Department for
Digital, Culture,
Media & Sport

UK/ROK Open RAN R&D Collaboration

Application Guidance

1. Background

5G Supply Chain Diversification Strategy

The 5G Supply Chain Diversification Strategy (2020) sets out the Government's long-term vision for the telecoms access supply market: one where competition and innovation bring forward new deployment models based on open interfaces and interoperable standards, with flexible networks and comprising an array of suppliers. This is because such a market increases competition and choice, and ultimately introduces interchangeability of equipment into the supply chain, boosting resilience.

The Telecoms Diversification Taskforce Recommendation: 'Long-Term Research and Innovation'

The Telecoms Diversification Taskforce was appointed by the Government in 2020 to look at where the Government should target measures to ensure effective, accelerated and sustainable diversification in the telecoms supply chain. The Taskforce was composed of leading figures across industry and academia, chaired by ex-BT CEO Lord Ian Livingston of Parkhead, and has been providing important, expert, independent advice and scrutiny to the Government as it takes action to rebalance the supply chain.

The Telecoms Diversification Taskforce Recommendations and Report (see Taskforce Report) called on the Government to invest in R&D to accelerate the development and deployment of Open RAN in the short term, but to also invest in long-term R&D on future generations of networks to build UK competitive advantage and ensure that high levels of security, openness and competition are central to the technology roadmap. The taskforce suggested that the Government develop a programme on research and development of future networks, and for future 'network-of-networks' in partnership with industry - operators and suppliers, academia, SMEs and start-ups, and to build on the UK's existing world leading academia research base and research laboratories.

The UK Government 'Open RAN Principles'

In December 2021, the Government and the UK's Mobile Network Operators (MNOs) announced a joint ambition for 35% of the UK's mobile network traffic to be carried over open and interoperable Radio Access Network (RAN) architectures by 2030. In April 2022, the Government published a policy paper, the 'Open RAN Principles', which set out the characteristics that open-interface solutions, such as Open RAN, should possess in order to deliver on the UK's 5G Supply Chain Diversification Strategy's goals for resilient and secure networks with competitive and innovative supply chains.

We believe that to ensure that Open RAN achieves its potential, it needs to be defined by four core principles:
- open disaggregation
- standards-based compliance

- demonstrated interoperability and integration capability.
- implementation neutrality.

Suppliers and network builders adhering to these Principles will ensure that Open RAN solutions deliver on their promise for minimal friction when swapping suppliers critical to creating a competitive supply market, and ultimately building resilience into our networks, whilst not compromising on first-rate security.

These Principles will form the bedrock of future government investment in Open RAN, as set out in the Strategy, ensuring our R&D efforts are well targeted to give the taxpayer the best value for money. Any project as part of this programme should demonstrate how it will strive towards products and solutions that adhere to these Principles.

The Diversification Open Networks R&D Fund

The Government's Diversification Strategy was backed by £250m to invest in the Open Networks R&D Fund, which will run until April 2025. The Open Networks R&D fund will finance targeted activity, based in the UK, to support three objectives to:
- accelerate the development of open networking technology from its infancy to commercial viability
- incentivise and reduce the risks of deploying open networks technology in the UK at pace, to encourage network operators to accelerate its adoption and deployment, and
- develop an internationally recognised UK telecoms ecosystem, to position the UK as a leading market for research in open network technologies.

The investment will be delivered primarily in the form of competed grants to consortia of capable businesses, academic institutions, and public sector organisations where appropriate and actual delivery of the R&D process will be carried out by the successful consortia.

The government is currently undertaking a number of interventions to accelerate maturity of open network technology. This includes the Future Radio Access Network Competition (FRANC), which aims to accelerate the development of high-performance 5G Open RAN solutions that meet UK dense urban requirements by 2025. It will also attract new 5G RAN suppliers to conduct R&D in the UK and foster professional collaborations between potential new entrants into the UK's public network. The government has also invested in the SmartRAN Open Network Interoperability Centre (SONIC) Labs, an independent telecoms laboratory delivered by Digital Catapult working with Ofcom. This project aims to provide professional, end-to-end testing for groups of telecoms equipment vendors and their products in various ways to better understand the challenges and possibilities of OpenRAN.

The Integrated Review of Security, Defence, Development and Foreign Policy

The Integrated Review also laid clear the need to innovate. Keeping the UK's place at the leading edge of science and technology will be essential to our prosperity and competitiveness in the digital age. Our aim is to have secured our status as a Science and Technology (S&T) Superpower by 2030, by redoubling our commitment to research and

development, bolstering our global network of innovation partnerships, and improving our national skills. We will lay the foundations for long-term prosperity, establishing the UK as a global services, digital and data hub by drawing on our nation's great strengths in digital technologies, and attracting inward investment.

The Government's Evolving 6G Vision and Strategy; UK Capability in Future Telecoms

The Government is keen to support the development of future telecoms and recognises the exciting opportunities it presents for UK industry, academia and consumers. We appreciate that the future telecoms landscape will be broad and varied, encompassing a range of emerging technologies including sixth-generation wireless (6G), quantum communication/quantum internet, next generation space-based communications, cloud communications and associated infrastructure, edge computing, and hardware advances such as network virtualisation fibre optics. Successful application of future telecoms will rely on a number of key enablers in other fields, in particular AI and semiconductors (with the government's approach to the latter due to be set out in the forthcoming semiconductors strategy).

We want to embrace the opportunities presented by future telecoms to strengthen the UK's excellent telecoms research base, support collaboration between industry and academia, and increase the UK's influence on the world stage. This means ensuring the UK takes a leading role in early stage research and guiding the development of technology standards, alongside key industry and international partners.

We will set out further details of our 6G strategy later this year.

Other UK Future Networks R&D Activities

In addition to the Department for Digital, Culture, Media & Sport (DCMS), other parts of Government are awarding grants to organisations which are currently conducting future networks research and development. In particular, the Engineering and Physical Sciences Research Council's (EPSRC's) ambition to set up hubs for 6G research in the UK will provide a long-term sustainable structure to coordinate collaboration between UK academics and provide direction for future networks research to achieve a common vision of future networks.

2. Competition outline

2.1 Programme and policy context

The UK's 5G Supply Chain Diversification Strategy has set out a long-term vision for a telecoms equipment supply market underpinned by the principles of openness, standards-based compliance, demonstrated interoperability and implementation neutrality.

A key part of this strategy relates to accelerating the development and deployment of open interface and interoperable solutions. Government believes that interoperable solutions, such as Open RAN, have the potential, over the long-term, to present a genuine choice that offers security, reliability, and flexibility at a reasonable cost to operators.

Government also recognises the importance of international collaboration and policy co-ordination to drive long-term and sustainable change in the supply market. The UK makes up less than 2% of the global supply market so international partnerships are critical in creating scale and opportunity for new and emerging entrants to establish themselves in the market.

International collaboration on R&D allows for better access to new knowledge, markets and more efficient production technologies. International R&D can also result in shared costs between international partners, reducing the risk involved to individual countries. These collaborations are also crucial to supporting the government's diversification objectives because it enables technical knowledge sharing and cross-fertilisation of expertise; it provides growth opportunities for UK academia and industry; and is a chance to demonstrate soft power and UK leadership, while building bilateral relationships.

This collaboration project will follow on from the 2019 5G RailNext collaboration between the UK and the Republic of Korea (ROK). It will be delivered in a similar manner: a UK consortium selected via competition, alongside its ROK counterpart, will seek to help both countries accelerate Open RAN adoption. ROK will separately select their consortium, providing funding of £1.5 million with industry contributing £0.5 million. Both projects will run in parallel and end at the same time.

This project is specifically focused on power efficiency in Open RAN, an issue which industry has highlighted as a top priority to address in order to facilitate widespread Open RAN adoption. Power consumption represents a large share of operating expenditure for operators (estimated at between 20% and 40% of cell site operating expenditures), the majority of which is consumed by the radio access network and power amplifiers within the site. At present, Open RAN cannot currently match proprietary solutions for efficiency. New Open RAN solutions face particular power efficiency challenges:

- a more disaggregated, virtualised architecture may intrinsically consume more power than a tightly integrated, hardware-based system; and

- new entrant vendors may not have access to the power-efficient devices and techniques that existing vendors have developed.

The scope for this project includes the full range of techniques, components and systems which could materially improve the overall end-to-end power efficiency of an Open RAN System.

As part of this effort, we will encourage the successful consortium to utilise the expertise at SONIC (SmartRAN Open Network Interoperability Centre) Labs for interoperability and compatibility testing - establishing commercial links with UK-based businesses and drawing ROK vendors to increase presence in the UK market.

The international nature of this project means a focus on enabling smaller UK-based firms to learn from larger and more specialised South Korean firms, serving to strengthen the domestic telecoms ecosystem as the UK seeks to develop high value niches in this sector.

This project represents a strategic opportunity for both the UK and ROK to establish global leadership in an area of priority across 5G, by highlighting our learnings and successes via various information sharing exercises, including international events. It aims to focus on the development of new power-efficient products and solutions for the global telecoms market, seeking techniques which can be brought to market within five years.

2.2 Scope

2.2.1 Specification

The project's aim is to accelerate the development of new power-efficient products and solutions for the global telecoms market, and it should seek to support the UK government's goal of promoting Open RAN as a viable system internationally.

Power consumption represents a large share of operating expenditure for operators (estimated at between 20% and 40% of cell site operating expenditures), the majority of which is consumed by the radio access network and power amplifiers within the site. At present, Open RAN cannot currently match proprietary solutions for efficiency. New Open RAN solutions face power efficiency challenges:

- a more disaggregated, virtualised architecture may intrinsically consume more power than a tightly integrated, hardware-based system; and
- new entrant vendors may not have access to the power-efficient devices and techniques that existing vendors have developed.

This R&D collaboration represents a strategic opportunity for both the UK and ROK to establish global leadership in an area of priority across 5G. We believe that conducting R&D that helps to accelerate the pace of development of energy efficient radio units - particularly working with those leading companies and researchers for drawing down power consumption of Open RAN to ensure sustainable growth for such solutions - will be hugely beneficial.

The project will focus on the development of new power-efficient products and solutions for the global telecoms market. The power efficiency of new Open RAN solutions is an important criterion, both to meet net zero goals and to ensure that the energy costs of operating new solutions are competitive with existing systems.

The project is open to examining a range of opportunities to improve the power efficiency of 5G Open RAN systems, working within the O-RAN Alliance open fronthaul architecture and seeking techniques which can be brought to market within five years.

The scope for this project includes the full range of techniques, components and systems which could materially improve the overall end-to-end power efficiency of an Open RAN System, including but not limited to:

- Efficient power amplifier design, including linearisation and power management techniques.
- Power efficient RF semiconductor devices.
- Efficient baseband processing techniques suitable for virtualisation on COTS servers or accelerator architectures.
- Cooling and power supply efficiency.
- Energy saving based on management in response to traffic patterns.

Proposed improvements should focus on the most challenging use cases for power consumption, such as high-capacity macrocells, and should compare efficiency with existing market approaches in comparable conditions. Products and solutions developed by consortia in this collaboration should aim to reach TRL 6-7 (see section 2.2.6 for definitions) by the end of the project.

2.2.2 Objectives

- To allow UK and South Korean companies and research organisations to collaborate on Open RAN R&D and develop new products and solutions for the market.
- To accelerate the development of power-efficient technologies, products and solutions for Open RAN systems.
- To conduct a joint assessment of the overall power budget of open RAN base stations vs traditional base stations, in order to determine the critical items and make sure any progress impacts meaningfully on the consumption. Assessment should consider industry standard approaches such as those set by NGMN (Next Generation Mobile Networks) Alliance[1]. Products and/or solutions developed in the projects should match or exceed the performance of those provided by the market by the end of the projects.
- By the end of the collaboration, to move power efficiency of Open RAN solutions closer to the benchmark set by incumbents.

2.2.3 Outcomes

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[1] NGMN "Green Future Networks - Metering for Sustainable Networks"

- A greater number of Open RAN products and solutions traded between UK and ROK and as a result allowing for the scale-up of SMEs.
- Commercial relationships developed between potential ROK and UK Open RAN partners.
- Partnerships developed between universities in both countries with appropriate SMEs in the UK and ROK.
- The knowledge developed by the projects are shared internationally to promote a more open and diverse telecoms supply chain and emphasise our commitment to accelerating the development of open interfaces such as Open RAN. As a result of this, we will build up consensus with the market in order to showcase why these technologies are important for our shared goal for diversification.

2.2.4 Outputs

- Power efficient 5G Open RAN technologies, components, subsystems and products with performance at least comparable with market-leading solutions at higher TRLs.
- An assessment of the impact of those elements within the energy budget of an overall RAN system in high traffic environments.
- A report to be produced to detail our joint work in order to showcase this to international partners following the completion of the projects.

2.2.5 Security requirements

Proposed solutions should adhere as closely as possible to the principles and requirements set out in the NCSC guidance for Vendor Security Assessment[2].

Bidders should consider potential threats and increased attack surfaces that could be exposed through the adoption of open and generic technologies in telecoms networks. These risks should be manageable and advantages realised, if adequate mitigations are put in place. Nascent standards and specifications, virtualisation, new open interfaces, use of generic hardware and Free and Open-Source Software (FOSS) and increased automation pose both security threats and opportunities. Bidders should describe a thorough security evaluation of their products in relation to these component technologies where relevant.

Security innovation will be a highly valued factor of the winning bid. Bidders should make a convincing case for how their security practices excel throughout development, deployment and operation. Bidders should define the security standards and processes that they have incorporated into their product management processes. A full Software Development Life Cycle (SDLC) policy and process description is required, along with the publication of a security strategy setting out the consortium's approach to product security. Defence in depth should be displayed: detailed descriptions for the implementations of security best practice such as secure boot, zero-trust, least privilege, optimal patching, sophisticated monitoring & event handling technologies would be welcomed.

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[2] NCSC Vendor Security Assessment Guidance

During the rigorous assessment process, alongside the priorities identified, we will consider the security of projects. We will look for evidence that entrants have a clear understanding of security of the Open RAN architecture, and consider this. Secure by design and secure by default principles and good practice are required for all projects. DCMS reserves the right to fail projects if their security approach is not deemed sufficient by assessors.

Where relevant to the project aims, the evaluation team would be interested to receive short summaries of participating staff who contribute to standards and/or industry initiatives like the Third Generation Partnership Project (3GPP), European Telecommunications Standards Institute (ETSI) or the ORAN Alliance or have participated in early commercial rollouts and/or Telecoms Infrastructure Project (TIP) initiatives for the early deployment of Open RAN technologies.

We consider the Open RAN security challenge to be one of the key issues that needs to be addressed and believe that the UK is well situated to provide innovative solutions that will provide confidence in the security of the technology. There is a huge opportunity for innovation in this space and we see this as an opportunity that we expect all Open Networks R&D Fund projects to engage with.

We have worked closely with the NCSC to identify the following topics to consider regarding security.

Topics for consideration

- Adopt and work toward secure by default and secure by design in all delivered products and end-to-end systems.
- Actively run security testing with reliable metrics that show the quality of the security testing, reliability of their projects when under test, and the security of the transmissions seen on various interfaces.
- Perform regular audits of equipment, processes and policies testing.
- Limit the use of vendors whose goods or services could be considered as presenting a high security risk .
- Increase the security of virtualised and distributed network functions.
- Ensure network operation, management and monitoring is secure, in particular between equipment of different vendors.
- Ensure software integrity checking, update and patch management is in place.
- Support cooperation and information sharing between UK and global organisations around secure network design, attacks, vulnerabilities and security mitigations for Open RAN solutions.

2.2.6 Project success criteria

To provide extra information on our success criteria, we have produced the following statements to provide an overview of what we are expecting successful projects will achieve, in general terms.

The successful project will create an Open RAN system at a higher TRL than it started, potentially testing out use cases in various environments. It will record how effective it has been in these respects.

The successful project should remain market relevant by the end of the funding period, and may be of commercial interest to Mobile Network Operators (MNOs) on completion. We will measure the MNO interest in projects, and relationships built with the successful bidder.

The project should disseminate the learning gained meaningfully. This will include the reports of the learning being published and disseminated across the ecosystem by DCMS and relevant parties for use across the ecosystem. DCMS will continue to engage with the successful project to ensure the right information is released. The number of downloads / views of these reports will indicate the success of this. Additionally, having the project referenced in future publications and commercial decisions will be a key indicator of success.

The successful bid will progress from early Technology Readiness Levels (TRLs), to higher TRL levels. Products and solutions developed by the winning consortium should aim to reach TRL 6-7 come the end of their DCMS funding. For reference, the TRL levels are below:

- TRL 3 – Experimental proof of concept
- TRL 4 – Technology validated in lab
- TRL 5 – Technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies)
- TRL 6 – Technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies)
- TRL 7 – System prototype demonstration in operational environment
- TRL 8 – System complete and qualified

The successful project will result in products/solutions, which are truly interchangeable when tested against third parties. This means that projects will be more than just 'Open RAN in name', but actively deploy solutions that mitigate the resilience risks posed. We will encourage the project to join a demo at the DCMS-funded SONIC Labs facility, for a consistent evaluation and a demonstration of impact and to test the power-efficiency gains of the technologies and products developed in the projects within an end-to-end system context.

2.2.7 Sustainability

DCMS will, as a condition of making funding available, require the successful applicant to set out the principles of how the project's expected outcomes might lead towards the deployment of financially viable products, alongside the wider benefits of these to the open networks ecosystem. The project should have an approved plan for this in place prior to the project's end.

Given this is a joint UK/ROK project, this competition requires proposals that have an international outlook, building upon existing UK strengths and partnering with non-UK

organisations to develop globally-viable business models. All activities funded under the competition must be carried out in the UK.

2.3 Funding

2.3.1 Total funding available

There is up to **£1.6 million** available DCMS in this competition for the period up to 31 March 2024. The competition aims to fund a single successful consortium.

The start date for DCMS funding is subject to satisfactory completion of a set up and pre-grant requirements, DCMS due diligence and signing a Grant Funding Agreement. For planning purposes, please note that DCMS expects to enter into a Grant Funding Agreement with successful applicants 8-10 weeks from notification of award. DCMS funding must end by 31st March 2024.

2.3.2 Subsidy Control

As of January 2021 the UK is following its international obligations on subsidy control in respect of commitments arising from the UK's continued membership of the World Trade Organisation's Agreement on Subsidies and Countervailing Measures, and obligations set out in Chapter 3 of Title XI of the Trade and Cooperation Agreement (TCA) between the European Union and the United Kingdom. Applicants are also advised to be aware of the potential relevance of the various non-binding (Joint) Declarations, made by the UK and the EU, which were published in December 2020.

2.3.2.1 Subsidy Control eligibility

The TCA establishes the principles of the UK's subsidy control arrangements, and DCMS has reflected upon how best to demonstrate its compliance with the principles for the purpose of this competition. Applicants must use and comply with the approach set out in the competition guidance and confirm that they are working within the Subsidy Control principles - see also **General guidance for grant applications.**

DCMS will not award grant funding to organisations that are an 'ailing or insolvent economic actor' (as defined in Article 3.5 of Part 2, Title XI of the Trade and Cooperation Agreement). DCMS therefore requires all organisations to undergo financial viability and eligibility checks and DCMS, as part of its assessment of applications, will request evidence that organisations are not 'ailing or insolvent'.

Before submitting an application for funding to DCMS, you must accept the terms and conditions of the grant. If you are in any doubt, you should seek independent professional advice about your eligibility. Applicants will be required to obtain their own independent subsidy control legal advice and, if requested to do so, commit to sharing that advice with DCMS and its professional advisers.

If an applicant receives a subsidy in breach of the domestic subsidy control arrangements, including the subsidy control provisions of the TCA, that applicant may be required to repay any subsidy received to the value of the gross grant equivalent of the subsidy, plus interest.

2.3.2.2 Further information on Subsidy Control

The Subsidy Control team at the Department for Business, Energy & Industrial Strategy (BEIS) has lead responsibility within the UK for coordination and development of policy on subsidy control. BEIS has published [guidance for public authorities](#).

2.3.2.3 Funding rules

DCMS will provide grants to the eligible consortium of organisations who are successful in this competition and once a Grant Funding Agreement is agreed. DCMS has clarified, however, that funds must be used in accordance with the approach, as described below. Grant recipients will be required to confirm that the costs they wish to claim for are capitalised and/or treated as capital expenditure in line with UK GAAP.

Full detail of the funding rules can be found in the **General Guidance for Grant Applicants.**

2.3.3 Project Set Up and Grant Funding Agreement

Upon being notified of success in the competition, the successful consortium should be prepared to mobilise quickly.

The successful consortium will need to provide a range of detailed planning, financial, commercial and subsidy control information to enable DCMS to complete due diligence and prepare to enter into a Grant Funding Agreement (GFA). This will determine when DCMS funding starts and can take several months from receiving notification of success. DCMS aims to complete this as quickly as possible and within 10 weeks of notification of success.

The successful will need to demonstrate that you have resources in place to lead the pre-grant mobilisation process. You must identify your pre-grant mobilisation team including the Senior Responsible Owner (SRO), Project Manager and Finance Lead as part of the supplementary information form.

Projects must declare they have understood and accepted the terms of the grant agreement when submitting their application. The terms and conditions set out in the GFA are non-negotiable and are available on the gov.uk competition website. We recommend that you review this with your legal advisers and raise any queries you may have before submitting your application.

2.3.4 Eligible cost and funding allocations

Eligible costs are costs that you incur whilst delivering the project- including the costs of your labour, overheads, materials, subcontracts and travel and subsistence (T&S) among others.

Costs incurred during bidding and in reaching grant funding agreement are not recoverable.

Eligible costs are intended to cover all activities directly associated with carrying out the activities of this project. Please see the DCMS - Eligible Costs Guidance document for full details and explanation. Sample evidence of these costs being incurred will be required as part of the grant claims process. Universities apply through the JES (see guidance) - this allows recovery on a full economic cost basis. The subsidy intensity is dependent upon the subsidy control regime the project chooses, which may be up to 100% subsidy.

Within your proposal, there must be a lead partner[3] who will be the accountable body and recipient of any DCMS grant awarded. They will also be responsible for managing the consortium and for any distribution of DCMS funds to consortium partners, as set out in the consortium's collaboration agreement. Please note that Grant Funding is **paid quarterly and in arrears.**

The applicant selected at the end of this competition will need to follow the process and criteria that will be set out in a DCMS grant funding agreement to access funding (a template for which is available on gov.uk) for individual activities.

The successful project should complete all DCMS funded activities within the grant period, unless an extension is agreed with the DCMS. Non-DCMS funded activities could continue beyond this date.

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[3] Please refer to section 3.2 for definition of eligible bodies that can apply

3. Eligibility criteria

The applicant must demonstrate clearly in their application how they meet **all** the eligibility criteria set out in this section.

3.1 Eligible applicants

This competition is open to applications from UK-based organisations. Please note the following eligibility criteria for the grant funding:

- Applications must be from a consortium, composed of two or more organisations. There must be an agreed lead applicant who will be the prime recipient of grant funding and who will be responsible for managing a consortium's activities and for allocation of grant funding to other consortium members.

- The lead applicant and/or consortium should have strong industry representation.

- Applicants led or largely composed of mainly lobbying/advocacy groups are not eligible.

- Individual people are not eligible applicants.

- The grant must not represent more than 50% of the consortium's annual income (averaged over 3 years).

- Consortium members will need to have signed a collaboration agreement between themselves prior to any claim to DCMS for grant funding for the project.

- Companies that are not UK-registered are not eligible to receive grant funding from DCMS. (Non-UK organisations may participate but will not receive grant funding).

- High risk vendors (HRVs) are not permitted to participate in projects either as a consortium partner or supplier. See NCSC Advice for more information on HRVs. Public funds must not be used to pay for any HRV products or services through the competition. We understand that in the case of Mobile Network Operators (MNOs) for example, with pre-existing HRV equipment in their networks, these networks may reasonably be used to build testbeds. However, funding must not be used to buy additional equipment or services from HRVs.

- The lead applicant and/or consortium should be able to demonstrate they can deliver engagement at an international level.

- The lead applicant and/or consortium will need to demonstrate sufficient technical knowledge and skills to deliver the required outcomes or be able to subcontract sufficiently for this criteria.

- Individual organisations are allowed to apply as part of more than one consortium.

● All awards will be made subject to successful due diligence checks.

3.2 Applications and partners

Proposals must be submitted by consortia who meet the below criteria:

● Companies that are not UK-registered are not eligible to receive grant funding from DCMS (Non-UK organisations may participate but will not receive grant funding).

● Consortia should identify a lead applicant who will be the prime recipient of grant funding and who will be responsible for managing a consortium's activities and for allocation of grant funding to other consortium members.

● The lead applicant and consortium should have strong industry representation.

● The lead applicant and consortium should be able to demonstrate they can deliver engagement at an international level.

● Individual people are not eligible applicants.

● The lead applicant and consortium will need to demonstrate sufficient technical knowledge and skills to deliver the required outcomes or be able to subcontract sufficiently for this criteria.

● The lead applicant and consortium will be required to ensure activities fall under the subsidy control approach as set out in the General Guidance for Grant Applicants and submit their own independent written legal advice of their compliance.

3.3 Roles

You should specify the following roles in your proposal, as applicable:

Organisation Role	Notes:
Project Lead Partner	The proposal should make it clear why the lead is the most appropriate organisation for the lead role.
Project Partner	These are any other organisations which are receiving grant funding from DCMS under this grant and which will undertake important activities during delivery. These organisations may be involved in the project governance as appropriate.
Project Members	These are any other organisations contributing to the project with funding or in-kind contributions but are not receiving grant funding from DCMS under this grant. These organisations may be identified at the proposal stage, or could be added at a later date.

Organisation Role	Notes:
Key Project Suppliers	These are known key suppliers, if any, who are providing products and/or services on which delivery will rely. They will not be involved in project governance.

4. Further General Guidelines

4.1 Benefits and key findings monitoring

We expect bidding consortia to focus particularly on the measurable benefits and key findings (lessons learned) that will arise from their work as part of delivering the required outcomes, rather than just running demonstrations.

<u>Benefits</u>

In bids, we expect to see quantitative estimates of these benefits, how they will be measured and evidenced throughout and after the project. DCMS will share the reporting framework for benefits realisation at the start of the project's onboarding phase. Once started, projects will be required to agree benefits metrics with DCMS, focusing on the positive outcomes of the project, and monitor and report these to the Department.

These metrics may include:

- Amount funded (£)
- Private sector Investment (£)
- Number of new collaborations
- Number of patents and IP generated from projects
- Number of technical and commercial partnerships formed via the project
- TRL Growth
- Power Efficiency

As part of their application, the successful consortium is expected to create project specific SMART objectives which will be agreed with DCMS and included in their work plan annexed to the signed GFA. Projects will be expected to report on these objectives at regular intervals to DCMS. If these are not followed through appropriately, DCMS holds the option to refuse payment.

We will require the project to report on Technology Readiness Level increases, investment in each consortium partner and a range of other information to be agreed upon selection. This will include, but will not be limited to, updates on, and discussions of, the technical findings and data produced by the project.

<u>Lessons learned</u>

A further key area for reporting will be lessons learned and the knowledge dissemination activities undertaken by the project. Project reporting will be on a quarterly basis, with occasional monthly discussions when required. This will form part of the deliverables that the project is expected to achieve in order to access grant funding. Lessons should be captured throughout the project's lifecycle, as they happen. This will culminate in a final report summarising the findings of the project at the end of its cycle. It is important to note that DCMS expects the project to appoint a resource who is responsible for the benefits and lessons learned monitoring and reporting and allocate specific time to undertake this work. They will be responsible for updating DCMS officials as part of the regular reporting process.

Evaluation activities

In addition, project partners will be expected to participate in occasional programme evaluation activities, e.g. surveys and interviews of grant recipients, which will be conducted by DCMS or a third party acting on its behalf. These are to assess the outcomes of the Open Networks R&D Fund, its constituent projects and other relevant government strategies.

Evaluation activities will be undertaken both during and after the lifetime of the project. Findings should be captured by the projects and reported to DCMS officials consistently during any formal meetings. This includes technical findings, unexpected breakthroughs and setbacks as well as information that could help inform existing DCMS policy areas. This information will be used to inform government officials, Ministers, and wider ecosystem members to showcase the progress of work in this field.

4.2 Development Review

A Development Review at key milestones during the grant funding period will require the consortium to submit updated proposals for the remaining funding period.

The purpose of the Development Review is to:

- Help ensure the consortium is delivering high quality outcomes by providing an opportunity for both the consortium and DCMS to reconsider approaches and strategies and potentially make adjustments.

- Provide an opportunity to reassess the funding envelope for the consortium.

At the Development Review, updated plans will be reviewed for approval by DCMS against the project's stated aims and those of the competition. The consortium may use this opportunity to refine their approach or adjust the consortium's direction. The purpose of this Development Review point is to ensure the consortium is continuing to deliver suitable and value for money outcomes based on the developing wider telecoms ecosystem. The timing and periodicity of Development Reviews will be agreed as part of the Grant Funding Agreement process.

4.3 Collaboration

The successful applicant will be expected to work with UKTIN[4] and DCMS technical/programme leads to participate in collaboration and knowledge sharing activities across relevant publicly-funded projects where agreed with DCMS (and which may include projects funded by public organisations other than DCMS). This will include the dissemination and celebration of findings across the ecosystem (with appropriate consultation and reference to IP restrictions).

Consortium members are expected to work together collaboratively. Where there are topics of shared interest, the consortium is expected to take advantage of any opportunities for mutually beneficial inter-working with other projects and/or participation through ecosystem partners' channels, as well as with the wider ecosystem. The project is also expected to work closely with the project funded by the ROK as part of this international collaboration.

All projects are required to take part in activities such as:

- Production of lessons learnt materials for publication such as reports, case studies etc;
- Collaboration with the wider ecosystem through attendance and involvement at DMCS-led collaboration events with other projects in the Open Networks R&D Fund receiving DCMS grant funding;
- Collaboration, knowledge sharing workshops and trade events;
- Sharing of media and publicity products for use in DCMS media channels.

The aim is that by combining the efforts and knowledge base, producing tangible and useful outputs that can be shared and demonstrated, the collaboration activities will help to foster the ecosystem. DCMS will facilitate partnerships and support these efforts where relevant. Potential areas for collaboration activity include key cross-cutting strategic issues outlined in section 2.2 (Scope). The selected project must also sign up to the Programme Participation Agreement, which is included in the supporting documents on gov.uk, as part of the application process. This outlines how members of the ecosystem should collaborate, share knowledge and join-up through the five Programme Participation Principles.

4.4 Spectrum

If any spectrum or network capabilities are required to deliver the project, the consortium must have access to them or have a clear plan in place to acquire or build them in a timely manner. This may be in the form of an agreement with an existing network provider, or through the deployment of new network infrastructure, in addition to any required connections to existing or third-party infrastructure.

Spectrum may be commercially licensed, by using an Ofcom Innovation and Trial Licence or by making use of Ofcom Shared Access licensing approach to provide localised access to spectrum bands that can support mobile technology.

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[4] If possible - the UK Telecoms Innovation Network may not be operating within the timescales of this project.

5. Competition process

5.1 Dates and deadlines

The competition process will follow these steps:

- Applications will be assessed against this Competition Guidance.
- Applications will be ranked for shortlisting.
- Shortlisted applicants will be invited to a second stage assessment, which will include an interview. Details of the interview stage will be confirmed nearer the time.
- Applicants attending the interview will need to submit a draft collaboration agreement (annex 3 of the GFA) that has been agreed between the Project Lead and Project Partners.
- The assessment of Applications will be updated following the interview and the highest scoring shortlisted Application will be selected as preferred applicant.
- The Applicant lead will be notified of the funding decision.
- All Applications will receive assessor feedback upon request.

For this competition, the application window is open for eight weeks. There will be opportunities to learn more about the competition and discuss with potential collaboration partners at the project launch briefing event. The indicative timeline is below:

Milestone	Date/Deadline
Competition opens	26 July 2022
Launch/briefing event	3 August 2022
Deadline for clarification questions	13 September 2022
Deadline for receipt of applications (competition closes)	20 September 2022 at noon
Assessment of bids and interviews	September - October 2022

Milestone	Date/Deadline
Successful applicants notified	November 2022
Grant claim period	December 2022 - 31 March 2024

6. How to apply

You must submit your documents to the email address **onp.enquiries@dcms.gov.uk**. by the date set out in section 5.1**.** You will receive an email acknowledgement of your registration.

We strongly advise submitting well in advance of the deadline (i.e. days before) as there is always a risk that IT issues prevent you submitting promptly (e.g. issues sending large files).

The Project Lead Partner must submit:

- Your application form (mandatory) with:
    - Project Finance Forms for every organisation (including the lead organisation) that will receive grant funding (mandatory), this should cover the full grant term.
    - Finance Summary Form, covering the full grant term.

6.1 What to complete

The following documents need to be completed as part of your application:

1. **Application Form** (plus any allowed appendices) - see Application and Assessment section below for further details of the application

2. **Project Finance Form** (for every organisation (including the lead organisation) covering all proposed costs) - this document is used to understand how you have estimated your project costs - see **Eligible Project Costs Guidance** for further guidance.

The Programme Participation Agreement (one per applicant) is provided for information at this stage and will only need to be completed upon award.

6.2 Application format

You can only use the application form and templates provided. They contain specific guidance on information you must provide.

The application form and templates contain specific fields. It is important that you complete each field and submit a fully completed form. Incomplete forms may be considered ineligible and not sent for assessment. DCMS reserves the right to ask for additional clarifications and corrections following the submission deadline.

The application form and templates must not be altered, converted or submitted as a different file type.

The submission must conform to the maximum length specifications stated in the "Competition questions" section below. Information in excess of this will be disregarded. Hyperlinks referencing further information may be included to inform more detailed understanding post-selection, but will be disregarded during the assessment of applications.

Additional information submitted at the request of DCMS must meet any timing, format and length requirements we may specify at the time.

In evaluating your responses, we value brevity and the maximum word limit is fixed, but please give sufficient evidence to support your application. Tables will not be included in this word limit but should be only used where necessary.

Your response should provide sufficient evidence to support any assertions made and state any underlying principles or assumptions. You should not include commercial sales messages about products or services being proposed.

7. Application and assessment

7.1 Application structure

The structure for applications is as follows:

Applicant information (not assessed)
- Consortium name
- Name of Consortium Lead Organisation
- Contact details for Lead Organisation
- Name(s) of additional organisation(s) forming part of this application
- Contact details for additional organisations (Consortium Partners)
- Description of the consortium suitable for public release

Public Description (400 word limit) (not assessed)
- To comply with government practice on openness and transparency of public funded activities, DCMS has to publish information relating to funded projects. Please provide a short description of your proposal in a way that will be understandable to the general public. We will publish this information for all bids, including those not awarded funding, so do not include any commercially confidential information, e.g. intellectual property or patent details.
- We would also like to publish the partners involved in your proposal and the public description of the project, but this is not mandatory. Please confirm in the application form to indicate if you are happy for these to be published as well.

7.2 Evaluated questions

Responses will be evaluated using the general weighting scheme set out in the following table. Supporting questions, detailed marking and associated reasoning are set out in subsequent sections.

Section	Weighting	Ideal response
A. Project description and objectives	30%	A clear description of the project, stating its aims, objectives and expected outcomes. The description should describe which elements of Open RAN and other technologies will be adopted and why; detail the project's innovative elements; and summarise the expected key impacts of the trials. The description should also outline the consortium members and their roles, along with key members and who is doing what.

Section	Weighting	Ideal response
B. Outcomes, sustainability and international collaboration	30%	A clear description of project outcomes and a reasoned and credible comparison of the benefits and costs of the project. It should outline how your successful trial will lead towards deployment of commercially-viable products and services sustained without further government grant funding.
C. Project delivery	25%	Evidence that the project plan and work package tasks have been thought through and that there is a robust approach to controlling the project in flight that is proportionate to the funding levels sought.
D. Financial	15%	A clear overview and explanation of the costs of the programme and confidence that financial management and control of the project will deliver good value for money.

In evaluating your responses, we value brevity and the maximum word limit is fixed. Anything beyond the word limit will be disregarded and not assessed. Please give sufficient evidence to support your bid. Tables will not be included in this word limit but should be only used where necessary. Additional diagrams should not be provided unless requested.

Your response should provide sufficient evidence to support any assertions made and state any underlying principles or assumptions. You should not include commercial sales messages about products or services being proposed.

Section A - Project description, objectives and outcomes (30%)

Please provide a clear description of the project, stating its motivation, objectives and expected outcomes. The description should describe which elements of 5G and other technologies have been adopted and why; detail the project's innovative elements; and summarise the expected benefits of the project's outcomes, including on telecoms network supply chain diversification. Given that this project is an international collaboration, please also describe how you will effectively work with the ROK project.

The description should also outline the consortium members and their roles.

An ideal response to this section will provide a clear and compelling description conveying understanding of the nature, scale and value of the proposed project, and why the proposed consortium is well placed to deliver it. It should address the following four questions.

1: Describe the project's strategic aims, highlighting which power efficiency challenges in Open RAN you plan to address, including reference to competition objectives - 10% - 750 words (Triage Question)
- Describe the main motivation for the project and the power efficiency challenges in Open RAN the project will address. Your description must identify genuine commercial drivers for success and the particular challenges that could be met using 5G capabilities, and highlight innovative aspects.
- How will your solution impact the global and UK markets for Open RAN? How will it be differentiated from competing products or solutions?
- State, in simple terms, what you will deliver in your project.

2: Describe, in technical terms, the system architecture and major technological components and innovations of the project including (a) diagram(s). - 10% - 750 words (Triage Question)

3. This funding is to be awarded in support of an international collaboration with the Republic of Korea. Please outline your plan to ensure effective collaboration with grant recipients in the Republic of Korea - 5% - 400 words (Triage Question)
- Describe in practical terms how you will work with the ROK project to ensure technical knowledge sharing and cross-fertilisation of expertise during the life-cycle of your project
- Describe how you will ensure your collaboration with ROK allows for better access to new knowledge, markets and more efficient production technologies for both countries.

4: Describe your approach to the project's telecoms and cyber security? - 5% - 400 words
- Describe how you will ensure your implemented solutions are safe and secure, conforming to best practice, as outlined in section 2.2.5
- What technical functionality is built into your system to appropriately manage and monitor telecoms and cyber security?

Section B - Outcome sustainability, benefits and route to market (30%)

Please provide a reasoned and credible picture of how the project's expected outcomes might lead towards deployment of financially viable products, including wider benefits of these to telecoms network supply chain diversification.

An ideal response to this section will provide a reasoned and credible business case for the development of the project's products. It should address the following four questions:

1. Describe the project's measurable outcomes - 5% - 400 words
- Describe what the measurable impacts of your project will be by the end of the funding period and how you will evidence the impact of your project.
- Describe your approach to the identification and dissemination of lessons learned and project outcomes. Explain how it benefits the wider supply chain diversification ecosystem.

2. How will your project bring the product(s) or capability(s) closer to deployment and support the development of a 5G Open RAN ecosystem? If helpful, you may wish to use Technology Readiness Levels (TRLs) to support this - 10% - 750 words

- Describe how the project will contribute to developing the UK's capabilities in the emerging 5G Open RAN environment.
- Describe how your proposal will contribute to the development of a 5G Open RAN research, development and innovation ecosystem in the UK.
- Highlight the key outputs of the project you will deliver in the first year and in the following period and how these will deliver against the challenges and use cases you have identified.
- Describe how you intend to factor in the expected availability of the 5G services and devices featured in your proposals and how you intend to ensure the project will help develop the UK's diverse supply chain in telecoms.

3. Outline the key benefits you will achieve; and your approach to measuring and monitoring these - 10% - 750 words.

- Outline in simple terms the key benefits expected from your activities. Be specific about the impact of these benefits and how they will align with the expected outcomes in section 2.2.3.
- Provide information on how your deliverables will result in these anticipated benefits and outcomes.
- Provide clarity on the mechanisms used to track the impact of changes and how they lead to benefits. What is the connection between your outputs, benefits and outcomes?
- Provide indication of metrics, including baselines, targets and how you will monitor progress of these. Be specific where you can about frequency of measurement, how you will monitor progress and who is responsible for this activity.
- You should clearly identify what will be delivered before the Project Development Review at roughly the halfway point.
- Note: We highly recommend that you begin to quantify some of these benefits as this will greatly support our benefits realisation efforts.

4: Describe your vision for the development and funding of the product(s) once the project is completed - 5% - 400 words

- Describe how the project outputs will deliver value beyond the funding period, including how it could be further developed, scaled or improved beyond the timeframe or outside of the scope of this project.
- Briefly detail any follow-on projects or future improvement opportunities currently envisaged.
- Describe how this project will affect your longer term roadmap for new products and services.

Section C - Project delivery (25%)

Please provide a detailed plan for the delivery of the project. A good response will provide evidence that the project proposal is credible and that there is a robust approach to controlling the project that is proportionate to the funding levels sought.

It should address the following three questions:

1. Provide a project plan: - 10% - 750 words
- Describe how the project will be delivered.
- Outline key activities, including purpose and objectives of these activities.
- Describe your mobilisation plan (from grant agreement to starting delivery) working with the ROK consortium. Please provide actual dates.
- Highlight key decision points and dependencies.
- Identify milestones, including grant payment milestones.
- Gantt Chart (required) and other supporting materials can be provided as an annex.

2. How will the project be governed and decisions made? - 10% - 750 word limit
- Describe your proposed project management processes and governance structures
- Describe the roles and responsibilities, skills and experience of all partners that are relevant to the approach you will be taking. In particular, identify the participant(s) who will be responsible for the management and operation of the project, and why they have the right skills and capabilities to deliver this.
- Describe how your governance arrangements will support effective collaboration with the ROK project - and how decisions will be made with mutual interest
- Describe what, if any, frameworks you will put in place to support governance, e.g. an international collaboration agreement
- Describe which legal entities will own any assets which are paid for by grant funding.
- Describe the details of any vital external parties, including sub-contractors, with whom you will need to work to carry out the project successfully.

3. Describe the most significant risks to the successful delivery of the project and how they will be managed (5%) - 400 word limit
- Identify the main risks and uncertainties of the project and provide a risk analysis for the project content and approach, with a ranking of the risks and mitigations. Include any cost, timing, technical, commercial, managerial and environmental risks as well as other uncertainties (for example ethical issues, device/service availability issues) associated with the project.
- Identify any internal and external dependencies, support or engagement that is required. Indicate what is agreed at the time of submission, and what is still to be agreed, for example any legal agreements or consents that need to be put in place to enable the works to be undertaken.

Section D - Financial (15%)

This section is for applicants to give a clear overview and explanation of the costs of delivery that can be related to the proposed delivery plan; and confidence that financial management and control of the consortium will deliver good value for money.

The detail of the responses should be clearly linked to activities described in your response to previous questions. For planning purposes, assume that DCMS grant funding could start up to 10 weeks after DCMS notification of success (subject to timely, satisfactory completion of set up requirements and DCMS due diligence). DCMS funding must end by 31 March 2024 at the latest.

A good response to this section will provide a clear overview and explanation of the costs of the programme and confidence in financial management and control of the project. It should address the following three questions:

1. Identify the major cost components and explain how these represent value for money - 5% - 400 words
- Provide a narrative description summarising what each project participant will be delivering and the costs associated.
- Describe the contributions in kind from each project participant (more detail in eligible project costs guidance).
- Provide a cost breakdown of forecast expenditure on the project. Identify costs for the testbed and funded trials separately. Explain how the costs have been calculated.
- Describe what network and any other infrastructure will be used in the project (if any), and how it will be sourced.
- Describe any subcontractor costs and why they are critical to the project and are not grant receiving consortium members.
- Identify the amount of DCMS grant and other funding you will set aside for working collaboratively with the Open Networks R&D Fund ecosystem. A minimum of 2-4% of grant funding is required.
- Provide an appendix separately identifying the following:
    - A resourcing plan that consolidates the information to show the full labour requirement for the consortium. Use this to explain the level of resourcing required and indicate where roles are filled using known individuals or where recruitment is required. Please include:
        - Role salary (1 FTE) (£)
        - Deliverables (linked to delivery plan)
        - FTE for each year of the project
        - Set up and operation period
        - Total FTE
    - The estimated project cost for each milestone described in your response to Section C (Project Delivery). Make clear the level of contribution from each project participant and the level of grant funding requested from DCMS.
    - The spend profile by month, linking it to milestones and deliverables as needed. This should be fully consistent with the dates you have specified in the project plan.

2. Explain how you will ensure value for money through your sourcing approach and supply chain - 5% - 400 words
- Explain your sourcing approach.
- Confirm that the grant amount requested includes any irrecoverable VAT, all fees and charges, and appropriate allowance has been made for any price inflation during

the project period.

3. Explain whether this project could go ahead without public funding and if so the difference public funding would make. Why are you not able to wholly fund the project from your own or other private-sector funding? 5% - 400 words

- Detail how the funding you require will allow you to undertake the project in terms of time to market and any other relevant factors, where you would otherwise be unable to.
- Tell us whether the project could go ahead in any form without government funding and, if so, what difference would government funding make? Explain why this contribution would be beneficial to the project partners involved in the project, as well as the UK taxpayer (in terms of economic, social, environmental and other impacts).
- Describe any direct follow-on funding from project partners. This should include any post-project research and development, further trialling and capital spending commitments by the project partners.
- Describe any additional areas of added value not set out elsewhere in your proposal.

Note: As part of assessment of Section D, Assessors need to be confident the project is good value and can be delivered to the stated cost. They will consider:

- The response to these questions and the supporting financial information provided.
- The suitability of the proposed costs - costs considered excessive will be a cause for serious concern.
- The total amount of grant funding requested from DCMS. Whether there is an appropriate level of contributions from public sector organisations who are project partners.

7.3 Supplementary information

The application form contains two parts within the Supplementary Information section. The first part contains a Finance Summary table which must be filled out to represent your spending proposal. The second part contains a table which must be filled out, stating that the organisation accepts various aspects of the Grant Agreement terms. Both parts of this section are mandatory. Information provided here will be used to aid understanding of the (above) assessed responses.

Ref	Question/Request	Bidder Response
1	Please complete the finance summary table	Complete the table in the Application Form
2	Please confirm that your consortium has reviewed and understands the Subsidy Control principles under which you intend to receive grant funding; that your application complies with said rules; and that you will take independent legal advice and share that advice with DCMS upon request.	Please state: 'Yes' or 'No' and which regime you intend to use

Ref	Question/Request	Bidder Response
3	Please confirm that your consortium has obtained a legal opinion and this bid complies with the no-subsidy approach . [Please note successful applicants will be required to submit their written legal advice to DCMS on request]	Please state: 'Yes' or 'No', If No, when would this be expected to occur?
4	Please provide the addresses of the key locations in the project, i.e. where grant-funded activity will take place	Location & address [Insert location name and address]
5	Please confirm that the grant amount requested from DCMS includes any irrecoverable VAT, all fees and charges, and appropriate allowance has been made for any price inflation during the grant claim period.	[Enter 'Confirmed']
6	Please confirm that, if you are successful in this competition, the Consortium Lead will accept the terms and conditions in the draft grant funding agreement provided. We expect the Consortium Lead to sign the agreement after notification of success and to ensure satisfactory completion of DCMS pre-grant project set-up requirements and information for DCMS due diligence. DCMS reserves the right to rescind offers of funding, for example if this is delayed. The terms and conditions set out in the GFA are non-negotiable and are available on gov.uk. We recommend that you review this with your legal advisers and raise any queries you may have with DCMS before submitting your application.	[Enter 'Confirmed']
7	Please confirm that all organisation(s) involved have accepted the Terms and Conditions of the Grant Funding Agreement. The terms and conditions set out in the GFA are non-negotiable and are available on gov.uk. We recommend that you review this with your legal advisors and raise any queries you may have with DCMS before submitting your application.	[Enter 'Confirmed' and partner name]

Ref	Question/Request	Bidder Response
8	Please confirm whether partners have provided a letter of support or commitment to the project. Please submit a copy of such letters in .pdf format.	[Enter 'Confirmed' and partner name]
9	Please identify your pre-grant mobilisation team including the Senior Responsible Owner (SRO), Project Manager and Finance Lead.	

7.4 Assessment

1 - Sift

Initial eligibility checks will be undertaken on all applications against the scope, funding and eligibility requirements in the application guidance. If an application passes the sift it will progress to evaluation. If an application does not pass the sift, we will notify the Project Lead Partner with an explanation as to why.

2 - Shortlisting

All applications passing the sift will be evaluated and moderated beginning with a triaging process in which they will be assessed based on three questions before a full assessment on the application will be conducted in which they must reach a minimum threshold for evaluation to proceed. Successful applications will then be scored against the scoring scale and any pass/fail criteria and then ranked based on total score. A shortlist of the top ranked applications will be invited to interview.

3 - Outcome and feedback

The result of the shortlisting will be shared with all evaluated applications. Feedback will be provided to all applications that have been fully evaluated once the competition has closed. It is the responsibility of the Project Lead Partner to communicate the feedback to the rest of the consortium, if applicable. No additional feedback can be provided.

4 - Interview

Shortlisted applicants will be provided with a list of questions and requests for further information that must be supplied in advance of the interview. DCMS will tell the Project Lead Partner when their interview will be. Interviews will be held online via Google Meet.

4 - Post-interview

The evaluation scores of shortlisted applications will be updated following the interview, also taking into account any information provided, where requested by DCMS. Shortlisted applications will be ranked in descending order, based on total score. The highest ranked application will be selected as the preferred applicant.

The Project Lead Partner will be notified of the selection decision, at which point projects should be prepared to enter into a Grant Funding Agreement (GFA) within ten weeks of notification of our intention to fund.

Following the assessment, we will carry out a period of due diligence to validate and revise where appropriate the project scope, delivery plan and funding arrangements prior to the award of a grant. This will include both financial and reputational checks.

7.5 Scoring

Individual responses to each question will be scored in line with the following scheme. The assessors will score your answers to these questions. Each question will be given a score 0-10:

- 0-1 – Serious concerns: for example, does not meet requirements, and/or raises serious concerns.
- 2-3 – Some concerns: for example, meets some requirements but with gaps and/or some concerns.
- 4-5 – Adequate confidence: for example, meets most/all requirements, but lacks sufficient detail in some areas.
- 6-7 – Good confidence: for example, meets most/all requirements and provides a response that demonstrates a good understanding of the requirements.
- 8-9 – Very good confidence: for example, meets all requirements and provides a detailed response that also exceeds expectations in some areas and/or demonstrates a strong understanding of the requirements.
- 10 - Outstandingly good confidence: for example, meets all requirements and exceptional detail that exceeds expectations in many areas and demonstrates excellent understanding of the requirements.

Scores for each question will be weighted by the amount indicated against each question. Your application's total score will be the sum of the weighted scores.

7.6 Quality threshold

Following evaluation of the applications and moderation of scores, any application with an unweighted score of one or below (serious concerns) against any individual competition question, including where an error has been made by the applicant, will not be considered further for shortlisting (Step One).

All remaining applications with an average evaluation score against all competition questions (i.e. the weighted score across all competition questions) of 4 and above will be considered for shortlisting (Step Two).

DCMS also reserves the right to consider applications for shortlisting that do not meet the threshold above in the following cases:
- If an application fails to meet the threshold in Step Two by a narrow margin, as a result of the range of scoring by individual assessors being of significant variance from the average score for one or more competition questions for that application ("an outlier"), the application may be considered for shortlisting following a review of the outlier assessor's comments and approach, if the outlier score may reasonably

be eliminated and the average assessment score that is recalculated falls within the threshold above.

- If there is a very low volume of applications meeting Step Two in respect of grant funding available, DCMS may lower the threshold that applies to Step Two for the consideration of shortlisting. This will be on the grounds that DCMS will not want grant funding to be unallocated if there is a realistic prospect of individual applicants/consortia being able to improve their assessment score to a satisfactory level.
- If there is a significantly higher volume of applications meeting the thresholds in respect of grant funding available, DCMS may raise the threshold that applies to Step Two for the consideration of shortlisting. This will be on the grounds that DCMS will not want individual applicants/consortia with lower assessment scores to invest time and effort in preparing for the interview stage if there is a very limited prospect of them being successful.

8. Additional information

8.1 Additional documents

1. Application form
2. Project finance form
3. Programme participation agreement
4. Draft GFA
5. General guidance for grant applications
6. Eligible project costs guidance
7. Guidance for academics applying via the Je-S system

These documents are available at: [UK/Republic of Korea Open RAN R&D collaboration](#).

8.2 Notices

We reserve the right to undertake a detailed financial and technical appraisal of each bidder and their proposal and for this process to continue up to the award of any grant funding. Any such appraisal will be conducted in line with government policy at the time of assessment. Further appraisal may continue if required through the duration of the grant funding period.

No representation, warranty or undertaking, express or implied, is or will be given by DCMS or any of its agents or advisers with respect to the information contained in the competition material, including with respect to its accuracy, adequacy or completeness.

Information provided in response to this document, including personal information, may be published or disclosed in accordance with access to information regimes, primarily the Freedom of Information Act 2000 (FOIA), the Data Protection Act 2018 and UK GDPR.

If you would want the information that you provide to be treated confidentially, please be aware that, in accordance with the FOIA, public sector organisations are required to comply with a statutory code of practice which deals, amongst other things, with obligations of confidence. In view of this, it would be helpful if you could explain to us why you wish that information to be treated confidentially. If we receive a request for disclosure of that information, we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances.

DCMS will process your personal data in accordance with the DPA and the GDPR and, in the majority of circumstances, this will mean that your personal data will not be disclosed to third parties.

Department for Digital, Culture, Media and Sport - www.gov.uk/dcms