involved and the relevant research communities at both a national and international level, leveraging the RAI UK brand. This gives the keystone project team more influence than smaller scale research activities.

They are able to attract more visits and engagement with high quality researchers and external stakeholders, leverage other funding, and influence wider strategies. The visibility also enhances the opportunities for outreach and advocacy, promoting UK science. We expect applicants to demonstrate how they will deliver or support the desired outcomes in their applications to support the UK's transition to an AI-enabled economy, resulting in growth, prosperity, and mutual benefit for sectors and citizens.

5. Career development

Keystone projects will be a good environment for ECRs' longer term career development. The flexibility and longer durations allow the project lead to empower junior team members giving them greater independence through more responsibility and leadership over activities.

Postdoctoral staff gain a broader experience due to the breadth of experience and expertise in the team and there are greater opportunities for secondments, mentoring and involvement in management. This makes keystone projects an attractive employment prospect leading to higher quality recruitment. PhD students would also be expected to be aligned to keystone project teams, also benefiting from interacting with a team of broader expertise and activity.

6. Flexibility

The flexibility keystone project holders are afforded is seen as a real strength of the scheme. The flexibility enables a more dynamic allocation of resources and a nimble approach to recruitment, and definition of the individual projects being undertaken. Specifically, integrative activities across the RAI UK ecosystem are expected, and RAI UK will be organising a series of integrator workshops to facilitate this. We require 20% of funding and researcher time to be reserved for such dynamically defined activities to be undertaken in collaboration with RAI UK, other UKRI AI investments, other Keystone Projects and the new AI Hubs and CDTs.

In addition to collaborating with the wider programme, it is anticipated that successful applicant teams will also engage with stakeholders and users of the research, who are essential to the design, conduct and impact of application-orientated research.

It is also expected that Keystone projects demonstrate strong institutional support. Letters of Support from participating organisations (as a minimum from the lead institution) should demonstrate alignment to the organisations' strategy and ambitions and indicate contributions to the project. Whilst substantial contributions (cash or in-

kind) are expected from project partners and participating organisations, there is no minimum requirement, and partnerships will be assessed on their relevance and alignment to the programme.

Note that all proposals submitted will be assessed equally, irrespective of which theme(s) the proposal aligns with. However, a balanced portfolio of projects across disciplines, sectors and themes will be funded.

If you are planning to involve international partners, you will need to complete the RAI UK's [Trusted Research section](#) and the [checklist for academia by CPNI and NCSC](#).

Note that based on the answers to this checklist, you may need to escalate this within your institution or department for a decision.

Management and monitoring

Keystone Projects should have effective management and monitoring arrangements for the investment. This should include a risk management strategy and a strategy for how the flexibility of resources will be managed.

RAI UK expects all keystone projects to establish and run an independent advisory board that *will include at least one member of the RAI UK leadership team* (See: <https://www.rai.ac.uk/teams>), to provide advice and recommendations on the strategic scientific and research direction and activities (such as impact, advocacy and outreach) of the programme grant.

This independent advisory board must meet at least annually. This group should have at least 50% independent membership and an independent chair.

RAI UK strongly encourages applicants to consider costing in project management and other administrative support such as employing a full-time equivalent project manager, and not relying on the project lead for these duties. Projects will be able to request support from the centralised comms, networking, and event management resources offered by the RAI UK Operations team for activities that look to bring together the wider ecosystem.

Equality, Diversity and Inclusion

The long-term strength of the UK research base depends on harnessing all the available talent. RAI UK expects that equality and diversity is embedded at all levels and in all aspects of research practice and funding policy. We are committed to supporting the research community, offering a range of flexible options which allow applicants to design a package that fits their research goals, career and personal circumstances. This includes career breaks, support for people with caring responsibilities, flexible working and alternative working patterns. With this in mind, we welcome applications from academics who job share, have a part-time contract, or need flexible working arrangements. Please see EPSRC's [Equality and Diversity webpages](#) for further information.

Responsible Innovation

RAI UK is fully committed to develop and promote responsible innovation.

Research has the ability to not only produce understanding, knowledge and value, but also unintended consequences, questions, ethical dilemmas and, at times, unexpected social transformations. We recognise that we have a duty of care to promote approaches to responsible innovation that will initiate ongoing reflection about the potential ethical and societal implications of the research that we sponsor and to encourage our research community to do likewise.

Responsible innovation creates spaces and processes to explore innovation and its consequences in an open, inclusive and timely way, going beyond consideration of ethics, public engagement, risk and regulation. Innovation is a collective responsibility, where funders, researchers, interested and affected parties, including the public, all have an important role to play. Applicants are expected to work within the EPSRC Framework for Responsible Innovation given on the [EPSRC website](#).

What this scheme is not for

We will not fund proposals that:

- Do not embed Responsible Research and Innovation (RRI) and EDI considerations into the research theme itself as well as into the research practices.
- Are too focused on applied research and do not demonstrate significant ambitions or risk-taking.
- Do not build on and complement the broader set of activities going on across the UK and international AI ecosystem.
- Do not have a mix of technical and non-technical disciplines engaged in joint activities.
- Do not demonstrate clear impact pathways.
- Do not demonstrate an interest in engaging with the ecosystem beyond the investigators' own disciplines.

Learn about the RAI UK programme at <https://www.rai.ac.uk/>.

Funding available

Up to £10 million funding is available through the RAI UK Programme to support 3-5 grants for up to 47 months. We expect to fund projects requesting funding between £2m and £3.5m (at 80% fEC). For the avoidance of doubt, the maximum funding we will provide is £3.5m and this is the 80% fEC figure. Standard UKRI eligibility rules apply, for details on who is eligible to receive funding, please refer to the 'who can apply' section.

Please note that due to the nature of this funding, additional requirements on spending profile, reporting, monitoring and evaluation as well as grant extensions will apply. This will be reflected in the grant additional conditions, and those funded will need to comply with them. Further details are provided in the

additional information section below. Please note that any projects funded through this call will have a fixed start and end date, and that no slippage to this date will be permitted.

Grants will be funded at 80% fEC. The grant can support reasonable directly incurred (DI) costs, such as research staff time, consumables, travel and subsistence, and directly allocated (DA) costs, such as investigator time, and associated overheads.

Prospective applicants are not required to have existing collaborations or contacts within the RAI UK programme.

Current RAI UK investigators may not lead a project, nor may their time be costed on the grant, but they may be named either as Co-Investigator or project advisor depending on their contribution. This does not apply to investigators on our recently funded Impact Accelerator and International Partnerships projects; however, we would ask these individuals to clearly describe the added value to the RAI UK programme that funding further time commitments brings.

Equipment

Non-capital equipment over £10,000 in value (including VAT) is only available in exceptional, well-justified circumstances. Items of equipment should be in the Directly Incurred – other Costs heading and will need robust justification; these items will be funded at 80% fEC. Items over £10,000 will be especially scrutinised, and only permitted if its remit for this call is clearly justified.

Note that any deviation from the spending profile beyond 5% on an annual basis is not allowed (any underspend will not be refunded, nor any overspend allowed). No-cost extensions cannot be allowed.

How to apply

Applicants should ensure they are aware of, and comply with, any internal institutional deadlines that may be in place.

Expression of Interest

An Expression of Interest should be registered via this form: [Keystone Expression of Interest](#) by **15 December**. Successful proposals at the sift stage will be invited to submit full proposals; applicants will be notified by 5 January 2024.

Full proposals

Invited full proposals will need to be prepared using the submission template, completing all the sections, and submitted in a PDF format via Grant Lounge, our online application portal. Proposals must contain an explanation of how the proposed work aligns with the objectives of the RAI UK programme and how it fits into the frame of RAI UK. Applicants should be explicit about the need for this funding and the added value their proposed activity brings to a specific area of the programme. All proposals must also demonstrate how they will ascertain adherence to their spending profile.

In addition to the completed template, please also include the following:

- CVs for all investigators and named researchers (up to two A4 sides each)
- Workplan and risk register (one page)
- Letters of Support from named Project Partners (no page limit)
- Letters of Support from participating institution(s) (up to two pages each)

Note: we do not require applicants to submit data management plans for this call, on the assumption that teams are already adhering to local policies and requirements at their institutions.

RAI UK reserves the right not to fund a project if ethical concerns exist and/or are raised by the reviewers or panel members. Concerns may include overlooked aspects, or issues not appropriately accounted for. You must complete the EDI and RRI section to identify and demonstrate how challenges will be addressed as part of the research.

An eligible member of the team must be identified as the Main Contact for the invited full proposal. This does not need to be the Principal Investigator. They will submit the bid and be the point of contact with RAI UK for all communication during the application process and post award (if successful). The Main Contact will be responsible for disseminating communications from RAI UK to other team members.

Additional details on the full proposal submission process will be sent when we notify applicants after the Expression of Interest stage in January.

RAI UK must receive your application by 16:00 on 16 February 2024.

For this call, we are exceptionally allowing applicants to submit full financial details *up to one month* after the proposal submission deadline, to allow institutional Research Offices additional time to process and approve budgets. If you require additional time to complete the BUDGET section of the template, please indicate this in your initial submission.

We do require an indicative Justification of Resources by 16 February, which should outline the major budgetary items and include a total maximum figure. The subsequent complete detailed budget must not exceed this initial total figure.

Your finalised costings must be submitted via email to info@rai.ac.uk by 16 March 16:00 (GMT).

How we will assess your application

Assessment process

A Sift Panel will consider Expressions of Interests to identify bids that are likely to meet the expectations set out in the section "What we are looking for". The Sift Panel will comprise of senior leaders from RAI UK as well as independent representatives from other initiatives, including international centres. Successful proposals at the sift stage will be invited to submit full proposals.

Invited full proposals that are deemed to meet the Assessment criteria will be sent out for peer review by experts across the RAI community. The reviews and the proposals will then be considered by a panel of experts to select the final successful proposals.

While this panel of experts will include members of the core RAI UK team, the panel will also consist of experts outside of the RAI UK consortium and UKRI representatives.

RAI UK will follow [UKRI's principles of peer review](#) to ensure fairness and transparency within the decision making process.

Funding decisions will be made based on the rank ordered lists as well as the nature of the projects. To ensure a balanced portfolio of activities, we will aim to fund at least one project against each of the themes.

Assessment criteria

Quality (primary)

- The overall vision of the research programme.
- The novelty, relationship to the context, timeliness and relevance to identified stakeholders.
- The ambition, adventure, transformative aspects or potential outcomes.
- The suitability of the proposed methodology and the appropriateness of the approach to achieving impact.

Alignment to RAI UK vision and Keystone themes (primary)

- Alignment to vision:
 - Enables responsible AI to power benefits for everyday life.
 - Establishes collaborations with researchers, industry professionals, policymakers and stakeholders to drive an ecosystem that will be responsive to the needs of society.
 - Looks to build greater research linkage across the community.
- Addresses at least one of the themes.

National Importance (secondary major)

- Contributes to, or helps maintain the health of other disciplines, contributes to addressing key UK societal challenges and/or contributes to future UK economic success and development of emerging industry(s).
- Meets national needs by establishing/maintaining a unique, world leading research activity.
- Complements other UK research funded in the area or related areas, including any relationship to the EPSRC portfolio.

Applicant and Partnerships (secondary)

- Appropriateness of the track record and international benchmarking of the applicant(s).
- Balance of skills of the project team, including collaborators.

- Development and promotion of the careers of all its team members, including investigators, research assistants, technicians, and aligned students.
- Ability of the PI and team to lead/manage a large, complex investment with sufficient support, infrastructure and resources for the day-to-day running of the Programme Grant.

Equality, Diversity & Inclusion and Responsible Research & Innovation (secondary)

- Plans to embed responsible innovation practices in the project
- Adequate consideration of EDI in terms of the research or knowledge exchange

Resources and Management (secondary)

- Effectiveness of the proposed planning and management
 - Appropriateness of the requested resources
 - Suitability of proposed strategy for the flexible allocation of resources and use of independent advisory board.

Advocacy (secondary)

- Advocacy role for RAI UK

Contact details

For help and advice on costings and writing your proposal please contact your research office in the first instance, allowing sufficient time for your organisation's submission process.

Any general queries regarding the submission of proposals should be directed to the RAI UK operations team: info@rai.ac.uk

Our working hours are Monday to Friday, 09:00 to 16:00 UK Time, excluding bank holidays and other holidays.

Additional info

Background

The RAI UK programme of which this call is a part is a £31M strategic investment by the UK Government in responsible and trustworthy AI. RAI UK acts as a focal point for a broad range of initiatives to work across the community to co-create with all stakeholders an ecosystem to meet society's needs for justice, equity, sustainability, and inclusivity. RAI UK adopts a strong human-centred approach aligned with the UK AI strategy, to provide platforms for technological futures that promote inclusive and positive outcomes. RAI UK moves beyond "making technology responsible and

trustworthy” by ensuring the benefits and risks of AI can be recognised and governed by all those whose lives and livelihoods are affected by it.

RAI UK works to ensure society deploys and uses AI in a responsible way. Our approach is to equip the AI community with a toolkit that includes technological innovations, case studies, guidelines, policies and frameworks for all key sectors of the economy. To achieve this, RAI UK works in collaboration with researchers, industry professionals, policymakers and stakeholders to drive an ecosystem that will be responsive to the needs of society. It is led by a team of experienced, well-connected leaders from all four nations of the UK, with complementary backgrounds, committed to an inclusive approach to the management of the programme. This ecosystem consists of mechanisms to (i) co-create research with industry and the public (ii) establish contextual understandings of Responsible AI for users, customers, and developers and (iii) develop pathways to scale the use of human-centred AI across society, industry and commerce.

Collaboration Agreements

Successful awardees will be required by UKRI to use a standardised template Collaboration Agreement between collaborating institutions. A copy of this template will be made available to applicants invited to submit full proposals once submission opens on 8 January.

Grant additional conditions (GACs)

Please note that due to the nature of this funding stream, there will be specific spending requirements, monitoring and evaluation.

Projects will also be expected to commit to adhere to open-source, open-data and open-innovation guidelines.

Awards will be confirmed upon acceptance of the non-negotiable Terms and Conditions, which will be set out in the Award Letter.

The project team of all funded projects will be required to engage fully with the programme, including participating in RAI UK activities and events, alongside attending partner meetings as required during the lifetime of the project, and reporting including on commencing, mid-project, and at the end of the project. In addition, within one month of the end of the project, a final report will be submitted to the RAI UK Executive Management Team highlighting the project outcomes and impact.