

BIEA International STEM Youth Innovation Competition Regional Partnership Programme

BIEA International STEM Youth Innovation Competition

The BIEA International STEM Youth Innovation Competition is an event for students under the age of 18 which aims to raise the level of technological enthusiasm among students from all over the world. We hope to use our competition to stimulate students' passion for science, technology, engineering and mathematics (STEM), through building bridges between science, technological innovation, education, and industry. The competition is held every summer, and BIEA carefully picks its annual themes to reflect the most pressing issues facing our planet. In this year's competition, we are combining humanity, ecology and technology into a holistic and multidisciplinary challenge for students around the world.

What is a regional partner?

The BIEA International STEM Youth Innovation Competition is originated in the UK. We are looking for regional partners from all over the world who share our vision to pass on the spirit of our competition, to promote STEM education to the widest audience, and provide the opportunity for students to develop their creative skills in a technological world. Be part of our campaign to 'creating a future we want to visit'.

The BIEA International STEM Youth Innovation Competition Regional Partner will become the sole and trusted official partner of BIEA for a designated region. BIEA will share the resources of the competition and provide full support with the. As the sole official regional partner, there will be privileged access to exclusive BIEA STEM projects in the region:

1. The official regional partner

The official regional partner will have the right to organise recruitment of school teams to participate in the competition in the designated region. The partner will provide support services for the participating teams in the region before and after the competition. At the same time, the partner will have access to valuable

information from the BIEA Competition Organising Committee, which will help the partner reach every school and student in the area and encourage them to participate and enjoy the competition.

2. Host Regional Competition

The partner will be authorised to establish a regional competition under the guidance of the BIEA Competition Organising Committee. The partner is encouraged to bring in ideas and creativity reflecting the local culture, therefore allowing more local students to engage with the competition and its philosophy.

The BIEA Competition Organising Committee will allocate international competition places based on the participation level of the regional division.

Winners of the regional competition will receive the same BIEA International STEM Youth Competition Certificate as the winners of the UK Regional Competition. The awards are recognised by schools, universities and colleges in the UK.

3. BIEA STEM Ambassador Programme

As part of the BIEA International STEM Youth Innovation Competition, we have our own STEM Ambassador training Programme for university students. It is to encourage young people to volunteer their time and expertise to promote STEM to students in primary and secondary schools in original, creative and engaging ways. These university STEM ambassadors are inspiring volunteers supporting the STEM curriculums in local schools, raising awareness of STEM careers and support STEM activities in the community.

We have designed the training programme to be partnered with local universities, so the ambassadors have the opportunities to learn many essential skills for their career development:

- > **PRESENTATIONS:** Deliver a lecture or assembly around STEM careers.
- > **RESOURCES:** Support educators by developing resources and activities.
- > **PRACTICAL WORK:** Hands-on practical work to engage students with STEM subjects.
- > **MENTORING:** Provide mentoring or support with STEM projects and activities.
- > **WORKING WITH CHILDREN:** Learning about safeguarding and communication skills

On successful completion of the Youth STEM Ambassador programme, the Youth STEM Ambassadors will be able to support STEM projects in BIEA STEM centres and schools. There is also the opportunity for them to represent their home country, and visit other countries participating in the BIEA International Competition, thus gaining valuable international work experience.

4. STEM Skills Training Programme

The STEM Skills Training Programme will provide modular training topics for students and teachers. It has been developed using scientific research, and aims to be fair, inclusive and provides a pedagogical and rigorous approach to learning. Each module includes specific learning goals, practical experiments, and self-assessment. Classes will be held throughout the year. The flexibility of the modules allows students and teachers to mix and match their training according to their needs and interests, and challenges students to think outside of the box.

The student course modules will include programming (Python), debate and presentation, robot architecture amongst other things. The teacher modules will include STEM career development trends, STEM teaching techniques, and internet anti-addiction intervention techniques amongst other modules.

Students who have completed a training programme of 1-5 days will receive a BIEA STEM Training Certificate, which is recognised by schools in the UK and can be used as evidence of STEM skills when applying for a school. The teacher will receive a BIEA STEM Continuing Professional Development (CPD) certificate.

5. Competition Skills Training Programme

The Competition Skills Training Programme will be tailored to the skills expected in the annual competition. The programme will be held on demand throughout the year. The course instructors are led by experts from Imperial College, the British Council and the UK Department of International Trade. The course covers topics such as academic report writing, STEM career planning, research presentations and showcase, and are designed to be cutting-edge, comprehensive and practical. Running in parallel, a separate programme is open to STEM teachers, providing courses for the preparation of competitions, teaching guidance and similar modules to improve teachers' STEM teaching ability.

All participants will be divided into classes corresponding to the age groups of the competition. The duration of the course is 6 days.

Students participating in the training will receive the BIEA International STEM Youth Competition Skills Training Certificate, and the teacher will receive the BIEA International STEM Youth Competition Skills Training (Mentor) CPD certificate.

6. Competition Camp Programme

The Competition Camp Programme will be held during the International Finals and will be divided into *contestant* and *non-contestant* camps, which will be tailored according to the theme of the annual competition.

The participants in the contestant camp will participate in a pre-competition orientation, and will be given workshops on the competition, flight training (for the theme of the 2019 competition) and other skills training. After the competition, they will participate in the STEM Study Tour Programme in the UK. The teams' lead teachers will also receive STEM competition guidance, STEM teaching skills and other practical training. The participating teams will also have the opportunity to bond with other peers in the camp, following the principle of 'STEM education first, competition second'. The camp will last 10 days and include 3 days for the international final.

Non-contestants will be able to observe the competition and support their teams. There will be opportunity to participate in post-competition training and the awards ceremony alongside the contestants.

After the training, the team leading teachers will receive the BIEA STEM CPD Certificate, and the students will receive the BIEA STEM Training Certificate.

7. STEM Camp Programme

The BIEA STEM Camp Programme invites STEM education, technology and business elites to provide comprehensive, rich and professional STEM training courses for students, parents, STEM educators and technology industry practitioners. Visits to STEM landmarks such as the Royal Air Force Museum are highlights of the camp, combining theory with practice. Here, students will learn STEM skills, teachers

will learn about STEM education guidelines in various countries, and technology practitioners will learn about how cutting edge science and technology can be used to engage the next generation of STEM specialists. The camp will last for 10 days.

At the end of the camp, students will receive the BIEA STEM Camp Certificate, which is recognised by schools in the UK and can be used as evidence of STEM skills when applying for a school. Adults will receive BIEA STEM Camp CPD Certificate, accredited by CPD UK, which will add value to their career development.

8. STEM International Inter-school Exchange Programme

BIEA will facilitate and organise partners in various regions to take part in national/international inter-school exchanges on STEM topics. Students in the region not only have the opportunity to link up with the STEM enthusiasts of the same age but also have the opportunity to visit schools in the United Kingdom, the United States, India and other places to experience local cultures and establish cross-border STEM friendships.

9. STEM Centre Project

An integral part of the BIEA STEM League, the BIEA STEM Centre is a centre of excellence and inspiration for students, teachers, schools and parents.

The main objectives of the centre are to widen access to science, technology, engineering and maths (STEM) subjects, to connect STEM-related knowledge and skills to a range of vocational areas, and to use the practical teaching and learning facility to enhance learners' transferable skills. The centre will use its training facilities to deliver BIEA STEM training programmes to a wide range of audience.

It features an array of exhibitions and work areas to help inspire young minds. The spaces will be used to showcase new STEM projects with practical demonstrations for teachers.

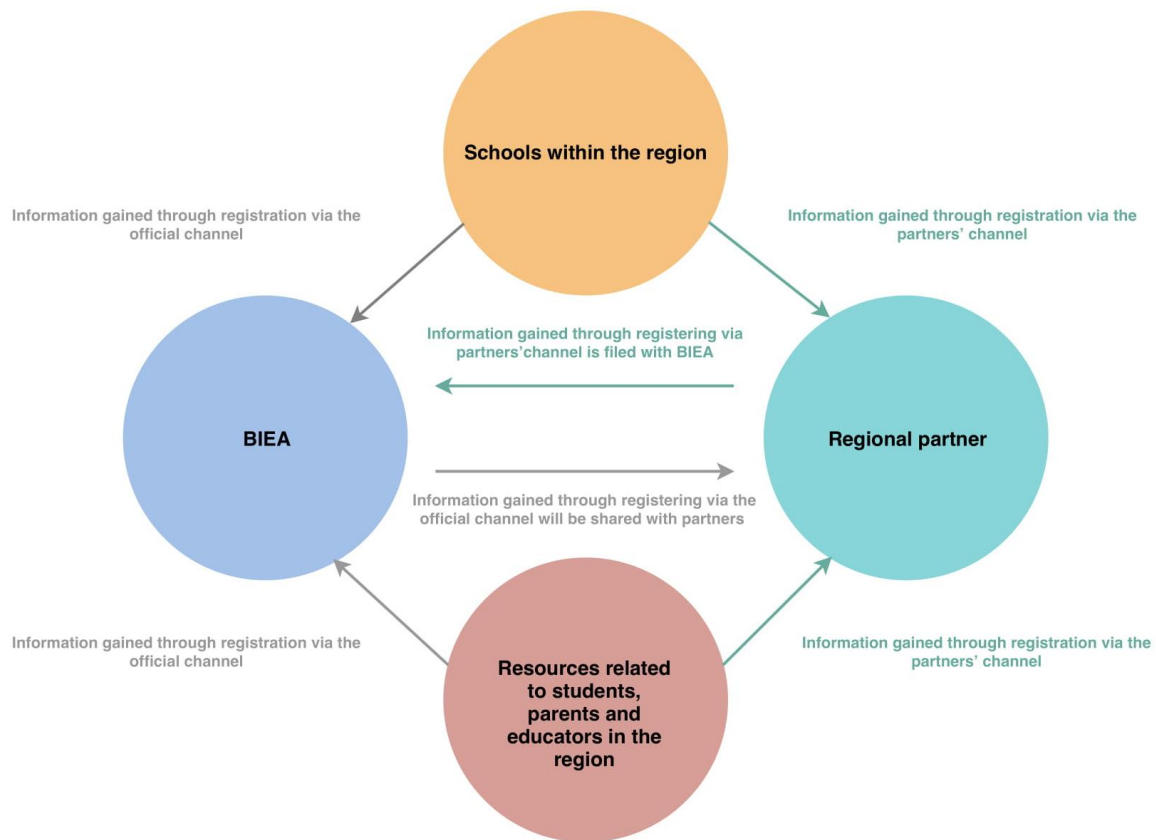
The STEM products and courses on display are available to purchase for schools and parents. Where schools do not have STEM facilities or existing resources available, the centre can be booked for STEM learning sessions along with experienced supporting staff.

In addition, BIEA will continuously build on existing STEM resources and deliver more STEM-related projects to regional partners to promote the development of STEM education.

BIEA's Relationship with Regional Partners

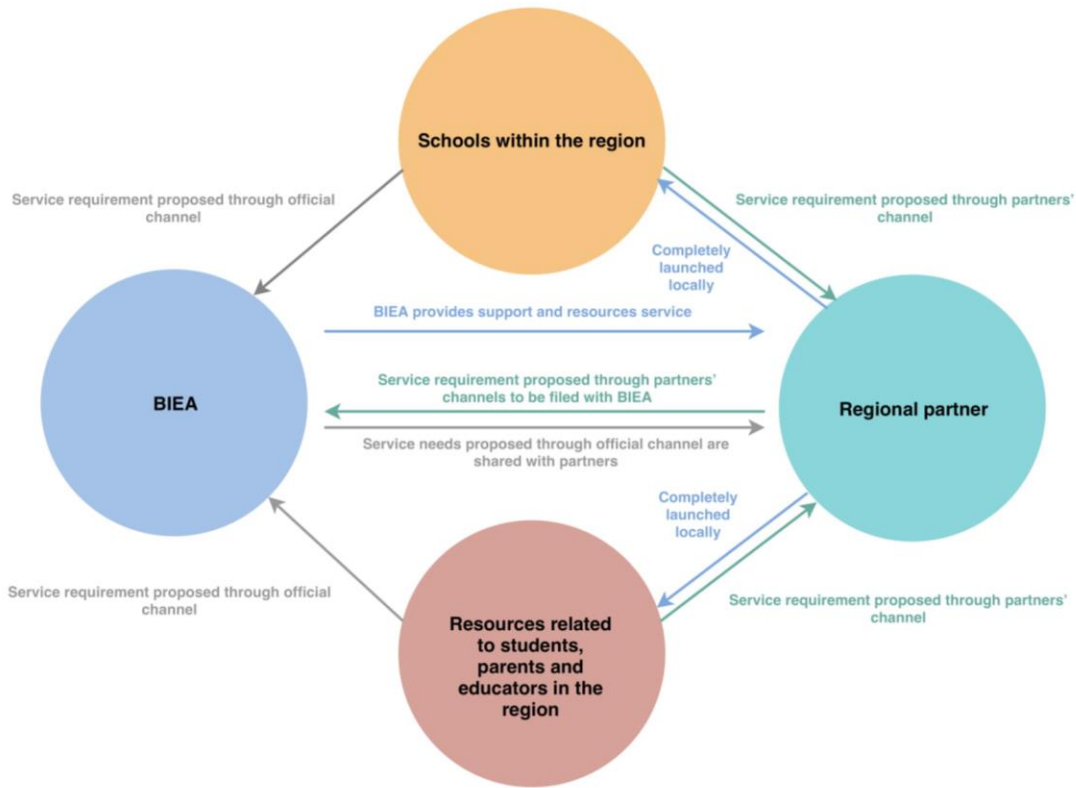
BIEA will share information of the regional participating schools and other resources with

regional partner



1. BIEA will share information of relevant schools and other resources in the region obtained through the official BIEA channel to the partner.
2. Information about the schools and other resources in the region acquired by the partner must be filed to BIEA.

BIEA will provide comprehensive service support to the regional partner

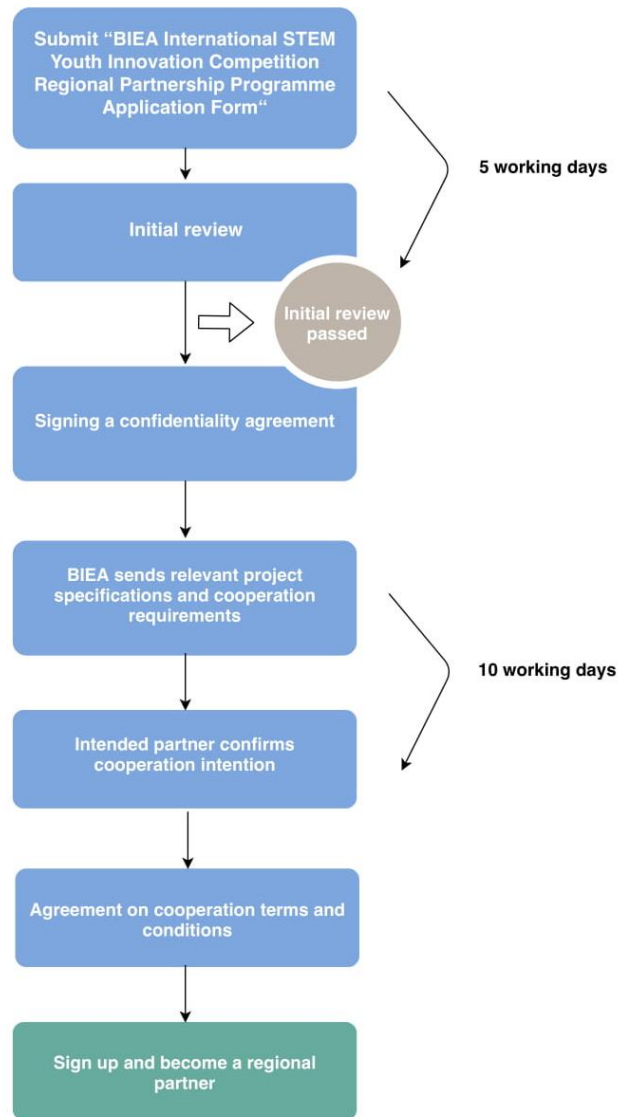


1. BIEA will share the information on service needs provided by schools or other resources in the region via BIEA official channels to the partner.
2. BIEA will provide the partner with a full range of resources and support for a successful implementation.
3. The delivery service in the region will be carried out by the regional partner.

How to Become a Regional Partner

BIEA welcomes organisations from all over the world to join us and ensure quality STEM education reach a wider audience.

To become a regional partner, the following selection process will be applied:



Application procedures and information:

1. Application Form & Scoping Report

- a) Complete the “BIEA International STEM Youth Innovation Competition Regional Partnership Programme Application Form” and submit a short scoping report (See appendix). Email to competition@biea.org.uk
- b) You shall receive a confirmation email. If there is no partner in the region, BIEA will assign a dedicated team to register the applicant information. The application is then submitted for an initial review.

2. Initial review

- a) BIEA will respond within 5 working days after the application is entered for initial review. If multiple organisations in the same region apply at the same time, BIEA will postpone the announcement of the preliminary review result, the applicant may have to provide further supporting information.
- b) If the application passes the initial review, it will enter the first stage.

3. The first stage:

- a) Signing a confidentiality agreement.
- b) BIEA will send relevant project specifications and cooperation requirements.
- c) The applicant will evaluate the project and cooperation requirements within 10 working days.
- d) If the applicant completes its own evaluation and confirm intention to cooperate, the application will enter the second stage.

4. The second stage:

- a) BIEA will send regional partner cooperation agreement and project cooperation agreement.
- b) Both parties will discuss cooperation details and agreement terms.
- c) If the two parties reach an agreement, it will enter the final stage.

5. Signing an agreement

- a) Two parties to sign a binding contract, the applicant officially becomes a regional partner.
- b) BIEA issues regional partner authorisation.
- c) BIEA announces the regional partnership publicly.

We look forward to welcoming you on board, to create a future we want to visit!

For further information, please contact: Alex Zhang, Director of BIEA Competition

(E-mail: competition@biea.org.uk, contact number: +44 (0) 20 7887 1445/1446)

Competition website: www.bieacompetition.org.uk