



# **A guide to UKRI Research and Innovation Investment and Output data**

## **UK Research and Innovation**

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## 1. Introduction

This document provides a comprehensive guide to the Investment and Outputs Data published by UK Research and Innovation. The key areas covered in this guide are:

- uses and users of the data
- data processing
- background to published data
- detailed descriptions and coverage of the published tables
- a guide to the published data and dashboards

## 2. Uses and users

The data published in the Investment and Outputs Data offer a key set of figures on funding and outputs across UKRI since financial year 2015-16. These figures (and the underlying data) are used routinely to answer parliamentary questions, public enquiries (including those made under the Freedom of Information Act), and to provide a set of reliable figures to key UKRI stakeholders such as research and innovation community, and central government.

UKRI has also the responsibility to demonstrate the value and impact of research and innovation supported through public funding. The data attempts to contribute to the following:

- Advocacy – justification for additional funding and explaining impact of the funding.
- Accountability – providing the evidence of delivery from our funding.
- Analysis – the base for tracking progress, productivity and impact of UKRI funded research and innovation.
- Allocation – providing evidence to support prioritisation across different sectors/strategic aims or programmes.
- Efficiency – ensuring data is accessible and useable.
- Openness – further details about awards are published to [Gateway to Research](#).

## 3. Data processing

The sections below outline how the UKRI funding and research outcome monitoring data goes from operational data to a finalised dataset for release and reuse.

### 3.1. Data sources

The funding data are collected from:

- Joint electronic Submission system (Je-S)
- The Funding Service (TFS)
- Innovation Funding Service for Innovate
- Additional funding decisions captured outside the above systems such as 'Horizon Europe Guarantee,' opportunities administered by funders outside of UKRI and awards awarded to MRC Institutes, Units and Centres.

These data are brought together in the single source of data for analysis.

Research outcome monitoring data (output data) is collected from:

- Researchfish
- Innovate UK Project Completion Form
- Legacy routine surveys

Researchfish and Project Completion Form collections ask different questions and collect different data. The data is combined in Table 14: Knowledge outputs and Table 18: Awards reporting a spinout.

### 3.2. Data removed

Successful applications with an unknown award reference were removed.

The following applies to the funding output data.

Duplicate publication based on their Digital Object Identifier (DOI) were removed to mitigate double counting.

Outputs with reported dates (e.g., publication date, date of engagement activity, etc) prior to the year in which the award started have been removed.

Outputs with an unknown output date have been removed.

This data release does not report studentship outputs.

11 of our 16 common outputs collected by Researchfish are included as they provided the most insightful evidence at an aggregate UKRI level. The outputs not included here are:

- Influence on Policy, Practice, Patients and the Public
- Next Destination
- Awards and Recognition
- Other Outputs & Knowledge / Future Steps
- Use of Facilities & Resources

### 3.3. Data quality

The data represents the commitment made to support research and innovation not actual expenditure.

This dataset is not comprehensive of all UKRI funding. It represents the delivery of funding through competitive funding opportunities (this mostly comprises of applications that are assessed for funding by peer review).

There has been no consideration of Council demand management policies impact on the number of applications received.

Additional funding decisions captured outside of Je-S, Innovation Funding Service process may not include decisions on the unsuccessful application data. For example, where UKRI is working with another funder who leads on the application process, we would only record the successful applications.

The applied for values have been rounded to the nearest million for Tables 1-6. Award values are available on Gateway to Research.

The data are shown by financial year 2023-24.

The following should be considered when reviewing the UKRI output data.

Awards starting in more recent years are expected to have fewer outputs than awards starting in older years due to the nature of research and the time lag of realising outputs.

The data are not meant to be exhaustive of all outputs realised.

The number of total awards available to report outputs changes over time due to internal processes for example grants changing their start dates or incorrectly classified grants being wrongly submitted as part of the set.

The data are shown by calendar year 2019 to 2023

## 4. Background to published data

The funding data comprises UKRI funding data activity from 1 April 2023 to 31 March 2024.

The outputs data consists of outputs collected from awards that were required to provide outputs to Researchfish during the submission period that closed March 2023 and routine surveys. Innovate UK did not previously publish or report on the data collected via their Project Completion Form which began in 2018.

The data published feeds into the UKRI Annual Report and Accounts 2023-24.

Previous publications are available here: <https://www.ukri.org/what-we-offer/what-we-have-funded/competitive-funding-decisions/>

## 5. What are the UKRI investments?

This data is an overview of activity by UKRI to support research and innovation. It provides an indication of the demand from the community, their response to our competitive funding opportunities and our commitment.

Currently, the data published only covers competitive funding, which is not reflective of all the UKRI budget. This does not include applications, such as applications for block funding for open access costs and award extensions, training awards including studentships, or quality related research funding and other formula funding from Research England.

This year data from Research England and some off system applications have not been included in the data, this will be updated in Autumn 2024 when we publish an updated time series. Information about all UKRI funding can be found in the [UKRI Annual Report and Accounts](#).

## Table 1: The number of applications submitted in 2023-24

### Summary

Describes the number of applications received during the 2023-24 financial year, the number of organisations applying for funding and the total amount of funding applied for (in units of million pounds). This information is broken down by the following award categories: Research and Innovation, Fellowships and Unknown. There is an Unknown category because The Funding Service (TFS) is not yet capturing application category for all applications.

### Definitions

Applications are defined using the date the application was received.

The number of organisations includes lead organisations.

The total applied for is a sum of the amount requested by the applicants at the point of application, rounded to the nearest million pounds.

### Limitations

Since there is no common organisation identifier across Je-S, IFS and TFS, it was not possible to rule out double counting of organisations.

## Table 2: The number of funding decisions made in 2023-24

### Summary

Describes the number of funding decisions during the 2023-24 financial year, and associated award rate. This information is broken down by Fellowship and Research and Innovation Award.

### Definitions

Applications assessed are defined as decisions to fund or reject competitive applications, based on the date the decision was made and regardless of the application date.

Applications awarded are defined as decisions to fund competitive applications, based on the date the decision was made and regardless of the application date.

The award rate by number is the total number to fund as a percentage of the total number of competitive funding decisions. The formulae for the award rates are as follow:

$$\text{Award rate by number} = \left( \frac{\text{total number of applications awarded}}{\text{total number of applications assessed}} \right) \times 100$$

### Limitations

Award rate calculations at council and category levels are sometimes skewed by calls having application decisions which cut across financial year periods. In such cases where we have an incomplete set of awards for a call, the concentration of rejected applications before or after the reported FY period leads to award rate inflation and deflation respectively. BBSRC fellowship award rate calculations have been excluded for this reason.

## Table 2a: The number of Horizon Europe Guarantee applications submitted and verified in 2023-34

### Summary

Describes the number and value of Horizon Europe Guarantee applications submitted and verified during the 2023-24 financial year.

The UK agreed a deal to associate to Horizon Europe on 7 September 2023. The Horizon Europe Guarantee scheme provides funding to researchers and innovators who were unable to receive their Horizon Europe funding while the UK was in the process of associating.

UK Research and Innovation (UKRI) is delivering the funding through its systems on behalf of the Department for Science, Innovation & Technology (DSIT)

### Definitions

The date range for applications received via TFS/Je-S is defined as decisions to fund applications, based on the date the decision was made and regardless of the application date.

The date range for in IFS is defined as decisions to fund applications, based on the notification date.



### **Table 3: Regional breakdown of funding decisions made by number and value in 2023-24**

#### **Summary**

Describes the number of competitively assessed and awarded applications during the 2023-24 financial year, and associated award rate. This information is broken down by International Territorial Level 1 (ITL1).

#### **Definitions**

The regions are presented according to the Office for National Statistics geocode standard of ITL1.

England is not an ITL1 region and is added for completeness.

The allocation of award to an ITL1 is based on the postcode of the lead organisation.

#### **Limitations**

The location of the lead organisation may not be where the research takes place.

There are a number of funded organisations that are based outside the UK, they have an unknown ITL1.

Where we have not been able to match the organisations postcode to the geographic postcode, they are included in the unknown.

### **Table 4: The number and value of project partner contributions on awards in 2023-24, by sector**

#### **Summary**

Describes the number of project partners by sector, the number of awards with project partners and the total financial contribution made by project partners, rounded to the nearest million pounds.

#### **Definitions**

Project partners are organisations providing specific contributions (either direct or indirect) to the research project.

Project partner sectors are categorised as academic / university / learned society, charity/non-profit, private and public (including NHS trusts) organisations.

<b>Sector</b>	<b>Organisation</b>
Academic university, Learned society	Academic Institution, Independent Research Org, Knowledge base, Research and Technology Organisation (RTO), Research and technology organisation (RTO), Research, Research Council / Research Council Institute, Education
Charity / Non-profit	Charitable Organisation, Professional Institution, Non- profit,
Private	Business, Industrial / Commercial, Industrial/Provident, Guarantee, Limited Liability Partnership, Limited Partnership, Private Limited, Trade Associations and RTOs, Private,
Public (including NHS trusts)	Civic Organisations, Government Department, Hospital / NHS trust, Local and Regional Government, Public Research Organisation, Facility, Professional Institution, Public AIM, Public, Not Quoted, Public, Quoted, Royal charter)
Other (including unknown)	Null, Unknown, Other

The number of awards is a count of the awards granted during the financial year that have financial contributions from project partners.

The number of partnerships is a distinct count of specific project partners being associated with specific awards. Each project partner may contribute to more than one award and each award may have more than one contributing partner.

The number of organisations is a count of the project partner organisations contributing financially to awards granted during the financial year.

The total contribution is a sum of the financial contribution (in cash or in kind) made by project partners within each sector to awards granted during the financial year, rounded to the nearest million pounds.

### **Limitations**

Since there is no organisation identifier common to Je-S, TFS, IFS, it has not been possible to rule out the double counting of organisations.

Since one award can involve many project partners from different sectors, the sum of awards across sectors will not equal the overall total.

## Table 5: Who our funding supported in 2023-24, by category

### Summary

The number of awards active during the 2023-24 financial year and the number of individuals and organisations supported by those active awards

### Definitions

Category is the type of funding: Research and Innovation, Fellowship, Covid, Horizon Europe Guarantee or Studentship

Active awards are defined using the start and end date of funded awards and fellowships.

Individuals counted in this table are: Principal Investigators, Co-Investigators, Researcher Co-Investigator, Fellows (Research and Innovation awards and Fellowships), and Students (Studentships) from Je-S. Role types are being harmonised in TFS, [UKRI revised project role types – UKRI](#)

The count of organisations includes lead organisations only.

### Limitations

Innovate UK only track the organisations they fund and not the individuals involved. For this reason, the number of people (individuals) supported excludes Innovate UK.

Since there is no common identifier for organisation and people common to Je-S, TFS and IFS, it was not possible to rule out double counting of organisations and people.

375 successful applications active in 2023-24 have been excluded because they have unknown award references and can't be linked to people or organisations.

## Table 6: The number of organisations supported in 2023-24, by sector

### Summary

The number of lead organisations supported by awards active during the 2023-24 financial year, broken down by organisation sector.

### Definitions

The definitions are as defined above in Table 4.

### Limitations

Since there is no organisation identifier common to Je-S, TFS and IFS, it has not been possible to rule out the double counting of organisations.

## Table 7: Number of Research Council funded PhDs submitted by calendar year, 2019 to 2023

### Summary

The number of PhDs submitted during each calendar year, for 2019-2023. The data in this table is summarised by calendar rather than by financial year.

### Definitions

The number of PhDs submitted is summarised using the calendar year of the recorded PhD submission date.

### Limitations

There is a time lag between a student submitting their PhD and the student submission survey being completed.

## Table 8 and 8a: The number and value of applications received from 2020-2021 to 2023-2024 (excluding and including COVID-19 applications)

### Summary

Tables 8 and 8a describe the number of applications received by financial year, the number of organisations applying for funding and the total amount of funding applied for (in units of million pounds). Table 8 excludes covid and Table 8a includes covid.

Table 8a is included to show the impact of covid applications in our numbers on 2020-21 and 2021-22 and 2023-24.

### Definitions

Applications are defined using the date the application was received.

The number of organisations includes lead organisations.

The total applied for is a sum of the amount requested by the applicants at the point of application, rounded to the nearest million pounds.

### Limitations

Since there is no organisation identifier common to Je-S, TFS and IFS, it has not been possible to rule out the double counting of organisations.

Research England and Off system applications and awards are included for 2020-21, 2021-22 and 2022-23

## **Table 9: The number of funding decisions from 2020-2021 to 2023-2024, by category**

### **Summary**

Describes the number and value of competitively assessed and awarded applications by financial year, and associated award rate. This information is broken down by award category.

Competitively assessed applications are defined as decisions to fund or reject applications, based on the date the decision was made and regardless of the application date.

Competitively awarded applications are defined as decisions to fund applications, based on the date the decision was made and regardless of the application date.

The award rate by number is the total number of decisions to fund as a percentage of the total number of competitive funding decisions.

## **6. What are the UKRI outputs?**

The UKRI outputs shows the instances of output types realised by year the award started between 2016 and 2023. It combines data obtained through Researchfish and routine surveys, including Project Completion Form. The data are self-reported and not meant to be exhaustive of all outputs realised. Data is reported over time and older awards have had more time to generate outputs, thus recent awards are still accruing outputs.

### **Researchfish**

Recipients of funding are required yearly to report emerging outputs, outcomes and impacts for the duration of their award and generally for 5 years beyond the end of the grant funding.

Once a year there is a formal submission period when researchers are required to confirm that their outcomes information is accurate and up to date. The data in this

report shares the updated number of outputs for awards starting between 2019 and 2023 as taken from the submission period that ended in March 2023.

### **Project Completion Form**

Innovate UK use their Project Completion Form to obtain outputs and outcomes data from their funded research. This online survey tool has been used since February 2018 and is completed once for each project towards the end of the award.

The data from the two systems is combined and presented in a series of tables showing:

- **Collaborations:** Research collaborations take the form of joint funding, exchanging expertise, access to wide ranging facilities and equipment, accessing datasets, working across different sectors. This indicator relates to new collaborations as reported after the award has started. One award can have many collaborations involving many collaborators.
- **Collaborator location:** International collaboration shows that researchers are collaborating with organisations around the world and gaining access to internationally competitive facilities and infrastructure.
- **Engagement:** Researchers engage with a wide variety of audiences and stakeholders to communicate research outcomes, disseminate knowledge, stimulate public awareness, and encourage public engagement and dialogue. The engagement activities indicator helps demonstrate the extent to which researchers are engaging with others including audiences outside academia.
- **Knowledge generation:** Publications are a mechanism used to disseminate the findings of research to a wider audience; increasing the visibility of research, the diffusion of knowledge and the advancement of research.
- **Other types of knowledge generation:** Other Knowledge Generation includes Artistic and Creative outputs, Research Models and Databases, Software and Technical Products, Research Tools and Methods, and Medical Products, Interventions and Clinical Trials.
- **Further Funding:** This data includes additional funding from UKRI and other funders to continue or advance the research.
- **Intellectual Property (IP):** This indicator includes the generation of patents, copyrights and trademarks as an output of the research. This data does not include Innovate UK as their current online survey collects data on IP used as part of the project.

- Spinouts: This indicator includes the number of spinout companies initiated as an output of the research.
- Full-time equivalent (FTE) jobs: This indicator includes the number of FTE jobs created as an output of Innovate UK funding.
- Products, processes and services: This indicator summarises the number of products, processes or services with planned production within the year, as an outcome of Innovate UK funding.

The following calculations are used across all output types:

- Award: Project Completion Form submissions for individual awards may be completed by multiple project partners. An award is defined as an Innovate UK project or a Research Council award and does not reflect the number of project partners completing submissions.
- Year Award Started: All output types except for spinouts are grouped by the year the award started. This allows consistency between the data collected by Research Councils and Innovate UK.
- Number/instances of output type: Each output is assigned a unique ID. A distinct count of this ID is used to calculate the number/instances of the output type.
- Number of awards with 1 or more instance of an output type: The distinct count of the grant references reporting one or more instances of an output type.
- Total number of awards: Is the total number of awards in the respective outcomes system. Where an output type includes both Research Council and Innovate UK data the combined total from the two systems is used.
- percentage of total awards =  $\left( \frac{\text{number of awards with 1 or more instances of an output type}}{\text{total number of awards in the system}} \right) \times 100$

## Table 10: Number of awards reporting outputs, awards started 2019 to 2023

### Summary

The number of awards reporting outputs through Researchfish and Project Completion Form, and the number of participants completing Project Completion Form's by year award started.

## Definitions

Researchfish and Project Completion Form.

Number of UKRI awards started: Distinct count of awards funded by UKRI systems.

Number in Researchfish: Distinct count of awards in Researchfish.

Number of awards with a Project Completion Form: Distinct count of awards that have submitted a Project Completion Form return.

Number of participants completing a Project Completion Form: Distinct count of the combination of award reference and participants that have submitted a Project Completion Form return.

Total of awards reporting an outcome: Combination of Distinct count of awards in Researchfish and Distinct count of awards that have submitted a Project Completion Form return.

## Table 11: Collaborations and type of collaborators, awards started 2019 to 2023

### Summary

The number of unique instances on Researchfish of collaborations by award start year, both as a total and broken down by the type of collaborator (academic / learned society / university, charity / non-profit, private (including hospitals) and other, and the number and percentage of awards for which at least one collaboration outcome.

### Definitions

The source of data is Researchfish only.

Number of collaborations: A collaboration is a group of collaborators. Each collaboration is assigned a unique ID. A distinct count of this ID is used calculate the number of collaborations.

Number of collaborators: A collaborator is an organisation involved in a collaboration. Each collaborator is assigned a unique ID. A distinct count of this ID is used to calculate the number of collaborators.

The Number of Collaborators is broken down by the organisation sector see Table 4.



### Limitations

Collaborations are only included in the year the award started but the collaboration may continue for several years after this date.

## Table 12: UK and international collaborators, awards started 2019 to 2023

### Summary

The number of awards in the Researchfish system reporting either UK collaborators exclusively, international collaborators exclusively, and with both UK and international collaborators, and the total number of UK and/or international collaborators involved on those awards.

### Definitions

The source of data: Researchfish only.

The number of awards and collaborators is broken down by the country that the collaborator is based in. Any collaborators with an unknown country are excluded.

First the country is determined as UK or International. If the country is not “United Kingdom” then it is marked as international, else it is marked as UK.

For each award, the number of UK and International collaborators is counted, and each award is assigned to UK only, International only or Both using the below logic:

Location	Number of UK collaborators	Number of international collaborators
UK only	1+	0
International only	0	1+
Both	1+	1+

### Limitations

Only includes collaborators where the location of the collaborator is known.

## Table 13: Engagement Activities, awards started 2019 to 2023

### Summary

The number of unique instances of engagement activity outcomes, grouped by the award start year, and the number and percentage of awards in the Researchfish system reporting at least one engagement activity outcome.

### Definitions

The source of data: Researchfish only.

Instances of Engagement Activities: Each engagement activity is assigned a unique ID. A distinct count of this unique ID is used to calculate the instances of engagement activities.

## Table 14: Knowledge Output, awards started 2019 to 2023

### Summary

The number of publication instances, both in total and broken down by publication type, for awards in either Researchfish or Project Completion Form starting in each year from 2019 to 2023, and the number and percentage of awards reporting at least one publication.

### Definitions

The source of data: Researchfish and Project Completion Form.

Number of publications: Each publication is assigned a unique ID. A distinct count of this ID is used to calculate the number of publications.

Types of publications: The number of publications is broken down by the publication type: Book; Book Chapter; Journal article; and Other Publication (includes monographs, consultancy reports, policy briefings, technical reports, preprints and theses).

## Limitations

The instances of publications are not a count of unique publications.

Duplications may occur when different researchers have entered similar information independently of one another.

Publications may occur from more than 1 award.

Efforts have been made to remove duplications using Digital Object Identifier (DOI) but not all publications have a DOI.

## Table 15: Other types of knowledge output awards started 2019 to 2023

### Summary

The number of instances of 'other knowledge generation' (i.e., knowledge generation excluding publications) in the Researchfish system both as a total and broken down by the type of knowledge generated, for awards starting in each year between 2019 and 2023, and the number and percentage of awards in the Researchfish system that report at least one instance of 'other knowledge generation'.

### Definitions

The source of data: Researchfish only.

Instances of Other Knowledge Generation: each publication is assigned a unique ID. A distinct count of this ID is used to calculate the instances of other knowledge generation.

Types of Other Knowledge Generation: The instances of other knowledge are broken down by the publication type: Artistic and Creative; Medical Products, Interventions and Clinical Trials; Research Models and Databases; Research Tools and Methods; Software and Technical Products.

## **Table 16: Awards that have obtained further funding, awards started 2019 to 2023**

### **Summary**

The number of unique instances of further funding generated for awards starting in each year from 2019 to 2023, and the number and percentage of awards in the Researchfish or Innovate UK outcomes systems that report at least one instance of further funding.

### **Definitions**

The source of data: Researchfish and Project Completion Form.

Instances of Further funding: Each instance of further funding is assigned a unique ID. A distinct count of this ID is used to calculate the instances of further funding.

## **Table 17: Awards that have resulted in instances of intellectual property (IP), awards started 2019 to 2023**

### **Summary**

The number of unique instances of Intellectual Property (IP) reported as outcomes of awards in the Researchfish system, for awards starting in each year from 2019 to 2023, and the number and percentage of awards in the Researchfish system that report at least one instance of IP.

### **Definitions**

The source of data: Researchfish only.

Instances of IP: Each instance of IP is assigned a unique ID. A distinct count of this ID is used to calculate the instances of IP.

IP includes the generation of patents, copyrights and trademarks.

## Table 18: Awards reporting a spinout incorporated since 2004

### Summary

The number of spinouts reported as outcomes via Researchfish, Project Completion Form or legacy route and the total number of awards attributed to those spinouts.

### Definitions

The source of data: Researchfish, Project Completion Form, reported via legacy routes.

The legacy route relates to companies (mostly from EPSRC funded research) with incorporation dates which pre-date the use of Researchfish. Legacy records are curated by EPSRC and derive from a combination of desk research by senior staff and information sourced from e.g., correspondence with researchers, University websites, University REF submissions, independent publications tracking University spinouts (e.g., Gibson Index). In each case the derivation of the spinout from EPSRC-funded research has been verified.

Number of spinouts: The Company Registration Number was used as a unique identifier to count the spinout companies reported as outcomes of research funding.

## Table 19: The number FTE (Full Time Equivalent) jobs created due to project funding, awards started 2019 to 2023

### Summary

The number of awards in the Project Completion Form reporting Full Time-Equivalent (FTE) job outcomes, and the number of FTE jobs created, for awards starting during each year from 2019 to 2023.

### Definitions

The source of data: Project Completion Form only.

Number of awards: This is a distinct count of the projects with FTE jobs created as a result of the funding and does not reflect the number of project participants reporting FTE jobs created.

Number of FTE jobs created: The number of jobs were capped to a maximum of 10 FTE jobs per project before being summed across all projects.

### Limitations

Participants provide an estimate of the number of jobs created/retained during the project.

### Table 20: The number of new products, services, and processes, awards started 2019 to 2023

#### Summary

The number of products, processes or services in the Project Completion Form with planned production within a year, for awards starting during each year from 2019 to 2023.

#### Definitions

The source of data: Project Completion Form only.

Summarises the number of products, processes and services with planned production within the year, as an outcome of funding.

## 7. Underlying data extract

### Table 2: Competitively awarded applications in 2023-2024

The data summarised in Table 2 is also broken down further and published alongside the annual report in a separate MS Excel file. This MS Excel file includes Research and Innovation awards and Fellowships.

#### The following additional information

Award category: The number and value of decisions made in 2023-24 aggregated by UKRI Council and award Category.

Organisation: The number and value of decisions made in 2023-24 aggregated by Lead organisation.

Organisation by Owner: The number and value of decisions made in 2023-24 aggregated by UKRI Research Council or Fund and Lead Organisation applying.

Organisation by lead and collaborating: The number of decisions made in 2023-24 aggregated by lead and collaborating organisations.

Awards: Details of the awards offered in 2023-24 including Funder, Grant Category, Grant Reference, Amount awarded, Project title, Lead Organisation Flag, Organisation and amount awarded. This data is a subset of the data available in [Gateway to Research](#), which provides more detail about the award, collaborating organisations and reported impact.

Awards collaborating details: Details of the awards offered in 2023-24 including Collaborating and Lead Organisations, Principal Investigators, Co-Investigators and Fellows.

Awards that are commercially sensitive have been removed from the following tabs in the competitive funding decisions excel file: 'Awards' and 'Awards Collaboration Details.' This includes:

- Commercial organisations applying for Research Council funding.
- Organisations applying for Innovate UK funding.

## 8. Dashboard

### 8.1. Investment dashboard

- UKRI funding decisions in 2023-24
- Lead and collaborating organisations in 2023-24

#### UKRI funding decisions in 2023-24

The dashboard can be filtered by measure: number of awards; value of awards; award rate by number; award rate by value; award category; and UKRI council. The circles at the top of the dashboard show the selected measures for each council, with the UKRI total shown on the left.

The map on the bottom left shows the selected Measure by the UK Region of the lead Research Organisation on the award. Only includes lead organisations where the region is known.

The scatter graph on the middle right shows the number of applications against the number of awards for each Research Organisation. Each point represents a Research Organisation.

The box plots on the bottom right show the selected Measure by Council and Research Organisation. Each column represents a council. Each circle represents a Research Organisation.

## Lead and Collaborating Organisations in 2023-24

Research and Innovation awards only from Je-S and TFS.

The dashboard can be filtered by:

- Organisation: Select the organisation that you wish to view data for.
- Lead to Collab: The selected organisation is the lead organisation on the research, and the other organisations are collaborating.
- Collab to Lead: The selected organisation is a collaborating organisation, and the other organisations are the lead.
- Collab to Collab: The selected organisation and the other organisations are all collaborating organisations and are not leading.
- UKRI Council: Choose a specific Research Council or Pan-UKRI Fund.
- Applications, Awards and Award Rates for <selected organisation>: Shows the number of applications, awards and the award rate for the selected organisation. Broken down by the role of the selected organisation: Lead and Collab. Includes a total across the roles.
- Number of organisations collaborating with <selected organisation>: The distinct count of organisations collaborating with the selected organisation broken down by relationship. Includes a total across the relationship types.
- Location of <selected organisation>: Two maps showing the location of the selected organisation; one map of the world based on the country of the organisation, and one map of the UK based on the postcode of the organisation.
- Location of the organisations collaborating with <selected organisation>: Two maps showing the location of the organisations collaborating with the selected organisation. Tooltips show the relationship between the organisations. The world map is based on the country of the organisation. The UK map is based on the postcode of the organisation.

## 8.2. Outputs dashboard

### Overview

This has high level figures for total awards with outputs; percentage of total awards in the system with outputs; value of awards with outputs and number of Research Organisations (ROs) with outputs.



The two graphs show the number of awards with outputs and the number of outputs. The x-axis can be changed to show output type, award start date or output date. It can be filtered by output type; UKRI Council; award year; and output year.

## Publications

Number of awards with x publications show the frequency distributions of publications, e.g., how many awards have 1 publication, 5 publications, 10 publications etc.

Time-lag between award start date and publication date in years: the frequency distributions for the length of time in years between an award starting and a publication reported, attributed to that award.

Award year to publication year cohorts: colour coded cohorts based on the year the award started. Shows the range of publication years for each cohort.

% of total awards with a Publication (actual/predicted): the percentage of the total awards in the system that have a publication attributed to them. Actual shows the figures as of 31/03/2024. Predicted forecasts the expected percentage for the latest two years using exponential smoothing.

Average number of publications per award: the average number of publications per award for each and all publication types.

Number of publications: the number of publications for each and all publication types.

## Collaborations

Map: to show the global scale of the countries our researchers collaborate with.

Number of awards with collaborations and collaborators: the number of awards with collaborations, the number of collaborations with these awards and the number of collaborators with these awards.

Average number of collaborations and collaborators per award: the average number of collaborations and collaborators per award.

% Total Awards with a Collaboration (actual/predicted): the percentage of the total awards in the system that have a collaboration attributed to them. Actual shows the figures as of 31/03/2024. Predicted forecasts the expected percentage for the latest two years using exponential smoothing.

Awards involving UK or international based collaborators: the number of awards broken down by the location of the collaborator: UK only, International only or Both.

Collaborators based in UK or internationally: the number of collaborators broken down by the location of the collaborator: UK only, International only or Both.

Collaborator sector: the number of collaborators broken down by the sector of the collaborator: Academic/University/Learned Society; Charity/Non-Profit; Other (including unknown); Private; and Public (including NHS Trusts).

### **Other knowledge generation**

Number of awards with x outputs show the frequency distributions of other knowledge generation, e.g., how many awards have 1 publication, 5 publications, 10 publications etc.

Time-lag between award start date and output date in years: the frequency distributions for the length of time in years between an award starting and a publication attributed to that award.

Award year to output year cohorts: colour coded cohorts based on the year the award started. Shows the range of output years for each cohort.

% total awards with other knowledge generation (actual/predicted): the percentage of the total awards in the system that have an instance of other knowledge generation attributed to them. Actual shows the figures as of 31/03/2024. Predicted forecasts the expected percentage for the latest two years using exponential smoothing.

Average number of outputs per award: the average number of outputs per award for each and all other knowledge generation types.

Number of outputs: the number of other knowledge generation outputs.

### **Engagement**

Time-lag between award start date and engagement date: the frequency distributions for the length of time in years between an award starting and an engagement activity attributed to that award.

Global reach: the number of engagement activities broken down by the reach of the engagement: Local; Regional; National; International.

Number of engagements: the number of engagement activities.

Average number of engagements per award: the average number of engagement activities per award for each and all engagement types.

% of total awards with engagement activities(actual/predicted): the percentage of the total awards in the system that have an engagement activity attributed to them. Actual

shows the figures as of 31/03/2024. Predicted forecasts the expected percentage for the latest two years using exponential smoothing.

Primary audience: the number of engagement activities broken down by the primary audience: Industry/Business & Professionals; Public; Academic; Other audiences; Policymakers/Politicians; Charities.

### **Intellectual property**

Number of awards with x instances of IP: the frequency distributions for the length of time in years between an award starting and an instance of IP attributed to that award.

Time taken between award start date and date protection granted: the frequency distributions for the length of time in years between an award starting and an instance of IP attributed to that award.

Protection granted: instances of IP broken down by the level of protection granted.

Average instances of IP per award: the average instances of IP per award.

% of total awards with IP (actual/predicted): the percentage of the total awards in the system that have an instance of IP attributed to them. Actual shows the figures as of 30/06/2020. Predicted forecasts the expected percentage for the latest two years using exponential smoothing.

Is the IP licenced? instances of IP broken down by whether the IP is licensed, unlicensed or commercial in confidence.

### **Further funding**

Number of awards with x instances of further funding: the frequency distributions for the length of time in years between an award starting and an instance of IP attributed to that award.

Time taken between award start date and further funding start date: the frequency distributions for the length of time in years between an award starting and an engagement activity attributed to that award.

Instances of further funding: the instances of further funding broken down by the type of funding: Capital/infrastructure (including equipment); Fellowship; Other type; Research grant (including intramural programme); Studentship; Travel/small personal.

Average instances of further funding per award: average instances of further funding per award broken down for each and all funding types.

% of total awards with further funding (actual/predicted): the percentage of the total awards in the system that have an instance of further funding attributed to them. Actual shows the figures as of 31/03/2024. Predicted forecasts the expected percentage for the latest two years using exponential smoothing.

Map: to show the reach of countries from which our researchers receive further funding from.

### 8.3. Output data exponential smoothing

This is a predicted forecast algorithm which attempts to find a regular pattern in measures that can be continued in the future, at least 5 data points are required to estimate a trend. Simple Exponential Smoothing iteratively forecasts future values of a regular time series, from weighted averages of past values of the series. The model computes the next level or smoothed value from a weighted average of the last actual value and the last level value. The method is exponential because the value of each level is influenced by every preceding actual value to an exponentially decreasing degree — more recent values are given greater weight.

## 9. Contacts

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