

Technical annex — UK-wide survey of the Research and Innovation Workforce 2024

The Behavioural Insights Team

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1. Sampling

1.1 Considerations when defining eligibility

For this wave of the survey, we have used a broad definition to capture the UK R&I workforce, in line with the 2022 wave. This is broader than the definition of R&D workers provided by the OECD's Frascati manual¹, since the Frascati definition covers only those working on basic research, applied research or experimental development. In addition, this survey also includes workers who are responsible for product or process innovation, or who introduce innovative technologies to their market or organisation. As well as researchers, the survey was open to technicians, engineers, R&I leaders and managers. Using this broader and pragmatic definition helps to align the findings with general stakeholder and policymaker interests beyond the narrower concept of 'R&D' (the definition of which is kept narrow as it relates to tax-related incentives for R&D investment).

1.2 Approach to defining eligibility

As in the 2022 wave, we chose to take an inclusive approach to eligibility for the 2024 wave. For example, although we have assigned all respondents to one or more standard occupational classification (SOC) codes, we chose not to use these codes to determine eligibility for the survey. This was to avoid incorrectly screening out respondents who perform R&I in occupations outside of a predetermined list, or those who perform R&I but find it difficult to select an appropriate SOC code and

¹ https://www.oecd.org/sti/inno/frascati-manual.htm



might become discouraged by this at the start of the survey. Equally, not every worker in a given SOC code will perform R&I in their role.

We asked potential respondents at the start of the survey to consider whether their role involved research and innovation. The question asked was as follows:

Does your work involve research or innovation?

Work in research and innovation is defined as doing any of the following:

- Generate new knowledge, for example by doing research or scientific studies.
- Apply scientific or technical knowledge to a particular organization.
- Design, test or develop new or significantly improved products or processes.
- Introduce new technologies to a market.
- Help firms to adopt or apply new technologies.
- Lead or manage teams or projects that do any of the above.

If you are not sure, please select "Don't know". We will collect information about your specific role later on in the survey.

All respondents selecting "yes" or "do not know" were able to continue with the survey (1.3% of the 15,168 respondents selected "do not know", matching the proportion in the 2022 wave). 552 entrants said that they did not work in research and innovation and were screened out of the survey.



2. Questionnaire development

The survey questionnaire for the 2024 wave built on the 2022 survey, which was previously developed by the 2022 research team with input from DSIT and feedback from a Steering Group comprising representatives from industry, academia, government, and the not-for-profit sector. The questionnaire was updated for the 2024 round by DSIT and the Steering Group.

The questionnaire underwent cognitive testing in January 2024 with ten participants who worked in the R&I workforce. Cognitive testing is a technique used to test and improve survey questions. During a cognitive interview, survey questions are administered (in this case by being displayed on screen for participants to read, to mimic the online mode of the survey) and participants are asked about the cognitive processes they go through in answering those questions. This helps to uncover problems with the questions and identify improvements. Following the cognitive testing, the survey was updated to make the questions easier to read and respond to as well as slightly shorter to ensure that the survey took no longer than 20 minutes.

A copy of the final survey questionnaire is included at the end of this technical annex.

3. Recruitment

3.1 Approach

Due to the lack of an existing sample frame covering the R&I workforce, the research took the form of an online survey with an open link that could be shared widely, in line with the 2022 wave.

The survey was officially launched on 30th July 2024 and remained open until 30th September 2024. Recruitment during this period took place through a range of channels:

- Email invitations sent to individuals who completed the 2022 survey and agreed to be recontacted, containing a unique link to the survey (N = 4,271)
- Email invitations sent to all recipients of UKRI grant funding, containing a unique link to the survey (N = 66,334)
- Email invitations sent to applicants for Innovate UK funding, containing a unique link to the survey (N = 54,732)



- Email invitations sent by DSIT and wider stakeholders involved in designing the survey to known interested parties, containing a unique link to the survey
- Promotion via social media using accounts owned by DSIT, BIT and Nesta².

Altogether, the research team sent out 141,033 initial outreach emails, 119,830 followup emails, and 117,167 final reminder emails. The survey was also promoted multiple times across social media.

3.2 Development of recruitment communications

The 2022 wave promotional emails were redesigned for the 2024 wave using behavioural insights to encourage participation. Two versions of the email were tested in a randomised controlled trial (RCT) to determine which email best elicited participation. The RCT recruited a small sample (n = 1,992) from the individuals who completed the 2022 wave and agreed to be recontacted.

We varied three elements of the recruitment emails. Participants were randomised to see one of two variations in each of the following elements:

- Subject line we tested two behaviourally informed subject lines
- Survey length we either included or omitted the length of the survey
- Asking to share we either asked or did not ask participants to "Share the survey with at least 5 people"

We found that 38% of email recipients receiving the email with the subject line "Action Required: The 2024 UK Research & Innovation Workforce Survey is now live" completed the survey, statistically significantly more than the 35% with the subject line "Action Required: Act now to influence government policy on Research & Innovation". Furthermore, 39% of primary respondents who were told the survey would take 15 minutes completed it, statistically significantly more than the 34% of participants who were not told the survey length. The phrase "Please share the survey with at least five colleagues" led to a statistically significant increase in the number of completes from shared links (3% vs 1%), it also caused a statistically significant backfire effect (35 vs 40%) in overall completion rates.

In response to these findings, the email was updated to include the subject line "Action Required: The 2024 UK Research & Innovation Workforce Survey is now live",

 $^{^2}$ BIT were commissioned by DIST to conduct this wave of the survey. BIT is owned by Nesta, a social innovation charity in the UK.

 $^{^3}$ After reviewing the pilot data, we found that the survey took \sim 18 minutes to complete. We therefore updated the email text to say 15-20 minutes rather than the 15 minutes used int he RCT.



to include text that the survey would take around 15-20 minutes to complete, and asked recipients to share the survey with others but did not specify a number to people to share with.

4. Fieldwork outcomes

15,168 eligible respondents completed the survey. In order to maximise completion rates we aimed for the survey to take a maximum of 20 minutes to complete. This seemed reasonable given in the RCT, the median time for those who finished the survey in less than 60 minutes⁴ and left detailed comments was 22 minutes 54 seconds, whereas those who did not leave any free text feedback and finished in less than 60 minutes had a median time of 16 minutes 20 seconds. The median time taken to complete for the total sample in the main survey was 24 minutes, and 22 minutes for the 90% of the sample who completed the survey under 60 minutes.

5. Sample composition and weighting

Due to the sampling methodology, a large portion of the sample had received grant funding (92%), which is not representative of the wider UK R&I workforce. The 2022 wave of the survey applied weighting to make the overall sample more representative of the wider UK R&I workforce. However, we do not have the available population data to weight by the proportion of the UK R&I workforce who have applied for grants across sectors. We also do not know how applying for UKRI grants may correlate with other observable and unobservable characteristics which may influence how individuals respond in this survey. Applying weighting based solely on an imprecise estimate of grant application status could therefore inadvertently introduce bias by making the sample less representative with respect to other characteristics. We therefore chose not to weight the 2024 data. We present all results in the report split by sector (higher education, private sector, other sectors), with the other sectors category being a composition of all other sectors that are not higher education and private sector (excluding 'prefer not to say' and 'don't know').

Compared to the 2022 wave, the 2024 data was similar in terms of the proportion who worked in higher education (64% 2024; 66% 2022) and the private sector (18% 2024; 22% 2022), though had a slightly higher proportion of working in other sectors (19% 2024; 12% 2022). The 2024 sample also had a smaller proportion of British citizens (67% in 2024 vs 75% in 2022). The sample composition of those who completed both the 2022 and 2024 surveys and consented to data linking remained highly similar. We

⁴ We assumed that respondents taking longer than 60 minutes to complete the survey did not complete the survey in a single session.



saw very little difference across occupations or sectors, suggesting that respondents largely remained in similar professions across the two waves.

6. Interpretation of figures

Unless otherwise stated, figures given in the report are split by sector (higher education, private sector, other sectors), with the other sectors category being a composition of all other sectors that are not higher education and private sector (excluding 'prefer not to say' and 'don't know').

Due to the large amount of findings reported, we present descriptive figures only. We did not perform any statistical analyses on the 2024 data to avoid the risk of missing real differences (Type 2 error) and the challenge of adjusting for many comparisons. The goal of this research was to describe the workforce rather than to find statistical differences.

Statistical testing was used when directly comparing the longitudinal data across the 2022 and 2024 waves to determine whether differences in results are likely to be due to a genuine difference between groups, as opposed to chance variation. The threshold used in this research is the 0.05 level, meaning there is less than a 5% chance that results deemed significantly different differ due to chance. This is a standard level of significance used in social sciences. It is important to note that we did not correct for multiple comparisons in any of these analyses due to the longitudinal analyses being purely exploratory.

7. Data processing

7.1 2024 data processing

In total we had 98,149 entrants to the 2024 wave of the survey. We applied the following steps to clean the data to arrive at the final sample:

- Removed any test entries. There were internal testing for technical pilots as well as colleagues in DSIT who wished to test the survey. The led to a sample of 98,092.
- 2. Removed incomplete responses. A complete response was considered as anyone who completed up to section I (the demographic questions). We removed 82,665 incomplete responses at this step, leaving 15,427.
- 3. Removed duplicates based on email addresses given in the survey. We removed 213 duplicate responses based on email address, leaving 15,214.



4. Removed any duplicates based on name and date of birth. We removed 46 duplicate responses based on name and date of birth, leaving 15,168.

7.2 longitudinal data processing and analysis

To match the data from the 2024 and 2022 waves for respondents who took part in both surveys and agreed to data linking, we had to apply similar cleaning processes to the 2022 wave to ensure the data was reliable and valid.

We had 5,805 responses in the 2022 dataset who agreed for their data to be linked with other datasets. Of these, we;

- 1. Removed 9 duplicates based on email address
- 2. Removed 2 duplicates based on name and date of birth

This resulted in a final sample of 5,794 from the 2022 wave who were eligible for matching with the 2024 wave. We filtered out individuals who did not consent to data linking in 2024 and then matched the 2022 and 2024 dataset by email, and additionally by name and date of birth. We then manually inspected the data to identify whether those who matched on name and date of birth were plausibly the same individual. This resulted in a final linked sample of 1,263 across the 2022 and 2024 waves.

Where questions across waves were comparable, we tested whether responses were statistically significantly different in 2024 compared to 2022 using logistic regression with clustered standard errors. Statistically significant differences are reported after correcting for multiple comparisons. All analysis was at the sample level and no individual data was inspected. For full results, see Appendix A13.

8. Survey questionnaire

Note: Questions are asked to all participants unless otherwise stated in red.

Note: More than one answer can be selected for all questions that state "Please select all that apply"

Note: Questions marked with a * are mandatory

A. INTRODUCTION

[screener]

Welcome and thank you for participating in this survey!



This is the UK wide Research and Innovation (R&I) Workforce Survey, conducted by the <u>Behavioural Insights Team (BIT)</u> on behalf of the UK Government's <u>Department for Science, Innovation and Technology (DSIT)</u>.

This survey is your chance to help shape UK government R&I policies and government funding decisions. This survey covers the full diversity of occupations in the R&I workforce, including trainee or experienced researchers, technicians, engineers, R&I leaders and managers. The questions in this survey are crucial for understanding how the R&I workforce is affected by government policy, and will help government and funders make decisions based on evidence.

This is the second wave of this survey, which is crucial for identifying changes for R&I workers over time. The first wave, conducted in 2022, has supported R&I policy work including research talent policy, research culture, porosity, and equality, diversity and inclusion.

Please fill in this short survey if you are a researcher or innovator – whether you create new knowledge or adapt or apply others' innovations. We welcome views from all specialisms, whether you work in STEM (Science, Technology, Engineering and Mathematics), the humanities, arts or social sciences; and whether you work in the private, public or non-profit sector.

Task: In this survey, we will ask you questions about your experience working in research and innovation in the UK.

Duration: The survey should take about 15 minutes to complete. You will not be able to save your answers, so please ensure you have enough time to complete it in one go.

If you need any more information about this survey before you participate, please visit the information page on gov.uk.

[new screen]

Confidentiality and data protection

- Participation in the survey is voluntary and questions relating to your personal data are optional.
- Survey responses will be shared with analysts working on DSIT projects but any published results will be anonymous and aggregated and no individuals will be identifiable.
- Full data protection and confidentiality information can be found in DSIT's privacy notice here. You can view the Behavioural Insights Team's privacy policy here.

The <u>Behavioural Insights Team</u>, an independent research organisation, are running the survey on behalf of the <u>Department for Science</u>, <u>Innovation and Technology</u> (<u>DSIT</u>). Responses to this survey will be analysed by the <u>Behavioural Insights Team</u>.

[new screen]



*[screener1] Does your work involve research or innovation?

Work in research and innovation is defined as doing any of the following:

- Generate new knowledge, for example by doing research or scientific studies.
- Apply scientific or technical knowledge to a particular organization.
- Design, test or develop new or significantly improved products or processes.
- Introduce new technologies to a market.
- Help firms to adopt or apply new technologies.
- Lead or manage teams or projects that do any of the above.

If you are not sure, please select "Don't know". We will collect information about your specific role later on in the survey.

- 1. Yes
- 2. No [exclude]
- 3. Don't know

[new screen]

*[ukScreener] This survey is about the UK workforce. Do you live in the UK?

- 1. Yes I live and work in the UK
- 2. Yes I live in the UK but do international work
- 3. No [exclude]

[screen out here if screener = "No" or ukScreener = "No"]

[new screen]

B. EMPLOYER AND SECTOR

*[empstat] Which of the following apply to you?

Please select all that apply.

- 1. [emp] I am directly employed (not contracted) by an organisation or institution
- 2. [self] I am self-employed
- 3. [owner] I am a business owner or sole trader
- 4. [multi] I currently have multiple jobs
- 5. [qual] I am doing research as part of a qualification (such as a doctorate)



- 6. [apprentice] I am on an apprenticeship
- 7. [unemp] I am unemployed, retired or otherwise not in paid work (exclusive)
- 8. [dKnow] Don't know (exclusive)
- 9. [pnts] Prefer not to say (exclusive)
- 10. Other (please specify)

[new screen]

*[unemploy, if empstat = 7] Why are you currently not in paid work?

Please select all that apply.

- 1. [redundant] I have been made redundant
- 2. [noRel] I am currently looking for work but there are limited relevant opportunities to apply for
- 3. [unSuc] I am currently looking for work but my applications have so far not been successful
- 4. [noInterest]I am currently looking for work and have received a job offer(s) but none I have wanted to take up
- 5. [stud] I am a student / in training
- 6. [careFam] I am looking after family / home / children
- 7. [careDis] I am caring for a disabled or elderly person
- 8. [sick] I am sick or disabled
- 9. [retire] I am retired (exclusive) [exclude]
- 10. [dontNeed] I do not need employment (exclusive) [exclude]
- 11. [dKnow] Don't know (exclusive)
- 12. [pnts] Prefer not to say (exclusive)
- 13. Other (please specify)

[seniority, if empstat = 1] What is your highest responsibility within your organisation [if empstat == 4 's']?

- 1. Lead the entire organisation
- 2. Lead a department or division in your organisation
- 3. Lead a team or projects involving other people
- 4. Supervise colleagues or contractors



- 5. None of the above
- 6. Don't know
- 7. Prefer not to say

[new screen]

*[mainSector] Which of the following best describes the [if empstat = 2, 3, 4, 5, "main sector you work in, if empstat = 1, 6, "the main organisation you are employed by", [if empstat = 7, "last main sector you worked in"]? Please only include your direct employer, not clients or partners.

- 1. Private sector businesses
- 2. Higher education institutions, e.g. universities
- 3. Further education colleges e.g. general further education and tertiary colleges, sixth form colleges, specialist colleges
- 4. Public sector research establishments (PSREs)
- 5. UKRI research institutes
- 6. Independent research organisations (IROs)
- 7. Catapult centres
- 8. National Health Service
- 9. Local or national government
- 10. Other public sector
- 11. Non-profit organisation, charity or community organisation/s
- 12. Don't know
- 13. Prefer not to say
- 14. Other (please specify)

*[multSectors] [if empstat = 7,"Did" if empstat !=7, "Do"] you work in any other sectors?

- Yes
- No
- Prefer not to say

[new screen]

[otherSectors if multSectors == "Yes"] Which of the following best describes the [if empstat = 2, 3, 4, 5, 6, "other sectors you work in", if empstat = 1, "other



organisations you are employed by", if empstat = 7, "last other sectors you worked in"]? Please only include your direct employers, not clients or partners.

Please select all that apply.

- 1. [private] Private sector businesses
- 2. [higher] Higher education institutions e.g. universities
- 3. [further] Further education colleges e.g. general further education and tertiary colleges, sixth form colleges, specialist colleges
- 4. [public] Public sector research establishments (PSREs)
- 5. [ukri] UKRI research institutes
- 6. [iro] Independent research organisations (IROs)
- 7. [catapult] Catapult centres
- 8. [nhs] National Health Service
- 9. [gvmt] Local or national government
- 10. [otherPub]Other public sector
- 11. [nonProf] Non-profit organisation, charity or community organisation/s
- 12. [idk] Don't know (exclusive)
- 13. [pnts] Prefer not to say (exclusive)
- 14. Other (please specify)

[sectorCareer] Which of these types of organisations have you worked in <u>over the course of your career</u> in research and innovation? [if empstat !=7, "Please include your current role."]

Please select all that apply.

- 1. [private] Private sector businesses
- 2. [higher] Higher education institutions e.g. universities
- 3. [further] Further education colleges e.g. general further education and tertiary colleges, sixth form colleges, specialist colleges
- 4. [public] Public sector research establishments (PSREs)
- 5. [ukri] UKRI research institutes
- 6. [iro] Independent research organisations (IROs)
- 7. [catapult] Catapult centres



- 8. [nhs] National Health Service
- 9. [gvmt] Local or national government
- 10. [otherPub]Other public sector
- 11. [nonProf] Non-profit organisation, charity or community organisation/s
- 12. [idk] Don't know (exclusive)
- 13. [pnts] Prefer not to say (exclusive)
- 14. Other (please specify)

[sectorColab] Which of these types of organisations have you <u>collaborated with</u> in your [if empstat = 7, "most recent role", if empstat != 7, "current role"]?

Please select all that apply.

- 1. [private] Private sector businesses
- 2. [higher] Higher education institutions e.g. universities
- 3. [further] Further education colleges e.g. general further education and tertiary colleges, sixth form colleges, specialist colleges
- 4. [public] Public sector research establishments (PSREs)
- 5. UKRI research institutes
- 6. Independent research organisations (IROs)
- 7. [catapult] Catapult centres
- 8. [nhs] National Health Service
- 9. [gvmt] Local or national government
- 10. [otherPub]Other public sector
- 11. [nonProf] Non-profit organisation, charity or community organisation/s
- 12. [none] None of the above (exclusive)
- 13. [idk] Don't know (exclusive)
- 14. [pnts] Prefer not to say (exclusive)
- 15. Other (please specify)

[new screen]



C. OCCUPATION, NATURE AND PURPOSE OF THE WORK

*[occlist] Which of the following categories best describes your [If empstat = 7, "most recent"] occupation? [dropdown list]

- 1. Programmer or software development professional
- 2. Information Technology (IT) director
- 3. IT business analysts, architects and systems designers
- 4. Information technology and telecommunications professionals (not elsewhere classified)
- 5. Chemical scientist
- 6. Biological scientist or biochemist
- 7. Physical scientist
- 8. Social and humanities scientist
- 9. Other natural and social science professional
- 10. Civil engineer
- 11. Mechanical engineer
- 12. Electrical engineer
- 13. Electronics engineer
- 14. Design and development engineer
- 15. Production and process engineer
- 16. Quality control and planning engineers
- 17. Other type of engineering professional
- 18. Environment professional
- 19. Higher education teaching or research professional
- 20. Laboratory technician
- 21. Electrical and electronics technicians
- 22. Engineering technicians
- 23. Planning, process and production technicians
- 24. Quality assurance technicians



- 25. Building and civil engineering technicians
- 26. Science, engineering and production technicians (not elsewhere classified)
- 27. Research and development manager
- 28. Management consultant or business analyst
- 29. CEO or senior manager
- 30. Business and related research professional
- 31. Business, research and administrative professionals (not elsewhere classified)
- 32. Artistic, literary or media professional
- 33. Health professional
- 34. Actuaries, economists and statisticians
- 35. Other researcher
- 36. Don't know
- 37. Prefer not to say
- 38. Other

[occupation if occlist == 36, 37, or 38] Please describe your [If empstat == 7, "most recent"] occupation or role in 30 words or less.

- [free text box]
- 1. Prefer not to say

*[workType] Which of the following research or innovation activities have you done in your [If empstat == 7, "most recent", if empstat != 7, "current"] job role?

Please select all that apply

- 1. [bRes] Basic research: work to acquire new knowledge without a specific application.
- 2. [apRes] Applied research: work to acquire new knowledge, towards a specific aim or objective. This includes applications from any discipline; for example, policy research is included.
- 3. [expDev] Experimental development: novel and experimental work that uses existing knowledge to substantially improve or create new products, services or processes.
- 4. [mRes] Market research of potential users, marketing or competitors.



- 5. [adapt] Acquisition and adaptation of technology that is not new to the market but is new to your organisation (for example, digital technologies).
- 6. [RnD] R&D or innovation management establishing strategies, processes, structures and responsibilities to increase research or innovation and its usage.
- 7. [other] Other research or innovation activities (please specify)
- 8. [dKnow] Don't know (exclusive)
- 9. [pnts] Prefer not to say (exclusive)

[new screen]

[mostTime, if workType > 1 answer & (workType != 8 or 9) & empstat != 7] During the last 6 months, which one of these activity types has taken up the largest share of your working time?

[insert selections from workType (insert "Other research or innovation activities" for [other]]

- 1. I cannot say
- 2. Prefer not to say

[discipline, if mainSector!= "Private sector", "Don't know", or "Prefer not to say" & empstat!= 7] Do you work in any of the following research disciplines?

Please select all that apply.

- 1. [med] Medicine, dentistry & health
- 2. [agri] Agriculture, forestry & veterinary science
- 3. [biol] Biological, mathematical & physical sciences
- 4. [eng] Engineering & technology
- 5. [arch] Architecture & planning
- 6. [admin] Administrative & business studies
- 7. [social] Social sciences
- 8. [human] Humanities & language-based studies & archaeology
- 9. [design] Design, creative & performing arts
- 10. [education] Education
- 11. [none] None of the above (exclusive)
- 12. [pnts] Prefer not to say (exclusive)



[outputs if empstat != 7]] Thinking about the last 12 months, which of the following outputs has your work fed into? Please include all outputs even if they were realised outside the UK.

Please select all that apply

[IF CODE 2, 3, 4, 5, 6 AT mainSector (ACADEMICS AND PUBLIC SECTOR RESEARCHERS), ORDER LIST AS BELOW

IF NOT CODE 2, 3, 4, 5, 6, or 8 (PRIVATE, NOT FOR PROFIT AND OTHER PUBLIC SECTOR CODES) PLEASE ORDER LIST AS FOLLOWS (1, 8-17, 2-7, 18-20)

IF CODE 8 (NHS) PLEASE ORDER LIST AS FOLLOWS (1, 11, 2-10, 12-20)]

- 1. [knowledge] New knowledge from research or experimentation, discussed with colleagues
- 2. [pub] Publications in academic journals
- 3. [pubOther] Other types of publications (trade journals, opinion magazines, research reports and newspapers)
- 4. [data] Data collection, datasets, databases or data models
- 5. [info] Making information more readily available through reviewing, documenting, or archiving
- 6. [sharing] Sharing new or existing knowledge through education, training, mentoring or knowledge exchange
- 7. [influence] Influencing government policy
- 8. [ip] Intellectual property and licensing
- 9. [business] A new business, including start-ups and spin-outs
- 10. [commercial] Commercialising research or new technology without seeking intellectual property
- 11. [medical] Medical products or interventions
- 12. [art] Artistic and creative products or services
- 13. [software] Software and technical products
- 14. [products] Other new or significantly improved products
- 15. [services] New or significantly improved **services**
- [processes] New or significantly improved <u>processes</u> for producing or supplying goods or services
- 17. [prototypes] Prototypes of new products or processes
- 18. [other] Other outputs (please specify)



- 19. [dKnow] Don't know (EXCLUSIVE)
- 20. [pnts] Prefer not to say (EXCLUSIVE)

D. CAREER DECISIONS

[new screen]

[outUK] Just thinking about your career in <u>research and innovation</u>, have you ever worked outside the UK, or considered working outside the UK? By working outside of the UK we mean both working and living in a country other than the UK.

- 1. I have worked outside the UK
- 2. I have not worked outside the UK, but I have considered it
- 3. I have not worked outside the UK and have not considered it
- 4. Don't know
- 5. Prefer not to say

[new screen]

[whereHave, if outUK = "I have worked outside the UK"] In which countries have you worked in research and innovation outside the UK? Again, we mean worked and lived in a country other than the UK. Please select all that apply.

- [Participants type a country and suggestions come up from a full list of countries]
- [whereHavePNTS] Prefer not to say

[outUKNext5] Specifically thinking about the next five years, to what extent would you consider working in research and innovation outside the UK? Again, we mean working and living in a country other than the UK.

- 1. Already have definite plans to work outside the UK in the next five years
- 2. Would strongly consider working outside the UK in the next five years
- 3. Might consider working outside the UK in the next five years
- 4. Unlikely to consider working outside the UK in the next five years
- 5. Would definitely not consider working outside the UK in the next five years
- 6. Don't know
- 7. Prefer not to say

[new screen]



[whereNext5, if outUK5 = 1 | 2] Specifically thinking about the next five years, where would you consider working in research and innovation outside the UK? Again, we mean working and living in a country other than the UK. Please select a maximum of 3 countries.

- [Participants type a country and suggestions come up from a full list of countries]
- Don't know
- Prefer not to say

[outUKDrivers if outUK5 = 1, 2, or 3] What are the main reasons [if outUK5 = 1, "for planning to work", if outUK5 = 2 or 3, "you would consider working"] outside the UK in the next 5 years?

Please select all that apply

- 1. [availability] Better availability of suitable job opportunities
- 2. [industry] Better opportunities in a particular industry or discipline
- 3. [topic] Opportunities to work on a particular topic of interest
- 4. [facilities] Better research facilities/infrastructure
- 5. [pay] Better pay and benefits
- 6. [balance] Better work life balance
- 7. [cost] Lower cost of living
- 8. [familyCareer] For my family members' career or education
- 9. [workCulture] Better workplace culture
- 10. [jobSecurity] Better job security
- 11. [nearFamily] To be near family/friends
- 12. [lifestyle] Other lifestyle factors
- 13. [pd] Training or professional development opportunities
- 14. [funding] Access to research funding
- 15. [UKvisa] My UK visa will have expired
- 16. [dKnow] Don't know (exclusive)
- 17. [pnts] Prefer not to say (exclusive)
- 18. [other] Other (please specify)



[ukDrivers]Which of these have influenced your decision to stay in the UK so far?

Please select all that apply

- 1. [specificOrgs] Specific organisation based in the UK
- 2. [industry] UK's strength in a particular industry
- 3. [discipline] UK's strength in a particular discipline
- 4. [topic] Opportunity to work on a particular topic of interest
- 5. [progression] Opportunities for career progression/development
- 6. [facilities] Research facilities/infrastructure
- 7. [educational] Educational and training opportunities
- 8. [experts] To work with expert colleagues
- 9. [pay] Pay/standard of living
- 10. [funding] Access to research funding
- 11. [jobSecurity] Job security
- 12. [benefits] Social security and other benefits
- 13. [conditions] Working conditions or work-life balance
- 14. [uk] UK culture/lifestyle
- 15. [geog] Geographic location/ability to travel
- 16. [familyCareer] Ability of family members to work in the UK
- 17. [personal] Other personal/family reasons
- [fromUK] I am from the UK and there has not been a good enough reason to move
- 19. [ukVisa] The UK's visa and immigration offer
- 20. [dKnow] Don't know
- 21. [pnts] Prefer not to say
- 22. [other] Other (please specify)

*[britCit] Are you a British citizen?

- 1. Yes a British citizen
- 2. Yes I have dual citizenship
- 3. No



4. Prefer not to say

[new screen]

[ukBarriers if britCit != 1] Have any of the following made it more difficult for you to work in the UK?

Please select no more than five options.

- 1. [immi] Immigration and visa requirements
- 2. [immiTime] Immigration and visa processing time
- 3. [qual] Qualification requirements
- 4. [language] Language requirements
- 5. [pay] Level of pay and benefits/ maintaining your standard of living
- 6. [benefits] Transfer of pension/ other benefits
- 7. [finance] Other financial considerations, including cost of relocating
- 8. [advance] Availability of suitable opportunities to advance your career
- 9. [facilities] Access to research facilities/infrastructure
- 10. [hours] Working hours
- 11. [discrim] Workplace discrimination and harassment
- 12. [familyCareer] Ability of family members to live or work in the UK
- 13. [network] Maintaining contact with your professional network
- 14. [care] Finding suitable care or education for dependents
- 15. [accomm] Finding adequate accommodation
- 16. [uk] UK culture
- 17. [other] Other (please specify)
- 18. [none] Nothing has made it difficult for me to work in the UK (exclusive)
- 19. [dKnow] Don't know
- 20. [pnts] Prefer not to say

[new screen]

*[mobility] Specifically thinking about your career in research and innovation in the next five years, would you consider transitioning to work in another sector?



- 1. [yesPerm] Yes- I would consider transitioning permanently
- 2. [yesTemp] Yes-I would consider transitioning temporarily
- 3. [no] No-I would not consider transitioning
- 4. [dKnow] Don't know
- 5. [pnts] Prefer not to say

[mobilitySector, if mobility is "Yes- I would consider transitioning permanently" or "Yes- I would consider transitioning temporarily"] Again, specifically thinking about your career in research and innovation in the next five years, which of the following sectors would you consider transitioning to work in? [Exclude main sector selected in mainSector]

Please select all that apply

- 1. [private] Private sector businesses
- 2. [higher] Higher education institutions
- 3. [further] Further education colleges
- 4. [public] Public sector research establishments (PSREs)
- 5. [ukri] UKRI research institutes
- 6. [iro] Independent research organisations (IROs)
- 7. [catapult] Catapult centres
- 8. [nhs] National Health Service
- 9. [gvmt] Local or national government
- 10. [otherPub] Other public sector
- 11. [nonProf] Non-profit organisation, charity or community organisation/s
- 12. [idk] Don't know
- 13. [pnts] Prefer not to say

[new screen]

[mobilityWhy, if mobility is "Yes- I would consider transitioning permanently" or "Yes-I would consider transitioning temporarily" What are your main reasons for considering the transition to a new main sector?

Please select all that apply.

- 1. [availability] Better availability of suitable job opportunities
- 2. [topic] Opportunities to work on a particular topic of interest



- 3. [facilities] Better research facilities/infrastructure
- 4. [pay] Better pay and benefits
- 5. [contract] Contract flexibility
- 6. [balance] Better work life balance
- 7. [culture] Better workplace culture
- 8. [security] Better job security
- 9. [progression] Opportunities for career progression/development
- 10. [training] Educational and training opportunities
- 11. [colleagues] To work with expert colleagues
- 12. [funding] Access to research funding
- 13. [network] To expand my professional network
- 14. [lifestyle] Other lifestyle factors (please specify)
- 15. [idk] Don't know (exclusive)
- 16. [pnts] Prefer not to say (exclusive)
- 17. Other (please specify)

[mobilityWhyNot if mobility is "No- I would not consider transitioning"] What are your main reasons for not considering the transition to a new main sector? Please select all that apply.

- 1. [happy] I'm happy in the sector I'm in
- 2. [availability] Less availability of suitable job opportunities
- 3. [topic] Less opportunities to work on a particular topic of interest
- 4. [facilities] Better research facilities/infrastructure in the sector I am in
- 5. [balance] Better work life balance in the sector I am in
- 6. [culture] Better workplace culture in the sector I am in
- 7. [security] Better job security in the sector I am in
- 8. [progression] Lack of opportunities for career progression/development
- 9. [training] Educational and training opportunities are better in my current sector
- 10. [qual] Qualification requirements
- 11. [pay] Level of pay and benefits/ maintaining your standard of living



- 12. [pension] Transfer of pension/ other benefits
- 13. [otherFinance] Other financial considerations, such as the cost of relocating
- 14. [advance] Lack of availability of suitable opportunities to advance your career in other sectors
- 15. [lack] Lack of research facilities/infrastructure
- 16. [contract] Lack of contract flexibility in other sectors
- 17. [hoursLength] Working hours in other sectors are long
- 18. [hoursFlex] Working hours in other sectors aren't as flexible
- 19. [network] Maintaining contact with your professional network
- 20. [option] I have not considered it as an option
- 21. [info] I don't feel I have sufficient information to start the process
- 22. [idk] Don't know
- 23. [pnts] Prefer not to say
- 24. Other (please specify)

[new screen]

[skillsNeed if empstat!= 7] The following is a list of skills or knowledge that may be needed for your current job. On a scale from 1 to 5, where 1 means not at all important, 3 means moderately important and 5 means essential, how important are the following for doing your job?

If using a laptop or computer, this question is best viewed in full screen.

- 1. [tech] Learning to use new technology, including software
- 2. [analysis] Analysis (such as creating new models and hypotheses, using analysis techniques, synthesis, problem solving, or recognising patterns with other work)
- 3. [digital] Advanced digital skills (such as programming, using or developing software, or using data science techniques)
- 4. [commercial] Commercial skills such as selling ideas to customers or clients, attracting investment, or bringing an idea to market
- 5. [team] Communication and working with people
- 6. [lead] Leadership, including leading a team



- 7. [pm] Project management (such as identifying and bidding for funding, planning and monitoring resources and outputs)
- 8. [knowledge] Specialist knowledge including technical knowledge (please specify in the box below)

[1 - 2 - 3 - 4 - 5 - Don't know - Prefer not to say (randomize ordering of numbers)]

[skillsNeed1: On a scale from 1 to 5, where 1 means not at all important and 5 means essential]

[skillsNeed2: On a scale from 1 to 5, where 1 means essential and 5 means not at all important]

[trainingEasy] Which of the following training or learning and development have you taken part in in the past 12 months? Please select all that apply

- 1. [formal] Formal training at your organisation
- 2. [course] External courses (e.g. conferences or webinars)
- 3. [extOrg] Informal knowledge sharing external to your organisation
- 4. [intOrg] Informal knowledge sharing within your organisation
- 5. [self] Self-directed learning funded by your organisation
- 6. [selfExt] Self-directed learning using external resources
- 7. [higher] Formal higher education (e.g. a a degree, a masters or PhD)
- 8. [none] None of the above (EXCLUSIVE)
- 9. [pnts] Prefer not to say (EXCLUSIVE)
- 10. Other (please specify)

[trainingGov] Just thinking about your career in <u>research and innovation</u>, what could be done to make it easier to access opportunities to train, retrain, or upskill? *Please select all that apply*.

- 1. [info] Increased awareness/information about appropriate opportunities/programmes
- 2. [promo] Increased guidance/promotion of appropriate opportunities/programmes
- 3. [places] Increased provision of opportunities/places on programmes
- 4. [mentor] Mentoring
- 5. [peer] Peer-to-peer support
- 6. [invest] Investment into training opportunities/programmes
- 7. [finance] Financial support to access opportunities/programmes



- 8. [access] Increased access to necessary infrastructure
- 9. [geo] Closer geographical location for in-person opportunities/programmes
- 10. [workload] Reduced workload/pressure on time to access opportunities/programmes
- 11. [dKnow] Don't know
- 12. [pnts] Prefer not to say (EXCLUSIVE)
- 13. Other (please specify) (EXCLUSIVE)

E. GOVERNMENT SUPPORT

[new screen]

[grantsQual] Have you, or a team you were working in, applied for any grant funding for research and innovation in your career?

- [Yes/No/Prefer not to say/Don't know]

[new screen]

[grants, if grantsQual == Yes] Have you, or a team you were working in, applied for or received any of the following grant funding for research and innovation in your career?

- 1. [ukriSpec] UKRI grant funding for a specific R&I project, including funding from a Research Council or Innovate UK
- 2. [ukriTalent] UKRI funded talent scheme/fellowship, including funding from a Research Council or Innovate UK
- 3. [ukGov] UK government grant funding for a specific R&I project
- 4. [devGov] Devolved government funding for a specific R&I project, e.g. the Scottish Funding Council or the Higher Education Funding Council for Wales
- 5. [eu] Horizon 2020 grant funding
- 6. [heu] Horizon Europe grant funding (current programme)
- 7. [phd] PhD funding by UKRI, including funding from a Research Council or Innovate UK
- 8. [phdOther] PhD funding from other sources
- 9. [charity] Charity funding for a specific R&I project
- 10. [private] A private sector/business funded talent scheme/fellowship
- 11. [natAc] UK National Academy grants or prizes



12. [natAcTalent] UK National Academy talent scheme or fellowship

[Received / Applied but not received / Not applied / Don't know / Prefer not to say]

[supportAwareness1, if grant = "Not applied" to 1 or if grantsQual == No] Why have you not applied for UKRI, Research Council or Innovate UK grant funding?

Please select all that apply

- 1. [complicated] The application process was too complicated
- 2. [long] The application process was too long
- 3. [aware] I was not aware of these grant funding opportunities
- 4. [timelines] The timelines were too tight
- 5. [required] I am not required to submit grant applications in my role
- 6. [applicable] Not applicable
- 7. [eligible] I did not meet eligibility requirements
- 8. [other] Other (please specify)
- 9. [pnts] Prefer not to say

[supportAwareness2, if grant = "Not applied" to 5 or if grantsQual == No] Why have you not applied for Horizon 2020 grant funding?

Please select all that apply

- 1. [complicated] The application process was too complicated
- 2. [long] The application process was too long
- 3. [aware] I was not aware of these grant funding opportunities
- 4. [timelines] The timelines were too tight
- 5. [required] I am not required to submit grant applications in my role
- 6. [eligible] I did not meet eligibility requirements
- 7. [consortium] I had trouble joining a consortium
- 8. [support] I couldn't locate support to help complete an application
- 9. [other] Other (please specify)
- 10. [applicable] Not applicable



11. [pnts] Prefer not to say

[supportAwareness3, if grant = "Not applied" to 6 or if grantsQual == No] Why have you not applied for Horizon Europe grant funding (current programme)?

Please select all that apply

- 1. [complicated] The application process was too complicated
- 2. [long] The application process was too long
- 3. [aware] I was not aware of these grant funding opportunities
- 4. [timelines] The timelines were too tight
- 5. [required] I am not required to submit grant applications in my role
- 6. [eligible] I did not meet eligibility requirements
- 7. [consortium] I had trouble joining a consortium
- 8. [support] I couldn't locate support to help complete an application
- 9. [other] Other (please specify)
- 10. [applicable] Not applicable
- 11. [pnts] Prefer not to say

[grantsOther if grantsQual == Yes] If you, or a team you work/worked in, have applied for or received any other UK grant funding for research and innovation in your career, then please list the names of the grant funding below.

- [Please write in your answer here (maximum 200 words). Please do not include any personal data (any information that could identify you).]
- Don't know
- Prefer not to say

[supportOpen if grantsQual == Yes] How do you feel the Government could support you better in your research and innovation career?

We are interested in a broad range of suggestions, including (but not limited to) financial support, non-financial support, investment, infrastructure, regulation, policies, intellectual property, trade, immigration, fiscal policy and mitigating the impact of Covid-19.

- [Please write in your answer here (maximum 200 words). Please do not include any personal data (any information that could identify you).]
- Don't know
- Prefer not to say



[new page]

[bureaucracy, if (empstat = 5 or mainSector = 2 or 4 or 5 or 6 or 7) AND any of grants = "Received" or "Applied but not received"] How strongly do you agree or disagree with the following statements (please exclude your experience of the systems and processes relating to the Research Excellence Framework exercise in answering these questions, there is a separate system for evaluating the REF process):

- [propGrant] The systems and processes of public research and innovation funders for administering research <u>grants</u> (i.e. application, assessment, management and reporting stages) are necessary and proportionate
- [commGrant] Public research and innovation funders are good at communicating about the systems and processes for administering research grants
- [propFund] The systems and processes within my organisation to administer <u>research and innovation funding</u> (covering both internal funding streams and external grant funding) are necessary and proportionate
- [commFund] My research organisation is good at communicating about the systems and processes to administer <u>research and innovation funding</u>

[Strongly Disagree, Disagree, Neither agree nor disagree, Agree, Strongly Agree, Not applicable, Prefer not to say]

[bureaucracy2, if (empstat = 5 or mainSector = 2 or 4 or 5 or 6 or 7) or any of grants = "Received" or "Applied but not received"] What % of your time are you spending on each of the following activities in an average working week? (Please ensure that your time adds up to 100%).

- [produce] Producing research designing, conducting, analysing and writing up research
- [peer] Peer review of research grant proposals and research papers
- [knowledge] Knowledge exchange, commercialisation and business collaboration activities
- [apps] Preparing funding applications
- [admin] Administrative responsibilities relating to management of grant e.g. reporting, requesting changes to grant
- [otherB] Other- for example teaching, leadership and management responsibilities, academic networking and dissemination activities, other administrative responsibilities (unrelated to research grant/fellowships)
- [NA] Not applicable
- [pnts] Prefer not to say



F. WORKING CULTURE

[new screen]

(ASK ALL EXCEPT THOSE SELECTING CODE 2 OR 7 AT EMPSTAT AND NO OTHER CODE AT EMPSTAT)

[culture] How strongly do you agree or disagree with each of the following statements?

- 1. [id] My organisation's culture supports diversity and inclusion
- 2. [collab] My organisation encourages engagement and collaboration with other organisations
- 3. [innov] My organisation's culture encourages me to do my best work
- 4. [confident] I feel confident challenging the way things are done at my organisation
- 5. [admin] Administrative tasks and processes take up too much time at my organisation
- 6. [dev] My organisation offers good career development and progression opportunities
- 7. [bully] I have experienced or witnessed bullying or harassment at work in the last 12 months

SCALE - SINGLE CODE.

- 1. Strongly disagree
- 2. Disagree
- 3. Neither agree nor disagree
- 4. Agree
- 5. Strongly agree
- 6. Don't know
- 7. Prefer not to say

[improve, if empstat != 7] What, if anything, do you think would improve the culture of your organisation?

- 1. [Please write in your answer here (maximum 200 words). Please do not include any personal data (any information that could identify you).]s
- 2. Don't know
- 3. Prefer not to say



G. CAREER PATH AND EDUCATION

[techInd] Do you work in the following technologies or industries?

Please select all that apply

- 1. [manu] Advanced Manufacturing
- 2. [materials] Advanced Materials
- 3. [aero] Aerospace
- 4. [market] Agency Market
- 5. [agri] AgriTech
- 6. [ai] Artificial Intelligence
- 7. [bio] Bioscience
- 8. [chem] Chemicals and chemical products
- 9. [clean] CleanTech
- 10. [compHard] Computer Hardware
- 11. [construct] Construction
- 12. [electronics] Consumer electronics and communication equipment
- 13. [cyber] Cyber
- 14. [dataInfra] Data Infrastructure
- 15. [dig] Digital Creative Industries
- 16. [edTech] EdTech
- 17. [electronics] Electrical equipment
- 18. [engineer] Engineering Bio
- 19. [enGen] Energy Generation
- 20. [enStor] Energy Storage
- 21. [fabMetal] Fabricated metal products except machinery and equipment
- 22. [finTech] FinTech
- 23. [foodTech] Food Tech
- 24. [gaming] Gaming
- 25. [immersive] Immersive Technologies



- 26. [orbit] In-Orbit Servicing and Manufacturing
- 27. [machinery] Machinery and equipment
- 28. [media] Media Publishing
- 29. [medTech] MedTech
- 30. [motor] Motor vehicles and parts
- 31. [nz] Net Zero
- 32. [omics] Omics
- 33. [pharma] Pharmaceuticals
- 34. [photonics] Photonics
- 35. [precision] Precision instruments and optical products
- 36. [pubAd] Public administration
- 37. [quantum] Quantum Economy
- 38. [rDevelop] Research and development services
- 39. [semi] Semiconductors
- 40. [softwareService] Software as a Service (SaaS)
- 41. [softwareDev] Software Development
- 42. [softwareIT] Software and IT
- 43. [spaceEc] Space Economy
- 44. [spaceEn] Space Energy
- 45. [streamEc] Streaming Economy
- 46. [tele] Telecommunications
- 47. [whole] Wholesale and retail trade
- 48. [dKnow] Don't know (exclusive)
- 49. [pnts] Prefer not to say (exclusive)
- 50. [none] None of the above (exclusive)
- 51. [other] Other (please specify)

[orgSize, if empstat = 1 and mainSector = 1 or 11] Including yourself, roughly how many people work at your whole organisation?

OFFICIAL

1. 1 to 9



- 2. 10 to 49
- 3. 50 to 249
- 4. 250 to 499
- 5. 500 or more
- 6. Don't know
- 7. Prefer not to say

*[quals] Do you have any of the following qualifications?

Please select all that apply

- 1. [alevels] A-levels or equivalent
- 2. [apprentice] A degree apprenticeship, graduate apprenticeship or higher level apprenticeship
- 3. [foundation] A foundation degree
- 4. [undergrad] An undergraduate degree
- 5. [higher] A higher degree (postgraduate qualifications, including PGCE or PGDE)
- 6. [institution] Graduate membership of a professional institution [A professional institution is an organisation that holds individual members associated with a specific profession, interest or occupation, for example the Institution of Civil Engineers]
- 7. [otherProf] Other professional research and innovation qualification
- 8. [none] None of the above (exclusive)
- 9. [dKnow] Don't know (exclusive)
- 10. [pnts] Prefer not to say (exclusive)

*[higherQual, if quals = 5] Was your higher degree?

Please select all that apply

- 1. [doc] A Doctorate
- 2. [masters] A masters
- 3. [postCert] A Postgraduate Certificate/Postgraduate Diploma
- 4. [dKnow] Don't know
- 5. [pnts] Prefer not to say



6. [other] Other

[new screen]

[ask all selecting any codes at quals and higherQual]

[ukQuals] Which, if any, of your qualifications were achieved in the UK?

[GRID QUESTION – DISPLAY ALL CODES SELECTED AT QUALS EXCEPT 5, AND 8-10, AND ALL CODES SELECTED AT HIGHERQUAL EXCEPT 5 AND 6 AS ROWS AND 1-3 BELOW AS COLUMNS]

- 1. [alevels] A-levels or equivalent
- 2. [apprentice] A degree apprenticeship, graduate apprenticeship or higher level apprenticeship
- 3. [foundation] A foundation degree
- 4. [undergrad] An undergraduate degree
- 5. [higher] A higher degree (postgraduate qualifications, including PGCE or PGDE)
- 6. [institution] Graduate membership of a professional institution [A professional institution is an organisation that holds individual members associated with a specific profession, interest or occupation, for example the Institution of Civil Engineers]
- 7. [otherProf] Other professional research and innovation qualification
- 8. [doc] A Doctorate
- 9. [masters] A masters
- 10. [postCert] A Postgraduate Certificate/Postgraduate Diploma
- 11. [post] Another postgraduate degree or professional qualification
 - 1. Achieved in the UK
 - 2. Achieved elsewhere
 - 3. Prefer not to say

[ASK ALL SELECTING ANY OF 2 TO 5 AT QUALS]

[qualSubject] In which subject(s) do you have qualifications at degree level or above?

Please select all that apply

- 1. [arts] Arts
- 2. [bio] Biological and agricultural sciences



- 3. [eng] Engineering and computer science
- 4. [maths] Maths, physics or chemistry
- 5. [human] Humanities (including languages)
- 6. [medical] Medical sciences and healthcare
- 7. [social] Social sciences
- 8. [combined] Combined subjects
- 9. [dKNow] Don't know (exclusive)
- 10. [pnts] Prefer not to say (exclusive)
- 11. [other] Other (please specify)

[careerLength] How many years have you worked in research and innovation? Please round up to the closest full year.

[if higherQual = 1: "Please include time spent working on your doctorate"]

- [free numerical text, max 80]
- 1. Don't know
- 2. Prefer not to say

ASK IF DON'T KNOW OR PREFER NOT TO SAY NUMBER OF YEARS (Q CAREERLENGTH = 1 OR 2)

[careerLengthBand, if careerLength is not answered]. Thinking about how many years have you worked in research and innovation, are you able to put yourself into one of the following bands?

[SHOW IF higherQualL = 1: "Please include time spent working on your doctorate"]

- 1. Less than 2 years
- 2. 2 to 5 years
- 3. 6 to 10 years
- 4. 11 to 15 years
- 5. More than 15 years
- 6. Prefer not to say
- H. ABOUT YOU

[new screen]

You are nearly at the end of the survey. Many thanks for your responses so far.



Ensuring the UK has diversity of people and ideas is fundamental to a thriving R&I sector, with a research culture that truly supports discovery, diversity and innovation.

Therefore, this next set of questions is about your personal characteristics. The purpose of these questions is to understand the profile of the UK research and innovation workforce and the information will be used for research purposes only. You can view DSIT's privacy policy here and BIT's privacy policy here. You are under no obligation to answer these questions and may select "prefer not to say" at any point.

[new screen]

Isex1 What is your sex? A question about gender identity will follow.

- 1. Female
- 2. Male
- 3. Prefer not to say

[gender] Is the gender you identify with the same as your sex registered at birth?

- 1. Yes
- 2. [other] No, write in your gender identity
- 3. Prefer not to say

[gender.identity] If responded No above, free text answer for [other] answer

[sexuality] Which of the following best describes your sexual orientation?

- 1. Straight or Heterosexual
- 2. Gay or Lesbian
- 3. Bisexual
- 4. Other, write in your sexual orientation
- 5. Prefer not to say

[ethnicityMain (single code) & ethnicitySub (multiCode)] Which one of the following best describes your ethnic group or background?

[DISPLAY OVERALL CATEGORIES THEN RELEVANT SUBCATEGORIES. DISPLAY "PREFER NOT TO SAY" AT BOTH SCREENS. SINGLE CODE FOR OVERALL CATEGORIES THEN MULTICODE FOR SUBCATEGORIES.]

- 1. [ethnicityWhite] White
 - a. English / Welsh / Scottish / Northern Irish / British
 - b. Irish



- c. Gypsy or Irish Traveller
- d. Roma
- e. Any other White background
- 2. [ethnicityMixed] Mixed
 - a. White and Black Caribbean
 - b. White and Black African
 - c. White and Asian
 - d. Any other Mixed / Multiple ethnic background
- 3. [ethnicityAsian] Asian / Asian British
 - a. Indian
 - b. Pakistani
 - c. Bangladeshi
 - d. Chinese
 - e. Any other Asian background
- 4. [ethnicityBlack] Black / African / Caribbean / Black British
 - a. African
 - b. Caribbean
 - c. Any other Black / African / Caribbean background
- 5. [ethnicityOther] Other ethnic group
 - a. Arab
 - b. [ethnicityOther.other.] Any other ethnic group (please specify)
- 6. Prefer not to say

[nationality] How would you describe your national identity? Please select all that apply

- 1. British
- 2. English
- 3. Welsh
- 4. Scottish
- 5. Northern Irish



- 6. Other (please specify)
- 7. Prefer not to say (EXCLUSIVE)

[health] Do you have any physical or mental health conditions or illnesses lasting or expected to last for 12 months or more?

- 1. Yes
- 2. No
- 3. Don't know
- 4. Prefer not to say

[disability, if health == 1] Does your condition or illness/do any of your conditions or illnesses reduce your ability to carry out day-to-day activities?

- 1. Yes, a lot
- 2. Yes, a little
- 3. Not at all
- 4. Prefer not to say

[age] How old are you?

- 1. 16 24
- 2. 25 34
- 3. 35 44
- 4. 45 54
- 5. 55 64
- 6.65 74
- 7. 75 79
- 8. 80+
- 9. Prefer not to say

[homeRegion] In which region of the UK do you live?

- 1. North East (England)
- 2. North West (England)



- 3. Yorkshire and The Humber
- 4. East Midlands (England)
- 5. West Midlands (England)
- 6. East of England
- 7. London
- 8. South East (England)
- 9. South West (England)
- 10. Scotland
- 11. Wales
- 12. Northern Ireland
- 13. Prefer not to say

[workRegion] In which region of the UK is your workplace?

- 1. North East (England)
- 2. North West (England)
- 3. Yorkshire and The Humber
- 4. East Midlands (England)
- 5. West Midlands (England)
- 6. East of England
- 7. London
- 8. South East (England)
- 9. South West (England)
- 10. Scotland
- 11. Wales
- 12. Northern Ireland
- 13. Prefer not to say

[seb] What was the occupation of your main household earner when you were aged 14?



- Modern professional and traditional professional occupations e.g. teacher, nurse, physiotherapist, social worker, musician, police officer (sergeant or above), software designer, accountant, solicitor, medical practitioner, scientist, civil or mechanical engineer.
- 2. Senior, middle or junior managers or administrators e.g. finance manager, chief executive, large business owner, office manager, retail manager, bank manager, restaurant manager, warehouse manager.
- 3. Clerical and intermediate occupations e.g. secretary, personal assistant, call centre agent, clerical worker, nursery nurse.
- 4. Technical and craft occupations e.g. motor mechanic, plumber, printer, electrician, gardener, train driver.
- 5. Routine, semi-routine manual and service occupations e.g. postal worker, machine operative, security guard, caretaker, farm worker, catering assistant, sales assistant, HGV driver, cleaner, porter, packer, labourer, waiter or waitress, bar staff.
- 6. Long-term unemployed (claimed Jobseeker's Allowance or earlier unemployment benefit for more than a year)
- 7. Small business owners who employed less than 25 people such as: corner shop owners, small plumbing companies, retail shop owner, single restaurant or cafe owner, taxi owner, garage owner
- 8. Retired
- 9. This question does not apply to me
- 10. I don't know
- 11. Prefer not to say

[pay, if empstat!= 7] What is your approximate annual salary before taxes? Please report your gross salary, i.e. your salary before any taxes or deductions. Do not deduct tax, national insurance, health insurance payments, or your contributions to occupational pension schemes.

- Less than £20,000
- £20,000 £30,000
- £30,001 £40,000
- £40,001 £50,000
- £50,001 £60,000
- £60,001 £70,000
- £70,001 £80,000



- £80,001 £90,000
- £90,001 £100,000
- £100,000 £125,000
- £125,000 £150,000
- £150,000 £175,000
- £175,000 £200,000
- More than £200,000

[employera, if empstat != 7]. And finally, what is the name of [if mainSector== 2, "the main Higher education institution", if mainSector != 2, "the main organisation"] you work for?

If you'd rather not tell us then please select 'prefer not to say'.

[if mainSector == 2, show predefined higher education list, if mainSector == 4 or 5, show predefined PSRE list, if mainSector == 7, show predefined catapult list, if mainSector != 2, 4, 5, or 7, show free text box]

1. Prefer not to say

I. PERMISSION FOR RECONTACT AND DATA LINKING

[new screen]

*[recon1]. Would you be willing for the Behavioural Insights Team (BIT) or the Department for Science, Innovation and Technology (DSIT) to contact you about participating in follow up research about your career in research and innovation? If you agree now, you are still free to change your mind and decline at a later date by contacting dpo@bi.team or riworkforcesurvey@dsit.gov.uk

- 1. Yes I would be willing for BIT or DSIT to contact me
- 2. No I would not be willing

[recon1 Name and recon1 Email, if recon1 == "Yes"] Please enter your contact details below. Please provide an email address you are likely to have long term (e.g. a personal email address if you think you may change jobs in coming years)

(CONFIRM NAME (non-mandatory) AND EMAIL (mandatory))

*[recon2]. Would you be willing to be contacted about taking part in future waves of this survey? If you agree now, you are still free to change your mind and decline at a later date.

- 1. Yes I would be willing
- 2. No I would not be willing



[recon2Name and recon2Email, if recon1 == "No" AND recon2 == "No"] Please enter your contact details below so we can remove you from future communications.

(CONFIRM NAME AND EMAIL (both non-mandatory))

[recon3Name and recon3Email, if recon1 == "No" AND recon2 == "Yes"] Please enter your contact details below. Please provide an email address you are likely to have long term (e.g. a personal email address if you think you may change jobs in the coming years)

(CONFIRM NAME (non-mandatory) AND EMAIL (mandatory))

*[datalink] The Department for Science Innovation and Technology would like to link one or more of these datasets to your answers: Higher Education Statistical Authority data, Longitudinal Education Outcomes data, UK Innovation Survey, ONS R&D Expenditure and business data, Gateway to Research, Intellectual Property (IP) data, publications data (i.e. OpenAlex/SciVal), and Beauhurst. This will give DSIT a better overall picture of the R&I workforce, their education and career paths. All information will be used for research and statistical purposes only. Any outputs from data linking (e.g., reports, statistical tables) will not contain any individual-level personal data and respondents will be kept anonymous. You can view DSIT's Privacy Notice here.

Are you willing for us to let DSIT attempt to match your answers to these datasets?

- 1. Yes would be willing
- 2. No would not be willing

[datalinkName, if datalink= "Yes" & recon1Name & recon2Name & recon3Name is blank] Please enter your name below.

(CONFIRM NAME (non-mandatory)

*[dataLinkUKRI] UKRI would like to link your grant data to your survey answers to help evaluate their funding schemes and to help improve the support UKRI offer the research and innovation community. UK Research and Innovation (UKRI) is a public body of the UK Government that directs research and innovation funding]

Any outputs from data linking (e.g., reports, statistical tables) will be anonymised. The data will not be used to profile individuals, or to influence individual funding decisions. UKRI will store your data securely and handle it in line with UK data protection legislation. Further information on how UKRI process personal data can be found in UKRI's privacy notice.

Would you be willing for us to share your survey responses with UKRI so that they can match your answers to their datasets?

- 1. Yes would be willing
- 2. No would not be willing

[dob, if datalink == 1] What is your date of birth? This will be used to help us link your data to the Higher Education Statistical Authority database and Longitudinal



Education Outcomes data. You can select 'prefer not to say' if you would rather not provide it.

1. Prefer not to say

[new screen]

Thank you for taking the time to participate.

The more R&I workers that complete the survey, the better the data will be, so we'd be very grateful if you could share this survey link with other R&I workers in the UK. Click here to email the survey link to people in your network or click to share via X (formerly Twitter) and Linkedin.

We aim to publish the headline findings from this survey. Visit the DSIT<u>website</u> for the latest news on the government's plans for Research and Innovation, or follow DSIT on X (formerly <u>Twitter</u>).

Read the report detailing results and findings from the 2022 Research and Innovation Workforce Survey.

The <u>privacy notice</u> for this survey explains the purposes for processing your personal data, as well as your rights under data protection regulations.

If you have any questions about the survey, please email Randl.workforce.survey@bi.team.