UK Metamaterials Network

Funding Governance

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1. Background

The aim of UK Metamaterials Network is to develop a self-sustaining metamaterials eco-system in the UK, linked to the Network's Special Interest Groups and the four Challenge Areas (Healthcare, Sustainability, Manufacturing & Scale-up, and Space & Aviation). It proposes to tackle these challenges, alongside industry, through a Pump Prime Fund (PP) which would enable research projects to drive forward the preliminary work necessary for large-scale research-grant proposals; and for projects with a significant effect on the profile and impact of metamaterials in the UK.

The Flexible Funding associated with the Network is divided into five streams, which includes the PP, with the other streams being: operational costs, the Access Fund, the 'Executive Board Discretionary Fund' (the Discretionary Fund), and Small Grants. These separate headings are designed to support the activities of the Network, ensuring transparency across use of the funds.

2. Aim

The EPSRC award to Network will benefit researchers across the metamaterials community over a period of four years (until September 2028). The range of interests and disciplines of members within the UK metamaterial community provides a productive and creative environment for cross-fertilisation of ideas and initiatives. The Network aims to drive new fundamental and discovery-led research, and also support new, exciting translational research with real industrial application, societal potential. Ultimately the ambition is to promote and accelerate large-scale proposals for follow-on research funding. The Network funding does not replace existing funding rounds from UKRI, but instead seeks to support and encourage embryonic ideas, and new collaborations, with great potential that might otherwise not develop.

3. SMART Objectives

The Network has set out three key Specific, Measurable, Achievable, Relevant and Time-bound (SMART) objectives for the Funding Governance Policy of the Network. These are not an exhaustive list but are emblematic of the Network's commitment to using its resources to support the development and success of the metamaterials community. They will be reported on to the Advisory Board (AB) on a biannual basis and progress towards their successful completion will be reviewed on a quarterly basis. The objectives will be reviewed and may be replaced with new, relevant objectives as part of the annual review cycle.

1. The award is to provide funding to address the Vision Objectives of the Network (see **Appendix 3**). This will be achieved through the distribution of the Pump Prime Fund and the Small Grants Fund specifically, which will be aligned to the Network's strategic priorities: 1) promote UK metamaterials related R&D; 2) support new and

strategically important R&D; 3) Facilitate the development of metamaterials infrastructure; 4) Offer innovative approaches to encourage a healthy pipeline of talent and skills within the community. This will be monitored through the reports required from successful applicants, during and at the end of each grant.

2. The reports created as a result of the awards and the events from the Operational Costs will be used to further develop the Network's objective that it will provide a coherent single point of access to the community. The reports will be uploaded to the Network website on completion of each award. The report will provide information and insights to members of the community on the outcomes and success of the funding streams.

3. The Access Fund will be used to enable members of the metamaterials community to engage with events. The Access Fund's availability will be highlighted prior to each event. Applications, once submitted to the co-leads of the Network will be tracked to establish the range of applications and needs of the Network community. This will be reviewed by the co-leads bi-annually to ensure that applications are assessed fairly and evenly across the Network.

4. The Purpose of this Document

This document describes:

- responsibility for making decisions pertaining to the Network's funding;
- the oversight structure of the Network in relation to funding;
- the process and timeline for the funding calls, specifically those for the PP funding;
- examples of potential funding applications;
- the criteria for successful funding bids;
- the complaints and appeals process.

5. The Five Funding Streams

The Network's flexible funds have been divided into five broad categories:

1. Operational Costs
2. The Access Fund
3. The Discretionary Fund
4. Small Grants
5. The Pump Prime Fund

These categories are subject to change as required by the Network and **annual review** by the **Executive Board (EB)**.

Funds awarded competitively (Small Grants or the PP) must normally be spent within 12 months of the award, but the EB will consider exceptions where necessary. As the grant holder, the University of Exeter is responsible for allocating funding to successful proposals to the eligible schemes.

The Network aims to make reports publicly available, therefore as a condition of funding award, a written report from the project lead that details the benefits accruing from the grant to the Network and the wider metamaterials community, and supporting the aims of the Network is required within 6 weeks of the project finishing. See **section 6** for further details on the reporting structure and timelines.

Overheads (see **Appendix 4** for further definition) may not be charged on any grant provided by the Network. In the case of Small Grants or the PP approval must be sought from the applicant's home institution, and confirmation of this approval should be submitted by email to info@metamaterials.network.

Operational Costs

Operational Costs include the day-to-day running costs of the Network and are the funding headings that have been agreed as part of the bid preparation, which are regularly reviewed and approved by the EB.

Requests for funding from Operational Costs are not permitted. The authorised Network personnel will be informed of their allocated budgets. The Operational Costs are ring fenced for summer studentships, devolved SIG budgets, conferences, summer schools, sandpits and challenge-led workshops, training delivered through the workshop, and travel for project leads. Spend against this heading and subheadings will be reported six-monthly at the AB.

Access Fund

A small Access Fund is available to enable attendance at Network activities where financial barriers would otherwise limit member engagement. This is available for all UK members of the Network who have justifiable need for support (as demonstrated through the How to Apply form).[1] Applications for the Access Fund are made as part of the registration process for events. The Access Fund will be advertised as part of the expressions of interest process at the start of each event.

Alastair Hibbins and Claire Dancer as joint project leads of the Network will review these requests, normally via email to quickly process the application and will consider whether financial assistance is the most appropriate, or whether engagement can be made via alternative means (e.g. online attendance, written reports, etc). Access Funds may be requested to pay for travel and subsistence, contribution to caring costs, or fee waivers. Typically, these funds will be provided by reimbursement, please email info@metamaterials.network for further information.

How to apply

The **Access Fund** questionnaire will request the following information (answers to each question are expected to be no more than 50-100 words in length):

I. The Applicant's CV

II. Are you employed by a UK HEI? (Yes/No/Other [write in])

III. Have you previously been funded by the Network Access Fund? This question is included to help the Network track the frequency of application to the Network Access fund so that we can ensure the fair distribution of funds to ensure applicants are supported in attending the most relevant events.

IV. What is the value of your attendance to the Network?

V. Why is this event relevant to your interests and how will it enhance your personal development?

VI. Why is it not possible for you to fund this request from other sources? For example, departmental funding or grant funding.

VII. Please provide an estimate of the funding required, including a breakdown of the costs (the UKMMN may choose to subsidise this request, rather than support the entirety of the request).

[1] A member of the Network is defined as an individual who has signed up to the Network database.

Discretionary Fund

The discretionary fund provides a route for the EB to support strategic activities that are beyond those originally conceived and benefit the Network's vision and objectives. It is anticipated that funding requests will not normally be over £2,500 in cost, but in exceptional cases may be higher, and will exclude activities that can be funded via other routes.

Typical activities considered for this funding may include the establishment of new groups or events that do not directly fit into any existing grouping, such as topical colloquia series and sandpits in new areas, or might also include additional funds for existing activities, opportunities for group training, or focused efforts on meeting a short-term ambition/activity.

How to apply

Applications to the discretion may originate from any Network member (including PhD students), but the suggestion for funding must be brought to the EB meeting by a member of the board. If you wish to apply, please speak to a member of the board via info@metamaterials.network.

The proposal will be presented to the EB via a verbal summary from the supporting member of the EB and a short, written proposal (maximum 500 words), indicating the anticipated costs and broad community benefits. The EB will determine whether to fund these proposals or not by a majority vote of the board following the Terms of Reference of the EB for any decision-making process.

Small Grants

The Small Grants fund covers all applications typically of up to £5,000 funded, but in exceptional cases higher.[2] The funding will be made to an individual member of the Network, according to standard EPSRC eligibility.

PhD students who are members of the Network may bid for funding from the Small Grants fund. Applications from PhD students require a confirmation of support from one of the following: the PhD student's supervisor, Head of Department, or Director of Studies.

The written applications supplied through the online form will be reviewed by the EB. The EB will determine whether to fund these proposals or not by a majority vote of the board following the Terms of Reference of the EB for any decision-making process.

How to apply

Applications are made through a short online form (**access here**), and will fund individual objectives such as: ad-hoc activities and needs, including:

1. access to facilities
2. consumables
3. travel
4. meetings
5. training
6. bid-writing
7. public engagement
8. short industrial placements

All successful applicants should note that they are the budget holder for the grant and have responsibility for managing the budget allocated.

Eligibility Conditions

1. Applicants must be employed in an EPSRC eligible institution (link).
2. Applicants must be employed in a post, or in the case of PhD students, be registered on a relevant programme of study, which will outlast the proposed project.
3. The UKMMN cannot fund existing PhD projects. In cases where the applicant is a doctoral candidate the application should clearly state how the project is distinct from the funded PhD project.
4. The Small Grant Fund cannot be used to fund attendance at UKMMN events.

Reporting

[2]The Network does not fund overheads, if in doubt applicants should contact the Network to clarify eligible and ineligible costs at info@metamaterials.network).

After completion of the grant the applicant to whom the grant has been awarded must submit a 1-page report on the outcomes of the award. This report must be sent to info@metamaterials.network and will be uploaded to the Network website as part of the Network's reporting. The Network may also require a short, public facing report on the goals of the award. Reports on funding will be required, as outlined in the award letter.

Pump Prime Fund

The PP funding forms the funding stream for the largest projects provided by the Network. Grants from the PP funding are valued at 80% of all eligible costs, the Network's contribution will typically be £40,000–£50,000 but may amount to a maximum of £80,000 in exceptional circumstances. The Network does not pay overheads on any grant.[3] The Network will require additional justification for grants at the top of the range, e.g. the project requires a senior research fellow.

As the grant holder, the University of Exeter is responsible for allocating funding to successful proposals and will reimburse subcontracting organisations at 80% of all eligible costs Academic institutions will be required to itemise bills based on 100% and then invoice at 80%. Payment will be made in line with EPSRC rules i.e. quarterly in arrears but withhold final quarterly payment until the final report is received. Only actual cost will be paid. Applicants must seek approval from their institutional research development team prior to applying to the PP. These regulations are subject to the terms and conditions as outlined in the award letter. The Network aims to distribute these funds to support the development of projects with a pathway to applications for large-scale grant funding. Applicants for PP projects must demonstrate that their ideas would be difficult to get funded by other mechanisms such as that offered by UKRI or through wholly private investment.

These funds will support the aims and objectives of the Network (see **Appendix 3**). Funds will normally be used for post-doctoral research time. Funding is awarded at 80% of all eligible costs; industry support and co-investment is encouraged where possible. Successful proposals will clearly demonstrate the potential to develop into larger scale bids for funding or impact development.

Funding rounds will occur twice per annum, initially via Expressions of Interest (EoI). The funding calls may be themed to encourage participation and alignment to strategic priorities of the Network. The proposed dates for the EoIs will be the 1st Monday of the

[3] The Pump Prime Fund may be used for the **operating** and **on-costs** of a project. It may not be used to pay the **Overhead Costs** of a project. The Pump Prime Fund should be used to pay for the time of the researcher(s) **(normally a postdoc or student)** directly undertaking the **work** on a project. See Appendix 4 for further definition of Operating Expenses, Overhead Expenses and Oncosts.

- **Operating expenses** are costs such as salary, travel, and consumables, they represent direct costs to the project which means these expenses are required and cannot be avoided.
- **Overhead expenses** are **other costs not related to labour, travel, or consumables**. They represent more static costs and pertain to general functions, such as estates, insurance, professional services and generic university facility costs such as access to seminar rooms (please enquire as to specific costs). Tracked facility costs required for a project may be included.
- **Oncosts** are any additional costs that need to be taken into account, in addition to salary, to budget the full employment costs of a new post or existing staff member. The primary on-costs that are borne by the University are: National Insurance, Pension and Apprenticeship Levy.

months of October and March. The Network anticipates awarding two PP grants per funding round, with room for additional grants in exceptional cases. **No individual can be named on an application more than once per round. If successful an individual may not be named on any future applications in the same role (i.e. an individual may not be named as principal investigator on two successful applications, but an applicant may be named as a co-investigator on one successful application and then later as a principal investigator on a separate application) .**

Duration

The funding award process will take place over approximately 6 months.

Each PP grant must typically begin within 6 months of notice of the award of the PP grant. As an example, a grant applied for in March 2025 would be awarded in June 2025 and would commence operation by December 2025. The PP grant would then complete operations by June 2026 and provide a full report to the Network by August 2026. All PP grants must have been fully completed, including submission of all reports by the end of the Network Grant in September 2028.

Assessment Panel

The Network will appoint an Assessment Panel (AP) of experts from the UK and overseas with recognised expertise in metamaterials research to review applications independently (where appropriate the AP will be selected to fulfil the requirements of legislation on National Security, i.e. https://www.gov.uk/government/collections/national-security-and-investment-act). The AP will be selected from experts identified by the EB and invited to participate in the assessment process.

The Network team will circulate the applications to the AP prior to the AP meeting identifying a first and second introducer for each application to promote discussion around the quality and advantages of each application.

During the AP meeting any members of the panel who identify conflicts of interest, such as personal involvement in bids, or working at the same institution as an applicant will recuse themselves from the discussion on the specific candidate.

At least one of the co-leads of the Network (Alastair Hibbins and/or Claire Dancer) will also sit on the AP to advise on the Network's priorities but will not have voting powers on the rank ordering of the submissions. If necessary, the EB will also seek further external expertise.

Key Criteria for Funding

Standard EPSRC assessment criteria will be applied: quality; importance; impact and the applicant's ability to deliver the proposed project within budget and on time. The application also requires suitable evidence of a planning and management process for the duration of the project.

The assessment for both small grants and PP funding will use the same broad assessment criteria. It is anticipated that 'small grant' proposals and EoIs for 'PP funds' may not address all the detailed criteria, but applications taken to peer review for the latter will be expected to address all of the following areas, and will be similar in format to standard-mode EPSRC proposals (but shorter). The questions relating to 'Resources' must be completed at the EoI stage to progress further.

Applicants which do not meet the essential eligibility criteria (described in Appendix 2) will not be submitted to the AP but will instead be immediately rejected. The applicant will be informed of the reason for the rejection and may submit to the Pump Prime Fund again in a following round without noting that they have previously submitted (provided they fulfil the eligibility criteria).

Resources

Projects should be costed as for a standard UKRI proposal. If your project is successful, the Network will fund an academic partner at 80% of all eligible costs. The remaining 20% is not counted as part of your contribution to your project and must not be included in the total project costs.

The costing table (submitted at the full proposal stage) must include full economic costs at 100% and the request from the Network at 80% of all eligible costs. If an application is submitted which does not provide 80% of all eligible costs it will be rejected and will not be eligible for funding.

Resources can be requested for researcher and technician time, travel, subsistence, consumables and facilities, but in instances where the applicant proposes hiring staff this should be reflected in the applicant's risk management strategy. The Network will only fund new equipment in accordance with standard EPSRC rules and may not exceed £10,000 (80% of all eligible costs).[4] Subcontracting is allowed but Research Organisations must ensure that expenditure on sub-contracts are subject to robust controls to ensure value for money and propriety. All costs should be fully documented/invoiced and available to UKRI if required. The administration of the scheme is undertaken solely by the Network with all aspects of the application process, assessment process and award process managed by the University of Exeter. However, the applicant is the budget holder for the PP funds allocated and holds responsibility for ensuring that they are spent and reported on accurately.

Prior to application the applicant must seek preliminary financial and contractual approval from their institution.

How to Apply

The Network welcomes applications and ideas from researchers of all career stages, particularly those that are unable to progress their research and impact aspirations via other routes and schemes. The benefit of funding to an applicant's career will be reviewed as part of the EOI. The calls will be scheduled in advance. Network members will be reminded of upcoming calls with at least 4 weeks' notice of the call opening.

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[4] EPSRC, 'EPSRC approach to equipment funding' (February 2026), https://www.ukri.org/councils/epsrc/guidance-for-applicants/types-of-funding-we-offer/epsrc-approach-to-equipment-funding/

Ahead of the call for applications the Executive Board will appoint an AP of at least five independent experts (see **Appendix 1: Pump Prime Workflow Process**). Reviewers may be asked to step down depending on the number and range of submissions. All AP and EB meetings related to the PP will be based on standard EPSRC processes (see Guidance for Reviewers).

Applications will then be made initially via a short Expression of Interest (EoI). The EoI will be reviewed, and rank ordered by the AP in accordance with the criteria set out in **Appendix 2: Pump Prime Funding Criteria**. With the AP's review the EB will determine how many projects may proceed to full submission.

Informal Feedback Stage

The shortlisted projects will then be assigned to members of the EB as 'champions'. The applicants will be provided with a full submission form to be submitted nine weeks later. During the application period the applicants may submit a draft version of the full application at the end of the sixth week, or prior to that date if preferred. The EB champion will provide feedback on the full application anonymously through the central UKMMN team, moderated by a second EB member who will review feedback from all members of the board at the end of the seventh week. The role of the EB champion is not to provide a formal review, but to provide feedback prior to the formal peer review by the AP. After this the applicant will be invited to submit the full application (see Appendix 8) at any point they wish to submit up until the end of the full nine weeks since they were initially provided with the full submission form. All submissions must be sent to info@metamaterials.network by 16:00 pm on the date selected as the final submission deadline.

An example timeline would be as follows:

- 5th May 2025: the applicant receives the full submission form
- 6th June 2025: the applicant submits the full submission form to the UKMMN for informal feedback by the Executive Board Champion
- 13th June 2025: the UKMMN returns the informal feedback to the applicant.
- 27th June 2025: the applicant submits the final application to the UKMMN at info@metamaterials.network

Final Submission & Formal Review

For the full application the project lead will submit a full application (based upon a shortened EPSRC application and detailed in Appendix 8). The application will be marked against the criteria under **Appendix 2: Pump Prime Funding Criteria** by the AP. The AP will rank order the final proposals and provide the review to the EB. The EB will then determine the final number of proposals to be funded in the funding round, providing feedback to the applicants and to the AB for review of the process.

The Funding Governance process is linked to the Network's **EDI Policy**, which seeks to embed EDI throughout all our activities and processes.

Pump Prime (PP) Reporting and Expectations

Each lead on a PP grant must submit a short report via the UK Metamaterials Network's form (to be supplied to grant holders) on the progress of the award per quarter for the

duration of the grant. This must be submitted every three calendar months from the award of the PP grant. At the close of the grant there may be a request for a further narrative report for public publication.

The lead must also submit invoices on a quarterly basis to ensure that the grant may be monitored. Any funds remaining at the end of the planned period must be returned to the Network. Successful applicants must ensure that they are able to carry out the project as planned with the specified timeframes as no extensions will only be granted when feasible to do so and only in exceptional circumstances.

Successful applicants will be expected to participate in network events: presenting on the grant at events as directed by the EB, e.g. the annual *Metamaterials in the Real-World Showcase* (Winter) or the *Metamaterials Conference & Forum* (Summer) during the duration of the grant and/or at an event following the conclusion of the grant. They will also be expected to take part in later dissemination activities which will be agreed by the EB depending on the project, such as the submission of the Final Report on the work carried out and the resources used (in instances of cross-disciplinary award this must be countersigned by the collaborator). The Final Report will be passed to the Network EB to be signed off prior to final quarter funds being released. Reports will be open for peer review via the Network website and newsletters.

The Network expects the following from successful applicants:

Essential

- In line with the EPSRC, Network expects that equality and diversity is embedded at all levels and in all aspects of research practice and funding policy.
- Reference to Network, and EPSRC/UKRI funding on all online or printed materials related to activities funded by the grant. Network and EPSRC/UKRI logos should be used wherever possible.
- Provide information and updates for the project webpage on the Network website when requested.

Desirable

- The sustainability of the research activities both during and after the grant should be considered.
- Development and execution of an engagement strategy with potential users of the research.

The distribution of the PP is subject to the terms and conditions as outlined in the award letter.

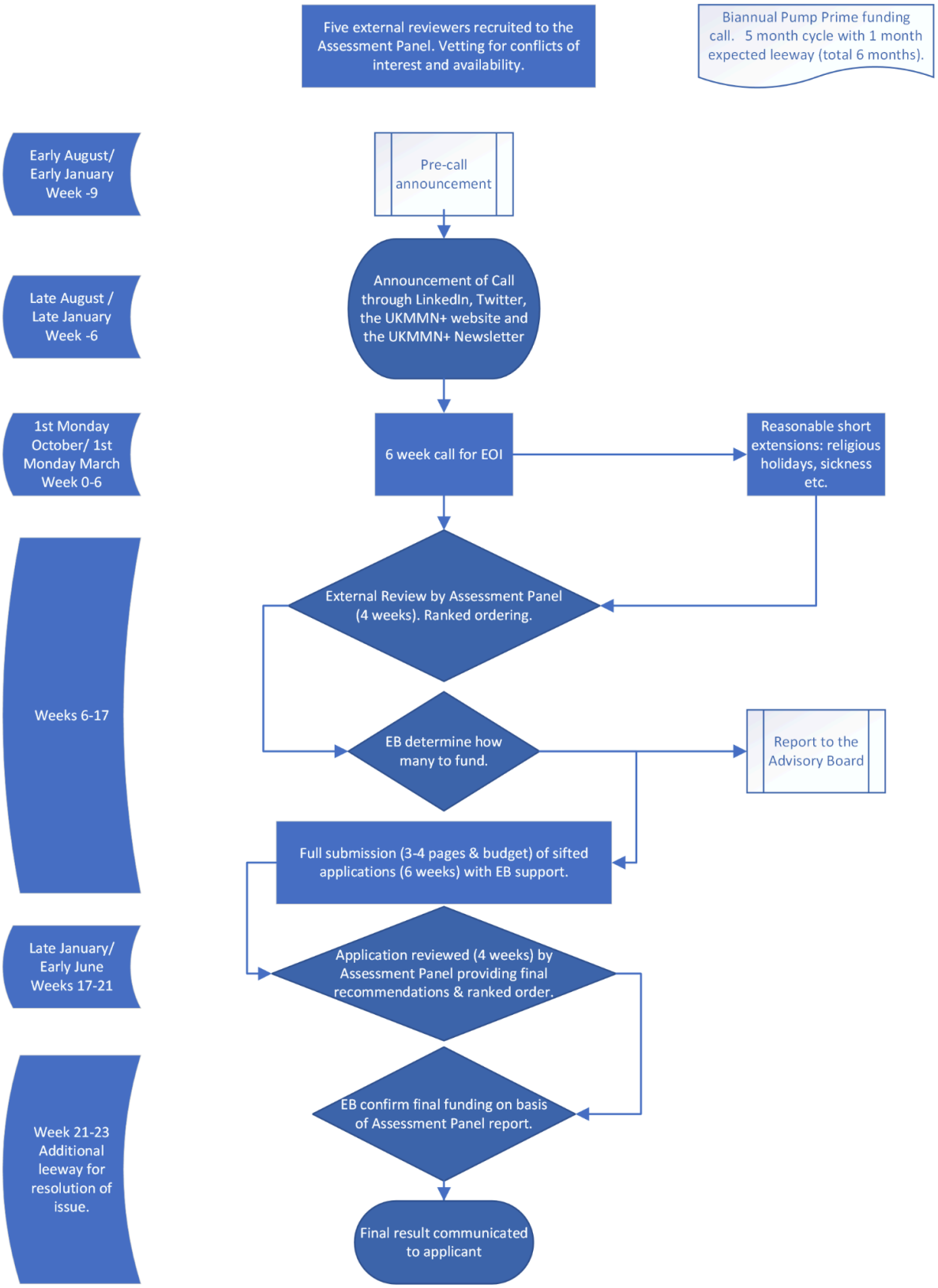
Feedback

Anonymous feedback on the funding streams and funding process may be provided to the Network via the form on the website**:** **https://metamaterials.network/contact/**.

6. Review Cycle

This document will be reviewed by the Executive Board with the advice of the AB on an annual basis. The last date of review was **11/02/2026**.

7. Appendix 1: Pump Prime Workflow Process



8. Appendix 2: Pump Prime Funding Criteria

Eligibility

Anyone in the UK who is eligible to bid for a full scale UKRI grant is also eligible to apply for the Network calls. We strongly encourage applications from early career researchers who do not have a long track record of funding. We encourage applications led by early career academics, those returning from career breaks or secondments, research fellows and other researchers who are eligible for particular roles in UKRI-funded projects (e.g. as a named researcher) to apply for these grants.

Proposals are welcome from EPSRC eligible institutions. Applications may come from individuals or groups and be a mix of industry and academia, but must have a single lead academic contact, as the funds are awarded to a single eligible institution, other organisations will be designated as project partners.

For information on the eligibility of organisations and individuals to receive EPSRC funding, see Funding guide - EPSRC website. A list of eligible organisations to apply to EPSRC is provided at: Check if you are eligible for research and innovation funding. Although interdisciplinary projects are encouraged, e.g. those projects which may struggle through a normal UKRI grant peer review responsive mode process, at least 50% of the proposed research idea(s) must fall within the EPSRC remit.

Eligibility Conditions

9. The lead applicant must be employed in an EPSRC eligible institution (link).
10. The lead applicant must be employed in a post which will outlast the proposed project.
11. The lead applicant must have received preliminary financial and contractual approval from their university.
12. The lead applicant cannot have previously applied with the same or a highly similar proposal to a previous round of funding (unless invited to do so by the Executive Board).
13. The lead applicant cannot have been awarded funding through the Pump Prime Fund previously.
14. No member of the Executive Board may apply to the Pump Prime Fund, or be named as a co-lead on a project.
15. For an application to be eligible it must be costed at 80% of all eligible costs.

Reviewers Grid

The definition of primary criteria follows the EPSRC definition:
https://www.ukri.org/councils/epsrc/guidance-for-reviewers/peer-reviews/

Criteria Description		Score (1-5)	Comments
C1	**Primary criteria.** Novelty, relationship to the context, timeliness and relevance to identified stakeholders		
C2	**Primary criteria.** Capability of the project lead(s) to develop their idea with a view to projects such as a competitive full-scale proposal (to example EPSRC or Innovate UK) to initiate research areas, or a direct funded research project with industry which are new to UK or strategically important		
C3	**Secondary criteria.** Value for money		
C4	**Primary criteria.** Suitability of the proposed methodology and the appropriateness of the approach to achieving impact		
C5	**Secondary criteria.** Strength of the management plan		
C6	**Secondary criteria.** Risk management and budget	*Pass/Fail*	

9. Appendix 3: Network Vision

The Network will drive the development of a well-funded, self-sustaining and world-class metamaterials-enabled UK ecosystem, benefiting the nation's science superpower status and contributing to our nation's security.

Metamaterials science and technology will transform our economy in a digital age, helping to address society's challenges; across sustainability, advancing health care, communications, providing defence and security capabilities, enhancing computation techniques and benefiting the space and aviation industries. These metamaterial-enabled technologies will create new global market opportunities and competitive advantage for the UK both on a commercial and security standpoint and unlocking innovation by integrating them into complex systems.

Significant efforts and government support are being injected to accelerate metamaterial technologies by our competitors and adversaries, and the UK simply cannot afford to take a back-seat – we need to be part of the value-generation and security advancement from the beginning, by setting the standards and innovating generation-after-next devices.

As the scientific and technological voice of the metamaterials community, the Network will lead the national conversation on metamaterials, working resolutely to advocate, translate and fully exploit the novel innovations emerging from our academic laboratories, securing international investment, and building our manufacturing infrastructure and skills pipeline, driving through generation-after-next technology and high-value and products. The Network will lay the foundations of a **national metamaterials programme**. The UK's global offer will be a metamaterials environment open to ideas, private investment, talent and trade. It will be underpinned by public investment, industry buy-in, supportive infrastructure, enabling regulation and standards, and a culture of responsible and trustworthy innovation.

To achieve these objectives we will:

1. **Provide a coherent single point of access to the community.** We will work to bring together the current and the next generation of academic, start-up and industry leaders working in the UK, and governmental agencies opening the field beyond its traditional boundaries.

2. **Promote UK metamaterials related R&D**, both nationally and internationally, providing a reliable metamaterials nexus for information, experts and the promotion of cutting-edge science and technology to policy makers and investors.

3. **Support new and strategically important R&D.** By distributing pump-prime funds we will support pilot/explorative projects that can be developed into competitive full-scale proposals to initiate research areas that are new to the UK or strategically important; enabling the development of large-scale bids to build a sustainable metamaterials ecosystem.

4. **Facilitate the development of metamaterials infrastructure.** We will support the development of close links between government, academics, and industry, helping to advocate for investment to enable the scale-up of metamaterials, producing key demonstrators and evidence to advance the metamaterials infrastructure.

5. **Offer innovative approaches to encourage a healthy pipeline of talent and skills within the community.** We will support the growth of talent in the UK, advocating for and planning to enhance retainment rates, attracting people into the field to match demand from academia and industry; and developing training to deliver scientific, technical, and entrepreneurial skills.

6. **Develop standards and regulations for metamaterials.** We will work across government and with relevant regulatory and expert bodies to ensure that the UK's regulatory landscape will help metamaterials products to reach the market. We will work with allies and partners to shape international norms and standards, including through multilateral forums.

10. Appendix 4: Definition of Overheads, Oncosts and Operational Costs

The Pump Prime Fund may be used for the **operating** and **on-costs** of a project. It may not be used to pay the **Overhead Costs** of a project. The Pump Prime Fund should be used to pay for the time of the researcher(s) **(normally a postdoc or student)** directly undertaking the **work** on a project.

- **Operating expenses** are costs such as salary, travel, and consumables, they represent direct costs to the project which means these expenses are required and cannot be avoided.
- **Overhead expenses** are **other costs not related to labour, travel, or consumables**. They represent more static costs and pertain to general functions, such as estates, insurance, professional services and generic university facility costs such as access to seminar rooms (please enquire as to specific costs). Tracked facility costs required for a project may be included.
- **Oncosts** are any additional costs that need to be taken into account, in addition to salary, to budget the full employment costs of a new post or existing staff member. The primary on-costs that are borne by the University are: National Insurance, Pension and Apprenticeship Levy.

6. Appendix 5: Summary of Value, Eligibility, Duration, and the Application Process

Funding Stream	Value	Eligibility	Duration	Application Process
Operation Costs	N/A	Authorised personnel only	N/A	The Operations Costs are not open to applications.
Access Fund	The cost is event and individual specific. Reasonable costs are to be calculated by the Network team, which may choose to cover part funding.	All Network members with justifiable need (as evaluated through the Access Fund Questionnaire) . EB members are not eligible.	For a specific need, e.g. travel, accommodation, or care	Completion of the Access Fund Questionnaire for an eligible event, return to info@metamaterials.network
Discretionary Fund	<£2500	Application open to all Network, depending on EB sponsor. EB members may directly make applications.	Typically event specific, for the duration of a sandpit, colloquia or other event.	Submit a short summary (c.500 words) to a specific EB member (see EB page for members) through the info@metamaterials.network address. Dependent on EB support this will then be presented at the following EB meeting.

Small Grants	<£5000	Applications open to all members of the Network in EPSRC eligible institutions. PhD students may apply with approval from their supervisor/head of department. EB members are not eligible as applicants or investigators.	Typically, short duration 3–6 months.	Submission of the Small Grants EOI Form (see Appendix 6) (applications on a rolling cycle, considered on a monthly basis by the EB).
Pump Prime Fund	Typically, £40,000–£50,000 (80% of all eligible costs, no overhead costs included)	Applications open to all members of the Network in EPSRC eligible institutions, in posts for the duration of funding (for full list of eligibility criteria see Appendix 2. EB members are not eligible as applicants or investigators.	Typically, a six-month duration is expected, but may be up to 12 months.	Submission of the Pump Prime Fund EOI Form (see Appendix 7), applications open on the 1st Monday of October and March. Followed by a full submission after rank ordering by the AP and commitment to fund by the EB.

7. Appendix 6: Small Grants EOI

UK Metamaterials NetworkPlus Small Grants Fund EOI

The Small Grants fund covers all applications typically of up to £5,000, but in exceptional cases higher. The funding will be made to an individual member of the UK Metamaterials Network (UKMMN), according to standard EPSRC eligibility.

PhD students who are members of the UKMMN may bid for funding from the Small Grants fund. Applications from PhD students require a confirmation of support from one of the following: the PhD student's supervisor, Head of Department, or Director of Studies. This should be supplied by email to the **UKMMN: info@metamaterials.network.**

Applications are made through a short online form, and will fund individual objectives such as: ad-hoc activities and needs, including:

1. access to facilities
2. consumables
3. travel
4. meetings
5. training
6. bid-writing
7. public engagement
8. short industrial placement

The written applications will be reviewed by the Executive Board (EB). The EB will determine whether to fund these proposals or not by a majority vote of the board following the Terms of Reference of the EB for any decision-making process.

Prior to application please seek preliminary financial and contractual approval from your University.

If you have any questions regarding this call for proposals, please contact the UK Metamaterials Network: info@metamaterials.network

Section 1: Personal Details Please provide the details of the applicant for this grant.	
Name	
Organisation	
Do you confirm that you are the named applicant? Delete as appropriate.	☐ Yes ☐ No ☐ I am authorised to submit this upon behalf of the named applicant. ☐ Other (write in)
Career Stage	☐ Early Career Academic ☐ Academic (mid-senior) ☐ PhD Student (please write in your year of study) ☐ Other
Section 2: Eligibility Please confirm your eligibility for the Small Grants by answering the following questions. These questions verify that you are able to apply for UKMMN funding.	
Have you sought preliminary financial and contractual approval from your University? Delete as appropriate.	☐ Yes ☐ No ☐ Other (write in)
Are you employed in a post which will outlast the duration of the proposed project? Delete as appropriate.	☐ Yes ☐ No ☐ I am a PhD student and my funding will outlast the proposed project.

Are you employed in an EPSRC eligible institution? Delete as appropriate. For information on the eligibility of organisations and individuals to receive EPSRC funding, see Funding guide - EPSRC website. A list of eligible organisations to apply to EPSRC is provided at: Check if you are eligible for research and innovation funding. Applicants must be academic employees – lecturer or equivalent – of an eligible organisation and must be resident in the UK.	☐ Yes ☐ No
Do you confirm that the funds will be spent within 6 months of application? Delete as appropriate.	☐ Yes ☐ No
Have you already applied for the UKMMN Small Grants? Delete as appropriate. In cases where funding is limited preference will be given to applications from new applicants.	☐ Yes ☐ No
Have you tried existing funding routes, and if so, which one(s)?	

Section 3: Project Details

In this section applicants should detail the key details of the proposal.

The Small Grants Fund may only, normally, be used to target **specific** and **measurable** goals.

In cases where the applicant is a doctoral candidate the application should clearly state how the project is distinct from the funded PhD project.

Please avoid repeating information included elsewhere in the application (excluding in the public facing summary).

To which of the following categories (if any) does this application apply? Delete as appropriate.	☐ Access to facilities ☐ Consumables ☐ Travel ☐ Meetings ☐ Training ☐ · Bid-writing ☐ Public engagement ☐ Short industrial placements ☐ Other (write in)
Please list the names of any collaborators.	
Project Title This will be published on the website.	
If funded will this project achieve either of the following? If so please detail in your proposal (in the following question).	☐ This project will provide a clear, broader benefit to the Network and the UK Community **(Yes/No)** ☐ Advance the careers of ECRs and PhD students. **(Yes/No)**
Please briefly explain how this is a metamaterials project and the benefit to the UKMMN (maximum 500 characters) The answer to this question should clearly state: 1. how this is a metamaterials project; 2. how this project will provide a clear, broader benefit to the Network and the UK Community and the resulting impact.	
Description of proposal (2000 characters maximum) This should typically include: 1. a short description of your proposed project including identified specific	

and measurable goals and deliverables; 2. why should this project be prioritised for funding, including the novelty of the project, for example follow on grants or impact; 3. please supply a clear workplan including the roles of individuals working on the project. You may include one diagram by including a link to a figure.	
Does this proposed project support the UKMMN's EDI objectives, and if so how?	
Please provide a cost breakdown, and clearly stating the total value. Please give a value of up to £5000. The UKMMN will not fund costs beyond the limit of £5000. This should include a breakdown of all consumables and all components of travel requested. The UK Metamaterials Network will not fund attendance at UK Metamaterials Network events. The indicated maximum of £5000 should be viewed as a maximum amount, and not as a target.	
Proposed Start Date	

Proposed End Date The proposed end date should be a maximum of 6 months from the start date. This may be amended to match the actual start of the funding.	
Please provide a short summary of the project for publication on the UK Metamaterials Network's website (1500 characters maximum)	
Further comments If you wish to justify an exceptional start or end date, please include the justification below.	
Section 4: Links to Special Interest Groups and Challenge Areas This section enables applicants to identify links to any or all of the UKMMN's Special Interest Groups and Challenge Areas.	
This project aligns with the following Special Interest Groups Delete as appropriate.	· Acoustic Metamaterials · Active Metamaterials · Mechanical Metamaterials · Microwave & THZ Metamaterials · Photonic Metamaterials · Theory, Modelling & AI · All of the Above · None of the Above
If you answered 'none of the above' to the previous question please provide a short explanation.	

This project aligns with the following Challenge Areas. Delete as appropriate.	· Health · Manufacturing · Space & Aviation · Sustainability · Discovery Science · All of the Above · None of the Above
If you answered 'none of the above' to the previous question please provide a short explanation.	
Section 5: Feedback & Further Comments The applicant is invited to provide any feedback or further comments on the application process.	
Feedback and Further comments	

8. Appendix 7: Pump Prime Fund EOI

The online form is available here: online form.

Alternatively, the entire document may be submitted to info@metamaterials.network if you cannot use the online form. The full form is downloadable here.

Section 1: Introduction

Funds distributed through the UK Metamaterials Network (UKMMN) Pump Prime Fund will support growth, innovation and career advancement in metamaterials research and related disciplines, by enabling the development of new ideas, and original concepts to be tested, new collaborations to be evidenced, and progress towards technology translation.

Selection and funding of top-class pilot research is a key responsibility for UKMMN. Apart from research quality, key criteria for funding a pilot project idea will be:

1. the novelty, significance and capability of their investigator(s) to develop these ideas into competitive full-scale proposals for the UKMMN;
2. the importance of the project;
3. the project's potential impact;
4. and, the applicant's ability to deliver the proposed project within budget and on time.

Prior to application please seek preliminary financial and contractual approval from your University.

If you have any questions regarding this call for proposals, please contact the **UK Metamaterials Network: info@metamaterials.network**

Section 2: Personal Details

Please provide the details of the lead applicant for this grant.

Name

Organisation

Do you confirm that you are the named applicant? Please mark one box and delete the other options.

	Yes
	No
	I am authorised to submit this upon behalf of the named applicant.
	Other

Names of co-leads

Do you confirm that all co-leads have consented to be named on this application?

Yes/No (delete as appropriate)

To ensure transparency across the process and track the success of UKMMN initiatives please detail any engagement with Executive Board members to support the creation of this proposal, or any relationship with Executive Board members which may constitute a conflict of interest.

Examples of potential conflicts of interest could include being a former PhD student or a current or former postdoctoral researcher with an Executive Board member.

Section 3: Eligibility

Please confirm your eligibility for the Pump Prime fund by answering the following questions. These questions verify that you are able to apply for UKMMN funding.

Have you received preliminary financial and contractual approval from your university?

The answer does not need to be yes if your institution will only provide support after the application has been submitted, but should indicate that you have consulted with your finance department.

	Yes
	No
	Other …

Are you employed in an EPSRC eligible institution?

For information on the eligibility of organisations and individuals to receive EPSRC funding, see Funding guide - EPSRC website. A list of eligible organisations to apply to EPSRC is provided at: Check if you are eligible for research and innovation funding.

Lead investigators must be academic employees – lecturer or equivalent – of an eligible organisation and must be resident in the UK, except under specific conditions, set out in the co-investigator section. Any fellows holding fellowships aimed primarily at the postdoctoral level may apply where they have the written permission of their line manager/supervisor.

	Yes
	No

Are you employed in a post which will outlast the duration of the proposed project?

	Yes
	No

Have you already applied for the UKMMN Pump Prime Fund?

No reapplications are permitted from the same (or highly similar) bid in future calls. In exceptional circumstances, where a bid of merit is identified by the Assessment Panel, feedback may be given, along with an invitation to resubmit to the next call in the light of that feedback.

Please mark one box and delete the other options.

	Yes (Section 4 Previous Applications)
	No (Section 5 Project Details)
	Yes, but my project was deemed ineligible prior to review (Section 5 Project Details)

Section 4: Previous Applications

If you have previously applied to the UKMMN fund you may not reapply if:

1. *your initial application was successful;*
2. *your initial application was rejected and your current application is the same or highly similar* UNLESS *you were invited to resubmit by the Assessment Panel*

Was your initial application successful?

	Yes (End application)
	No (Continue to Next Section)

Section 5: Project Details

In this section applicants should detail the key identifying details of the project: title, abstract for distribution, start date, end date (these details may be edited at a later date).

Project Title

Abstract for Distribution (1500 Characters Maximum)

Proposed Start Date

The review and awarding process is expected to last at least six months from the start of application. Please consider this when setting your proposed start date.
dd/mm/yyyy

Further Comments (500 characters maximum)

If you wish to justify an exceptional start or end date, please include the justification below.

Section 6: Vision

The following response should cover the following four key points:

1. *Explain the proposed project and its objectives/desired outputs*
2. *What is its importance and how will it contribute to the UKMMN and to you? How will this enhance your career development?*
3. *Why is it relevant and timely?*
4. *What will the funding lead to? What is its potential?*

Please provide a URL to any figures.

What are you hoping to achieve with your proposed work? (3000 characters maximum)

Section 7: Resources

The following response should cover the following key points:

1. *Why is the UKMMN Pump Prime the most appropriate funding option for this project? Please specify why the project is not suitable for funding through other grants, such as an EPSRC standard grant.*
2. *Why are you (or your team) best placed to deliver the desired outputs?*
3. *What are the risks and what are your intended risk mitigation actions?*

What will you need to deliver your proposed work? (1000 characters maximum)

What is the required budget? (1000 characters maximum)

Provide a brief, costings summary.

Ability to recruit and retain staff is a risk factor and strong answers should reflect the risk mitigation factors.

Section 8: Ethics and Responsible Research and Innovation (RRI)

What are the ethical or RRI implications and issues relating to the proposed work? If you do not think that the proposed work raises any ethical or RRI issues, explain why, conforming to EPSRC guidelines.

Are there any ethical or RRI implications relating to the proposed project?

	Yes
	No

If you answered yes to the previous question please explain what the implications are and your approach to them.

If you answered no please briefly explain why you believe there are no ethical or RRI issues. *1000 character maximum*

Section 9: Links to Special Interest Groups, Challenge Areas and Strategic Priorities

This section enables applicants to identify links to any or all of the UKMMN's Special Interest Groups and Challenge Areas, and the strategic priorities of the UKMMN's vision (as set out in Appendix 3 of the Funding Governance policy).

This project aligns with the following Special Interest Groups

	Acoustic Metamaterials
	Active Metamaterials
	Mechanical Metamaterials
	Microwave & THz Metamaterials
	Photonic Metamaterials
	Theory, Modelling & AI
	None of the above
	All of the above

If you answered 'none of the above' to the previous question please provide a short explanation. *1000 character maximum.*

This project aligns with the following Challenge Areas

	Health
	Manufacturing
	Space & Aviation
	Sustainability
	Discovery Science
	All of the above
	None of the above

If you answered 'none of the above' to the previous question please provide a short explanation. *1000 character maximum.*

Which of the following strategic priorities does your project support? Please delete any which are not applicable.

	That the UKMMN should provide a coherent single point of access to the community.
	To promote UK metamaterials related R&D.
	To support new and strategically important R&D.
	Facilitate the development of metamaterials infrastructure.
	Offer innovative approaches to encourage a healthy pipeline of talent and skills within the community.
	Develop standards and regulations for metamaterials.
	Other …

Section 10: Career Benefits

Please describe the benefit of this project to careers of your team. *1500 characters maximum.*

The UKMMN aims to offer innovative approaches to encourage a healthy pipeline of talent and skills within the community. We will support the growth of talent in the UK, advocating for and planning to enhance retainment rates, attracting people into the field to match demand from academia and industry; and developing training to deliver scientific, technical, and entrepreneurial skills. The Pump Prime Fund is a key tool for achieving this goal.

Section 11: Feedback & Further Comments

The applicant is invited to provide any feedback or further comments on the application process.

9. Appendix 8: Pump Prime Full Submission Guidance

These should be presented on an A4 Template using Arial size 12 font and page margins should be at least 2 cm in all directions.

1. **Case for Support (up to 1500 words excluding any tables or figures) including:**
    a. Vision 250 words;
    b. Approach 1000 words;
    c. A Résumé for Research and Innovation (R4RI) (250 words covering the following):
        i. Contributions to the generation of new ideas, tools, methodologies or knowledge
        ii. The development of others and maintenance of effective working relationships
        iii. Contributions to the wider research and innovation community
        iv. Contributions to broader research/innovation-users and audiences and towards wider societal benefit

2. **Management strategy (up to 500 words).**

This should include information on

    a. Strategy for using the flexibility of the resources (both staff and finance)
    b. Day-to-day management strategy for the pump prime project
    c. Monitoring strategy (please consider the Network's reporting cycle)

3. **Justification of resources (up to 250 words)**
    a. A narrative description of the need for the resources requested. Resources for the project management of the pump prime project and impact activities should be described here.
    b. If required, please also attach an amended budget where this differs from the initial application and include the following budget table (the amendments to the budget do not count against the word count):

Category	Costs (100%)	Costs (PP funded at 80%)
DI Staff		
DI Travel		
DI Other		
DA Investigator		
DA Other		
Total		

4. **Please briefly explain how this project aligns with the Metamaterials Network's definition of a metamaterial: What are Metamaterials? - UK Metamaterials Network (up to 250 words)**

5. **Work plan**
    a. It is not expected that this will be a Gantt chart for the whole time of the project. It is expected that the work plan includes a comprehensive plan for the start of the project, which relates to the management strategy to give appropriate milestones for when important decisions on the direction of the research will be taken.