



UK Research
and Innovation

Performance Metrics 2020-21



Inputs: Research and Innovation Grants, Fellowships and Studentships

UKRI fund research and innovation on a competitive basis, individual applications are assessed by relevant independent experts from academia and business.

The data in the following tables includes competitive funding data for Research Councils, Innovate UK, and Research England. It includes activity from 1st April 2020 to 31st March 2021. The data are collected from: Joint electronic Submission system (Je-S) for the Research Councils; Innovation Funding Service for Innovate UK; Research England's application process; Additional funding decisions captured outside core funding systems

The data from the different systems have been brought together with a consistent methodology using similar data fields available.

The data is presented below in a series of tables showing: the demand from the research and innovation sector with the number of applications received in a year; the number of successful decisions to fund that lead to an award and the value of that commitment, with the contribution made by project partners; who our funding actively supported over the year with the number of grants, people, organisations, and types of organisations supported and the studentships that are supported.

Table 1: Applications received in 2020-21

Applications received is the volume of funding applications submitted to UKRI in 2020-21, the number of organisations leading on the application for funding and the life-time cost of the funding requested.

Grant Category	Number Applications	Number Organisations	Applied Value £m
Research and Innovation Applications	22,493	13,153	11,760
Fellowships	3,147	406	2,437
COVID-19 Rapid Response & UKRI response to COVID	20,822	13,362	3,346
Total	46,462	23,409	17,544

- 12 Research and Innovation Applications have been excluded from the dataset as the value applied for exceeded the value allowed.
- The applied for value is the life-time costs requested in the application.
- The count of organisations includes lead organisations only for Research Councils and Research England, and lead and partner organisations for Innovate UK.
- Total count of organisations is lower than the sum of organisations applying for Research and Innovation funding and Fellowships, as some organisations will be counted under both categories.

Table 2: Funding decisions in 2020-21

The number of funding decisions made in 2020-21 by number and value.

Grant Category		Competitive Funding Decisions	Successful Decisions to Fund	Award Rate %
Research and Innovation Applications	By Number	19,497	4,144	21
	By Value (£m)	10,046	2,770	28
Fellowship	By Number	2,355	524	22
	By Value (£m)	1,641	351	21
COVID 19 Rapid Response & UKRI response to COVID	By Number	17,256	3,381	20
	By Value (£m)	2,931	551	19
Total	By Number	39,108	8,049	21
Total	By Value (£m)	14,618	3,671	25

- The number and value of applications received is not directly comparable to awards made in 2020-21. The decisions on applications received in 2020-21 may not be made in the same financial year
- The numbers represent the number of awards on the 1st April 2021. Due to external factors some awards may not result in funding to applicants.

Table 3: Project partner contributions on awards in 2020-21

Project partners are reported at the point of application with the applicants' estimate of the financial value of their contribution to the research. The type of organisation shows the breadth of organisations that our supported researchers are working with and the financial contribution to the partnership; this includes direct investment and in-kind contributions.

Of the successful decisions these are the project partner contributions:

Project Partner Sector	Number Awards	Number Partnerships	Number Organisations	Total Contribution £m
Academic/University/Learned Society	663	1,477	769	237
Charity/Non-profit	154	238	193	8
Private	2,439	4,572	3,604	991
Public (Including NHS trusts)	419	780	473	67
Other (including blank)	558	1,179	1,010	45
Overall total across the sectors	3,142	8,246	6,049	1,389

- The Number of organisations is the count of unique organisations involved in partnerships; organisations may be involved in more than one partnership.
- Research England do not attribute co-investment to a project partner so are unable to give counts of partnerships and organisations within the different sectors.
- Total awards are lower than the sum of awards across sectors, as one award can involve many project partners from different sectors.

Table 4: Who our funding actively supported in 2020-21

Who our funding supports demonstrates the number of people and organisations who received funding in 2020-21. We support individual people as Principal Investigators, Co-Investigators, Fellows, Researcher Co-Investigators and Students.

Grant Category	Number Awards	People (Individuals)	Number Organisations
Fellowships	1,815	1,881	123
Research and Innovation Awards (including COVID19)	17,629	27,960	3,855
Studentships	29,276	28,979	118
Studentships of which started within the 2020-2021 financial year	5,243	5,216	90
Total	48,720	58,280	3,872

- Lead organisations as reported at the application stage of the award.
- Research England and Innovate UK track the organisations they fund, not the people involved, so are unable to count the individuals involved.
- The figures are distinct instances of award reference, people and organisations under all categories.
- There are Fellowships with a Co-Investigator on the award.
- Students can be registered to more than one Studentship award.

Table 5: Organisations supported in 2020-21

The type of organisation supported shows the variety of organisations receiving funding across the research and innovation landscape.

Organisation Type	Number Organisations
Academic/University/Learned Society	307
<i>of which are UK HEP</i>	137
Charity/Non-Profit	17
Private	3,449
<i>of which are SME</i>	3,167
Public (including NHS trusts)	57
Other (including blank)	42
Total	3,872

- HEP, Higher Education Provider as defined by HESA <https://www.hesa.ac.uk/support/providers>.

Table 6: Number of Research Council funded PhDs submitted by calendar year

Research Councils conduct a yearly submission survey, which captures those students who have been submitted for qualification within 2020.

Year Submitted	Number of PhDs submitted 2019	Number of PhDs submitted 2020
2016	4,338	4,330
2017	4,441	4,424
2018	4,348	4,710
2019	1,244	4,567
2020	-	1,071

- The drop-in number of PhDs submitted in 2020 is due to the time lag between a student submitting their PhD and the student submission survey to be completed.
- Numbers of PhDs submitted by year are liable to change, the data is from an administrative data set that is continuously updated.

Outputs: Research and Innovation Grants and Fellowships

Research and Innovation, fellowships and studentships grant holders are normally expected to report their research outputs, these are tangible results such as publications, engagement activities, spinouts created for example. The outputs reported here are a narrow reflection of the diverse activities that UKRI funds. The data is for Research Councils and Innovate UK. Research England are currently not included. The data are collected using researchfish® for the Research Councils and by annual survey for Innovate UK.

Research Councils have used the researchfish® system to collect outcomes since 2014. Lead applicants are required to report emerging outputs, outcomes, and impacts for the duration of their award and for at least five years beyond. The Lead applicant can invite delegates to contribute to the return at any point. 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 are taken from the submission period that closed March 2021.

Innovate UK has used an online survey tool since February 2018, Innovate UK Project Completion Form (PCF). This is used to collect outcome information from all project participants when the project nears completion and reflects their individual outputs and outcomes. Each participant is routed through the survey depending on their organisation type, role in the project, and responses to questions. The outcome survey is completed once for each project, outputs are not tracked once the funding ends.

Data from the two collections has been combined and is presented below in a series of tables showing numbers of outcomes by year of award starting. The data are self-reported and not meant to be exhaustive of all outputs realised.

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

Table 7: Number of Awards in each system

Year Award Started	2016	2017	2018	2019	2020
researchfish®	3,688	3,830	3,623	3,400	3,544
Innovate – Project Completion Form (PCF), number of projects	234	1,001	885	554	322
Innovate – number of participants completing a PCF	683	1,921	1,535	835	392
Total	3,922	4,831	4,508	3,954	3,866

■ The total number of awards is the number of awards in researchfish® and the Innovate - Project Completion Form, number of projects.

Table 8: Collaborations and type of collaborators

Research collaborations might take the form of joint funding, exchanging expertise, access to wide ranging facilities and equipment, accessing datasets, working across different sectors and bringing together inter-disciplinary teams required to tackle complex problems. This indicator highlights new collaborations as reported after the award has started. It relates to the maturity of the multi-year grant, with the increase due to cumulative collaborations monitored over time. Researchers may also report collaborations that were in place at the point of application. Collaborations are only included in the indicator for the year the award started but the collaboration may continue for several years after this date.

Year Award Started		2016	2017	2018	2019	2020
Instances of Collaborations		6,627	7,361	5,405	3,946	1,827
Instances of Collaborators		8,866	10,806	7,614	5,576	2,475
Types of Collaborators	Academic/University/Learned Society	4,409	5,388	3,861	2,893	1,004
	Charity/Non-Profit	1,058	1,407	846	753	351
	Other (inc unknown)	386	566	481	563	481
	Private	1,797	1,980	1,338	628	252
	Public (inc. Hospitals)	1,216	1,465	1,089	739	387
	Number of Awards reporting more than one Collaboration	2,011	1,968	1,671	1,313	685
	Percentage of Total Awards reporting more than one Collaboration	55	51	46	39	19
	Total Number of Awards	3,688	3,830	3,623	3,400	3,544

- Research Councils only.
- Definition of Collaboration, an interaction or set of interactions focused on a distinct project.
- Definition of Collaborator, all the participating institutions involved in collaborations.
- Total count of Collaborations will be lower than the count of Collaborators, as one collaboration can involve many collaborators.

Table 9: UK and International Collaborators

International collaboration shows that researchers are collaborating and exchanging expertise around the world and gaining access to international facilities and infrastructure. This indicator highlights new collaborations as reported after the award has started. It relates to the multi-year grant, with the increase due to cumulative collaborations monitored over time. Collaborations are only included in the year the award started but the collaboration may continue for several years after this date.

Year Award Started	2016	2017	2018	2019	2020
Number of Awards with only UK collaborators	599	605	560	433	265
Number of UK collaborators involved	1,536	1,248	1,230	934	576
Number of awards with only International collaborators	619	574	520	461	199
Number of International collaborators involved	1,191	1,219	1,028	810	362
Number of awards with both UK and International collaborators	762	759	553	386	159
Number of UK collaborators involved	3,126	3,875	2,650	1,742	563
Number of International collaborators involved	2,686	3,879	2,204	1,509	491

- Research Councils only.
- Data only includes Collaborators where the location of the Collaborator is known.

Table 10: Engagement Activities

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.

Year Award Started	2016	2017	2018	2019	2020
Instances of Engagement Activities	36,032	40,853	23,400	17,837	4,668
Number of Awards reporting more than one Engagement Activity	2,573	2,616	2,275	1,780	946
Percentage of Total Awards reporting more than one Engagement Activity	70	68	63	52	27
Total Awards	3,688	3,830	3,623	3,400	3,544

■ Research Councils only.

Table 11: Knowledge Generation

We measure how and when our researchers publish. This supports the dissemination of research finding to a wider audience and increases the visibility of research.

Year Award Started	2016	2017	2018	2019	2020
Books Chapters	1,650	1,333	846	492	91
Book	634	482	293	186	39
Journal Articles	42,151	42,602	26,947	14,865	3,512
Other Publications	7,812	10,227	5,649	4,469	1,047
Total Instances of Publications	52,247	54,644	33,735	20,012	4,689
Number of Awards reporting more than one Publication	3,312	3,312	2,908	2,136	933
Percentage of Total Awards with more than one Publication	84	69	65	54	24
Total Awards	3,922	4,831	4,508	3,954	3,866

■ Instances of publications is not a count of unique publications. Duplicate publications may occur where different researchers have entered similar information independently of one another. Publications may also occur from more than one award. Efforts have been made to remove some duplications using Digital Object Identifier (DOI), but not all publications have a DOI.

■ Other publications include for example, edited book, conference paper, policy briefing.

Table 12: Other Types of Knowledge Generation

In addition to Publications we measure different ways in which our research translates into types of knowledge outputs across the research and innovation sector. Other types of knowledge generation are included below.

Year Award Started	2016	2017	2018	2019	2020
Artistic and Creative	1,218	1,497	832	676	342
Medical Products, Interventions and Clinical Trials	101	116	111	42	26
Research Models and Databases	1,929	2,297	1,678	824	317
Research Tools and Methods	1,091	1,408	1,058	483	244
Software and Technical Products	812	922	775	330	127
Total instances of Other Knowledge Generation	5,151	6,240	4,454	2,355	1,056
Number of Awards reporting at least one instance of Other Knowledge Generation	1,616	1,644	1,387	936	412
Percentage of Total Awards with at least one instance of Other Knowledge Generation	44	43	38	28	12
Total Awards	3,688	3,830	3,623	3,400	3,544

■ Research Councils only.

Table 13: Awards that have obtained further funding

Researchers also obtain funding to continue or advance their work. This data includes additional funding from UKRI and other funders.

Year Award Started	2016	2017	2018	2019	2020
Instances of Further Funding	6,676	6,757	4,342	2,089	679
Number of Awards with at least one instance of Further Funding	1,889	1,829	1,425	1,000	397
Percentage of Total Awards with at least one instance of Further Funding	48	38	32	25	10
Total Awards	3,922	4,831	4,508	3,954	3,866

■ Research Councils only.

Table 14: Awards that have resulted in instances of Intellectual Property

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.

Year Award Started	2016	2017	2018	2019	2020
Instances of IP	275	289	154	56	13
Number of Awards reporting at least one instance of IP	162	183	101	46	10
Percentage of Total Awards with at least one instance of IP	4	5	3	1	0
Total Awards	3,688	3,830	3,623	3,400	3,544

■ Research Councils only.

Table 15: Awards reporting a spinout

Researchers are asked to provide details of links between their research and the establishment of new private sector organisations, including for profit and not-for-profit organisations. Data provided in researchfish® has been verified using supplementary information to identify duplicate spin-out companies where applicable e.g. Companies House IDs for UK companies.

Spinout Status	Number of Spinouts	Number of Awards Attributed to the Spinouts
Total Spinouts	973	1,424
of which Active in March 2020	811	1,262

- Spinouts reported through researchfish® that have incorporated since 2004 combined with spinouts reported through the 2019 and 2020 Project Completion Forms.

Table 16: FTE jobs created

This the number of full-time equivalent jobs created as a result of the project funding.

Year Award Started	Number of Awards	Number of FTE Jobs created
2016	230	463
2017	990	1,628
2018	866	1,434
2019	534	757
2020	309	399

- Innovate UK only.
- The number of jobs has been capped to 10 FTE per award.

Table 17: Number of new products, services and processes

This is the planned production within a year of the project end. This is an indication of market impact as a result of the project.

Year Award Started	Planned production within a year
2016	106
2017	439
2018	405
2019	245
2020	118

- Innovate UK only.



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