



# **Innovator Handbook**

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### **Introducing the Manchester Prize**

The Manchester Prize is a multi-million pound, multi-year challenge prize, launched in 2023 and funded by the Department of Science, Innovation and Technology to reward UK-led breakthroughs in artificial intelligence for public good.

<u>Challenge prizes</u> support open innovation creating a level playing field for established and previously untested innovators alike, enabling the most promising ideas to progress, supported with funding and expert capacity-building support.

Artificial Intelligence holds incredible potential to transform all areas of our lives and unlock new avenues to tackle shared global challenges. All has the potential to grow the economy, improve public services, tackle climate change, and lies at the heart of this mission-driven government. The Department for Science Innovation and Technology is determined to speed up its adoption across the economy to transform public services and kickstart growth.

The Manchester Prize is focused on backing pioneering new AI solutions to some of the most important and difficult challenges in society. Every year for a decade, it is rewarding innovations that will help to transform the lives of people across the UK and continue to secure the UK's place as a global leader in cutting-edge innovation.

<u>The first Manchester Prize</u> launched in December 2023 rewarded UK-led innovations that overcome challenges in the fields of **energy, environment and infrastructure**.

Now In its second year, launching in November 2024, the second Manchester Prize will reward UK-led breakthroughs in artificial intelligence that will **accelerate action towards** the UK's ambitious clean energy and net zero goals.

Up to 10 of the most promising solutions will each be supported with £100,000 in seed funding, up to £60,000 of compute and additional non-financial support to develop solutions capable of winning the £1 million grand prize in spring 2026.

Alongside the <u>Terms and Conditions</u>, this handbook sets out all you need to know to enter, and win, the Second Manchester Prize.



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### Who's Involved

The Manchester Prize is an initiative of the Department for Science, Innovation and Technology (DSIT) on behalf of HM Government.



The Department for Science, Innovation and Technology (DSIT) focuses on accelerating innovation, investment and productivity through world-class science and improving people's lives by maximising the potential of science and technology.

Our responsibilities include:

- positioning the UK at the forefront of global scientific and technological advancement
- driving innovations that change lives and sustain economic growth
- delivering talent programmes, physical and digital infrastructure and regulation to support our economy, security and public services
- R&D funding

The Second Manchester Prize is being delivered by Challenge Works – a Nesta enterprise.



Challenge Works is a global leader in the design and delivery of open innovation challenges that mobilise diverse, innovative thinkers to solve pressing problems and unlock change. Founded by Nesta, the UK's innovation foundation for social good, we are a social enterprise that has delivered 93 challenges to date and distributed more than £258 million to winning innovators.



### Manchester Prize: Clean Energy Systems

#### What is the Second Manchester Prize?

The application of AI has the capacity to make us more productive in our jobs, improve the delivery of public services, make our national infrastructure work better, and support the transition to a net zero economy.

The climate and nature crisis is one of the greatest long-term challenges we face in the UK and around the world. The UK has set a world-leading target to decarbonise the electricity grid to deliver green power by 2030 and reach net zero by 2050. Achieving these twin goals will boost the UK's energy independence, protect billpayers, support good, well-paid jobs across the country and combat the climate and nature crisis.

To make this possible, the UK must rapidly increase the rollout of homegrown, clean energy and reduce dependence on fossil fuels. This year, the Manchester Prize is incentivising the development and deployment of AI in this space to support the UK in realising its mission to be a clean energy superpower.

The second Manchester Prize is a two-million-pound prize that will build on UK expertise and support the development of ten innovative and impactful AI solutions, each with the potential to enable the UK to quickly reach or operate a net zero energy system.

Applications are open for teams of innovators, academics, start-ups, engineers and entrepreneurs to submit their responses to the following challenge statement.

The second Manchester Prize will be awarded to the most innovative and impactful AI solution enabling the UK to accelerate progress towards a net zero energy system.

Solutions should demonstrate use of AI that achieves at least one of the following:

- accelerates the UK's adoption of clean energy technologies at scale;
- enable efficient or low-cost operations of clean energy systems;
- significantly reduce energy demand or optimise energy usage.

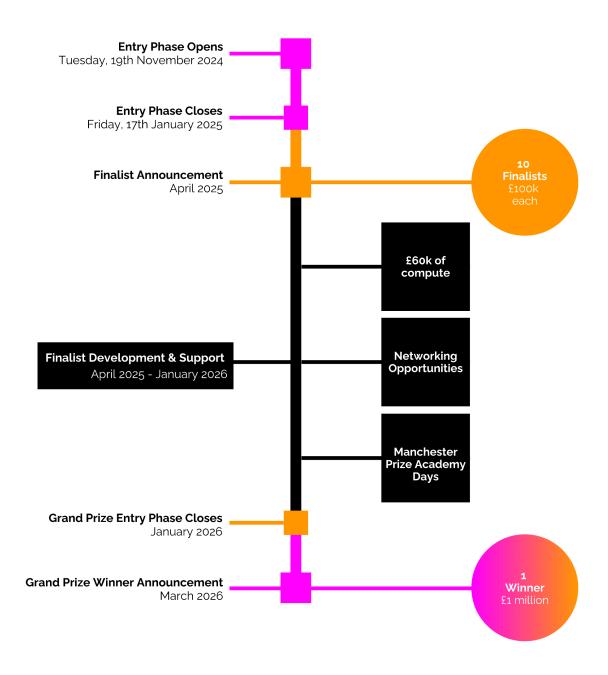
The winning solution will demonstrate not only technical innovation but also an evidenced road map to near-term (2030) adoption and scale.

Up to 10 of the most promising proposed solutions will be selected to enter the prize and will each be supported with £100,000 in seed funding, up to £60,000 of compute, and additional non-financial support to develop solutions capable of winning the £1 million grand prize in spring 2026.



### Manchester Prize: Clean Energy Systems Timeline

The Second Manchester Prize runs from November 2024 to March 2026 and will award a total of £2 million across two phases.



The **entry phase** opens on **19th November 2024**, teams develop their proposals, working towards submitting their entry by the final deadline of **17th January 2025 at 12 noon (GMT)**. The entry phase culminates with an assessment and judging process with up to ten entrant teams being selected as finalists, and each receiving an award of £100,000 in April 2025.



The **finalist phase**, which begins in April 2025, sees the ten selected teams developing their ideas to best meet the aims as set out in the challenge statement and judging criteria. In addition to a £100,000 grant, teams will receive a range of non-financial support including up to £60,000 of compute credits to develop their solutions within the development phase.

In January 2026, finalist teams will make a final submission to be considered for the grand prize which demonstrates their suitability to win. In March 2026, the best team as decided by a team of expert judges and in line with the judging criteria will be awarded the grand prize of £1 million.



### What we're looking for

### Challenge Statement: What do I need to do to win?

The Manchester Prize is encouraging teams of innovators, academics, scientists, engineers, start-ups and entrepreneurs to submit their solutions in response to the following Challenge Statement.

The second Manchester Prize will be awarded to the most innovative and impactful AI solution enabling the UK to accelerate progress towards a net zero energy system.

Solutions should demonstrate use of AI that achieves at least one of the following:

- accelerates the UK's adoption of clean energy technologies at scale;
- enable efficient or low-cost operations of clean energy systems;
- significantly reduce energy demand or optimise energy usage.

The winning solution will demonstrate not only technical innovation but also an evidenced road map to near-term (2030) adoption and scale.

### **Example Solutions**

Here are some **example solutions** to further describe the kinds of innovations we might expect to receive - this list is illustrative only and not exhaustive - we expect to receive a range of applications outside of these examples:

- Predicting supply and demand to support smart load management in the grid, allowing for better integration of renewables while minimising transmission constraints.
- Optimising energy consumption in commercial spaces, for example, through (semi-)autonomous control of data centres.
- Maximising renewable energy capture and storage, by leveraging AI to discover new materials and design superior solar panels and wind turbines.
- Ensuring a stable and resilient energy supply, and easing grid stress, by using AI to optimise and coordinate local energy assets, such as heat pumps and batteries.
- Accelerating energy infrastructure projects while minimising environmental and societal impact through AI solutions that support feasibility studies or site plan development.
- Empowering people in their energy transition with solutions that provide AI-powered insights, and tailored interventions and support.



Other potential solution considerations

- The end of the Manchester Prize is January 2026. Entrants will be expected to have at minimum a working prototype (approximately TRL 6) that can be demonstrated by this point. Finalists who enter to win the grand prize will be asked to quantify and be judged on, the potential impact of their solution in terms of the amount of greenhouse gas emissions saved by 2030, and in the longer term.
- Finalists competing for the grand prize will also be required to complete technical validation checks organised by the Manchester Prize team to validate their AI approach.



### Eligibility Criteria: Who can enter?

Challenge prizes are designed to be open to a wide range of organisations and individuals. What matters is the quality of your solution - not your profile or track record.

We are looking for teams to enter the Manchester Prize with solutions that respond to the Challenge Statement. We are seeking entries from UK-led teams and from a range of organisations.

For your team to be eligible to enter the Manchester Prize, you must meet the eligibility criteria:

### **Our Eligibility Criteria**

- Eligible entrants: Entries must come from organisations legally incorporated in the UK (e.g. private limited companies, non-profits, charities, universities). We will not accept applications from individuals or unincorporated groups. See here for guidance on how to incorporate. (Incorporation costs around £50 straightforward applications are normally processed within 24 hours, please check the site to confirm your individual needs.)
- **Geographical scope:** The lead entrant organisation must be based in the United Kingdom and must be able to receive funds into a UK bank account in the name of the lead entrant. Organisations other than the lead entrant organisation may be based outside of the UK.
- Consortia entries: Teams may enter as a consortium but must nominate one organisation as the lead entrant to submit the application. The lead entrant organisation representing finalist teams will be the organisation that enters into contracts and receives funding from the Manchester Prize.
- **Previous Manchester Prize finalists:** Finalists from the first Manchester Prize are eligible to participate if submitting a new and original solution, which is distinct from their first Manchester Prize submission.
- Employees of Challenge Works and DSIT prohibited: Employees of Challenge Works (Nesta, or any company within the same group) or DSIT, and any immediate family of those employees, and any other individuals working on, or connected to, the prize are not eligible to enter.



• Conflicts of interest: Any conflict of interest or perceived conflict of interest, as more particularly detailed in the terms and conditions, may result in a participant being disqualified from participation. Conflicts of interest must be declared and mitigation agreed with Challenge Works. If you think this may affect you (or any of your partners, if applicable), please contact the team info@manchesterprize.org.uk.

#### Other entrant considerations

Further to meeting these eligibility criteria, other entrant considerations are as follows:

- Participants (and their partners, if applicable) will be subject to due diligence checks and must pass due diligence checks in order to qualify.
- You must agree to abide by our terms and conditions.
- As more particularly detailed in the prize terms & conditions: the participant must be fully authorised (whether by ownership or licence) to use and exploit all IP rights necessary for the development and deployment of the solution that the participant is submitting for consideration, including both background and foreground IP, and any IP that is owned or licenced by any of the lead entrant's consortium members. For example, if you are an academic team entering as a newly incorporated company, you will need to ensure that the university has granted rights to their background IP and the foreground IP to you for submission through the Manchester Prize.



### Judging Criteria: How will winners be picked?

Up to ten finalists will be picked at the end of the entry phase, and one winner of the grand prize will be picked at the end of the finalist phase.

At both points, the successful teams will be assessed, judged and selected based on five judging criteria by teams of qualified assessors (finalist phase only) and a panel of expert judges.

The judging criteria for the finalist selection are equally weighted at 20%, meaning they are all judged as equally important.

The five judging criteria are:

#### **Judging criteria**

- Innovation: Teams should demonstrate how their solution is an innovation in artificial intelligence (AI), compared to what is the current state of the art. This may be innovation in the underlying AI, a novel application of an existing AI approach, or both. (Innovation in the business model, marketing, or service design is not taken into account these feature in other judging criteria.)
- **Impact:** Teams should explain how their solution will deliver on at least one of the following:
  - o accelerate the UK's transition to clean energy technologies at scale
  - enable efficient or low-cost operations of clean energy systems
  - o significantly reduce energy demand, or optimise energy usage

Teams should indicate the speed and scale at which they expect this impact to be achieved, expected impacts by 2030, and anticipated longer-term impacts. Teams are asked to quantify this impact in expected greenhouse gas emissions saved.

- **Feasibility:** The team should show how their scientific and technical approach is appropriate and how the team has the capacity to deliver a working prototype by January 2026.
- Long-term viability: Teams should articulate why there is a credible path to adoption (commercial or non-commercial), and what their plan is to pursue it.
- Safety, ethics and sustainability: The team should show they are taking action to showcase best practice in developing and deploying safe and ethical AI, and how they are assessing and mitigating risks to environmental sustainability posed by their solution.



### What you can win

The Manchester Prize provides a range of support to finalist teams, designed to give each team the greatest possible chance of success and to enable them to develop their solutions as rapidly and effectively as possible, regardless of whether they win the grand prize.

#### **Prize Money**

- Up to ten teams will be selected as finalists in April 2025, and receive £100,000 each.
- One team will be awarded the grand prize in March 2026, and receive £1,000,000.

Funding must be used on research and development related to your proposal, however, you do not need to provide evidence of match funding. The funding is not a loan, we do not take any equity and you do not sign away rights to your intellectual property.

#### **Compute**

Throughout the finalist phase, teams will have access to a package of up to £60,000 of Compute to help develop their solutions. Further information on this will be announced in the future and upon consultation with potential applicants.

### Join the Finalist Community

Finalist teams will join our finalist community, with the opportunity to attend Manchester Prize Academy Days. These academy days offer a chance to network with fellow innovators in the prize's community and gain expert training tailored to support their development. Details on the full non-financial support package will be shared following finalist selection, with the offering designed to meet the unique needs of the teams.

### **Networking Opportunities**

Finalist teams will gain access to network with key stakeholders who may support their development goals. Through Manchester Prize events, finalists will be introduced to a network of key people in the AI ecosystem, investors, and potential adopters in the public and private sectors.



### **Entering the Manchester Prize**

#### **Entry process and guidance**

All entries should be made through the online form which can be accessed via the Manchester Prize website here - <a href="manchesterprize.org">manchesterprize.org</a>. The entry period runs from 19th November 2024 to 17 January 2025 at noon GMT.

The entry form must be completed by the lead entrant organisation.

#### It features:

- Questions about your team, so we know who you are and can check you are eligible;
- Questions about your needs, so we can understand how best to work with you if you are selected as a finalist;
- Questions about your solution, which can be assessed against the judging criteria;
- An optional survey, so we can understand our entrants better.

A <u>copy of the entry form is available to download</u> to help you develop and collaborate on your entry prior to the deadline, but entries must be made through the online Submittable form at <a href="https://challenges.submittable.com/submit/">https://challenges.submittable.com/submit/</a>

To access the entry form and submit an entry you will need to set up a <u>Submittable</u> <u>account.</u> Once you have started an entry you can save a draft and return to it at a later date to complete.

Before submitting your entry, please ensure that:

- You have read and understood the Manchester Prize <u>Terms and Conditions</u> and <u>Privacy policy</u>;
- Your team meets the eligibility criteria.
- Your entry is aligned with the <u>challenge statement</u> and <u>judging criteria</u>;



#### Support to enter

We have endeavoured to make the entry process as simple as possible, but you may still have questions. There are a number of ways that our team can support you.

- Reasonable adjustments. We are committed to making the entry process as
  accessible, efficient and practical as possible. If any reasonable adjustments would
  support you entering, catering for any additional needs you may have, please
  contact info@manchesterprize.org.
- **Join a webinar,** where we will talk you through the information in this innovator handbook and have the opportunity to ask questions. Visit <u>manchesterprize.org</u> to register for one of our upcoming informational webinars. If you cannot attend live, a recording will be made available after the event.
- 1:1 Calls. We especially encourage teams that are located outside of London and teams with more than 50% female members. We have a finite allocation of 1:2 calls that will be allocated on a first come first served basis to potential applicants from these groups. The calls will provide an opportunity to ask clarifying questions about the entry form and gain clarity on the judging criteria and application process. Please note that the team are unable to assist with support in drafting your solutions or providing feedback. Please email us to arrange a call.
- Email us. If you still have queries, contact the team on info@manchesterprize.org.



### What happens next?

After the deadline at **12 noon (GMT) on 17th January 2025**, an eligibility screen will be conducted to ensure entries all meet the <u>eligibility criteria</u>. All eligible entries will be assessed against the judging criteria by suitably qualified assessors.

A shortlist of the best entries in line with the judging criteria will then be provided to the independent <u>judging panel</u>, who will make recommendations for which entries should receive funding and advance through to the finalist phase.

The Department for Science, Innovation and Technology will make the final decision based on the judges' recommendations.

You can expect to hear about the status of your entry in April 2025. We are unable to provide you with individual feedback on your entry.

Information you provide in your entry may be shared with our partners (including our judges, and due diligence providers) for the purpose of administering the Prize. For more information on how we use your data, please have a look at our <u>Privacy policy</u> and the <u>Terms and conditions</u> of the Manchester Prize.

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