



**UK Research
and Innovation**

A guide to UKRI competitive funding data from 2015-16 to 2019-20

UK Research and Innovation

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1. Introduction

This document provides a comprehensive guide to the UKRI competitive funding data from 2015-16 to 2019-20 published by UK Research and Innovation.

The key areas covered in this guide are:

- Background to published data
- Definitions and coverage
- Data processing

1.1 Uses and Users

The published data are used frequently in answers to parliamentary questions and public enquiries, including those made under the Freedom of Information Act.

The data are used internally as a base dataset to understand more widely the impact of funding decisions on for example place, and equality, diversity and inclusion. The data are used by the academic research community and by central government, Department for Business, Energy and Industrial Strategy.

2. Background to published data

UKRI brings together the seven Research Councils, Innovate UK, and Research England into one organisation.

These datasets show the competitive funding decisions made by UKRI from the 1 April 2015 to the 31 March 2020.

The same data and methodology as used in the 2019-20 and 2018-19 publications (see section 2.1 Historical Publications) have been used for the five-year period covered in this publication to allow trend analysis and historical comparison for all councils incorporated under UKRI.

2.1 Historical Publications

The UKRI publication for 2018-19 is available here:

<https://www.ukri.org/about-us/what-we-do/funding-data/decisions-on-competitive-funding-2018-19/>

The latest UKRI publication for 2019-20 is available here:

<https://www.ukri.org/about-us/what-we-do/funding-data/decisions-on-competitive-funding-2019-20/>

Prior to the formation of UKRI award rate data was individually published by councils. This UKRI-wide publication replaces previous methodologies and as such the following council award rate publication sites will no longer be updated.

<https://ahrc.ukri.org/about/competitionstatistics/>

<https://bbsrc.ukri.org/funding/post-application/success-rates/>

<https://epsrc.ukri.org/funding/fundingdecisions/successrates/>

<https://esrc.ukri.org/about-us/performance-information/application-and-award-data/>

<https://mrc.ukri.org/research/funded-research/success-rates/>

<https://nerc.ukri.org/funding/application/outcomes/success/>

<https://stfc.ukri.org/funding/funded-grants/grant-success-rates/>

3. What is the UKRI competitive funding decisions

This document describes the public commitment to research and innovation through UKRI competitive funding demonstrated in the data set release and the dashboard representation. It provides an indication of the demand from the community and their response to our funding opportunities.

Competitive funding is not reflective of all the UKRI budget. It doesn't include strategic funding (such as block grants to institutes), training awards including studentships or quality related research funding from Research England. These can be found in the financial statements of the Annual Report.



The released dataset shows the number and value of competitive funding decisions made and which of these decisions are successful, broken down into the following categories:

Grant Category: The number and value of decisions made from 2015-16 to 2019-20 aggregated by UKRI Council, Grant Category and Financial Year.

Organisation: The number and value of decisions made from 2015-16 to 2019-20 aggregated by Lead organisation and Financial Year. Detail for organisations funded by Innovate UK and Research England are not included due to commercial sensitivity.

Organisation by Council: The number and value of decisions made from 2015-16 to 2019-20 aggregated by UKRI Research Council, Lead Organisation and Financial Year. Detail for organisations funded by Innovate UK and Research England are not included due to commercial sensitivity.

Organisation by lead and collaborating: The number of decisions made from 2015-16 to 2019-20 aggregated by lead and collaborating organisations and Financial Year. Detail for organisations funded by Innovate UK and Research England are not included due to commercial sensitivity.

Awards: Details of the awards offered from 2015-16 to 2019-20 including Financial Year, UKRI Council, Grant Reference, Amount awarded, Project title, Lead Organisation Flag, Organisation. Some awards may have been declined by the Organisation after the award offer. Gateway to Research provides more detail about the award, collaborating organisations and reported impact.

Awards collaborating details: Details of the awards offered from 2015-16 to 2019-20 including Collaborating and Lead Organisations, Principal Investigators, Co-Investigators and Fellows.

4. Definitions

Number of applications: This is the number of applications that were considered for funding between 1 April 2015 and 31 March 2020, regardless of when the application was received.

Number of awards: This is the number of applications where there was a successful decision to fund. A decision to fund an application is made based on the research quality of the proposal assessed by peer review.

Applied value: the amount requested by the applicant at the point of application.

Awarded value: the total amount committed by UKRI to spend over the duration of the grant. It is not reflective of actual expenditure. For information on UKRI expenditure please see the UKRI Annual Report and Accounts.

The award rate: by number and by value is the total number/value of positive decisions taken to fund applications as a percentage of the total number/value of applications that were considered for funding.

Award rate by number

$$= \left(\frac{\text{total number of application with a positive decision}}{\text{total number of applications considered for funding}} \right) \times 100$$

Award rate by value

$$= \left(\frac{\text{amount awarded}}{\text{amount applied for}} \right) \times 100$$

Organisation: The organisations who applied for UKRI funding. This list contains organisations with the following types:

- Academic/University/Learned Society
- Charity/Non-Profit
- Private
- Public (inc. Hospitals)
- Other (inc. blank)

Grant Category: Research and Innovation Grants and Fellowships are included. This dataset excludes Studentships, Outline Grants, and directed strategic funding to Centres, Institutes and Units.

Lead and Collaborating: Lead and Collaborating organisations are defined by the roles of the individuals on the application. Principal Investigators, Co-Investigators and

Fellows are included. Researcher Co-Investigators, Researchers, Visiting Researchers and Technicians are not included.

Table 1 below shows the roles used to define lead and collaborating organisations by grant category.

| | Research and Innovation Grant | Fellowship |
|-----------------------------------|--------------------------------------|-------------------|
| Lead Organisation | Principal Investigator | Fellow |
| Collaborating Organisation | Co-Investigator | Co-Investigator |

TABLE 1 – ROLES USED TO DEFINE LEAD AND COLLABORATING ORGANISATIONS

5. Data Processing

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

5.1 Data Sources

The data are collected from:

- Joint electronic Submission system (Je-S) for the Research Councils (66% of the dataset)
- Innovation Funding Service (IFS) and the application process used prior to IFS for Innovate UK (33% of the dataset)
- Research England’s application process (1% of the dataset)

5.1.1 Data Availability

- Research Council data is available for all years covered in the publication (2015-16 to 2019-20).
- Innovate UK data is available for all years covered in the publication (2015-16 to 2019-20).
- Research England data is available from 2018-19 to 2019-20 as Research England formally came into being on the 1st April 2018.

5.2 Data Union

The data from the different systems have been brought together with a singular methodology using similar data fields. Table 2 below demonstrates the fields used in the publication for each data source.

| Field Name | Je-S (Research Councils) | Innovation Funding Service (Innovate UK) | Application process for Research England |
|-------------------------------|---|---|---|
| Grant Category | Grant Category (Research Grant, Fellowship) | Assigned “Research and Innovation Grant” | Assigned “Research and Innovation Grant” |
| Reference | Grant Reference | Application Number | Grant Reference |
| Lead Organisation Flag | Primary Flag | Is Lead Participant | N/A |
| Organisation | Research Organisation | Organisation | Organisation |
| UKRI Council | Research Council | Innovate UK | Research England |
| Amount Applied For | Amount Applied For (80% fEC ¹) | Amount Applied For | Amount Applied For |
| Amount Awarded | Amount Awarded (80% fEC) | Amount Awarded | Amount Awarded |

TABLE 2 – COMMON DATA FIELDS ACROSS THE DATA SOURCES USED IN THE UNION

5.3 Decision Date

The decision date represents the actual date that the grant application was authorised or rejected for funding. Across UKRI there are slightly different processes for making this decision and the most appropriate has been chosen for each data source:

For Research Councils data:

Three date fields are used in a priority order. The Authorised Date is used first. If the Authorised Date is null then the Rejected Date is used. If both the Authorised Date and

¹ Full Economic Cost

the Rejected Date is null, then the Communicate Decision Date is used. If all three are null, then the record is not included.

Authorised Date: This is the date when the grant application is authorised for funding on the system. Only successful applications have a populated Authorised Date.

Rejected Date: When the grant application is rejected for funding on the system.

Communicate Decision Date: In lieu of an Authorised Date or Rejected Date, this is the date when the applicant is told if they are successful or not. Occurs before the authorised or rejected date.

For Innovate UK data:

Date of the panel assessment meeting: When the panel meets to assess and decide the grant applications for funding.

For Research England data:

Date of the panel assessment meeting: when the panel meets to assess and decide the grant applications for funding.

5.4 Data Removed

For all breakdowns of data, except Grant Category, awards that are commercially sensitive have been removed. This includes:

- Commercial organisations applying for Research Council funding.
- Organisations applying for Innovate UK funding.
- Organisations applying for Research England competitive funding.
- Applications that have been administered by Research England for UKRI funding.

5.5 Data Quality

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

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 competitive funding through funding opportunities.

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

The applied for and award values have been rounded to the nearest 1000 for clarity. Full award values are available on Gateway to Research.

In the case of the Research Councils the lead organisation is based on the Research Organisation that led on the grant application. The collaborating organisation is based on the Je-S account of the Co-Investigator, not the grant application details, and may be incorrect as researchers change organisations.

For Research Council data the region of an organisation is based on the postcode contained in the organisation's Je-S account.

There are instances when an award appears in multiple financial years. This will be where multiple decision dates are recorded against the grant record. This can occur in Research Council data when a Communicate Decision Date for a grant record is in one financial year but the Authorised or Rejected Date is in the next financial year.

Depending on when the data is pulled either the Communicate Decision Date is used or the Authorised or Rejected Date is. As in the priority order described in section 5.3 **Decision Date** at any given time the Communicate Decision Date could be populated but the authorised/rejected date is null. If later the Authorised/Rejected Date is populated, and the next data pull happens after the date is populated, then this takes precedence over the earlier used Communicate Decision Date, and the grant record appears in two financial years. See Table 3 below for an example.

| | Comm Decision Date | Authorised/Rejected Date | Decision Date |
|---------------------------------------|--------------------|--------------------------|---------------|
| 1 st Data Pull in FY 18-19 | FY 18-19 | null | FY 18-19 |
| 2 nd Data Pull in FY 19-20 | FY 18-19 | FY 19-20 | FY 19-20 |

TABLE 3 – EXAMPLE OF A GRANT RECORD WITH MULTIPLE DECISION DATES IN MULTIPLE FINANCIAL YEARS

There are also very rare instances of grant records with multiple Authorised and/or Rejected Dates across multiple financial years for legitimate reasons such as being rejected, the applicant appealing the decision but then it is rejected again.

5.6 Differences from 2019-20 and 2018-19 publications

Additional funding decisions captured outside Je-S, IFS and Research England's application process such as rapid response funding, opportunities administered by funders outside of UKRI and grants awarded to MRC Institutes, Units and Centres have not been included, despite their inclusion in the 2018-19 and 2019-20 publications.

6. Dashboard

Alongside the data release are three dashboards showing a visual representation of:

- UKRI Competitive Funding Decisions from 2015-16 to 2019-20
- Lead and Collaborating Organisations from 2015-16 to 2019-20
- Time Series of Competitive Funding Decisions from 2015-16 to 2019-20

6.1 UKRI funding decisions from 2015-16 to 2019-20

The dashboard can be filtered by:

- Measure: number of awards; value of awards; award rate by number; award rate by value;
- Grant category;
- UKRI council;
- Financial Year
- Organisation. Only Organisations with the type "Academic/University/Learned Society" are available to filter by.

The circles at the top of the dashboard show the selected measures for each council, with cross-council funds on the right and the UKRI total shown on the left. All types of Organisations are included.

The map on the bottom left shows the selected Measure by the UK Region of the lead Organisation on the award. Only includes lead organisations where the region is known. Only Organisations with the type "Academic/University/Learned Society" are included. Innovate UK and Research England data are excluded due to commercial sensitivity.

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

Organisations with the type “Academic/University/Learned Society” are included. Innovate UK and Research England data are excluded due to commercial sensitivity.

The box plots on the bottom right show the selected Measure by Council and Organisation. Each column represents a council. Each circle represents an Organisation. Only Organisations with the type “Academic/University/Learned Society” are included. Innovate UK and Research England data are excluded due to commercial sensitivity.

6.2 Lead and Collaborating Organisations from 2015-16 to 2019-20

Research and Innovation Grants only. Research Councils only.
Academic/University/Learned Society organisation type only.

The dashboard can be filtered by:

- Organisation: Select the organisation that you wish to view data for.
- Relationship:
 - 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.

The bar chart on the top left “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.

The bar chart on the middle left “Number of organisations collaborating with <selected organisation>” shows the distinct count of organisations collaborating with the selected organisation broken down by relationship. Includes a total across the relationship types.

The map on the top right “Location of <selected organisation>” is two maps showing the location of the selected organisation; one of the world based on the country of the organisation, and one of the UK based on the postcode of the organisation.

The two maps on the bottom “Location of the organisations collaborating with <selected organisation>” show 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.

6.3 Time Series from 2015-16 to 2019-20

Research Councils only. Academic/University/Learned Society organisation type only. Only organisations that have at least 2 awards across at least 2 financial years have been included.

The dashboard can be filtered by:

- UKRI Council
- Grant Category
- Organisation
- Role

On the left-hand side appear a column of shapes (either squares or triangles) which show the absolute difference between the mean of the selected organisation against the overall mean for all organisations for each measure.

Measures:

- Number of applications (# applications)
- Number of awards (# awards)
- Sum of value applied for (£ applied)
- Sum of value awarded (£ awarded)
- Award rate by number (# award rate)
- Award rate by value (£ award rate)

Hover your mouse over the top left text “hover here for overall mean” to see a table of the overall mean for all organisations.

Hover your mouse over the “?” to see an explanation of the shapes.

The top left graph shows the number of applications and awards each year, with the blue line showing applications and the yellow line showing awards. The thin horizontal lines behind are the mean for the selected organisation.



The top right graph shows the award rate by number each year. The thin horizontal line behind is the mean for the selected organisation.

The bottom left graph shows the values applied for and awarded each year. This graph can be changed to show either the sum or the mean of the values. The horizontal line behind is the mean for the selected organisation. This graph will only appear when the Role selected is Lead or All to prevent duplication of values.

The bottom right graph shows the award rate by value each year. The thin horizontal line behind is the mean for the selected organisation. This graph will only appear when the Role selected is Lead or All to prevent duplication of values.



7. Contacts

Data questions:

Contact UKRI Data Team: data@ukri.org

General enquiries:

Contact: 01703 44400 or communications@ukri.org



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