

RULES AND REGULATIONS OF EOES

DEFINITIONS

Member country: the country, represented by the Country Coordinator (CC) in The EOES association.

Country Coordinator (CC): person designated by the Ministry of Education of a Member country or an Institution delegated by the Ministry, to be the contact point for EOES in their country and who also leads the delegation.

The CC is a Member of The EOES association and can also be a mentor.

Delegation: a group of the CC, other mentors, observers and students participating in the competition on behalf of a Member country.

Mentor: a person who is part of the country delegation; usually due to their expertise in Biology, Chemistry, Physics.

Observer: a person who is either representing a new member country, a prospective member country, or an additional mentor in a delegation.

The Organiser: The institution/body with overall responsibility of organising the competition in a given year.

Host Country: the country in which the EOES is being held in a given year.

Director: The Executive in charge of the organisation of the competition, appointed by the Organiser.

International jury: mentors from each participating country form the International Jury in the year of the competition.

Jury member: mentor or country coordinator of a national delegation in the year of the competition.

Executive Board: The Executive Board of the Association of the EOES

Governing Body: The Governing Body of the Association of the EOES.

AIMS

The Association of EOES promotes the scientific education for European Union (EU) second-level school students. This objective is accomplished through experimental and laboratory activities in the fields of biology, chemistry and physics.

In particular, the Association of EOES ensures:

- The organisation of an annual competition called European Olympiad of Experimental Science (EOES).
- The exchange of ideas and materials about science education with emphasis on experimental sciences within the EU member states, in order to improve science education at national levels.

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1 REGULATIONS of EOES

1.1 COMPETITION

The EOES is an annual competition for qualifying students from member countries. The competition is organised by one of the Member countries, who can also participate in the competition. All member countries are invited to participate in the competition. The EOES should take place in spring time from late March to mid May.

The EOES is built on the spirit of 'fair play', where mentors and all involved in the competition, conduct themselves in a way to give equal opportunities for the students, maintain the secrecy of the tasks and marking, translate faithfully and behave in collegial manner to fellow delegations and organisers.

1.2 PARTICIPATING COUNTRIES

The participating countries in EOES in any year must be members of The EOES association for at least one year before the competition. They must send the Observer one year before participating with a delegation.

1.3 DELEGATION

A full delegation of each participating country consists of at most two teams, Team A and Team B, of three students each, accompanied by up to three mentors.

- (a) Students must be 16 years of age or younger on December 31st of the year prior to the competition and attend a second-level school (corresponding to ISCED level 2 or 3) in the country they participate for.
- (b) The selection of the team members is carried out by the individual countries. The members of teams should be the winners of a national competition of the current school year.
- (c) Each student may participate no more than twice in the EOES.
- (d) The students are accompanied by at least one and up to three Mentors who share between them expertise in Biology, Chemistry and Physics.

Each delegation may include additional Mentors (**Observers**), who must pay a participation fee determined by the Organiser.

The Country Co-ordinator (CC) (or their designated person) can also act as a mentor.

- (e) The CC is the head of the national delegation. The main duties of the CC are:
 - to ensure that participation of their country in the EOES is arranged;
 - to organise the selection of students to represent their country at the EOES;
 - to arrange appointment of Mentors and to provide them with all relevant information on the upcoming EOES;
 - to act as the contact person of the country during the ongoing EOES and until the next EOES.
- (f) Observers may be additional members of a national delegation or are invited to observe by the Executive Board of The EOES association or Organiser. The role of the Observers is also to observe the running of all aspects of the EOES. This should serve as a preparation for future participation in, or organisation of, the EOES. Observers may attend all Governing Body and International Jury meetings in a non-voting capacity. Observers must pay a participation fee as determined by the Organiser. If possible, the Organiser should also allow countries participating with a full delegation to bring additional Observers who may act as translators.

1.4 THE ORGANISER

Member countries of The EOES association take turns organizing the competition.

The Organiser of the EOES invites all countries who are members of The EOES association to participate in EOES, and ensures equal participation of all delegations. The Organiser can invite, on the recommendation of the Executive Board, delegations from other countries as observers.

The Organiser is obliged to organize the EOES according to these Rules and Regulations of EOES and to follow established practices of the EOES.

The EB decides on future host countries for EOES.

The criteria for accepting a future EOES host are:

- An official letter from Ministry of Education or similar governmental body confirming the willingness of the country to host an EOES in a particular year, and
- Naming the institution/body responsible for the organisation and other bodies that will be involved (*e.g.*, universities) with an outline of their main tasks;
- Naming the institution(s), that guarantee(s) the availability of the required funds necessary to carry out the EOES.

(a) Prior to, or at the preceding EOES, the next Organiser must announce the exact dates of the EOES and give a detailed report to the Governing Body on the progress towards the preparation of the EOES. The subsequent organisers should, if possible, also announce the date and location of the subsequent EOES.

(b) For the management of the EOES the Organiser must appoint:

- a Director with overall responsibility over the event;
- a Scientific Committee with at least six members including a chairperson;
- an Organising Committee together with a chairperson.

(c) The Organiser must invite one or two members of the Executive Board to visit the host country 3 to 6 months prior to the competition to assess the progress of the preparations. A report from this visit should be sent to the CCs of all participating

countries. The costs of the visit must be borne by the Organiser.

(d) The Organiser must provide for the period of the EOES:

- detailed programmes of the EOES for Students and Mentors/Observers;
- suitable accommodation and subsistence for each delegation;
- transport from and to the designated Port, Airport or Bus/Rail station to the venue of the competition as well as transports during the official programme;
- suitable rooms and facilities for the discussion, translation, printing and evaluation of the tasks;
- laboratories, materials and other amenities necessary for the competition;
- a room and facilities for a Governing Body meeting;
- suitable measures to ensure the health and safety of the delegations;
- at least one guide per student delegation;
- a cultural and social programme for students and mentors/observers, and
- medals and certificates for all participants.
- suitable measures to ensure the impossibility of communication between students and mentors during the day of analysis of the Task until the students finish the Task.
- suitable measures to ensure the impossibility of communication between students of Team A and Team B during the day of the completion of the tasks (remove cell phones etc.) (+ Emergencies)

(e) After the EOES, the Director must send the final tasks, answer sheets, solutions and marking schemes with the full results of each team to the Officer for Science and Assessment of the Executive Board. The original scripts remain in the possession of the Organiser for a period of one year, after which they are destroyed.

The Director is responsible for providing a written report on the EOES to the Executive Board during the following EOES. The report should be in electronic form and should include:

- Organisation: listing of organizing, scientific, and other assisting groups/committees, with outline of their tasks.
- Programme with some focus upon social and cultural activities.

- List of participating countries and the names and roles of all participants (students, mentors, observers, guides) at the EOES.
- The tasks, their solutions, and the marking scheme and overview statistics on the results including a summary of the results for each task, a comparison of results before and after moderation and the final ranking of all medallists. The results of the bronze medallists should only be given without team and country names.
- An account of important decisions of the International Jury during the EOES.
- List of sponsors.
- Confirmation statement that all responsibilities in relation to GDPR issues have been dealt with.
- Any other information deemed interesting or important.

1.5 FINANCIAL MATTERS OF THE EOES

The total cost of running the EOES in the particular year is borne by the Organiser.

Each participating country must pay the travel expenses of their delegation to and from the designated Port, Airport or Bus/Rail station in the host country.

Each participating country must provide adequate travel, medical and other insurance cover for its entire delegation.

Observers (and additional mentors) must pay the participation fee determined by the Organiser in the official invitation letter.

2 RULES OF THE COMPETITION

2.1 STRUCTURE OF THE COMPETITION

The EOES competition is carried out over a period of seven to eight days, typically:

- day of arrival,
- day for the opening ceremony and the discussion/translation of the first task,
- competition day for the first task,
- day for the discussion and translation of the second task,
- competition day for the second task,
- day for the moderation of the results,
- day for closing ceremony and a farewell party,
- departure day.

In the case of a seven-day schedule the last three days may be compressed into two.

The two-part competition is spread over two days with an interval of at least one day. Any alternative schedule must be agreed in advance with the Executive Board.

The business of all meetings is conducted in English.

The display of national flags by the delegations during the opening and closing ceremonies is not allowed.

2.2 TASKS

2.2.1 Preparation of Tasks

The Scientific Committee appointed by the Organiser is responsible for preparation of the two tasks for the competition. The tasks must be practical activities about integrated science, incorporating elements of Biology, Chemistry and Physics, that enable the competitors to exhibit their knowledge and skills as well as their ability to think creatively and to work together as a team. Each task must be designed so that they take no more than four hours for a 'typical' team to complete. This time includes reading time.

Each task should be designed as a series of problems so that the team can achieve a number of milestones or stage results.

2.2.1.1 Topics

The topics for the tasks should be selected from the correspond as far as possible with the ~~science syllabi / curricula / EOES syllabus~~ ~~topic lists for sixteen-year-old students in the secondary education system of the EU member states.~~ Additional topics may be investigated in the tasks provided sufficient information is given in the tasks themselves or provided in the hints in advance of the competition. This also applies to the use of sophisticated apparatus or specialised techniques.

2.2.1.2 Hints

Prior to the EOES, the Organiser should provide information (hints) to all the CCs of the participating countries on any additional topics or techniques / equipment used in the tasks that students would not be expected to have encountered at school and/or that is not explained in sufficient detail in the tasks themselves. Hints should be provided prior to 31st of December in the year before the competition.

2.2.1.3 Task Format

The tasks of the two competition days are provided to the teams in written format. The total number of characters in the task document, and the corresponding appendices of each day should not exceed 30,000 characters including blanks in the English version proposed by the Scientific Committee. The written text should be sufficiently clear/detailed so that no additional verbal instruction or explanation about procedures is necessary while performing the task.

All answers to the task must be presented in an Answer Book (one final answer book per Team). Answers required must not be language dependent. For example, responses should be alphabetic, numerical, graphical, illustrative, formulas or tick box. A laboratory assistant may judge and mark achievements during the Task, if agreed following evaluation of Tasks. This may be necessary in instances e.g. to note that data was recorded correctly (e.g. colour of a prepared solution).

2.2.1.4 Marking scheme

In the marking scheme the following general criteria should be addressed:

- expected number of significant figures and units for results;
- evaluation of the quality of the data;
- formal criteria to be applied for tables, graphs (e.g. size, captions, best fit line ...)

The marking scheme should avoid negative marking.

2.2.1.5 Safety

The tasks should be safe to be conducted by minors and include appropriate safety regulations where necessary. If required, procedures with an elevated risk should be conducted by or under the direct supervision of trained laboratory personnel.

Guidelines for the proper disposal of any hazardous waste should be available. If disposal is to be carried out after finishing the tasks, these guidelines can be separate from the task proper and do not count towards the maximal word count and time limit.

No experiments should be carried out which cause deterioration of the living conditions of vertebrates. No handling of species protected by EU law is permitted.

2.2.2 Discussion and translation of tasks

During the EOES, both tasks (including the written instructions, solutions and the marking scheme) must be approved by the International Jury in advance of students undertaking the tasks. Each task together with its solution and marking scheme is discussed in a meeting of the International Jury with the Scientific Committee. At least one hour prior to this discussion, the Scientific Committee shall provide the CC or mentors with:

- the proposed text of the task, in English;

- solutions to problems and typical example results;
- the detailed marking scheme for the task.

This information should be provided in digital and printed form.

2.2.2.1 Task materials and equipment

At least one complete set of the materials and equipment to be used in the Task must be made available to the International Jury for demonstration and inspection in the discussion room. Exceptions are possible for large or sensitive equipment and perishable material.

2.2.2.2 Digital commenting

Prior to the discussion, it is recommended that digital versions of the tasks are provided on a real-time collaboration platform where members of the International Jury can suggest changes and post comments. This is to facilitate changes and to help in coordination and subsequent discussion of the texts. **GUIDELINES**

2.2.2.3 Discussion

Each task together with its solution and marking scheme is discussed in a meeting of the International Jury with the Scientific Committee. The chairperson of the Scientific Committee is usually nominated to chair this meeting. Depending on the level of integration of the task, the meeting may split up into three sessions, one for biology, one for chemistry and one for physics, running sequentially.

The members of the Scientific Committee responsible for the development of the (part of a) task must be present during the session where it is discussed. To introduce the task, the Scientific Committee should give a short presentation on each (sub-)task including the expected answers.

After the introduction, the task, the solutions and the marking scheme are open for discussion. Suggestions for changes can be made and must be approved by the International Jury. Decisions are made by simple majority. Each country has one vote. In case of a tied vote, the chairperson has the casting vote.

At the end of the discussion, the International Jury votes to approve the (part of a) task. The Scientific Committee then provides an updated final version of the task, the answer sheet, the solutions and the marking scheme in which all changes with respect to the original versions are highlighted.

2.2.2.4 Translation

Mentors faithfully translate the final version of the tasks, including the answer sheets, from English into their chosen language. No additional explanations or hints are allowed in the translated text. When the complete tasks have been translated, the Country Coordinator or his/her nominee provide the digital translations to the Organisers. They will print both the approved English versions (if required) and the translated tasks and answer books for both teams. The Country Coordinator or his/her nominee check the printed tasks, and answer books, seal them in envelopes and sign off on the tasks.

2.2.2.5 Task Security

The International Jury members are obliged to keep all information about the tasks confidential until all students have completed the tasks. This also applies to any Observers who were in attendance.

2.2.3 Evaluation of tasks

2.2.3.1 Independent assessment

The completed answer sheets from each Team are copied for independent marking by the Scientific Committee and the Mentors after the test. The Mentors assess the answer sheets of their own Teams only. Adequate time should be allowed for the assessment.

The assessment by Mentors is carried out according to the agreed marking scheme and based on the expected answers provided by the Scientific Committee after completion of the Tasks.

No multiple penalization for consequent or consequential errors must occur, except in cases where a mistake in one part leads to a considerable simplification of a subsequent part.

2.2.3.2 Exchange of marks

At an agreed time and place, copies of the marks awarded by Mentors for their teams and marks awarded by the Scientific Committee for the same teams must be exchanged between the Director (or his/her nominee) and the Country Coordinators (or their nominees).

2.2.3.3 Moderation and Final marks

Following the exchange of marks, possible discrepancies in the marking are resolved in the moderation process. A timetable for moderation is drawn up, giving all participating countries an equal time slot for moderation. During the moderation the Mentors of each country are allowed a given amount of time (usually no more than 15 minutes) to discuss any errors that they feel were made in marking with members of the Scientific Committee. The final mark for each Team is agreed and signed off by CC (or his/her nominee) and the representative of the Scientific Committee. The Chairperson of the Scientific Committee may be involved to clarify any marking issues.

Mentors should not exceed the time allocated to them for moderation.

2.2.3.4 Appeal Process

If no agreement can be reached on the final marks for a Team at moderation, the Mentors may appeal to the designated officer of the Executive Board in the first instance. (This officer is identified at the first meeting of the International Jury.) If not resolved satisfactorily, the Mentors may raise the matter with the International Jury; following discussion, the final decision is taken by simple majority vote, one vote per country. In the case of a tie, the President of EOES has the casting vote.

Following moderation, each CC receives the final marks for their teams for confirmation.

The original scripts remain in the possession of the Organiser for a period of one year during which time they can be viewed by the Officer for Science and Assessment of the Executive Board.

2.3 PRIZES AND AWARDING

A meeting of the International Jury decides on the exact divide of the medal awards. The Director presents graphically the distribution of marks – note the exact marks are not used but the distribution is clear.

Based on this data, the number of gold, silver and bronze medals to be awarded are determined by the International Jury, according to the following percentages:

- Gold medals: approximately 10% of the contestants, but not more than 15%.
- Silver medals: approximately 30% of the contestants, but not more than 35%.
- Bronze medals: all remaining contestants.

The medals are awarded during the official closing ceremony of the EOES and are proclaimed on a team basis. Each team member receives the appropriate medal of the team.

Bronze medal winners must be announced first in random order and without disclosure of their actual rank. The Silver medal winners must be announced next in reverse order, e.g. the team receiving the lowest score announced first. The Gold medal winners are then announced in reverse order with the top team being the last to be announced.

The team receiving the highest total score receives gold medals and the Perpetual Challenge Trophy. **NAME!**

Each team member receives a Certificate indicating the medal received. Each Mentor and Observer must receive a certificate of participation at the EOES.

3 GDPR

Each CC is responsible for complying with their National rules and guidelines governing GDPR. All personal data of students collected for National selection of teams and of Delegation members must be treated in accordance with their national rules and it is recommended that all such data is deleted within one year (excluding names, schools and contact details).

The Organiser of the EOES should appoint a Data Protection Officer who is responsible to ensure that all Data collected from each Delegation is dealt with in a responsible manner and in a manner that complies with EU GDPR regulations.

All personal data (with the exception of name and country) collected for the purposes of organising the EOES that relates to students and mentors/observers should be deleted within one year of the EOES. In the final report to the Executive Board, the Director must confirm that all GDPR issues have been appropriately dealt with.

4 FINAL REGULATIONS

In any one year, the Organiser may request some amendments to the practice of EOES for the smooth running of the competition or to facilitate local constraints. All changes must be approved in advance with the Executive Board. All countries taking part in the competition are obliged to comply with the EOES Rules and Regulations.

Changes to the EOES Rules and Regulations are decided by the Governing Body of Association of EOES. Revisions to the Rules and Regulations become valid only after the completion of the on-going EOES. Proposals for changes may be submitted by Country Coordinators and must be sent to the President of the Executive Board at least six months before the Governing Body meeting at which the changes are to be discussed. An agenda including the proposed changes has to be circulated by the Executive Board to all Country Coordinators at least one month prior to the meeting.

The Governing Body will decide upon any matter that is not included in this document.