



ROYAL
ACADEMY OF
ENGINEERING

THE AFRICA PRIZE
FOR ENGINEERING INNOVATION

Applicant Guidance Notes

Africa Prize for Engineering Innovation

**Deadline: 22 July 2019, 4pm BST
(3pm GMT)**

All questions to be sent to: africaprize@raeng.org.uk

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About the Academy

Introduction to the Royal Academy of Engineering

As the UK's national academy for engineering, we bring together the most successful and talented engineers from across the engineering sectors for a shared purpose: to advance and promote excellence in engineering.

We provide analysis and policy support to promote the UK's role as a great place from which to do business. We take a lead on engineering education and we invest in the UK's world-class research base to underpin innovation. We work to improve public awareness and understanding of engineering.

We are a national academy with a global outlook and use our international partnerships to ensure that the UK benefits from international networks, expertise and investment.

The Academy's work programmes are driven by four strategic challenges, each of which provides a key contribution to a strong and vibrant engineering sector and to the health and wealth of society.

Strategic Challenges

1

Make the UK the leading nation for engineering innovation and business

Aim: support the development of successful engineering research, innovation and businesses in the UK in order to create wealth, employment and societal benefit.

2

Address the engineering skills crisis

Aim: develop an education and skills system that inspires people from all backgrounds and promotes UK engineering excellence.

3

Position engineering at the heart of society

Aim: improve public awareness and recognition of the crucial role of engineers everywhere.

Introduction to the Africa Prize

The Africa Prize for Engineering Innovation encourages ambitious and talented sub-Saharan African engineers to apply their skills to develop scalable solutions to local challenges, highlighting the importance of engineering as an enabler of improved quality of life and economic development.

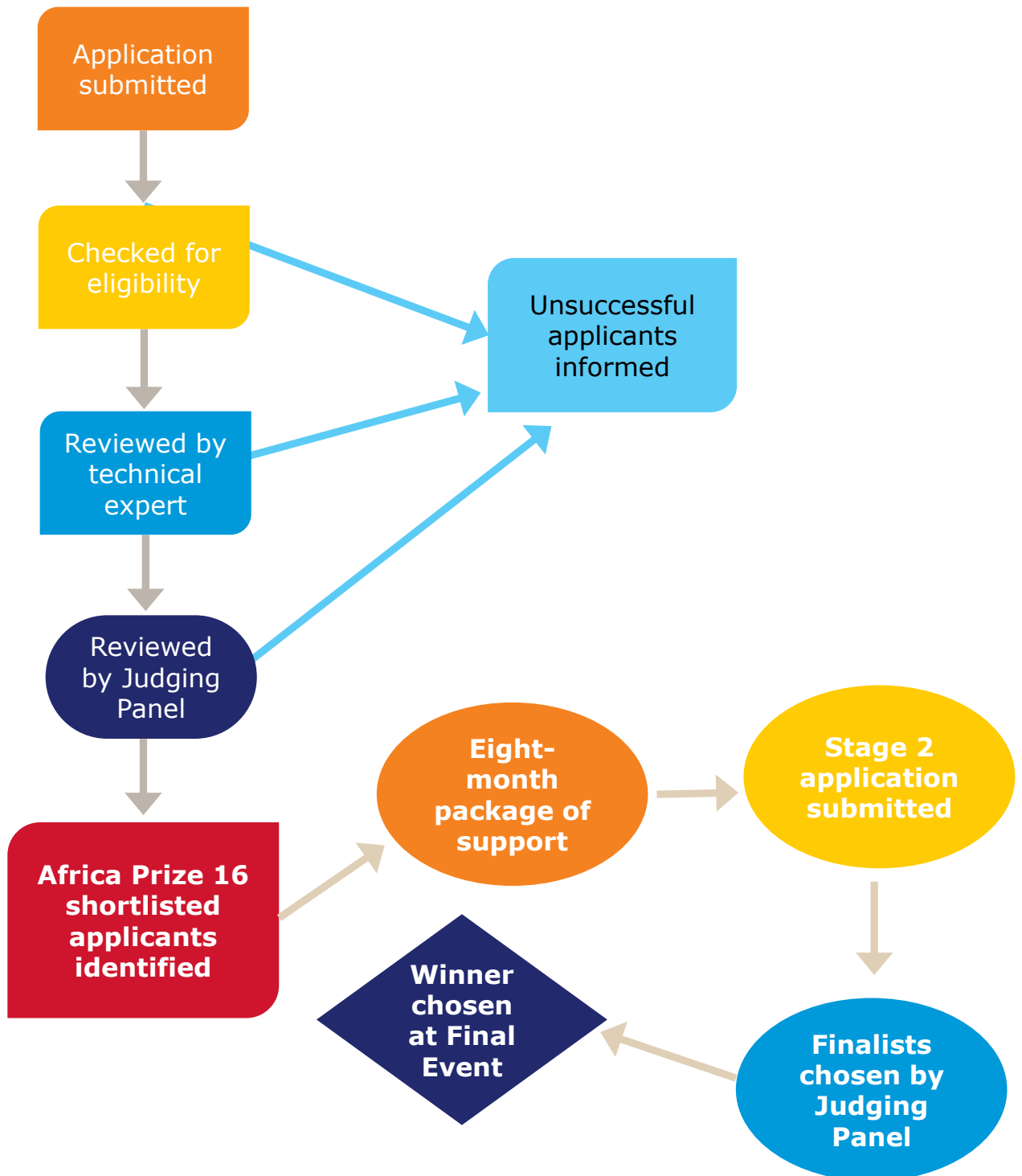
The aim of the Africa Prize for Engineering Innovation is to **stimulate**, **celebrate** and **reward** innovation and entrepreneurship in sub-Saharan Africa.

Applications are invited from entrepreneurs and engineers in sub-Saharan Africa who have developed an innovative product or service that can provide scalable solutions to local challenges, with a particular emphasis on sustainable social and economic development. Applicants with engineering-related innovations from all disciplines are invited to enter, whether or not the applicant themselves have an engineering background.

16 shortlisted applicants will receive an eight-month package of tailored support to help them achieve commercial success from their innovation, including three week-long immersion sessions, supplemented by remote support. The overall winner of the GBP 25,000 prize will be announced at a high-profile event in June 2020.



Application and Award Process



After the programme, all shortlisted candidates will be expected to provide brief progress reports to The Academy about the progress of their business six months and 18 months after the final event.

Africa Prize Training Process

Following the closing date, a shortlist of 16 applicants will be identified to receive an eight-month package of mentoring and training. The mentoring and training will be structured to give participants the skills and knowledge to:

- further develop their technology;
- strengthen and develop their existing business plans;
- successfully communicate their innovations through pitching;
- forge links with potential partners, investors and customers;
- move towards commercialisation, or scale up.

Training

The training will take various formats but will require that during the eight months you can commit sufficient time to these activities. All reasonable costs are covered to attend and participate in these activities.

The training period will run from November 2019 to June 2020. This includes:

- Three week-long immersion sessions*, in Africa and the UK;
- Remote group and one-on-one training and mentoring, taking place on a regular basis via video conference, telephone calls and webinars.

Selecting finalists

The shortlist will be asked to submit a full business plan and updates on their business from the first period of training, on our online system, by Thursday 30 April 2020.

The Judging Panel will review these and identify four finalists.

Final Event

The four finalists will pitch at the final event in Africa in June 2020 (taking place during the third immersion week).

The prizes will be awarded following an assessment of the pitches by the Judging Panel.

- The winner will receive £25,000
- three runners-up with receive £10,000 each.

The remaining shortlisted applicants will also be invited to display their innovations at an exhibition at this event.

* For the three immersion weeks, visa fees, international flights, airport transfers, hotel accommodation, subsistence and any in-country transport related to the training will be paid for by the Academy.

Eligibility Criteria

Applicants must have developed (or co-developed), or be in the process of developing (or co-developing) a new technological innovation. Applicants should have the ambition to take a leading role in creating a new business to commercialise this innovation.

The Africa Prize is part funded by the UK Government's Global Challenges Research Fund, and as such all activities must be compliant with Official Development Assistance (ODA) rules.

List of eligible countries in sub-Saharan Africa:

Angola	Madagascar
Benin	Malawi
Botswana	Mali
Burkina Faso	Mauritania
Burundi	Mauritius
Cameroon	Mozambique
Cape Verde	Namibia
Central African Republic	Niger
Chad	Nigeria
Comoros	Rwanda
Republic of the Congo	Sao Tome and Principe
Democratic Republic of the Congo	Senegal
Cote d'Ivoire	Seychelles
Djibouti	Sierra Leone
Equatorial Guinea	Somalia
Eritrea	South Africa
Ethiopia	South Sudan
Gabon	Sudan
The Gambia	Swaziland
Ghana	Tanzania
Guinea	Togo
Guinea-Bissau	Uganda
Kenya	Zambia
Lesotho	Zimbabwe
Liberia	

Eligibility Criteria

- Applicants must be individuals or small teams
- Individual applicants must be citizens of a country in sub-Saharan Africa
- For teams of two or more, the lead applicant must be a citizen of a country in sub-Saharan Africa
- The innovation must be based in a country in sub-Saharan Africa
- Applicants must have an engineering innovation, though are not required to be an engineering graduate or student
- Applicants must provide a letter of support from a university or research institution, this can be as simple as stating an individual studied at that institution. If applicants are not affiliated with a university, another document proving the status of your organisation or innovation, such as a document of incorporation or similar, can be used.
- The lead applicant must be over the age of 18. There is no upper age limit.
- Industrial researchers and establishments are not eligible.
- The applicant's innovation can be any new product, technology or service, based on research in engineering defined in its broadest sense to encompass a wide range of fields. This includes but is not limited to: agricultural technology, biotechnology, chemical engineering, civil engineering, computer science, design engineering, electrical and electronic engineering, ICT, materials science, mechanical engineering, and medical engineering. If you are in any doubt that your area of expertise would be considered engineering, then please contact the Academy to discuss your application.
- Applicants should have achieved the development of, and be in the early stages of commercialising, an engineering innovation that:
 - Will bring social and/or environmental benefits to a country/countries in sub-Saharan Africa;
 - Has strong potential to be replicated and scaled-up;
 - Is accompanied by an ambitious but realistic business plan which has strong commercial viability.

How to Apply

All applications must be submitted via the online Grant System, available here: <https://grants.raeng.org.uk>. You must register through the system before you can apply. The application form has six sections and will take approximately 1.5 hours to complete.

After logging in to the online Grant System please select **Africa Prize for Engineering Innovation 2019/20**. This will take you to the 'Instructions' screen. Here you will see some general instructions on how to use the system as well as the six sections of the application form:

- 1 Application details
- 2 Your Innovation
- 3 Your Business Plan
- 4 About You
- 5 Supporting Information and Declaration
- 6 Marketing

At any stage in the application process you can save your work and return to it later. The system will automatically save when you change pages but we recommend that you also save your work at regular intervals to avoid loss of data. You can answer the questions in any order so you may skip sections and return to them later if you wish. In order to submit your application, all sections and all required questions must be completed.

Once you have completed all sections of the application a 'Submit Application' button will become available at the bottom of this summary page.

How to Apply

1. Applicant details

Question	Information
Lead applicant details*	Please provide your full name and contact details.
Which country is your innovation based in?*	Please select from the drop-down list the country within sub-Saharan Africa where your innovation is based. If your country does not appear, please contact the Academy to confirm eligibility.
What is your nationality? (if different from above)	Please select your nationality from the drop-down list, if different than the country that your innovation is based in. If you are not a citizen of a country in sub-Saharan Africa, please select 'other'.
Team details*	If you are developing your innovation as part of a team, please give details of yourself and your team members here, including roles in the business/innovation and contact details.
Special Assistance	If you would require any special assistance during the residential or remote training due to a health condition or disability, please let us know.

Questions with an asterisk * next to them are required and must be completed by all applicants.

How to Apply

2. Your innovation

Question	Information
Innovation title*	Please provide the title of your innovation or project (maximum 50 words)
Business name	Please give the name of your business or company, if you have one.
One line pitch*	Please provide a one-line pitch for your business (maximum 50 words).
About your innovation/ product/ service*	Please give a description of the particular science, engineering or technology that underpins your innovation. How close in terms of development is the technology, product or service to market? (Maximum 300 words).
What makes your product/ service unique or innovative?*	Please explain what makes your innovation unique or different to other currently available technologies? What is its unique selling point? Consider your competitors. (Maximum 200 words).
Technological sector or research area*	Please select from the drop-down list the main technological sector or research area that your innovation derives from.
Which SDG or SDGs is your innovation working towards solving?*	Please select from the drop down list up to 3 Sustainable Development Goals (SDGs) that your innovation, product or service might make progress towards. See the full list here: https://sustainabledevelopment.un.org

Questions with an asterisk * next to them are required and must be completed by all applicants.

How to Apply

Question	Information
Videos, pictures and diagrams	<p>Please upload a short video and any pdf pictures or diagrams that illustrate your innovation.</p> <p>While it is not a requirement, it is strongly recommended that a video is submitted as part of your application.</p> <ul style="list-style-type: none">• The video should be no longer than two minutes and contain a personal pitch detailing the innovation and why it should win the Africa Prize for Engineering Innovation.• This video will not be assessed on its production values – a video recorded on a phone or webcam will suffice. This will be an opportunity for the Judging Panel to hear from you directly about the innovation in simple terms and see your passion for the innovation first-hand.• This video should be uploaded to a website where it can be freely viewed internationally by the Judging Panel (e.g. YouTube). You do not need to include any market sensitive information. <p>There is a file size limit, if the video will not upload please copy the link to a word document or similar and upload that.</p>
Website and social media	<p>If you have a website and/or Facebook page or Twitter account for your innovation or business, please paste the links here. Please only posts links to active accounts.</p>

How to Apply

3. Your business plan

Question	Information																								
<p>Business overview*</p>	<p>Please give a 300-word overview of your business, which may include:</p> <ul style="list-style-type: none"> • Your proposed business model and why you think it will succeed • the current status of your business and how close it is to being market-ready • your future vision for your innovation/business • costs associated with your innovation and prices for the customer. 																								
<p>Business profile*</p>	<p>Technology Readiness Level</p>  <p>MEASURE YOUR TECHNOLOGY READINESS LEVELS - TRL How technology ready is your service/product?</p> <table border="1"> <tr> <td>0</td> <td>IDEA Unproven concept, no testing has been performed</td> <td rowspan="3">} IDEA</td> </tr> <tr> <td>1</td> <td>BASIC RESEARCH You can now describe the need(s) but have no evidence</td> </tr> <tr> <td>2</td> <td>TECHNOLOGY FORMULATION Concept and application have been formulated</td> </tr> <tr> <td>3</td> <td>NEEDS VALIDATION You have an initial 'offering'; stakeholders like your slideware</td> <td rowspan="2">} PROTOTYPE</td> </tr> <tr> <td>4</td> <td>SMALL SCALE PROTOTYPE Built in a laboratory environment ("ugly" prototype)</td> </tr> <tr> <td>5</td> <td>LARGE SCALE PROTOTYPE Tested in intended environment</td> <td rowspan="2">} VALIDATION</td> </tr> <tr> <td>6</td> <td>PROTOTYPE SYSTEM Tested in intended environment close to expected performance</td> </tr> <tr> <td>7</td> <td>DEMONSTRATION SYSTEM Operating in operational environment at pre-commercial scale</td> <td rowspan="3">} PRODUCTION</td> </tr> <tr> <td>8</td> <td>FIRST OF A KIND COMMERCIAL SYSTEM All technical processes and systems to support commercial activity in ready state</td> </tr> <tr> <td>9</td> <td>FULL COMMERCIAL APPLICATION Technology on 'general availability' for all consumers</td> </tr> </table> <p>Technology Readiness Levels as adapted by the CloudWATCH2 project</p> <p>Find out more about CloudWATCH2 TRL: http://bit.ly/TRL_MRL</p> <p>Cloud Watch Think Cloud Services for Government. Business @ Research</p> <p>www.cloudwatchhub.eu CloudWATCH2 has received funding from the European Union's Horizon 2020 programme DG CONNECT Software & Services, Cloud, Contract No. 644748</p>	0	IDEA Unproven concept, no testing has been performed	} IDEA	1	BASIC RESEARCH You can now describe the need(s) but have no evidence	2	TECHNOLOGY FORMULATION Concept and application have been formulated	3	NEEDS VALIDATION You have an initial 'offering'; stakeholders like your slideware	} PROTOTYPE	4	SMALL SCALE PROTOTYPE Built in a laboratory environment ("ugly" prototype)	5	LARGE SCALE PROTOTYPE Tested in intended environment	} VALIDATION	6	PROTOTYPE SYSTEM Tested in intended environment close to expected performance	7	DEMONSTRATION SYSTEM Operating in operational environment at pre-commercial scale	} PRODUCTION	8	FIRST OF A KIND COMMERCIAL SYSTEM All technical processes and systems to support commercial activity in ready state	9	FULL COMMERCIAL APPLICATION Technology on 'general availability' for all consumers
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How to Apply

Question	Information
Business profile* (continued)	<p>Technology Readiness Level*: Please consider the current technology readiness level of your innovation, and select the most appropriate level from the drop-down list. Please note that a higher level does not mean you are more likely to be shortlisted for the Prize.</p> <p>Number of full-time paid researchers/employees*: How many people full-time and paid people are involved with your innovation/business? If none, please put 0.</p> <p>Other employees (part-time, volunteers, students etc): How many other people are involved with your innovation/business. This includes those who are unpaid volunteers, students and those not working full-time.</p> <p>Current investors: Which organisations, funds or individuals, if any, are currently invested financially in your innovation/business?</p> <p>Total capital raised*: How much capital have you raised for your innovation? Please convert this from a local currency to GBP using: http://www.xe.com/</p> <p>Total capital sought in the short term (next 2-3 years): how much capital do you aim to raise to achieve your goals for the next 2-3 years?</p> <p>Grants/Awards received: If you have received any other grants, prizes or awards, or been selected to participate in other training or fellowship schemes or similar, please list each here, with the year in which you were selected/participated.</p> <p>Business valuation: if you have established a business, please give an estimation of the business value before external investment. Please convert this from a local currency to GBP as above.</p>

How to Apply

Question	Information
<p>Market opportunity, competitors and competitive advantage*</p>	<p>Describe the market for your innovation, including:</p> <ul style="list-style-type: none"> • Market size and location • Current market competitors • Your competitive advantages.
<p>Customers and their perceived needs*</p>	<p>Please provide detailed information on your customers and their needs. This may include:</p> <ul style="list-style-type: none"> • Who are the customers for the product/service? • Are the customers also the end users? • What is the preferred route to market, and what channels will be used to reach customers? • Have you already spoken to potential customers? What have you learned from them? • What evidence is there that customers will pay for this product or service at commercially profitable levels?
<p>Major risks*</p>	<p>Please identify what you think are the major risks and challenges that you will have to overcome (e.g. lack of funding or securing intellectual property).</p>
<p>Partnerships and connections*</p>	<p>Please identify any other critical advisers, supporters or partners, beyond your current team. What are you looking to include in your team over the next two years?</p>

Questions with an asterisk * next to them are required and must be completed by all applicants.

How to Apply

Question	Information
<p>Does the business you are seeking to develop already exist as a legal entity? Has it been incorporated?*</p>	<p>Please select 'yes', 'no', or 'not applicable' from the drop-down list. If yes, please answer the sub-question by giving details.</p> <p>If no, please answer the sub-question by explaining any plan to create a legal entity in the future.</p>
<p>Has the IPR required for this innovation been licensed to any other organisation or person?*</p>	<p>IPR refers to Intellectual Property Rights. Please select 'yes', 'no', or 'not applicable' from the drop-down list. If yes, please answer the sub-question by giving the name of the organisation or person to which your innovation has been licensed.</p>
<p>If appropriate, has written agreement been reached with your affiliated university or research institute regarding equity distribution of the proposed business?*</p>	<p>Please select 'yes', 'no', or 'not applicable' from the drop-down list. If yes, please answer the sub-question by giving details on the agreement. If no, please answer the sub-question by explaining any plans or discussions underway regarding equity distribution.</p>

Questions with an asterisk * next to them are required and must be completed by all applicants.

How to Apply

4. About you

Question	Information
Personal qualities and experience*	Please explain what makes you and your team entrepreneurial and include details of any relevant experience you believe demonstrates this. What knowledge, skills and aptitudes do you possess which will help ensure your business is successful?
How will you benefit from the Prize?*	Successful applicants will receive eight months of entrepreneurial training and mentoring to increase their chances of achieving commercial success. Please outline what specific areas you would like to receive training on and the key attributes you would look for in a mentor.
Lead Applicant's CV*	<p>The format and content of your CV is left to your discretion. Your CV should be uploaded electronically as a PDF document.</p> <p>CVs should be two pages maximum. Please ensure the lead applicants CV is uploaded, additional team members can be uploaded optionally.</p>

Questions with an asterisk * next to them are required and must be completed by all applicants.

How to Apply

5. Supporting Information and Declaration

Question	Information
Supporting Document*	<p>The letter of support should not exceed two pages and include:</p> <ul style="list-style-type: none">• details on the nature of the affiliation between the applicant and the university or research institute;• an explanation of why the applicant is a suitable winner of the Africa Prize for Engineering Innovation;• comment on the involvement of the university or research institute with the innovation so far;• a description of any IPR, its ownership and status <p>If the university or research institute is not involved or has no affiliation with your innovation/product/service this does not make you ineligible. The letter is still requested simply stating in what capacity you are connected, i.e. a graduate.</p> <p>Alternatively, if you are not affiliated with a university, another document proving the status of your organisation, such as document of incorporation or similar, can be used.</p>
Applicant Declaration*	<p>Please read the declaration carefully, write your name and position and tick the checkbox to proceed, confirming you agree with the conditions of the Africa Prize.</p>

Questions with an asterisk * next to them are required and must be completed by all applicants.

How to Apply

6. Marketing

Question	Information
How did you hear about the Africa Prize for Engineering Innovation?*	Please select from the drop-down list of options, if not listed please select other. If 'Other', please answer the sub-question by giving details of where you heard about the Prize.
Have you applied to the Africa Prize before?*	Please select 'yes' or 'no' from the drop down list, this is for information and won't affect your current application.
Have you applied or participated in any other Academy programmes?	Please list any programmes or involvement with the Royal Academy of Engineering that you have had. (50 words maximum).

Submitting your application

Once you have completed all sections, please check your application and ensure you have uploaded any necessary documentation. You may now click on 'submit'. Please note the button will be greyed out until you have completed all required sections.

Terms and Conditions

This document sets out the conditions under which the Africa Prize for Engineering Innovation is offered. Please ensure that you fully understand the eligibility criteria and have read this document before applying.

General

The Africa Prize for Engineering Innovation is organised by the Royal Academy of Engineering. The Academy is a not-for-profit entity and takes no stake in any innovation or business shortlisted for the Prize.

An international judging panel (the Judging Panel) has been convened solely for the purpose of awarding this Prize and will make the final decision.

By entering the Prize, applicants will be deemed to have accepted and agreed to be bound by these terms and conditions.

All applications must be submitted in English.

The Prize

The overall winner will receive £25,000 (or local currency equivalent). Runners-up will also receive a cash prize of £10,000 each. This amount will be paid after the final event, which will take place in June 2020.

All applications will be acknowledged on receipt. Responsibility cannot be accepted for applications lost, damaged or delayed.

Any applications that are incomplete, late, do not adhere to the guidelines or contain false information will be rejected.

Selected applicants will be contacted by email by the end of September 2019.

By applying to be considered for the Prize, applicants warrant that all information submitted is true, current and complete. The Judging Panel reserve the right to verify the eligibility of all entrants and the veracity of all statements made.

Terms and Conditions

Publicity and further activities

Shortlisted applicants as well as finalists will be expected to participate in promotional activities where appropriate.

Unless otherwise specified, the video footage uploaded as part of any shortlisted application may be used as part of ongoing publicity for the Prize.

Liability

Protection of any intellectual property rights in any content submitted is the sole responsibility of the owner of such rights. The Academy recommends that no application is made before the protection of any such rights has been considered. All applications are made at the applicant's own risk and the applicant agrees to release the Judging Panel, the Academy, its employees and all other connected persons from any liability relating to infringement (whether actual or threatened) of any such rights by a third party anywhere in the world.

The applicant is solely responsible for the content of their application. In submitting an application to be considered for the Prize, applicants agree to fully indemnify the Judging Panel, the Academy, its employees and all other connected persons in respect of all actions, claims, costs, damages, demands, expenses, fines, liabilities, losses, penalties, sanctions, amounts paid in settlement, out of pocket expenses, interest, penalties, and all legal and other professional costs and expenses that may be incurred by any of them in respect of any claims that the nomination and the content that it contains infringes the proprietary rights of a third party.

Data protection

The Academy will hold all personal data in confidence and will not release it to any third parties without consent, except to those involved in the delivery, audit, review and evaluation of the Prize.

Equal opportunities

The Royal Academy of Engineering is committed to a policy of equal opportunities in that applicants will receive equal treatment, regardless of race, religion, gender, age or disability.