

**Innovate UK**

# **Materials and Manufacturing Competition Guidance**

**Open:** 9 May 2016

**Registration Close:** noon 6 July 2016

**Competition Close:** noon 13 July 2016

**Eligibility:** All UK businesses

**Stream 1:** Projects with total eligible project costs of up to £100k and 12 months or less in duration

**Stream 2:** Projects with total eligible project costs of up to £2 million or between 12 and 36 months in duration.

**Projects of over £100k must be collaborative.**

**Register:** To enter this competition, the lead partner for your project must register via the [competition website](#).

## Background and Scope

The aim of this competition is to stimulate and broaden innovation in manufacturing and materials. Innovate UK will fund a range of projects that focus on technical or commercial challenges in this scope. These aim to lead to increased business productivity, competitiveness and growth, especially for SMEs. Your project may focus on technical feasibility, industrial research or experimental development. The type of innovation project will depend on the nature of the challenge facing your business.

We want to support a long term increase in UK manufacturing productivity, material efficiency and competitiveness. Innovation plays a vital role in this. This innovation could take many forms, for example:

- taking an innovative step in addressing the manufacturing capability of growing sectors
- the development of more flexible or efficient processes
- greater customisation of products to fit changing consumer needs
- diversification of product and service lines to serve new markets
- the development of innovative services that open up new sources of revenue from manufacturing

To be in scope, a project must cover one of the following areas:

- innovation in a manufacturing system, technology, process or business model. For example, in process engineering, industrial biotechnology, mechanical conversion processes, coatings, textiles, supply chain management, new product introduction processes or remanufacture
- innovation in materials development, properties, integration or reuse. For example, for lightweighting, energy generation and storage (such as heat and electricity), electronics/sensors or for operation in demanding environments. For the purposes of this competition, materials include, but are not limited to, nanomaterials, ceramics, metals and inter-metallics, polymers, composites, coatings, smart materials and joining of dissimilar materials

You must show how your proposal will enable a step change in productivity and competitiveness for at least one UK SME involved in the project.

The focus of your project must be on manufacturing or materials developments that have cross-sector capability .

**For further information with regard to scope, eligibility and funding please refer to the [competition brief](#).**

## Before you apply

Before you apply into an Innovate UK competition, it is important to understand the eligibility criteria, important dates, competition process and application form details. The information below is specific to this competition. In addition, the items below offer further guidance for you to complete your application.

### Rules governing how much funding your project could receive

This section provides information on the different categories of funding and the associated rules arising from our state aid framework. Find out more about our [funding rules](#).

### The project costs we fund and how to fill in the finance forms

This section contains detailed information on which project costs are eligible for funding and how to complete the finance forms. It also deals with submitting academic costs into the Je-S system (a requirement for all academic partners). Find out more about [Innovate UK project costs](#).

### Submitting your application

This section explains how to submit your application with accompanying finance forms and appendices. Find out more about [submitting your funding application](#).

Innovate UK complies with the requirements of the Data Protection Act 1998 and is committed to upholding the data protection principles. Further details with regards to the collection, storage, processing and disclosure of personal information by Innovate UK is accessible from the [personal information charter](#).

## Competition: *Materials and Manufacturing, Round 1 2016*

### Funding

There is up to £15m of funding available from Innovate UK, for research and development projects that tackle the technical challenges described in the [brief for this competition](#).

Stream 1: Projects with total eligible project costs of up to 100k and 12 months or less in duration. There is up to £5m of funding available for these types of project.

Stream 2: Projects with total eligible project costs of up to £2 million and between 12 and 36 months in duration. There is up to £10m of funding available for these types of project.

### Requirements and eligibility

- you may be eligible to receive different rates of funding depending upon the type and size of your organisation and the activity that you are doing in the project. Within your application form, you should select the primary type of research that you will be doing within the project and calculate the amount of grant you wish to claim, this should be in line with the [Innovate UK funding rules](#).

- projects of over £100k must be collaborative, those under £100k may be single or collaborative
- research organisations can participate in projects as collaborators. The level of total research participation is set at a maximum of 30% of total eligible project costs. If your consortium should contain more than one research organisation, this maximum will be shared between them
- only UK based companies and research organisations are eligible to apply
- if an application is unsuccessful, you may use the feedback received to re-apply for the same project once more into either another round of this competition or another competition
- any one company may be involved in up to 3 applications to this competition but may only be the lead partner in one application
- we may consider projects outside the ranges described above but you should contact us at least 10 days before the registration deadline to discuss further
- where a Company has had a previous grant(s) as the lead or sole company, no new awards will be made to that company if: no substantial efforts have been made to exploit previous grant(s) as described in the exploitation section of the application for the previous grant(s).
  - This will be decided by the sector team concerned using evidence from the monitoring officer reports and other sources which will be documented.
  - This decision will be made by at least 3 sector team members collectively.
  - The decision will be communicated in writing to the company by the lead technologist dealing with the new grant application.
  - The decision will not be contestable and Innovate UK will not enter into subsequent correspondence.

### Competition briefing event

There will be a briefing event for this competition on **23<sup>rd</sup> May 2016**.

The event will also be streamed online and recorded. It will cover the competition criteria and entry requirements and is an opportunity for you to get answers to any questions. To book a place on this event, please click on the following link which will take you to the event registration:

- [London](#)
- [Manchester](#)
- [West Midlands](#)
- [Webcast](#)

### Competition dates

Competition opens	<b>9<sup>th</sup> May 2016</b>
Competition briefing event	<b>23<sup>rd</sup> May 2016</b>
<b>Final date for registration</b>	<b>noon 6<sup>th</sup> July 2016</b>
<b>Submission of the full application</b>	
<b>(including Finance Forms, Appendices and Je-S Forms)</b>	<b>deadline: Noon 13<sup>th</sup> July 2016</b>
Decision to applicants	<b>by 31<sup>st</sup> October 2016</b>

The deadlines below are absolute and final. Please note that our submission deadlines are always at 12.00 noon and we are unable to accept any applications after this time.

If you are intending to submit an application into the competition, you or the lead applicant for your project must register for the competition. Registration closes 7 days before the submission deadline. Late registrations will not be accepted.

**Important Note: *Please do not leave your submission to the last minute.*** If any technical difficulties arise or if you identify any errors in your submission, we will not be able to grant an extension to the above deadlines.

## **COMPETITION PROCESS**

For this competition, Innovate UK will adopt a portfolio approach to ensure that the strategic criteria described in the competition brief is met for all projects deemed to be above the quality threshold as a result of independent expert assessment.

- submitted applications will be reviewed to ensure that they are in scope for the competition
- only applications that meet the scope of the competition will be sent for assessment
- applications in scope will be assessed by up to 5 external assessors who are experts in the area of innovation identified in your application
- assessors will score applications consistently and in line with scoring matrices and will provide written feedback for each marked question
- applications will be ranked in descending order. Applications are scored over a quality threshold which is reviewed against Innovate UK's strategy portfolio criteria for the competition. This is described in the competition brief
- the lead applicant will be notified of the funding decision
- all applications in scope for the competition will receive assessor feedback. In addition, those projects scoring over a quality threshold will receive additional feedback from the Innovate UK portfolio review. The additional feedback will cover why or why not the application was funded

## **How to apply and what happens next**

You will receive an email acknowledgement of your registration followed by an additional email up to 48 hours later. The second email will contain a username and password for our secure upload facility along with a unique application number and form.

**Application:** Once you have received your unique username and password, you can log into the secure website to access the finance forms for this competition.

**Please note: Only finance forms named 'Project Finance Form 2016.xls' will be accepted into this competition. Previous versions of the project finance form will be ineligible. When you register for the competition you will have access to our secure site. You will be able to download the finance form from the public area of this site.**

**Submit your documents.** You or your lead partner should submit:

- your application form supplied with your unique application number for this competition
- project appendices as PDF documents, labelled with your application number
- partner finance forms for every non-academic partner in your project
- Je-S submission PDF output document for every academic partner in your project, if any.

**Scope check:** Only applications that meet the eligibility criteria and scope of the competition will be sent for assessment. You will be notified if your application is out of scope with full reasons as to why. Innovate UK reserves the right to declare applications as out of scope.

**Assessment:** Once the competition submission deadline is reached, your application is sent for assessment.

Our assessment processes changed in May 2016. External, independent experts assess the quality your application. We will then select the projects that we fund, to build a portfolio of projects that are:

- high quality
- reflect a portfolio range as described in the scope
- address opportunities across a range of industrial sectors
- reflect the potential for short, medium and long term return on investment for the company and the UK

**Notify:** We will notify you or your lead partner of the outcome of your application on the date stated in the timeline.

**Feedback:**

We will give feedback to successful and unsuccessful applicants approximately 4 weeks after you have been notified of the decision. The lead applicant can access the feedback by logging on to the secure website where you uploaded your application documents. It is the responsibility of the lead partner to communicate the feedback with the rest of the consortium. No additional feedback can be provided and there will be no further discussion on the application.

For further information on what happens after you submit your application please visit [Innovate UK's guide to submitting your application](#).

## The application form

This section explains the structure of the application form and offers guidance on what to answer in each question.

To assist and guide you through the main questions, the bullets below set out the issues the assessors will be looking for applicants to address. They are not intended to be exhaustive and you may wish to provide other information of relevance. In addition, it may be that some of the points are less relevant to your project than others and that should guide your responses. You are encouraged to fully utilise all available space and any appendices of relevance, within the set space limits.

The structure is as follows:

- application details
- summary of proposed project

- public description of the project
- gateway question: scope
- **question 1: need or challenge**
- **question 2: approach and innovation**
- **question 3: team and resources**
- **question 4: market awareness**
- **question 5: outcomes and route to market**
- **question 6: wider impacts**
- **question 7: project management**
- **question 8: risks**
- **question 9: additionality**
- **question 10: costs and value for money**
- other funding from public sector bodies
- finance summary table

Please ensure that you upload the final version of your application by the deadline. It is your responsibility to ensure that you upload the final version intended for submission and not a blank or incomplete application form.

- you may only use the application form provided. It contains specific information including a unique reference number for your project
- the application form contains specific fields and it is important that you complete each field and present a fully completed form. Incomplete forms will be rejected
- the application form must not be altered, converted or saved as a different version of Microsoft Word
- the space provided in each field of the form is fixed and you must restrict the content of your responses in each of the fields to the space provided. The typeface, font size and colour are predetermined and cannot be changed. Illustrations and graphics cannot be included in the application form. Please check your completed application form in PRINT VIEW: any text that can't be seen in this view or when the form is printed will not be assessed
- the light grey shaded fields are completed automatically from other information entered on the form, e.g. the total columns of a table. These cannot be overwritten

Field	GUIDANCE
Competition name	This field will show the full name of the Innovate UK competition to which the form applies. You do not need to enter anything here.
Document ID	This field is completed automatically.
Applicant number	This field is completed automatically and is the reference that you should use on all correspondence (this is the 5 or 6 digit number after the dash).
<b>Application details</b>	
Project title	Enter the full title of the project.
Theme	Please select from the drop down list.
Research category	Please select from the drop down list.
Project timescales	Enter the estimated start date and its planned duration. These are indicative at this stage and are not guaranteed.
(Lead ) organisation name	Enter the full registered name of the (lead) organisation for the project. If you are not in a consortium application, these will be your organisation details.

	<b>Please note that the lead organisation will be the main point of contact between Innovate UK and the project team.</b>
(Lead) organisation contact details	Enter the full name, postcode, email address and telephone number of the main point of contact between Innovate UK and the project.

<b>Summary of proposed project (not scored)</b>
<b>Guidance</b>
<p>Please provide a short summary of the content and objectives of the project including what is innovative about it.</p> <p>This summary is not scored, but provides an introduction to your proposal for the benefit of Innovate UK staff and assessors only. It will not be used for any public dissemination. It should cover, in brief:</p> <ul style="list-style-type: none"> <li>• need or challenge. The business need, technological challenge or market opportunity to be addressed</li> <li>• approach and innovation. The approach to be taken and how this will improve on current state-of-the-art</li> <li>• outcomes. The difference the project will make to the competitiveness and productivity of the partners involved</li> </ul>

<b>Public description of the project (not scored)</b>
<b>Guidance</b>
<p>To comply with government practice on openness and transparency of public-funded activities, Innovate UK has to publish information relating to funded projects. Please provide a short description of your proposal in a way that will be comprehensible to the general public. Do not include any commercially confidential information, for example intellectual property or patent details.</p> <p>Please describe your project. <b>Funding will not be provided to successful projects without this.</b></p>

<b>Gateway Question: Scope</b>
<b>Guidance</b>
<p>How does this application align with the specific competition scope?</p> <ul style="list-style-type: none"> <li>• all applications must align with the specific competition scope criteria as described in the relevant competition brief</li> <li>• to demonstrate alignment, you need to show that a clear majority of the project's objectives and activities are aligned with the specific competition <ul style="list-style-type: none"> <li>• explain how the project will lead to innovation in manufacturing or materials</li> <li>• highlight any parts of the project that will be using a digital or design for X approach</li> <li>• indicate where a step change in productivity and competitiveness will be seen</li> <li>• show how the innovation will be cross-cutting across multiple industry sectors</li> </ul> </li> </ul>



**Questions: All questions apply to all project partners**

<p><b>Question 1: Need or challenge</b> What is the business need, technological challenge or market opportunity driving your innovation?</p>	<ul style="list-style-type: none"> <li>• describe the main motivation for the project; the business need, technological challenge or market opportunity</li> <li>• describe the nearest current state-of-the-art (including those near-market/in development) and its limitations</li> <li>• describe any work you have already done to address this need. For example is the project focused on maturing an existing capability or developing a new one?</li> <li>• identify the wider economic, social, environmental, cultural and/or political challenges which are influential in creating the opportunity (for example, incoming regulations). Our Horizons tool can help here: <a href="http://horizons.innovateuk.org/">http://horizons.innovateuk.org/</a></li> </ul>
<p><b>Question 2: Approach and innovation</b> What approach will you take and where will the focus of the innovation be?</p>	<ul style="list-style-type: none"> <li>• explain how you propose to address the need, challenge or opportunity identified</li> <li>• explain how it will improve on the nearest current state-of-the-art identified</li> <li>• indicate where the focus of the innovation will be in the project (application of existing technologies in new areas, development of new technologies for existing areas or a totally disruptive approach) and the freedom you have to operate</li> <li>• explain how this project fits with your current product/service lines/offerings</li> <li>• explain how it will make you more competitive</li> <li>• describe the nature of the outputs you expect from the project (for example, report, demonstrator, know-how, new process, product or service design) and how these will take you closer to addressing the need, challenge or opportunity identified</li> </ul>
<p><b>Question 3: Team and resources</b> Who is in the project team and what are their roles?</p>	<ul style="list-style-type: none"> <li>• describe the roles, skills and relevant experience of all members of the project team in relation to the approach to be taken</li> <li>• describe the resources, equipment and facilities required for the project and how will you access them</li> <li>• provide details of any key external parties, including sub-contractors, who you will need to work with to successfully carry out the project</li> <li>• (if collaborative) describe the current relationships between the project partners and how these will change as a result of the project</li> <li>• highlight any gaps in the team that will need to be filled</li> </ul> <p>In a separate Appendix named "Appendix: Question 3" you may submit in pdf format:</p> <ul style="list-style-type: none"> <li>- up to half an A4 page per partner describing the skills and experience of the main people who will be working on the project</li> </ul>
<p><b>Question 4: Market awareness</b> What does the market you are targeting look like?</p>	<ul style="list-style-type: none"> <li>• specify the market(s) (domestic and/or international) you will be targeting in the project and any other potential markets</li> <li>• for the target market(s), describe: <ul style="list-style-type: none"> <li>o the size of the addressable market(s) for the project outcome(s), backed up by appropriate references where available</li> <li>o the structure and dynamics of the market (e.g. customer segmentation), together with predicted growth rates within clear timeframes</li> <li>o the main supply/value chains and business models in operation (and any barriers to entry)</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>o the current UK position in addressing this market</li> <li>• for highly innovative projects, where the market may be unexplored, explain: <ul style="list-style-type: none"> <li>o what the route to market could or might be</li> <li>o what its size might be</li> <li>o how the project will seek to explore the market potential</li> </ul> </li> <li>• for other markets, briefly describe the size and key features of those</li> </ul>
<p><b>Question 5: Outcomes and route to market</b> How do you propose to grow your business and increase your productivity into the long term as a result of the project?</p>	<ul style="list-style-type: none"> <li>• describe your current position in the market(s) and supply/value chains outlined (will you be extending or establishing your market position?)</li> <li>• describe your target customers and/or end users, and the value proposition to them (why would they use/buy it?)</li> <li>• describe your route to market</li> <li>• tell us how you are going to profit from the innovation ( increased revenues or cost reduction)</li> <li>• explain how the innovation will impact your productivity and growth (in the short and long-term)</li> <li>• describe how you will protect and exploit the outputs of the project, for example through know-how, patenting, designs, changes to business model</li> <li>• outline your strategy for addressing the other markets identified during or after the project</li> <li>• for any research organisation activity in the project, outline your plans to disseminate project research outputs over a reasonable timescale</li> <li>• if you expect to use the results generated from the project in further research activities, describe how</li> </ul> <p>In the “projected growth” tab of your partner finance form, please complete the following for each business and non-academic partner:</p> <ul style="list-style-type: none"> <li>- show your current annual turnover, profit, exports and R&amp;D spend (as a percentage of turnover if appropriate) and employment (in full time equivalent or FTEs). Indicate the proportion of this that relates to the area of the project</li> <li>- show your forecasts for annual turnover, profit, exports and R&amp;D spend (as a percentage of turnover if appropriate) and employment (in FTEs) for 1, 3 and 5+ years after project completion. Indicate the proportion of this that will relate to the area of the project</li> </ul>
<p><b>Question 6: Wider impacts</b> What impact might this project have outside the project team?</p>	<ul style="list-style-type: none"> <li>• identify, and where possible quantify, the economic benefits from the project to those outside the project (customers, others in the supply chain, broader industry and the UK economy) such as productivity increases and import substitution</li> <li>• identify, and where possible quantify, any expected social impacts, either positive or negative on, for example, the quality of life, social inclusion/exclusion, jobs (safeguarded, created, changed, displaced), education, public empowerment, health and safety, regulation, diversity, and any expected impact on government priorities</li> <li>• identify, and where possible quantify, any expected environmental impacts, either positive or negative</li> <li>• identify any expected regional impacts of the project</li> </ul>
<p><b>Question 7: Project management</b> How will you manage the project effectively?</p>	<ul style="list-style-type: none"> <li>• outline the main work packages of the project, indicating the relevant research category and lead partner assigned to each, and the total cost of each one</li> <li>• describe your approach to project management, identifying any key tools and mechanisms that will be used to ensure successful project delivery</li> </ul>

	<p>and highlighting your approach to managing the most innovative aspects of the project</p> <ul style="list-style-type: none"> <li>• outline the management reporting lines</li> <li>• outline your project plan in sufficient detail to identify any links or dependencies between work packages or milestones</li> </ul> <p>In a separate Appendix named 'Appendix: Question 7' you may submit a project plan/Gantt chart up to two A4 pages in length in pdf format</p>
<p><b>Question 8: Risks</b> What are the main risks for this project?</p>	<ul style="list-style-type: none"> <li>• identify the key risks and uncertainties of the project, including the technical, commercial, managerial and environmental risks, highlighting the most significant ones (providing a risk register if appropriate)</li> <li>• explain how these risks will be mitigated</li> <li>• list any project inputs on the critical path to completion (such as resources, expertise, data sets)</li> <li>• is the output is likely to be subject to regulatory requirements, certification, ethical issues, etc., if so how will you manage this?</li> </ul> <p>In a separate Appendix named 'Appendix: Question 8' you may submit a risk register of up to two A4 pages in length in pdf format.</p>
<p><b>Question 9: Additionality</b> Describe the impact that an injection of public funding would have on this project.</p>	<ul style="list-style-type: none"> <li>• tell us if this project could go ahead in any form without public funding and if so, the difference the public funding would make (such as faster to market, more partners, reduced risk)</li> <li>• describe the likely impact of the project on the business of the partners involved</li> <li>• tell us why you are not able to wholly fund the project from your own resources or other forms of private-sector funding (what would happen if the application is unsuccessful)</li> <li>• explain how this project would change the nature of R&amp;D activity the partners would undertake (and related spend)</li> </ul>
<p><b>Question 10: Costs and value for money</b> How much will the project cost and how does it represent value for money for the team and the taxpayer?</p>	<ul style="list-style-type: none"> <li>• justify the total project cost and the grant being requested in terms of the project goals</li> <li>• explain how the partners will finance their contributions to the project</li> <li>• explain how this project represents value for money for you and the taxpayer. How does it compare to what you would spend your money on otherwise?</li> <li>• justify the balance of costs and grant across the project partners</li> <li>• justify any sub-contractor costs and why they are critical to the project</li> </ul>

<p><b>Other funding from public sector bodies</b></p>	<p>If you have included one or more entries in column 7 of the finance summary table (on the following page), please provide the name(s) of the bodies, the name of the programme or scheme from which the funds are provided, and the amount of the funds.</p>
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<p><b>Finance summary table</b></p>
<p>This table lists out the total eligible project costs by participant. Please note that only certain project costs are eligible for grant funding under UK State Aid rules. For information on eligible project costs and how to complete the finance forms see the <a href="#">Innovate UK website</a>.</p>

<b>Column 1</b> Organisation name	Please provide the full names of the (lead) organisation and any participants in the project consortium (organisation names as noted in Companies House).																
<b>Column 2</b> Organisation registration Number	Companies should provide the Company Registration Number (as noted in Companies House). Universities/HEIs should enter their RC number/charitable status/legal entity registration number etc.																
<b>Column 3</b> Enterprise category	<p>Please select your enterprise category. (SME definition is based on the EU definition)</p> <table border="1"> <thead> <tr> <th>Enterprise category</th> <th>Headcount</th> <th>Turnover</th> <th>Balance sheet total</th> </tr> </thead> <tbody> <tr> <td>Medium sized</td> <td>&lt;250</td> <td>&lt;= €50 million</td> <td>&lt;= €43 million</td> </tr> <tr> <td>Small</td> <td>&lt;50</td> <td>&lt;= €10 million</td> <td>&lt;= 10 million</td> </tr> <tr> <td>Micro</td> <td>&lt;10</td> <td>&lt;= €2 million</td> <td>&lt;= 2 million</td> </tr> </tbody> </table>	Enterprise category	Headcount	Turnover	Balance sheet total	Medium sized	<250	<= €50 million	<= €43 million	Small	<50	<= €10 million	<= 10 million	Micro	<10	<= €2 million	<= 2 million
Enterprise category	Headcount	Turnover	Balance sheet total														
Medium sized	<250	<= €50 million	<= €43 million														
Small	<50	<= €10 million	<= 10 million														
Micro	<10	<= €2 million	<= 2 million														
<b>Column 4</b> Postcode where majority of work will be done	Please provide the postcode of each organisation participating in the project.																
<b>Column 5</b> Contribution to the project by each organisation (£)	Please list the total contribution to be made to the project by each organisation.																
<b>Column 6</b> Funding sought from Innovate UK	Please enter the funding sought from Innovate UK for each participant organisation for this competition.																
<b>Column 7</b> Other funding from public sector bodies	Please include any funding for the project from any other public sector bodies which has been applied for separately, and not as part of this competition. Funding from other public sector bodies might include other applications to research councils, other government departments, devolved administrations, other public sector organisations and some charities. The purpose of this column is to provide Innovate UK with information on the total public funding for the project.																
<b>Column 8</b> Total (£)	The total cost of the project for each participants. This is the sum of columns 5, 6 and 7 and will be entered automatically.																
<b>Bottom Row</b> Total (£)	The total of each column will be entered automatically.																

Each non-academic participant in your project must provide a finance form which must be submitted with the application form by the lead applicant. Each finance form provides a detailed breakdown on each participant's total eligible project costs listed in your finance summary table.

## Project appendices

You may include appendices of additional supporting information for particular questions with the application form. Please do not use the appendices as an overflow of answers to the application form questions.

In order that assessors can open and read the appendices, each appendix must:

- conform to the maximum length specifications stated for each question

- be submitted in Portable Document Format (pdf)
- be legible at 100% zoom/magnification
- display prominently the 'application number' as in the filename of the application form

Please do not submit appendices longer than the specified lengths. Assessors are instructed to only read appendices to the lengths specified in the guidance.