

# UKRI Research and Innovation Infrastructure Roadmap:

## Frequently Asked Questions

### 1. Questions about the Progress Report

- ***What is the purpose of the progress report? Why have you produced it?***

The progress report identifies emerging themes and areas of potential capability across the sector topics that could be addressed by research and innovation infrastructures.

The progress report aims to present a summary of our work to date to help facilitate further discussions and feedback in the final phase of the programme. This is not the final roadmap and presents a work in progress which will feed into the First Edition Roadmap Report that we produce in Summer 2019.

- ***What's in the progress report?***

The progress report summarises key policy issues across the research and innovation infrastructure landscape and sector focused themes and areas of potential capability identified through consultation with research and innovation communities so far.

It does not look to describe how these might be achieved in detail or make judgements on funding of specific infrastructures.

### 2. Questions about the Initial Analysis Report

- ***What is the purpose of the initial analysis? Why have you produced it?***

The initial landscape analysis report summarises our current understanding of the landscape of research and innovation infrastructures currently available to researchers and innovators (within the UK and key activities overseas) to create snapshot of our current capability.

The report synthesises key points from questionnaires to existing infrastructures and consultation workshops with stakeholders and the extensive advisory networks within the organisations involved in the roadmap programme. We are using it to catalyse discussion and further engagement which will feed into the final analysis that we produce of the landscape in Summer 2019.

- ***What's in the initial analysis?***

An initial analysis of the landscape of research and innovation infrastructures available to researchers and innovators. It is presented as an indicator of our current understanding. It

draws from two questionnaires conducted with over 700 existing infrastructures, supplemented with insight gained from consultation workshops and interviews with stakeholders. These span research disciplines and cuts across the research and innovation spectrum. For further information, see section 4 below.

### 3. Next Steps and Engagement

- ***What happens next?***

The project has already received significant input from the UK academic and industrial community. To develop the First Edition roadmap, we are conducting two workstreams:

- Landscape analysis - assessing the landscape of research and innovation infrastructures currently available to researchers and innovators (within the UK and key activities overseas) to create snapshot of our current capability.
- Assessment of future priorities and opportunities – identifying priority capabilities and future needs and opportunities that could be addressed by infrastructures.

We will continue to discuss with stakeholders as we develop the First Edition roadmap report, especially to fill gaps in our analysis of current capability and future opportunities for the UK. The First Edition roadmap will not provide a prioritisation of possible investments. It will present an overall picture of the UK's strengths and opportunities to inform future investment decisions.

- ***How will the roadmap engage with infrastructures and users?***

The programme is engaging widely with infrastructures and user communities, making use of existing advisory mechanisms where appropriate. We are using a mix of methods to gather information and feedback including surveys, interviews and workshops. We are also drawing on existing work and roadmapping exercises already undertaken within individual communities and several parallel exercises to consider future needs, e.g. ESRC Longitudinal Studies Review 2017, STFC programme evaluations.

Regarding the landscape analysis, over the final months of the roadmap programme we have been addressing critical gaps in our coverage of infrastructures by reopening the questionnaire over winter 2019. The questionnaire opened in December 2018 and closed in February 2019 after engaging with a further 120 infrastructures. Any questions regarding the questionnaire should be communicated to [infrastructure@ukri.org](mailto:infrastructure@ukri.org).

- ***How can I stay in touch / input into this work?***

Updates will be posted on the UKRI infrastructure webpage: <https://www.ukri.org/research/infrastructure/>. You can engage in the process in a range of ways including through talking to your funding body as part of ongoing conversations about future needs and priorities.

We will however be continuing engagement with stakeholders via a range of routes over the final months of the roadmap programme and aim to consider any valuable comments provided by end of April in the First Edition roadmap report.

General enquiries about particular sections of the report should be clearly labelled and sent to [infrastructure@ukri.org](mailto:infrastructure@ukri.org).

- ***What will the First Edition roadmap do? What's going to be different?***

The First Edition roadmap will set out detail on future capability needs, options for how these might be achieved and areas for further work. The roadmap is not a funding programme but will act as a strategic guide to support funder decision making.

We will also share more detailed analysis of the current landscape, filling in critical gaps in coverage.

- ***Will this be an ongoing programme of work or a one-off?***

This is the start of an ongoing programme initially building the first edition of the roadmap but with an understanding that it will be refreshed and refined on a regular basis (e.g. every 4-5 years). This will allow evolution of the approach and for issues that emerge from our analysis which require further work for to be taken forward.

#### 4. Scope of the Programme

- ***Infrastructure is often interpreted as large scientific facilities; will this be the case with this roadmap?***

We are not limiting this work to large scientific facilities. Whilst we use the term “infrastructure”, others may be more familiar with terms such as facilities, assets, capabilities, collections or platform, which are all synonymous with our use of “infrastructure” in the context of the Roadmap.

Our intention is to generate a broad view of the landscape covering the breadth of disciplines represented within UKRI and including key innovation infrastructures which may be discipline or sector focused. While an infrastructure will need to meet a scale criterion, the mapping work covers many capabilities across the range of disciplines (e.g. museums, archives and data from cohort studies as well as laboratories and e-infrastructure).

- ***There are important infrastructures outside academia; are these in scope?***

Yes. This programme is focused on large scale activities and looking across the full spectrum of disciplines, inside and outside academia. However, our minimum requirements are that

the infrastructures must receive **substantial public funding** and meet the following criteria:

- **Purpose:** An infrastructure must provide an essential platform to conduct or facilitate excellent research and innovation that benefits the UK.
- **Accessibility:** An infrastructure must provide access, resources or related services to the wider UK research and innovation community outside the infrastructure host institution / owner / operator. Publicly funded users may include HEIs, institutes, PSREs, RTOs and other R&I organisations. In addition, access may extend to private or charitable users (e.g. industry), international users of UK facilities and UK users of international facilities. Access may be managed, e.g. user registration, fees, competition, merit review, conditions, security.
- **Scale and longevity:** An infrastructure must have some degree of strategic, international, national or regional importance. It must have a sustained and/or substantial UK public funding commitment (e.g. to build, operate, upgrade, decommission). This funding can come from multiple public sources in addition to any funding from non-public sources. Short term, focussed projects without long term sustainability (existing or planned) are not within scope.

- ***Does this include investments in universities capital infrastructure such as kit within departments or individual laboratories?***

We are not seeking to capture all capital investments in all UK universities or research organisations. The focus of this exercise is to capture strategically important infrastructures which are nationally or internationally important to the UK and the research and innovation communities they serve. There are existing catalogues of university kit such as equipment.data that are complementary to our work. In addition, the infrastructures included must provide access, resources or related services to the wider research and innovation community beyond any individual institution.

- ***How will international infrastructures be addressed?***

European and other international infrastructures are in scope for this work. As part of the initial landscape analysis, we have reviewed European and international organisations that are vital for the UK research and innovation community. This analysis informs a picture of the UK's current infrastructure landscape, identifying strengths (current and emerging), gaps and areas of potential duplication nationally or internationally. This will be used to:

- highlight areas where the UK would wish to seek to influence the direction of potential international activities to best meet UK requirements (including potential collaborative arrangements)
- promote the UK as a global leader in research and innovation, supporting international negotiations and attracting new investment partners or collaborators.

- ***What sort of innovation capabilities are you including?***

An example would be the network of Catapult centres who receive funding through Innovate UK.

- **Will the First Edition roadmap include facilities that have been announced but are not up and running yet?**

Yes, we will factor these in.

- **Will the First Edition roadmap determine which organisations and infrastructures will be funded?**

No, this is not a funding programme. The aim of the programme is to map existing capabilities and identify opportunities for new capabilities. This will feed into subsequent work within UK Research and Innovation and with Government as part of broader financial planning. If an infrastructure is included in the roadmap it does not guarantee funding, and if it is not included this does not preclude funding.

- **What progress has been made in identifying future needs**

The progress report summarises areas of potential capability identified through consultation with research and innovation communities so far. Future needs for infrastructure have been identified by taking a sector-based approach, through engagement with stakeholders. These are expressed in terms of capability needs, not named infrastructures. The Progress Report will allow us to test those initial ideas and receive feedback; the first edition report will not describe how these capabilities might be achieved in detail or make judgements on funding of specific infrastructures. There is also a strand of work looking at cross-sectoral issues, and this also includes identifying capability needs which cross-cut the sectoral chapters.

- **How does this fit with the Industrial Strategy and the Government's commitment to 2.4%?**

The Industrial Strategy's clear ambition is for the UK to be the best place in the world for research and business. The availability of internationally-competitive research infrastructure is critical to the UK's global status in research and innovation. The Industrial Strategy Green Paper committed that UKRI would develop a roadmap to "deliver the institutions and infrastructure we need for a world-leading research and innovation base".

This programme forms part of the detailed analysis now underway to develop a broader roadmap to 2.4% of UK GDP invested in R&D by 2027.

UKRI has recently sent a survey to university pro vice chancellors of research (PVCs) requesting information on the uses and management of formula funding (including Higher Education Research Capital (HERC) funding). This work is separate to the infrastructure roadmap, but information from both will contribute to the UKRI evidence base to inform its policy decisions and advice to ministers.

- **How does this process link to the current work on the European Strategy Forum on Research Infrastructures (ESFRI) roadmap?**

The UKRI Roadmap will describe our current commitment to international infrastructures, including UK participation in ESFRI Research Infrastructure Projects and Landmarks. These infrastructures are prioritised in the [ESFRI Roadmap 2018](#). The next ESFRI Roadmap update

will be in 2021. National delegations will ensure that the list of prioritised infrastructures in the ESFRI Roadmap is up to date and consistent with the UKRI Roadmap. The UK is involved in numerous ESFRI Projects and Landmarks. In this progress report, we are not seeking to list all infrastructures as the main aim is to identify emerging themes and areas of potential capability.

## 5. Initial Analysis

- ***What did you do to gather the data?***

We conducted two questionnaires with existing infrastructures within the UK alongside using previous analysis of capability within particular communities and in-house knowledge of funding organisations. We also reopened the questionnaire over winter 18/19 to fill critical gaps in coverage of infrastructures.

- ***How did you identify infrastructures to survey?***

We proactively contacted organisations and infrastructures funded through UKRI Councils and other BEIS public sector research establishments (e.g. Met Office), alongside key infrastructures highlighted by Government Departments. The survey was also open to any infrastructure to respond via our website which was promoted for us through the National Academies, AIRTO and several university groups.

- ***How are you using the data?***

We are using the data to build our understanding of the current landscape at both a macro and sector level. It provides a useful input into analysis of gaps in capability alongside information gathered through workshops and community engagement.

We are developing a discovery portal to showcase infrastructures identified through the programme to help researchers, businesses and others find suitable capability.

We are not using the data to make funding decisions about individual infrastructures.

- ***How many research and innovation infrastructures does the UK have?***

We received around 970 questionnaire completions in total from the initial questionnaires conducted earlier in 2018 and the winter questionnaire that closed in February 2019. Of the initial 850 responses we have identified over 700 infrastructures with national significance and we are currently working through the final 120 winter questionnaire returns. We are aware that no survey method is ever going to uncover every infrastructure that the UK has to offer but work so far has created a wealth of understanding that should be representative of the UK's capabilities.

- ***I don't think chart x/ map x/ chapter x is representative of my sector? Why is my infrastructure not mentioned?***

We used a variety of methods to engage with all infrastructures during the questionnaires. However, we're aware that we may have missed some or that some were unable to engage with us at that time. One of the purposes of releasing the initial landscape report is to

further engage with those missing infrastructures. We reopened the questionnaire alongside the report's publication (December 2018 to February 2019) to fill critical gaps in coverage of infrastructures. Any questions regarding the questionnaire should be communicated to [infrastructure@ukri.org](mailto:infrastructure@ukri.org)

- ***What are the critical gaps in the data?***

Whilst we are aware that there will be individual infrastructures in all sectors that we did not engage with, we are aware of particular gaps in the space and clinical sectors. We are also unsure of the full extent of our coverage in the arts, humanities and heritage areas.

- ***I didn't respond to the questionnaire – what do I do? Can I fill it in now?***

The questionnaires are no longer open to enable the data to be analysed for the final landscape analysis. Infrastructures that didn't respond to the questionnaire will have the opportunity to be listed in the infrastructure portal when the portal goes live this summer. Please check the website later in the year for further details.

- ***Will UKRI do the questionnaire again in future years?***

We would hope to repeat some form of landscape analysis as part of any refresh of the roadmap in future years. This will allow us to track changes over time.