


## **BIEA International STEM Youth Innovation Competition**



**Frequently  
asked  
Questions**

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Questions**

**“Create a Future We Want to Visit”**

## What is British International Education Association (BIEA)?

The British International Education Association (BIEA) is a non-profit organisation with a simple mission: to promote the best of British educational practice overseas and to encourage, develop, share and learn from best practice from around the world.

“We don’t want the future to be an accident, we want it to be something we have shaped ourselves.”

**DAVID HANSON**  
BIEA STEM Chairman

## What is the BIEA International STEM Competition?

This is an annual STEM (Science, Technology, Engineering and Maths) competition open to students aged 9-21\*. The competition has been designed to encourage students from around the world to be able to meet and exchange their passion for STEM; to pass on technological innovation and unique insight; and to work together to create a truly global STEM community for the twenty-first century.

*\*Due to popular demand, we are exploring the possibility to extend the age range to include children in early years.*



## What inspired BIEA to hold this competition?

We know we can achieve great things if we have the will, and we wanted to highlight and showcase the talent of the youth of today. What better way to do that than by organising a competition? The development of science and technology should focus on the comprehensive development and care of human beings and life in the wider environment, providing positive progress for the planet as a whole.

We want to cultivate students’ scientific, technological and humanitarian attitudes towards the world through education. This is the aim of the BIEA International STEM Youth Innovation Competition.

At the same time, we want to address the drastic skills gap that has begun to emerge between the limited number of STEM graduates in the marketplace and the increasing number of STEM jobs available.



### Why is the competition's mission statement "To Create a Future We Want to Visit"?

Science and technology have changed the way we live; changes that are happening at a rapid rate. The younger generation has an increasing sense of responsibility towards the wellbeing of our planet as a whole. With our support they can become positive drivers of science and technology, and we shall be one step closer to having 'a future we want to visit'!

"It's so important to inspire the youth of today in STEM, for they will be the leaders of tomorrow - our future depends on them. Great work from BIEA for doing this competition."

**DR. SHAUN FITZGERALD**  
Director of the Royal Institution

### How do you keep students engaged and inspired by the competition, so they return year after year?

We achieve this by ensuring the competition theme selection is based on a humanitarian/ecological theme AND a technology category that is close to the students' hearts.

The criterias for the challenge are:

1. **Humanitarian/ecological theme:** an issue or challenge for humans or the environment that is relevant globally.
2. **Technology category:** the most innovative and cutting edge technologies that have a significant impact in the world today.

The challenge for the teams is to use the most innovative technology to tackle one of the most pressing issues in the world.



### What are the keywords or phrases associated with the competition?

**STEM for youth:** The participants are the world's future engineers, leaders and entrepreneurs

**International:** To communicate STEM education solutions to a global audience

**Planet care:** To instil a sense of responsibility to our planet

**Equality:** To promote equal opportunity for young people from all racial, social and religious backgrounds



### What makes our competition different?

Today's young people are spoilt for choices with so many competitions to choose from, yet our competition is gaining strength year by year. Here are a few things which make us different:

- Competition tasks included: report writing, oral presentation, technical innovation/modification, display work presentation, evaluation and mission execution
- Teamwork forms the basis of the competition. All tasks necessitate the team performing together
- The competition is task-based, encouraging teams to engage with the local community to develop their skills
- Robust judging criteria to ensure accuracy and fairness in the competition. Expert judges from a range of STEM disciplines (details can be found in later sections)
- An Oscar-style STEM Award Ceremony provides the show stage for award winners to have their moment of fame (details can be found in later sections)
- Exhibition of work to the public, a great opportunity to showcase innovation as well as practising key skills such as presentation (details can be found in later section)

“I didn't expect the judges to be top scientists. They were so engaged in the competition. The children were treated as fellow scientists, they were questioned and challenged.”

**MR. DARRYN GONSALVES**  
Teacher



### Who are your competition committee members & judges?

The competition committee is made up of BIEA's resident STEM experts, leaders of industry and subject specialists who share BIEA's passion for STEM. They volunteer their time to contribute to the competition. Each year, new industry leaders and academic experts offer their services because their expertise matches the current competition theme.

Typically, there is a minimum of 9 judges on the competition panel. Our judges are at the top of their respective fields and this is recognised and valued by the students and teachers.



## How do you ensure the successful delivery of the competition?

The competition design and timeline ensure different stages are fully monitored to bring delivery on time.

The competition is divided into three parts:

### 1. Regional Heats

Each participating country and region serve as a competition division.

### 2. The International Competition

36 finalist teams representing countries and regions around the world will be selected to participate in the International Competition. They will submit their working models and video presentations.

### 3. International Live Final

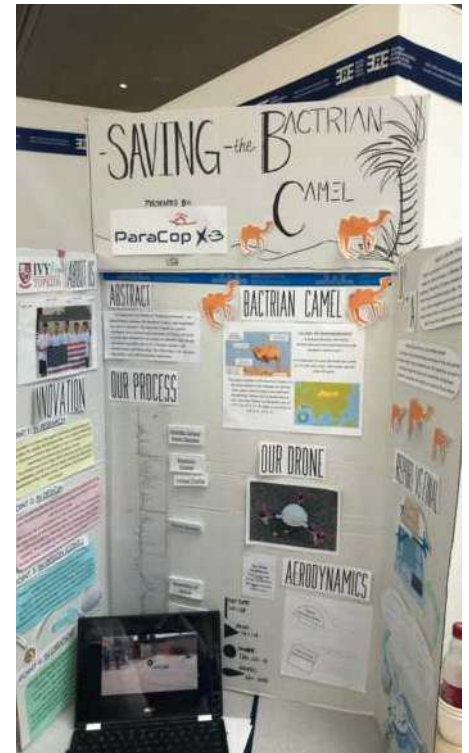
Finalist teams will compete in three tasks (display presentation, mission execution and evaluation)

**Oscar-style STEM Award Ceremony and Celebration:** where award winners have their moment of fame. The Celebration Party gives everyone a fantastic chance to make new friends, experience local culture and celebrate their achievements in a relaxed atmosphere.

**Technology Showcase** is a one-day STEM fair providing an invaluable opportunity for teams to present to the public, and share their passion for STEM with a broad audience.

“This conference, this idea and this scheme with BIEA STEM is absolute of the moment.”

**HOWARD JONES**  
CEO - Born Free Foundation



## What awards are offered by the competition and are they recognised internationally?

The competition has 14 award categories, including the £5000 Grand Prize, Best Presentation, Best Evaluation to Outstanding Achievement Awards, as well as awards for the teachers. The BIEA STEM winners will receive BIEA STEM Certificates, which are recognised internationally.

Competition projects can also achieve the British Science Association Silver CREST Award.

These awards can make a difference when applying to universities.

### Why is the competition officially launched at the annual STEM Conference in London?

The conference is a showcase of the latest technological research on the competition theme and the impact on STEM education. Its aim is to engage, inform and educate.

Each year the conference brings together a diverse and vibrant community of educators, researchers, entrepreneurs, philanthropists, policymakers and partners from industry providing opportunities for STEM contributors to connect, collaborate, share best practice and innovate for the future.

BIEA maximises media engagement around the STEM Conference to raise the profile both of the competition and our supporters.

### Why is the BIEA STEM Competition so popular with students, especially international students?

Education is at the heart of BIEA. For the teams who have travelled from far corners of the UK and the world, we are committed to making their competition experience unforgettable. Students have highlighted the points below as draws for their involvement.

- High level of practical inputs from students, instilling a high level of pride and ‘job satisfaction’
- The finale brings out the competitive spirit from the teams
- Display of the projects gives teams the experience of ‘pitching’ to a highly qualified panel of judges
- The students are treated as fellow scientists by the judging panel
- Internationally recognised awards, which are invaluable for university applications
- A great celebration party providing the perfect ambience for cultural exchange with like-minded young people

### Why is it necessary for teams to be registered only through their schools?\*

Entries must be registered through schools. This is because schools provide a concrete contact point for the competition. They are also best placed to support the teachers and students in their project and to ensure that safeguarding requirements are met. Schools taking part in the competition also become local hubs for BIEA, increasing the reach of BIEA competitions and STEM projects.

*\*Exceptions have been made to cover the entry of home-educated children, providing safeguarding requirements are met.*

“Great to see so many inspiring, young students brought together through an important STEM focus and sharing cultural links too!”

#### **ADRIAN FENTON**

Science Adviser: Public Engagement and STEM Education, British Council



### How can we encourage more schools to join the competition?

BIEA works with carefully selected regional partners to increase the reach of the competition to more schools from all corners of the world. The regional partners are responsible for the promotion and delivery of the competition & STEM programmes at regional level. They have strong local knowledge and connections, which ensure quality and reach of support.

"Unless the flow of plastics and industrial pollution into the ocean is reduced, marine life will be poisoned by them for many centuries to come."

**SIR DAVID ATTENBOROUGH**  
Naturalist

### Will the competition final always be held in London?

No. BIEA is open to host the International Final at other locations around the world. The Live International Final is the biggest showcase of the competition and it has always been BIEA's intention to bring the event to students who otherwise may not have the opportunity to attend the final. Interested parties can request an application pack from the head office.



### What is the 2020 Competition theme?

**SOS - Save Our Shores, with the slogan "STEM (Stop) the Tide of Plastic Pollution".**

**Plastic pollution** has become one of the most pressing environmental issues, as rapidly increasing production of disposable plastic products overwhelms the world's ability to deal with them.

Most of the plastic waste in the oceans, Earth's last sink, flows from the land. Waste is also carried to sea by major rivers, which act as conveyor belts, picking up more and more rubbish as they move downstream. Once at sea, much of the plastic waste remains in coastal waters.

Teams are being challenged to collect plastic waste from inaccessible and dangerous areas between water and land. They will develop their intellectual skills in considering ethical and evaluative arguments for tackling the 'plastic problem'.



### What can you tell us about the 2019 STEM Competition?

The 2019 competition ‘Using Drone Technology to Fight Animal Extinction’ was a huge success. BIEA partnered with Born Free Foundation, the leading charity on animal conservation.

We reached an estimated audience of 1 million globally. Headline statistics include: 76% UK school coverage, entrants from 34 countries and regions, over 1000 schools from the UK and the world, 30% of the entries were from girls, 13000 visitors to the technology showcase.

“At these young ages, you’ve already mapped a niche for yourself, I have no doubt that you will become celebrities in no distant time.”

**AMBASSADOR  
GEORGE ADESOLA OGUNTADE**  
Nigeria High Commissioner, UK

### BIEA 2020 International STEM Youth Innovation Competition Key Dates

The competition has a 12-month cycle. Registration is now from July 2019. The official launch date is 15th January 2020 and the Grand Final will take place in July 2020.

The key dates are:

- **15<sup>th</sup> Jan 2020**  
BIEA STEM Conference plus competition launch event in London
- **31<sup>st</sup> Mar 2020**  
Regional Heats ends
- **22<sup>nd</sup> April 2020**  
Announcement of international finalists
- **23<sup>rd</sup> April - 2<sup>nd</sup> Jun 2020**  
International Competition, Innovation and Presentation
- **2<sup>nd</sup> June 2020**  
Innovation and Presentation submission deadline
- **1<sup>st</sup> - 2<sup>nd</sup> Jul 2020**  
Grand International Final in UK (provisional)  
Day 1 - Technological Showcase  
Day 2 - Live International Final , award ceremony and celebration party





### **What other opportunities does BIEA offer to schools and students?**

BIEA also offers a STEM League (S-League) membership programme. This is a STEM resource platform offering a range of STEM education-related products and services. For further details, please make contact with head office.

### **What is the BIEA iSTEM Ambassador Programme?**

The BIEA iSTEM ambassadors are young people who are passionate about STEM. They are recruited and trained by BIEA in order to support and guide local and regional BIEA competitions around the world.

They participate in training and work placement programme, which is specially designed for university/college students. Through this programme, the ambassadors gain valuable working skills, build up their confidence and engage more young people into STEM.

In 2019, BIEA worked in partnership with TAC for the iSTEM Ambassador programme.

“We should revel in what science can do in terms of us helping address these challenges. If they have got the fire to do something good for the world, the world is in a safer place as a result of these young people.”

**PROF. CLAUDIO SILLERO**  
Chief Scientist, Born Free Foundation



### **Partnership Opportunity**

BIEA partners with universities, environmental charities and other non-profit organisations to deliver STEM education to a wider audience.

Your expertise can really make a difference to the 2020 International STEM Youth Innovation Competition. We are looking to partners with organisations that match our values of being ethical, innovative, enthusiastic, fun and environmentally responsible.

We are a young, dynamic and adaptable organisation that is open to mutually beneficial partnerships that will help us to deliver maximum impact and also help you meet your objectives.

### **Sponsorship Opportunity**

The BIEA International STEM Youth Innovation Competition exists because science, technology and innovation touch us all. Help us to keep the next generation informed, engaged and developing as future innovators. We look forward to working with sponsors keen to join us on this voyage of discovery.

We welcome support no matter how big or small. We have a number of sponsorship packages available for selection. For further details, please make contact with head office.



The BIEA International STEM Youth Innovation Competition isn't just about winning; it's about the journey and experience.

**Get in Touch!**

**To find out more, please contact:**



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**Main Site**  
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**Competition Site**  
 www.bieacompetition.org.uk



**Video Clips**  
 BIEA 2019  
 STEM  
 Conference



BIEA 2019 International  
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