PEMD Scale-up competition

Opening 21 September 2022
Application Briefing
Contents

- Competition Aims & Scope
- Innovate UK KTN Introduction
- Operations & How to Apply
Aims of this briefing:

- To bring the scope and guidance to life, so you fully understand the competition and the relevant rules and processes for applying for and undertaking a project

- To give you the opportunity to think of questions on competition scope and how to apply, and get appropriate guidance from support@iuk.ukri.org

- To highlight where you can find help at Innovate UK KTN, including networking opportunities and application advice
PEMD Scale-up competition

Strand 1: adopting manufacturing best practice

Strand 2: manufacturing process development

Applicant briefing
Introduction to Innovate UK and UKRI
We work with the government to invest over £7 billion a year in research and innovation by partnering with academia and industry to make the impossible, possible. Through the UK’s nine leading academic and industrial funding councils, we create knowledge with impact.
Innovate UK

- We are the UK’s innovation agency
- We support business-led innovation in all sectors, technologies and UK regions
- A key delivery body of the Government’s Innovation Strategy

Our Mission

To help UK businesses grow through the development and commercialisation of new products, processes, and services, supported by an outstanding innovation ecosystem that is agile, inclusive, and easy to navigate.
UK ranks 4th in Global Innovation Index

- Innovation accounts for up to 50% of labour productivity growth
- Firms that persistently invest in R&D have higher productivity
- Innovating companies are more likely to export and generate growth
PEMD Scale-up:
Strand 1: adopting manufacturing best practice
Strand 2: manufacturing process development

Competition briefing
Mark Urbanowski: Innovation Lead
Mark.Urbanowski@iuk.ukri.org
Challenge update
Driving the Electric Revolution: Summary

Power Electronics, Electric Machines and Drives (PEMD)
Identify key gaps in the UK PEMD supply chain and help industry fill them enabling delivery of net zero

Funding for industry
Investing £80 million of ISCF funding for R&D projects, accelerating and de-risking business innovation

Networking and collaboration
Connecting industry, academia, RTOs & the government to ensure cooperation & collaboration to efficiently use solutions across the UK

Industrialisation and manufacturing
Leverage the UK’s world leading research capability in PEMD to create the supply chains necessary to manufacture PEMD products

Talent growth
Define & fill the PEMD skills gap by training, upskilling & reskilling to grow an evolving diverse & inclusive PEMD workforce across all levels
Driving the Electric Revolution: Supply chain

**Power Electronics**
Development of semiconductors (Si, SiC, GaN) and their packaging to enable switching of high power (voltage and/or current) whilst minimising loss

**Electric Machines**
Conversion between electrical energy and kinetic energy through electromagnetic, mechanical & thermal design optimised for each application

**Drives**
Intelligent digital control systems embracing power electronics, passive components, thermal management, mechanical design and the overall system

**Manufacturing**
Materials processing
Component manufacture
System integration

**Re-use and recycling**

Delivered by Innovate UK
Supporting whole process, materials to product

- Raw Mineral
- Processed Material
- Sub-component
- Component
- System Integration

Recycling
Driving the Electric Revolution: what we’ve achieved

Contains details of all Driving the Electric Revolution funded projects and partners from across the UK PEMD community

- Over 60 funded projects across CR&D and skills initiatives
- Over 100 funded project partners

For details of funded projects please see our annual report:
Competition aims and scope
PEMD Scale-up: competition overview

• Drivers such as climate change, supply chain resilience and the cost of energy mean that there is a growing need to invest in UK manufacturing, particularly across the Power Electronics Machines and Drives (PEMD) value chain.

• Innovate UK’s Driving the Electric Revolution, part of UK Research and Innovation, will invest up to £5 million in projects that enable the scale-up of PEMD manufacturing to develop a resilient, cross-sectoral, UK supply chain for these enabling technologies critical for net zero.
PEMD Scale-up: competition aims

For our previous competitions we said:
• “It’s not what you make, it’s how you make it”

For this competition:
• “It’s not how you make it, it’s how you get better at making it”
PEMD Scale-up: competition strands

Strand 1: Adopting manufacturing best practice

- which aims to fund feasibility studies that facilitate the transfer of knowledge, solutions, technologies and best practice from other manufacturing sectors and demonstrate the impact of these innovations on the PEMD supply chain.
  - Feasibility studies, lower MRL for the PEMD supply chain, higher risk
  - Look beyond existing PEMD manufacturing industry – what can be brought in new to PEMD
  - Credible exploitation plan and potential for return on investment

Strand 2: Manufacturing process development

- which aims to fund innovative process development projects that impact manufacturing cost, capability and efficiency to grow resilient manufacturing PEMD supply chains.
  - Industrial Research and Experimental Development, higher TRL/MRL, some risk
  - Existing PEMD manufacturing processes to be improved, industrialised or scaled-up
  - Credible return on investment within three years
Driving the Electric Revolution: challenge portfolio

• We will be funding a portfolio of projects across both strands that will be exploitable across multiple areas of the PEMD supply chain.
• These include markets, locations, strands, themes, technologies and technology maturities.
• We call this a portfolio approach.

The Challenge Director reserves the right to make sure that the portfolio of successful projects, across all Driving the Electric Revolution programmes, will have the greatest positive impact to the UK’s PEMD supply chain.
PEMD Scale-up: Strand 1
Adopting manufacturing best practice
Strand 1: scope & aims

In this strand we are looking to fund collaborative feasibility projects that will facilitate and de-risk the transfer of knowledge, solutions and technologies from other manufacturing sectors into the UK PEMD community.

• Improve PEMD manufacturing by adopting these solutions, technologies and expertise

• Engaging new organisations adding to the UK’s PEMD supply chain

To improve manufacturing:

• capability
• productivity
• efficiency
• quality
• environmental, societal and governance performance
Strand 1: manufacturing processes

Elements of the manufacturing supply chain in scope include:

- materials processing
- sub-component and component manufacturing
- sub-system integration and assembly
- final assembly of PEMD specific modules
- remanufacturing
- end of life disassembly and recycling

This list is not intended to be exhaustive. Other manufacturing process innovations may be in scope.
Strand 1: projects benefits and impact

Projects **must** be able to demonstrate that:

- the innovation is new to and will positively impact the PEMD supply chain
- there are potential cost and energy savings, productivity and quality benefits to their business
- they will have a positive impact on the environmental, societal and governance (ESG) performance of the PEMD supply chain
- they are exploitable through future activities
- there is the potential to deliver a return on investment should the project be successful
Strand 1: ideas on what we’re looking for

Where innovations for the PEMD manufacturing industry could come from:

• Adjacent manufacturing sectors
  • Pharmaceutical and food
  • Consumer electronics and digital technologies
  • Batteries
  • Precision tooling
  • F1/motorsport
  • Printing

• Quality assurance processes from
  • Aerospace
  • Nuclear power
  • Space

This list is not intended to be exhaustive. All manufacturing industries are in scope
Strand 1: ideas on what we’re looking for:

What innovations **could** be brought in:

- **Industrial Digital Technologies (IDTs)**
  - artificial intelligence, machine learning and data analytics
  - additive manufacturing, robotics and automation
  - virtual reality and augmented reality
  - the Industrial Internet of Things (IIoT) and connectivity

- **Low energy processes**
  - Materials processing (including copper, steel, aluminium, Rare Earth Elements (REEs), composites)

This list is not intended to be exhaustive

- **Must be new manufacturing innovation for the PEMD industry**
- **Not afraid to fail fast – the funding is to help de-risk and accelerate innovation**
- **New collaborations across the value chain and supply chain**
Strand 1: project size and duration

Project size: Total grant claim between £50,000 and £400,000

*(no limit on total project costs)*

Duration: 6 to 12 months

Start date: Projects must aim to start by 1 May 2023

If you are thinking about submitting a project outside of these cost ranges, please contact us at least 10 days before the closing date – support@iuk.ukri.org
Strand 1: eligibility

• Projects must be led by a UK-registered business
  • any organisation can be a partner

• All projects must be collaborative

• Business can be involved in up to three applications across both strands
  • leading on a maximum of one per strand

• We are only funding feasibility study projects using standard funding rates

• We are funding lower maturity projects or feasibility studies in this strand

• Projects must demonstrate good value for money and possible return on investment
PEMD Scale-up: Strand 2
Manufacturing process development
Strand 2: scope & aims

In this strand we are looking to fund collaborative, innovative projects that positively impact manufacturing cost, capability and efficiency to grow resilient manufacturing supply chains for UK PEMD.

• Scale-up and industrialise manufacturing processes across the PEMD industry
• Fill key gaps in the UK’s PEMD supply chain

To improve manufacturing:
• capability
• productivity
• efficiency
• quality
• environmental, societal and governance performance
Strand 2: manufacturing processes

Elements of the manufacturing supply chain in scope include:

- materials processing
- sub-component and component manufacturing
- sub-system integration and assembly
- final assembly of PEMD specific modules
- remanufacturing
- end of life disassembly and recycling

This list is not intended to be exhaustive. Other manufacturing process innovations may be in scope.
Strand 2: projects benefits and impact

Projects **must** be able to demonstrate that:

• the innovation will improve efficiency, productivity or flexibility of PEMD manufacturing processes
• there are potential cost and energy savings and quality benefits to their business
• they will have a positive impact on the environmental, societal and governance (ESG) performance of the PEMD supply chain
• they are exploitable through future activities
• there is a credible return on investment
Strand 2: what makes a good project / examples

Innovative testing and validation processes example
• Reduced time to test, validate and certify motor controllers (hours to minutes)
• Enabled scale up – optimising the production line

Manufacturing process development example
• End to end process development of high voltage SiC MOSFET wafer fabrication, through packaging manufacturing, to converter system assembly

Circular economy example
• Automated sorting line and process scale up of short loop rare earth extraction with application validation and testing

• Not afraid to fail fast – the funding is to help de-risk and accelerate innovation
• New collaborations across the value chain and supply chain

For details of funded projects please see our annual report:
Strand 2: project size & duration

Project size: Total grant claim between £50,000 and £800,000

\( \text{(no limit on total project costs)} \)

Duration: 6 to 18 months

Start date: Projects must aim to start by 1 May 2023

If you are thinking about submitting a project outside of these cost ranges, please contact us at least 10 days before the closing date – support@iuk.ukri.org
Strand 2: eligibility

• Projects must be led by a UK-registered business
  • Any organisation can be a partner

• All projects must be collaborative

• Business can be involved in up to three applications across both strands
  • leading on a maximum of one per strand

• We are only funding industrial research and experimental development projects using standard funding rates

• We are not funding low maturity projects or feasibility studies (see Strand 1)

• Projects must demonstrate good value for money and credible return on investment
# PEMD Scale-up competition: summary

<table>
<thead>
<tr>
<th>Strand 1</th>
<th>Strand 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title</strong></td>
<td>Adopting manufacturing best practice</td>
</tr>
<tr>
<td><strong>Apply here</strong></td>
<td><a href="https://apply-for-innovation-funding.service.gov.uk/competition/1300/overview/cb4556a9-3db9-4ee7-b6e6-30a1128a5380">https://apply-for-innovation-funding.service.gov.uk/competition/1300/overview/cb4556a9-3db9-4ee7-b6e6-30a1128a5380</a></td>
</tr>
</tbody>
</table>
| **What** | • Feasibility studies, lower MRL for the PEMD supply chain, higher risk  
• Look beyond existing PEMD manufacturing industry – new innovations to PEMD  
• Credible exploitation plan and potential for return on investment | • Industrial Research and Experimental Development, higher TRL/MRL, some risk  
• Existing PEMD manufacturing processes to be improved, industrialised or scaled-up  
• Credible return on investment within 3 years |
| **Grant** | £50k - £400k (no limit on project costs) | £50k - £800k (no limit on project costs) |
| **Duration** | 6 to 12 months | 6 to 18 months |
| **Team** | Must be business-led and collaborative | |
| **Open date** | 21 September 2022 | |
| **Close date** | 7 December 2022 | |
| **Project start** | 1 May 2023 | |
| **Support** | [support@iuk.ukri.org](mailto:support@iuk.ukri.org) | |
Contact

Customer Support Services
0300 321 4357 (Monday - Friday 9-5pm)
support@iuk.ukri.org

Innovate UK
ukri.org/councils/innovate-uk

Innovate UK KTN
www.ktn-uk.org

Innovate UK EDGE
innovateukedge.ukri.org
Eligibility criteria
## Previously submitted applications

This competition **does not** allow you to submit a previously submitted application.

<table>
<thead>
<tr>
<th>Previously submitted application</th>
<th>Not a Previously submitted application</th>
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</table>
| A previously submitted application is an application Innovate UK judges as **not** materially different from one you have submitted before (but it can be updated based on the assessors' feedback) | A brand-new application, project or idea that you have not previously submitted into an Innovate UK competition  
**OR**  
A previously submitted or ineligible application which:  
✓ has been updated based on assessor feedback  
✓ **and** is materially different from the application submitted before  
✓ **and** fits with the scope of this competition |
## Eligibility criteria

| Project eligibility |  • collaborative projects only  
|                     |  • lead must be a UK registered business of any size  
|                     |  • collaborate with other UK registered organisations  
|                     |  • carry out all of its project work in the UK  
|                     |  • intend to exploit the results from or in the UK  

| Grant funding request | for strand 1 (adopting manufacturing best practice): **between £50,000 and £400,000**  
|                       | for strand 2 (manufacturing process development): **between £50,000 and £800,000**  

| Project duration | for strand 1: **last between 6 and 12 months**  
|                 | for strand 2: **last between 6 and 18 months**  

| Project start | by **1 May 2023 (both strands)** |
Types of organisations we fund

- Business – Small or Micro, Medium or Large registered in the UK
- Research Organisation (RO):
  - Universities (HEIs)
  - Not for profit distributing Research & Technology Organisation (RTO) including Catapults
  - Public Sector Research Establishments (PSRE)
  - Research Council Institutes (RCI)
- Public sector organisations and charities doing research activity

If you are 100% owned by a large parent company as a small subsidiary this means you are classed as a large company and will only be entitled to the relevant grant. For more information on company sizes, please refer to the [company accounts guidance](#).
Compliance with the UK Subsidy Control Regime

On 1 January 2021, the UK left the EU and is no longer subject to EU laws on State aid. We draw your attention to the guidance issued by BEIS: [Complying with the UK’s international obligations on subsidy control: guidance for public authorities](https://www.gov.uk/government/publications/complying-with-the-uk-s-international-obligations-on-subsidy-control). Please be aware this is a living document and may be updated by BEIS as time progresses.

The set rules (typically GBER) which we previously relied on for the limits of what we could award, have now been replaced by internal decisions based on the new BEIS Subsidy Control Regime, and on policy, which will in turn set out bespoke eligibility requirements for each funding opportunity.

Innovate UK is offering funding for this competition in line with the UK’s obligations and commitments to Subsidy Control. To ensure that Innovate UK remains compliant with the UK’s international Subsidy Control duties in respect of:

- the EU-UK Trade and Cooperation Agreement;
- Article 10 of the Northern Ireland Protocol (successful applicants which are affected by the Northern Ireland Protocol will be funded in line with EU State aid regulations)
- Article 138 of the Withdrawal Agreement (some Union law applicable after 31 December 2020 in relation to the UK’s participation in Union programmes and activities)
- the Subsidies and Countervailing measures within the WTO (ASCM)
- any other Free Trade Agreements active at the time of award

All awards will be conditional on compliance at all times with the UK’s International obligations on Subsidy Control - this will be reflected in the terms and conditions of any award.
Due diligence for UK Subsidy Control Regime

Under the Subsidy Control Regime, we will carry out financial health checks and ongoing concern assurances on your organisation.

Certify you are eligible

When submitting an application, you must certify that you are eligible for funding. If you are unsure, please take independent legal advice before applying. Should you be successful, we will complete these financial checks and assurances before confirming the grant offer.

- For more information on company sizes, please refer to the Company accounts guidance.
- Further information is available on our website in the general guidance.
Eligibility Criteria - EU State Aid Regulations – Northern Ireland Protocol

If you are an applicant who is conducting activities that will affect trade of goods and/or electricity between Northern Ireland and the EU as envisaged by Article 10 of the Northern Ireland protocol, then you must apply under European Commission State aid rules.

Undertaking in Difficulty
For applicants subject to the European Commission State aid rules, you will be required to prove that they were not an “Undertaking in Difficulty” (UiD). We will ask for evidence of this.

This test applies to:
- companies that are more than 3 years old
- companies where more than half of its subscribed share capital has disappeared as a result of accumulated losses.
- your parent or holding company

Certify you are eligible
When submitting an application, you must certify that you are eligible for State aid. If you are unsure, please take legal advice before applying. Should you be successful, we will apply this test as part of our viability checks before confirming the grant offer.

Further information is available on our website in the general guidance under state aid.

If you are applying for an award funded under State aid Regulations, the definitions for company size are set out in the European Commission Recommendation of 6 May 2003.
Eligibility Criteria: Funding Opportunities (1/2)

Funding for R&D projects split into 3 categories: 
feasibility studies, industrial research and experimental development.

- Strand 1 is for feasibility studies only
- Strand 2 is for industrial research or experimental development projects

**STRAND 1: adopting manufacturing best practice**

For feasibility studies, you could get funding for your eligible project costs of:
- up to 70% if you are a micro or small organisation
- up to 60% if you are a medium-sized organisation
- up to 50% if you are a large organisation
STAND 2: manufacturing process development

For industrial research, you could get funding for your eligible project costs of:
- up to 70% if you are a micro or small organisation
- up to 60% if you are a medium-sized organisation
- up to 50% if you are a large organisation

For experimental development projects which are nearer to market, you could get funding for your eligible project costs of:
- up to 45% if you are a micro or small organisation
- up to 35% if you are a medium-sized organisation
- up to 25% if you are a large organisation

BOTH STRANDS: For research organisations conducting fundamental research you could get funding for your eligible project costs of up to 100%.

*Research organisation participation is limited to no more than 30% of the project’s total costs.

For general guidance on what our research categories are please visit: https://www.ukri.org/councils/innovate-uk/guidance-for-applicants/general-guidance/categories-of-research-and-development/#contents-list
Participation Rules

The aim of this funding opportunity is to:

- optimise the level of funding to business and
- recognise the importance of research base to project

At least **70%** of total eligible project costs must be incurred by business.

The maximum level (**30%** of total eligible project costs) is shared by all research organisations collaborating on the project.
What is collaboration?

In collaborative projects there must be:

- at least two organisations claiming grant within the application (including the lead)
- a **business-led** consortium, which may involve both business and the research base
- evidence of effective collaboration

We would expect to see the structure and rationale of the collaboration described in the application.
Making more than one application

A business can be involved in up to three applications across both strands of the competition. They can lead on a maximum of one application in each strand.

An academic institution, research and technology organisation (RTO), charity, not for profit or public sector organisation cannot lead on any applications but can collaborate on any number of applications across the two strands.
If you have an outstanding final claim or Independent Accountant Report (IAR) on a live Innovate UK project, you will not be eligible to apply to this competition, as a lead or a partner organisation.

We will not award you any further funding if you:

- applied to a previous competition as the lead or sole company and were awarded funding by Innovate UK, but did not make a substantial effort to exploit that award

- applied to a previous competition as the lead or sole company and failed to comply with grant terms and conditions.
# Key Dates

<table>
<thead>
<tr>
<th>Timeline</th>
<th>Dates</th>
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<tbody>
<tr>
<td>Competition Opens</td>
<td>21 September 2022</td>
</tr>
<tr>
<td>Live Briefing Events</td>
<td></td>
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<tr>
<td>Submission Deadline</td>
<td>7 December 2022, 11:00am prompt</td>
</tr>
<tr>
<td>Applicants informed</td>
<td>27 January 2023</td>
</tr>
</tbody>
</table>
Innovation Funding Service (IFS)
Search for a funding competition and review criteria

PEMD Scale-up: Strand 1, adopting manufacturing best practice

UK registered businesses can apply for a share of up to £5 million to scale up manufacturing in the power electronics, machines and drives supply chain. This strand will fund feasibility studies for innovative manufacturing solutions in other sectors.

Competition closes: Wednesday 7 December 2022 11:00am

This competition has not yet opened.

Start new application

PEMD Scale-up: Strand 2, manufacturing process development

UK registered businesses can apply for a share of up to £5 million to scale up manufacturing in the power electronics, machines and drives supply chain. This strand will fund manufacturing process industrialisation to enhance volume and niche productivity.

Competition closes: Wednesday 7 December 2022 11:00am

This competition has not yet opened.

Start new application
Lead Applicant: create an account

The lead applicant must create an account:

**UK registered businesses**

Use Companies House lookup as it speeds up our checks by providing your company number. You are unable to enter this at a later date.

**Research organisations, academics and universities**

Enter your information manually so you are not listed as a business on IFS and ensure you receive the correct funding.
Project Details

- **Application Team** - Collaborators can invite organisations who you are working with on the project. Contributors can invite colleagues from your own organisation to help you complete your application.

- **Application Details** - Title, timescales, research category

- **Subsidy basis** - Will the project, including any related activities, you want Innovate UK to fund, affect trade between Northern Ireland and the EU? All participants must complete this section.

- **Project Summary** - Short summary and objectives of the project including what is innovative about it

- **Public Description** - Description of your project which will be published if you are successful

- **Scope** - How does your project align with the scope of this competition? - If your project is not in scope, it will not be sent for assessment. We will tell you the reason why.
## Application Questions (both strands)

Detailed guidance available on IFS

<table>
<thead>
<tr>
<th>Application Form</th>
<th>Appendix?</th>
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<tbody>
<tr>
<td>Question 1 Applicant location (not scored)</td>
<td>No</td>
</tr>
<tr>
<td>Question 2 Need or challenge</td>
<td>No</td>
</tr>
<tr>
<td>Question 3 Approach and innovation</td>
<td>Yes - optional</td>
</tr>
<tr>
<td>Question 4 Team and resources</td>
<td>Yes - optional</td>
</tr>
<tr>
<td>Question 5 Supply chain awareness</td>
<td>No</td>
</tr>
<tr>
<td>Question 6 Outcomes and route to market</td>
<td>No</td>
</tr>
<tr>
<td>Question 7 Impact on supply chain</td>
<td>No</td>
</tr>
<tr>
<td>Question 8 Project management</td>
<td>Yes - mandatory</td>
</tr>
<tr>
<td>Question 9 Risks</td>
<td>Yes - mandatory</td>
</tr>
<tr>
<td>Question 10 Added value</td>
<td>No</td>
</tr>
<tr>
<td>Question 11 Costs and value for money</td>
<td>No</td>
</tr>
</tbody>
</table>
Application finances
To claim funding

Your business does not have to be UK registered with Companies House when you apply but it must be registered before you can receive funding.

Your project can include partners that do not receive any of this competition’s funding, for example non-UK businesses. Their costs will count towards the total project costs.

You are unable to claim funding if:

- you are an overseas organisation, so your company number begins with FC
- your organisation is setup as a branch, so your company number begins with BR
- you are a collaboration with no formal structure of ownership or control, so your company number begins with ML
- you are a Crown Dependency:
  - if your company is based in Jersey, your company number begins with JE
  - if your company is based in Guernsey
  - if your company is based in the Isle of Man
British Overseas Territories

You are also unable to claim funding if your company is based in any of the British Overseas Territories (BOTs):

- Anguilla
- Bermuda
- British Antarctic Territory
- British Indian Ocean Territory
- British Virgin Islands
- Cayman Islands
- Falkland Islands
- Gibraltar
- Montserrat
- Pitcairn Islands
- Saint Helena, Ascension and Tristan da Cunha
- South Georgia and the South Sandwich Islands
- Turks and Caicos Islands
Project cost categories

Labour
Overheads
Materials
Equipment Usage
Subcontractors
Travel & Subsistence
Other
Labour

Eligible:
- staff working directly on project
- paid by PAYE
- NI, pension, non-discretionary costs

Ineligible:
- dividends
- bonuses
- non productive time
- overtime
Overheads

Innovate UK’s definition
Additional costs and operational expenses incurred directly as a result of the project. These could include additional costs for administrative staff, general IT, rent and utilities.

Indirect (administration) overheads
Please ensure they are additional and directly attributable to the delivery of the project.

Direct overheads
- e.g. office utilities, IT infrastructure, laptop provision not covered by capital usage
- must be directly attributable to the project
- provide detailed breakdown together with methodology/basis of apportionment
Material costs

Please be clear on what the materials are - just putting consumables does not provide enough detail.

If insufficient information is provided, we will request more information should you be successful which may delay your project start date.
Capital equipment usage

Eligible:

Used in the project or shared with day-to-day production.

Calculations will need to be in line with your accounting practices.

Even if the equipment is depreciated fully over the life of the project this must be added under capital equipment.
Subcontractors

Justified and quantified.

If non-UK subcontractors are being used, you will need to provide strong justification on why a UK-based subcontractor is not being used.

If you are subcontracting to a parent or sister company, please ensure you list at cost and do not include profit.

Subcontractor costs are limited to 20% of your organisation’s total project costs.
Eligible:
Costs must be directly linked to the project.
Please break down your costs as follows:
- Travel
- Accommodation
- Subsistence
If you have an annual trip to visit the parent company this is not an eligible cost.

Travel and subsistence

<table>
<thead>
<tr>
<th>Purpose of journey or description of subsistence cost</th>
<th>Number of times</th>
<th>Cost each (£)</th>
<th>Total (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel to robotics labs for testing</td>
<td>12</td>
<td>100</td>
<td>£1,200</td>
</tr>
<tr>
<td>monthly project meetings</td>
<td>12</td>
<td>150</td>
<td>£1,800</td>
</tr>
</tbody>
</table>

Total travel & subsistence costs: £3,000
Other costs

Costs that could not be added under previous headings
Do not double count
Patent filing costs for new IP – SMEs up to £7,500

Please provide details of any project costs which cannot be covered by the other cost categories.

Other costs guidance

Please note that legal or project audit and accountancy fees are not eligible and should not be included as an 'other cost'. Patent filing costs of new IP relating to the project are limited to £7,500 for SME applicants only. Please provide estimates of other costs that do not fit within any other cost headings.

Description and justification of the cost

Estimated cost (£)

Add another cost
Ensure the grant funding request fits the criteria for this competition:

- **Strand 1:** between £50,000 and £400,000
- **Strand 2:** between £50,000 and £800,000

Research organisation participation is no greater than 30% of the total project costs.

All organisations can see a summary of project costs.
Funding

Funding rules
The level of funding awarded will depend upon the type of organisation and the type of research being undertaken in the project
Funding is calculated by project participant

IFS will advise the maximum grant % you can request based upon your answers to:
- type and size of organisation
- research category defined by the lead applicant in the Application Details section of the application
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<thead>
<tr>
<th>Organisation or type of activity</th>
<th>Technical feasibility studies (Strand 1) and industrial research (Strand 2)</th>
<th>Experimental development (Strand 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business (economic activity)</td>
<td>Micro or Small – 70%</td>
<td>Micro or Small – 45%</td>
</tr>
<tr>
<td></td>
<td>Medium – 60%</td>
<td>Medium – 35%</td>
</tr>
<tr>
<td></td>
<td>Large – 50%</td>
<td>Large – 25%</td>
</tr>
<tr>
<td>Research organisation (non-economic activity)</td>
<td>Universities – 100% (80% of Full Economic Costs)</td>
<td>Other research organisations must:</td>
</tr>
<tr>
<td></td>
<td>Other research organisations can claim 100% of their project costs</td>
<td>• be non-profit distributing and</td>
</tr>
<tr>
<td>Public Sector Organisation or Charity (non-economic activity)</td>
<td>100% of eligible costs</td>
<td>• disseminate the project results and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• explain in the application form how this will be done</td>
</tr>
<tr>
<td>Research organisations (undertaking economic activities) Organisations receive funding related to the size of their organisation</td>
<td>Micro or Small – 70%</td>
<td>Micro or Small – 45%</td>
</tr>
<tr>
<td></td>
<td>Medium – 60%</td>
<td>Medium – 35%</td>
</tr>
<tr>
<td></td>
<td>Large – 50%</td>
<td>Large – 25%</td>
</tr>
</tbody>
</table>
## Consortia

**Worked example – For applications who can apply for a grant between £50,000 and £800,000 (Strand 2)**

Project costs for 5 partners (2 SME, 1 University, a Catapult and 1 large), doing *industrial research*.

<table>
<thead>
<tr>
<th>Organisation type</th>
<th>Organisation size</th>
<th>Total eligible project costs</th>
<th>Maximum % of project costs which may be claimed as a grant</th>
<th>Requested grant amount</th>
<th>Adjusted grant %</th>
<th>Maximum grant allowed</th>
<th>Required match funding contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>Small</td>
<td>£150,000</td>
<td>70%</td>
<td>£105,000</td>
<td>70%</td>
<td>£105,000</td>
<td>£45,000</td>
</tr>
<tr>
<td>Business</td>
<td>Medium</td>
<td>£300,000</td>
<td>60%</td>
<td>£180,000</td>
<td>55%</td>
<td>£165,000</td>
<td>£120,000</td>
</tr>
<tr>
<td>Business</td>
<td>Large</td>
<td>£600,000</td>
<td>50%</td>
<td>£300,000</td>
<td>46%</td>
<td>£276,000</td>
<td>£300,000</td>
</tr>
<tr>
<td>University</td>
<td>HEI (80% FEC)</td>
<td>£100,000</td>
<td>100%</td>
<td>£100,000</td>
<td>100%</td>
<td>£100,000</td>
<td>nil** **</td>
</tr>
<tr>
<td>Catapult</td>
<td>RTO</td>
<td>£150,000</td>
<td>100%</td>
<td>£150,000</td>
<td>100%</td>
<td>£150,000</td>
<td>nil</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>£1,300,000</strong></td>
<td><strong>£835,000</strong></td>
<td><strong>£796,000</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**20% FEC not to be shown as a contribution**

---

<table>
<thead>
<tr>
<th>Research base costs</th>
<th>£250,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research participation rate of total eligible projects costs (cannot exceed 30%)</td>
<td>19%</td>
</tr>
</tbody>
</table>
Academic partners
Why Je-S?

We use the Research Councils’ Joint Electronic Submission System (Je-S) to collect academic finances. The Je-S system automates the collection of Full Economic Costs (FEC) based costs from academic partners and tells them exactly what numbers should be used in the application form for their costs. Also to collect project finance details from non-HEIs (e.g. RTOs) that are claiming they are carrying out academic quality work and want to be funded on an FEC basis.

Using Je-S means that Innovate UK follows standard Research Council guidelines on funding universities and enables Research Councils to easily co-fund Innovate UK projects.

The Je-S system is completely separate from Innovate UK and we cannot advise on its usage.
Project costs – academic partners

Enter the TSB reference number here

Enter the TSB Contribution column figures from your J-eS output document into the project costs section of the application.

Upload the Je-S with council status form as a PDF at the bottom of the screen.

Any queries, contact Je-S Helpdesk (not Innovate UK)
- jeshelp@je-s.ukri.org
- 01793 444164
Submitting your application
All organisations have marked their finances as complete.

Research organisation participation is no greater than 30% of the total project costs.

IFS DOES NOT VALIDATE THE TOTAL GRANT REQUEST
Editing a submitted application

Remember to press ‘Submit application’

Reopen by clicking here
Submit your application in good time!

Customer Support can help resolve any issues you might have when submitting, but only if they are contacted before the deadline. Once the deadline has passed, your application cannot be submitted.
Assessment
How do our assessors assess?

www.improveuk.ukri.org
0300 301 4057
How are successful applications selected for funding?

www.innovateuk.ukri.org
0300 321 4357
Project setup for successful applicants
Notification

If you are unsuccessful in this competition
You can use the feedback from the assessors to develop your idea and apply into another competition that allows previously submitted applications.

If you are successful in this competition
- you will be assigned a Delivery Executive who will guide you through the Project Set Up process
- you will have 7 days to complete the project team, project details and bank details
- you will then have a further 86 days to complete project set up – funding may be withdrawn if this is not completed within this timeframe

Please ensure all your contact details in the IFS portal are correct and up to date and that you regularly monitor it.
Project set up

- All communication will be through IFS.
- Lead applicant must provide collaboration agreements and exploitation plans if applicable.
- Any partners with individual total project costs of up to £50,000 must provide evidence with a Statement of Expenditure (SoE).
- Any partners with individual total project costs above £50,000 must provide evidence with an Independent Accountants Report (IAR).

Project delivery

- All grants are paid quarterly in arrears and are only paid following quarterly reporting and necessary audits.
- Claims can only be made for costs incurred and paid between the project start and end dates.
- Monitoring of the project includes a visit from the appointed Monitoring Officer.
Additional Support
Innovate UK EDGE

_Bespoke growth and scaling support at the business end of innovation_

- Intensive growth and scaling support tailored to the needs of each of our ambitious innovation-driven clients
- Offered alongside project funding to Innovate UK award winners, most of whom engage us. We are also available to all high growth potential innovative small or medium-sized businesses*
- Engagement at early, growth and scaling stages, with our core high growth service and enhanced Scaleup Programme
- Delivered by 290 innovation and growth specialists embedded in regional ecosystems across the UK, including a board of expert scaleup directors

*subject to eligibility and currently in all nations and regions outside Scotland
Innovate UK EDGE

An innovation and growth specialist, or scaleup directors, work with a company’s leadership to hone its commercial strategy and help it take targeted action to, for example:

- Build investment readiness
- Manage innovation effectively
- Enter global markets
- Providing local to national to international growth and scaling support
Innovate UK EDGE

Business growth for innovative companies

Contact us via: innovateukedge.ukri.org
A great idea can come from anyone

- Diversity in businesses contributes to enhanced performance and commercial success

- We welcome and encourage applications from people of all backgrounds and are committed to making innovation support more visible, accessible, and inclusive.

- We can provide support for people who have a disability or long-term condition and face barriers applying to us

- If you would like any support or advice, please contact Customer Support Service on 0300 321 4357 or support@iuk.ukri.org
Innovate UK

Innovate UK is the UK’s innovation agency: a non-departmental public body operating at arm’s length from the Government as part of UKRI.

KTN

Innovate UK KTN exists to connect innovators with new partners and new opportunities beyond their existing thinking - accelerating ambitious ideas into real-world solutions.

EDGE

Innovate UK EDGE empowers innovation-driven businesses to grow at pace and achieve their industry- and society-transforming ambitions.
About Us
Innovate UK KTN exists to connect innovators with new partners and new opportunities beyond their existing thinking – accelerating ambitious ideas into real-world solutions.

Our Purpose & Vision
We create diverse connections to drive positive change.

To establish a network of innovators so powerful its ideas will change the world.
Our Strategy

Positive Change
We create diverse connections to drive positive change

Deep Expertise
We have wide-ranging expertise and convene the expertise of others

Powerful Connections
We drive powerful connections with business at the heart of what we do

Future Shaping
We shape the innovation communities of the future

Our People
We provide an exceptional place of work for our exceptional people

Our Network

46,229
Unique Organisations

72%
Small

15%
Medium

13%
Large

234,478
innovators

Every university in the UK
We connect…

Diverse communities | Innovation Networks

Regional, national | Global Alliance and global

Research and business | Knowledge Transfer Partnerships

Innovators, funders | Innovation Exchange & collaborators

Insight to impact | Insight reports

…for positive change
Innovate UK KTN and you

- Signpost companies to identify and address funding
- Provide deep expertise to make Connections & Networks
- Drive powerful connections with businesses
- Assist companies in forming partnerships/collaborations/projects
- Advise companies in their submission
- Light touch reviews
- Guidance documents, eg Good Application Guide
- Highlight key features of a good proposal
- Provide recommendations, eg proposals that excites and inspires
- Invite you to collaboration mechanisms & events,
Innovate UK KTN and you

• Guidance documents, eg Good Application Guide
  • https://ktn-uk.org/news/the-good-application-guide-and-more-grant-application-advice-from-ktn/

• Investor Readiness Programmes

• Sector Newsletters: eg Driving the Electric Revolution Challenge newsletter
  • https://info.ktn-uk.org/p/2VFU-7JI/driving-the-electric-revolution-sign-up/
Find out more

@KTNUK

Dr Sven Knowles
sven.knowles@ktn-uk.org

www.ktn-uk.org
# PEMD Scale-up competition: summary

<table>
<thead>
<tr>
<th></th>
<th>Strand 1</th>
<th>Strand 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title</strong></td>
<td>Adopting manufacturing best practice</td>
<td>Manufacturing process development</td>
</tr>
<tr>
<td><strong>Apply here</strong></td>
<td><a href="https://apply-for-innovation-funding.service.gov.uk/competition/1300/overview/cb4556a9-3db9-4ee7-b6e6-30a1128a5380">https://apply-for-innovation-funding.service.gov.uk/competition/1300/overview/cb4556a9-3db9-4ee7-b6e6-30a1128a5380</a></td>
<td><a href="https://apply-for-innovation-funding.service.gov.uk/competition/1301/overview/f64a4bcf-9007-43cf-a8f1-5e6c0a5c90c9">https://apply-for-innovation-funding.service.gov.uk/competition/1301/overview/f64a4bcf-9007-43cf-a8f1-5e6c0a5c90c9</a></td>
</tr>
<tr>
<td><strong>What</strong></td>
<td>▪ Feasibility studies, lower MRL for the PEMD supply chain, higher risk</td>
<td>▪ Industrial Research and Experimental Development, higher TRL/MRL, some risk</td>
</tr>
<tr>
<td></td>
<td>▪ Look beyond existing PEMD manufacturing industry – new innovations to PEMD</td>
<td>▪ Existing PEMD manufacturing processes to be improved, industrialised or scaled-up</td>
</tr>
<tr>
<td></td>
<td>▪ Credible exploitation plan and potential for return on investment</td>
<td>▪ Credible return on investment within 3 years</td>
</tr>
<tr>
<td><strong>Grant</strong></td>
<td>£50k - £400k (no limit on project costs)</td>
<td>£50k - £800k (no limit on project costs)</td>
</tr>
<tr>
<td><strong>Duration</strong></td>
<td>6 to 12 months</td>
<td>6 to 18 months</td>
</tr>
<tr>
<td><strong>Team</strong></td>
<td>Must be business-led and collaborative</td>
<td></td>
</tr>
<tr>
<td><strong>Open date</strong></td>
<td>21 September 2022</td>
<td></td>
</tr>
<tr>
<td><strong>Close date</strong></td>
<td>7 December 2022</td>
<td></td>
</tr>
<tr>
<td><strong>Project start</strong></td>
<td>1 May 2023</td>
<td></td>
</tr>
<tr>
<td><strong>Support</strong></td>
<td><a href="mailto:support@iuk.ukri.org">support@iuk.ukri.org</a></td>
<td></td>
</tr>
</tbody>
</table>
Contact

Customer Support Services
0300 321 4357 (Monday - Friday 9-5pm)

support@iuk.ukri.org

Innovate UK
ukri.org/councils/innovate-uk

Innovate UK KTN
www.ktn-uk.org
sven.knowles@ktn-uk.org

Innovate UK EDGE
innovateukedge.ukri.org