MOST

Meaningful Open Schooling Connects Schools To Communities

Guidelines for MOST Fairs and Setting up of Regional Partnerships

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Guidelines for MOST Fairs

and Setting up of Regional Partnerships

Contents

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1. Introduction

The MOST (Meaningful Open Schooling Connects Schools To Communities) project is a Horizon 2020 project intended to support students and citizens in Europe to develop scientific knowledge, transversal skills and competences in working scientifically. The project opens up formal science education to the citizens and establishes partnerships between schools and their communities to work together on environmental school-community projects. MOST works on three levels: (1) within communities with the schools leading school-community projects (SCPs) dealing with an environmental issue relevant to the community, (2) at regional level in 10 partner countries where all open schooling communities within a region are connected and (3) at a European level by establishing an Open Schooling Network at European level.

At regional level, MOST fairs in each partner region will be organised to maximise impact and strengthen regional efficacy. They are intended to connect different school-community projects within a region and show how schools may serve as agents of community well-being. These guidelines are intended to support the partner countries in the organisation of the MOST fairs. In addition they will enable interested stakeholders to initiate and organise similar fairs in other regional contexts and/or disciplines.

1.2 Why MOST fairs?

In recent years increasing the number of students entering STEM-related fields has been the focus of several initiatives in schools as well as outside schools. Students' experience of STEM-related subjects in schools has been found to be related to student interest or lack of student interest in STEM careers (e.g. Sadler, Sonnert, Hazari & Tai, 2014). Science-related fairs, at school, national or international levels, have often been promoted with the belief that participation "may play a role in increasing both interest in and understanding of STEM fields" (Schmidt and Kelter, 2017 p.126). Such fairs may be opportunities for participants to enhance their science content knowledge, experience the science inquiry process and improve their verbal and written communication skills (Schmidt and Kelter, 2017). These opportunities may be secured by paying attention to certain aspects that tackle potential negative effects of fairs as highlighted by Czerniak and Lumpe (1996). Some studies such as that of Bencze and Bowen (2009) report that students with high levels of cultural and social capital are more likely to participate in science fairs. It is recommended that all students are invited and encouraged to participate in the school-community projects by making these projects accessible and relevant to all students. One highly debatable issue related to science fairs is the competitive nature often associated with these fairs which may affect students' intrinsic motivation to participate and complete a project. In fact some students dislike the competitive aspect of science fairs (Yasar and Baker 2003).

In the context of the MOST project, the fairs will provide an opportunity for the students participating in the SCPs as well as visitors to enhance their science content knowledge and their knowledge of how environment-related issues and concerns in their community can be tackled. The

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fairs will also be an opportunity for disseminating the results and the actions taken to solve problems. Interested parties such as businesses, local councils and NGOs will be able to use the information and results generated about the situation in their community and prevailing needs. The fairs will provide examples of how schools can work with the local community to tackle an environmental concern, encouraging other schools, families and communities to participate in such initiatives in the future. In this way the fairs will strengthen the concept of open schooling and disseminate project results to a wider audience in the region, inspiring other schools to open up their science education and connect to members of their community. Decision makers and policy makers will be able to see the benefits and value of such events and such collaborations. New contacts between schools, businesses and other stakeholders will be made.

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2. Guidelines for MOST fairs

Several sources make suggestions for the organisation of fairs such as Reis (2015), Barrett (2017), and the Science Buddies guidelines for the organisation of science fairs. These sources were consulted in the development of these guidelines together with the experience of organising similar events in Malta.

The guidelines for MOST fairs are divided into preparation required before the event, things to do during the event and suggestions for follow-up after the event.

2.1 Before the event

Ideally preparation should start months before the actual event. A group of people who will be responsible for the organisation of the fair needs to be gathered. In the context of the MOST project this may include partners from the HEI and the partner/s participating in the project from the same country and a representative of the Regional Support Team.

2.1.1 Identifying objectives for the fair

The objectives for the MOST fairs may include some or all of the following:

- To celebrate the school-community projects carried out.
- To share the research and findings of the projects with others.
- To give participants a sense of accomplishment.
- To provide students with a forum through which they can communicate their scientific interests and environmental concerns.
- To help the public learn more about science and environmental issues.
- To inform interested parties (such as policy makers, businesses, local councils) about the findings which they can then use (e.g. business for commercial use or policy makers about needs in the community).
- To showcase community resources that are related to the theme of the fair.
- To attract new partners from the community (students, families, businesses etc) for future collaborations in school-community projects.
- To provide opportunities for networking and collaboration.
- To strengthen the concept of open schooling in the community.
- To disseminate the project and project results to a wider audience.
- To show the benefits of such events to relevant decision makers.
- To inspire other communities by showing how schools can open up their science education and connect to their community members.

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2.1.2 Identifying the theme of the fair and the target audience

One of the first decisions will be related to the theme of the fair. Will the fair have a specific theme or a generic one? In the context of the MOST project, the themes of the fairs will be related to the themes of the SCP for each year of the project.

Another important consideration relates to the target audience. For the MOST project the audience is likely to include students, parents and members of the general public who are interested in the theme.

2.1.3 Identifying the date

Another decision that needs to be taken is whether the fair is going to be a stand-alone fair for the project or part of a bigger regional science or environment-related event.

If the fair is a stand-alone fair it is necessary to determine the date/s for the event. When determining the date/s it would help if the fair does not coincide with other big events that may attract the potential audience of the fair. In view of the organisation required, one should consider whether to organise a one-day event or whether a two- or three- day event may be more appropriate. Other considerations include whether to have the events in the morning/afternoon (which may make the fair accessible to schools) or the evening to attract other community members or both morning and evening. Similarly the possibility to include Saturday or Sunday should be considered. The days and times need to be carefully selected to attract more visitors.

If the fair is going to be part of a bigger regional event, the date, time and venue will be determined by the organisers of the big event. It is important to ascertain that the time of year fits well with the timing of the school-community projects.

Once the date/s are set it is best to inform special guests (such as education authorities, local authorities) right away so that they can include this event in their schedule.

2.1.4 Identifying the venue

If the fair is a stand-alone fair it is necessary to determine the location that can accommodate the number of participants that are expected, together with their exhibits.

The venue should provide an open space/s that would ensure a free flow of visitors among the different stalls. Appropriate signage to help visitors find their way will be required. The venue should provide 2-3 rooms for seminars that may be held during the fair. It should also provide space for networking, such as a cafeteria (serving refreshments and healthy snacks) with tables and chairs for people to sit and network while having a break.

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One should also consider setting up a Message Booth in which visitors can voice their opinion about a particular question or topic related to the fair's theme. This Message Booth may invite visitors (such as school children) to write their opinion on provided paper. It may also involve the visitors in responding to a question online using their phones as they enter. The responses can then be discussed by a panel during a special seminar held later in the day.

When the venue has been identified and booked, it will help if a plan of the floor space is drawn so that the space is utilised as best as possible by creating a lay-out map ahead of the event. In this way participants can be informed of the space available and its location at the venue. Copies of the layout map will be available for downloading by visitors to help them navigate their way around the fair. It may also be available on screens strategically placed around the venue.

2.1.5 Creating an interesting programme

The main activity for the MOST fair will involve showcasing the school-community projects. The fair will therefore consist of different exhibition stalls and scheduled seminar sessions. Visitors are free to attend on any day and plan their stay according to their particular interest and needs.

Schools will present their SCP results. This may be achieved through an interactive exhibition stall at the fair that is staffed by the students. Each school will have the opportunity to provide an in-depth presentation of its project and answer questions about it in one of the seminar sessions. Apart from the schools who present their school-community projects, sessions may include having a guest speaker/s, fun and interactive activities or games, and other exhibitors (i.e. other stakeholders working on environment-related matters such as waste-management or energy saving). The participants should aim to interact with the audience as much as possible.

A detailed programme with the titles of the seminars and respective times and venues needs to be compiled and provided for downloading at the time of registration for the fair. One needs to decide whether to set a limit to the attendees to each seminar.

2.1.6 Drafting an implementation schedule

Once the possible activities and their duration are identified, a schedule may be planned. Apart from the programme for the day/s of the fair itself, it is also important to schedule all the preparations that are required such as sending out invitations, recruiting volunteers, contacting speakers, ordering materials such as memorabilia and exhibition boards, setting up the venue for the fair, contacting media and so on. Appendix A provides an example of a checklist with the required tasks.

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2.1.7 Recruitment of volunteers

Volunteers will be needed to help set up the fair, for registration, ushering guests, monitoring events, photography and so on. The number of volunteers depends on the size of the event. Judges will also need to be recruited. These may be persons with scientific or science education background who can evaluate and provide feedback on the projects.

2.1.8 Certificates and awards

The participation of the students, schools and community members should be acknowledged. Customized certificates can be created and distributed on the day of the fair. Schools may be presented with a memento and certificate acknowledging their participation. Ideally certificates should be signed by a high ranking official. All participants should feel that they are winners. Ideally this fair should not be a competition, but a celebration of all the projects. However, if in a particular cultural context having awards is deemed to be beneficial, then awards that will we given (first, second, third…) need to be determined and criteria for judging created. Appendix B provides an example of possible judging criteria. It is suggested that judges use the criteria to offer feedback to schools about their projects including suggestions on how the project could be further enhanced. The criteria and relevant information are to be communicated to the participants when the school-community projects are launched. Recognition of participation should also be included on websites and social media (project, community, school websites) as well as on media through press releases. Sponsors and companies who support the fair and the project should also be recognised.

2.1.9 Memorabilia

Another way of acknowledging participation in the MOST project, which may also serve for dissemination, is through the preparation of merchandise and memorabilia with the project logo. This may include T-shirts or jackets or school stationary with the logo. T-shirts/jackets may be worn on the day of the fair by the participants. This would help identify the participants. It is important to ensure that memorabilia support the aims of the project and are environment-friendly.

2.1.10 Inviting visitors and advertising

Visitors may be attracted and invited to the fair through various strategies. The event may be promoted through social media, posters and websites by all those involved in the project (including school, community, sponsors and companies who support the fair). One may also send official circulars for example through the Ministry of Education, inviting all schools and the networks of NGOs to participate. Parents should also be invited. Special formal invitations may be sent to special guests. Special guests may include School Management Teams, Officers from the Ministries of Education/Environment, local councils, enterprises and NGOs among others. Invitations should include the date and location, an indication of the schedule and other benefits for the visitors. Media may also be invited to follow the event – particularly when some very special guests attend.

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2.1.11 Preparing the venue

Participants need to be informed on what they need to present together with other relevant details. This may be a poster of a given size and orientation. Participants should be asked to inform organisers what they need for their displays. Exhibition display boards, tables, chairs, audio visual support, lighting, power sockets need to be booked.

2.1.12 Registration

- Visitors may be required to register before the event and choose the seminars that they intend to attend.

2.2 During the MOST fair

2.2.1 Setting Up the Venue

The volunteers will help set up the space for the MOST fair. The layout map will help direct those involved in the fair. Any tables, chairs and display boards required should be set up in preparation.

- The exhibitors need to be given a date and time when they are to set up their displays before the opening of the fair.

2.2.2 Register Participants

Registration of presenters will serve as a record of the attendance. Registration of guests must be quick and effective. There should be registrations for individual visitors and groups (such as schools). One might consider posing a question related to the theme of the fair to each visitor. The visitor may write his/her response on a given paper (deposited in a box which is provided) or electronically using their phones. This will provide an informal poll of public opinion on the topic. The responses can then be discussed by a panel during a special seminar held later in the day.

2.2.3 Special guests

Special guests may need to be accompanied. Judges need to be oriented about the programme and reminded about the criteria for judging. A feedback sheet with the criteria for evaluating projects should be prepared for each SCP exhibit. Appendix C is an example of a feedback sheet.

2.2.4 Opening the Fair

The hosts should open the event and welcome the guests. A special guest (such as the Minister of Education), may be invited to open the event to provide more exposure to the event. The flow of the fair needs to be monitored, ensuring smooth progress and adhering to the schedule as much as possible. Check that the participants and guests are enjoying the fair.

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2.2.5 Distributing Certificates

After allowing time for visitors to visit the fair and interact with the participants it is recommended that a small awarding ceremony is conducted as the last part of the fair. It is a unique way of acknowledging the participation and hard work of the participants. All students who participate and present their project at the fair should receive a certificate of participation. Schools should receive a certificate and memento. The presence of special guests is acknowledged. Sponsors and entities who supported the projects in some way or other are thanked. This is the conclusion of this event celebrating the school-community projects. One may consider including a short show related to the theme as part of the event.

2.3 Follow-up after the MOST Fair

After the successful implementation of the MOST fair some more work is required.

2.3.1 Evaluate the MOST fair

The programme, organisation and participation are evaluated. This is likely to include a review of whether the goals and objectives of the programme were achieved. The preparation and organisation of the fair is assessed. Evaluation forms may be provided to the participants so that they can provide feedback and suggestions for the improvement of the fair. See Appendices D, E and F.

2.3.2 Dissemination

The MOST fair can be publicized by the schools on their website or social media page. Similarly the regional project website can include a feature. Media like the press can also be informed about the school community projects and the MOST fair. Include photos of the highlights of the MOST fair, comments by special guests and so on.

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3. Guidelines for a Virtual Fair

Due to the COVID-19 pandemic, virtual fairs have been developed to replace physical fairs. The guidelines below offer some recommendations for the organization of a virtual fair for the MOST project.

3.1 Choose a suitable Virtual Fair platform

When choosing a suitable platform for the virtual fair one needs to consider factors like the number of attendees and the software features that are required. For example if the participants will prepare a digital presentation of their project, you will need a platform that allows digital presentation. Will participants be giving a live presentation following by questions from the audience or will a video or digital presentation be available followed by a live question and answer session? These decisions will determine the requirements. Break out rooms will allow concurrent sessions that attendees may visit.

To ensure two-way communication, a well-designed platform will provide real-time audio, video, and text-based chat options for participants to interact with visitors. As far as possible try to be original and make your online event unique. There is the possibility of hiring professional software solutions.

Some points to consider when selecting software:

- It needs to be user-friendly.
- It may allow users to make registrations and check-in.
- Sharing options that allow users to share as this will help in advertising.
- Accessibility from a variety of devises and browsers.
- Features such as polling that can engage viewers.

3.2 Identify the objectives of the fair

These are likely to be similar to those of a physical fair. The objectives for the MOST fairs may include some or all of the following:

- To celebrate the school-community projects carried out.
- To share the research and findings of the projects with others.
- To give participants a sense of accomplishment.
- To provide students with a forum through which they can communicate their scientific interests and environmental concerns.
- To help the public learn more about science and environmental issues.
- To inform interested parties (such as policy makers, businesses, local councils) about the findings which they can then use (e.g. business for commercial use or policy makers about needs in the community).

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- To showcase community resources that are related to the theme of the fair.
- To attract new partners from the community (students, families, businesses etc) for future collaborations in school-community projects.
- To provide opportunities for networking and collaboration.
- To strengthen the concept of open schooling in the community.
- To disseminate the project and project results to a wider audience.
- To show the benefits of such events to relevant decision makers.
- To inspire other communities by showing how schools can open up their science education and connect to their community members.

3.3 Choose the date/s for the fair

Once the date/s for the fair is/are determined, other dates can be set such as dates for registration and date when presenters are to upload their presentations.

3.4 Creating an interesting programme

The main activity will involve showcasing the SCPs in scheduled seminar sessions. Visitors are free to choose the sessions to attend. The programme may also include webinars, real-time Q&A sessions, and live keynote presentations. Time the events well keeping in mind that this is an online event. If the event is too long, the audience may lose interest. Engage the audience as much as possible to help them feel involved. If visitors feel connected, they will stay longer. Polling, Q&As, networking sessions and online games can help engage the audience.

A detailed programme with the titles of the presentations, webinars/other presentations and respective times and venues needs to be compiled and provided to visitors. Registrations should include an indication of which sessions will be visited.

3.5 Prepare guidelines for participants

Participants will need guidelines related to content creation and presentation. Set clear expectations such as project presentation format, video presentation guidelines, instructions for creating and uploading videos.

3.6 Sponsors and other presenters

Invite sponsors and other presenters. Guidelines on how they will or may participate are required. It may help if you run a test with presenters to ensure that they are familiar with the software.

3.7 Staff the fair

Volunteers are required who can help with registrations, following chats and so on. A person who will monitor and host the platform needs to be identified. Prepare for things that may go wrong, including technical problems. Make sure you have plans to deal with them.

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3.8 Design the virtual environment

Create content that works for the aims of the fair and for the target audience. Design the virtual environment and use it to provide useful information for visitors. This will include the schedule for the day of the fair, videos or presentations that can be viewed before the event. Create and share fun videos and promote speakers. It is also recommended to have digital social spaces where participants are able to gather, interact, move around in an unstructured fashion. This will give time and space for networking as well as breaks from the formal sessions.

3.9 Advertising

- Set up your marketing campaign through email, social media and other forms of advertising. When promoting the event let people know when it is happening, how long it is and what to expect. Digital invitations are affordable and eco-friendly. They may be customized to the event and include a link to online registration.

3.10 Check the technology

Check that equipment and software are working fine and that things can flow smoothly.

3.11 Launch your fair

- Launch the fair. Ensure that visitors can be guided in case of difficulty. Engage participants as much as possible using polls, Q&As, discussions, online games and so on. Ensure that presenters keep to the agreed times.

3.12 Follow up

Follow up by evaluating the fair and disseminating. Follow up on social media about the event. Forms D , E and F may be used for the evaluation together with any data collected from the audience. Recorded videos from the event may be shared with others.

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4. Recommendations for setting up a sustainable Open Schooling network in the region

The MOST project has brought together a number of schools and communities working on School Community Projects (SCP) with the help of the Regional Support Team. They have a common aim, that of opening up the schools to the community and to engage schools and communities in environment-related projects that are of relevance to the community. During the lifetime of the project the Regional Support Team brought together the schools and communities, facilitating sharing and networking by organizing the MOST fairs. It is desirable that the networks created by the MOST project do not end when the project ends but continue to exist and extend further. For this reason it is recommended to help the schools form an organised network that will continue to work on school-community projects. Below are some recommendations for the formation of a sustainable network of schools and communities.

a. Obtain the support of policy makers such as the Ministry of Education or the Ministry responsible for the Environment.

b. Use the experience of the MOST SCP to identify partners for the network. Existing networks such as the Eco-Schools networks that are already in place may be good starting points.

c. Approach other possible partners for supporting the network. These may include NGOs whose activities are related to the environment and environment education. List of possible contacts could be compiled from visitors to the MOST Fair.

d. Form a committee that will work on the setting up of the network. This will involve representatives of schools, community members who were particularly involved in the SCPs, NGOs and anyone who is likely to support the setting up of the network.

e. Decide on a minimum number of meetings to be held per year. Consider using online meetings that are easier to organise and can be more frequent. Set an annual or biennial face-to-face meeting to strengthen the group on a social level. Rotate meeting place so that each school or organisation will host the meeting in turn.

f. Together with the committee plan a way forward. This may include organising a general meeting for all those who participated in the SCPs and others who wish to join. Agree on the aims of the network and its activities. These may include an annual SCP fair organised by this network. While the MOST project can help setting up and supporting community-based Open Schooling Networks, it is advisable to allow the networks identify their own procedures and operations. This would ensure that these community-based networks respond to real needs and increase the chances of sustainability.

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g. Use the MOST project website to advertise the formation of this network and invite interested persons to make contact.

h. The first MOST project fair may serve for networking between different entities. The second MOST fair may then be used to present networks formed during the first fair and advertise them.

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Appendix A: Checklist for the preparation of the MOST fairs

- ☐ Select date
- ☐ Book venue
- ☐ Book exhibition boards
- ☐ Book tables and chairs
- ☐ Book audio visual aids
- ☐ Prepare signage for the venue
- ☐ Order refreshments for the special guests
- ☐ Organise the cafeteria
- ☐ Ask participants what they need for stall
- ☐ Prepare a programme
- ☐ Invite guest speakers
- ☐ Invite sponsors
- ☐ Invite exhibitors
- ☐ Inform schools
- ☐ Recruit volunteers
- ☐ Meeting for volunteers
- ☐ Invite judges
- ☐ Prepare feedback sheets
- ☐ Prepare layout map
- ☐ Prepare downloadable layout maps for guests
- ☐ Prepare downloadable programme for guests
- ☐ Invite special guests
- ☐ Open registration of participants
- ☐ Printing of memorabilia
- ☐ Order mementos
- ☐ Prepare certificates
- ☐ Advertise through emails and circulars to other schools
- ☐ Advertise through social media
- ☐ Advertise through posters
- ☐ Invite media
- ☐ Send email to parents
- ☐ Set up the venue of the fair
- ☐ Open registration for visitors

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Appendix B: Criteria for judges evaluating MOST projects (the marks should only be included if a project competition is held)

1. Scientific Thought (50% of total)

    i. Research Question (10 points)
        - Clear and focused aim

    ii. Design and Methodology (15 points)
        - Well-designed plan and data collection methods
        - Data collection is systematic, appropriate and complete

    iii. Data Analysis and Interpretation (25 points)
        - Systematic data analysis
        - Explanation of what the data collected means
        - Discussion of results
        - Appropriate conclusion including awareness of limitations
        - Further applications/other possible research listed for the project

2. Creativity (25% of total)

3. Display (20% of total)
    - Organization of material

4. Report/video/interview (5% of total)
    - Clear, concise

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Appendix C: Example of Feedback sheet

Name of school _____

Name of project _____

Criterion	**Comment**
1. Scientific Thought	
a. Research Question Clear and focused aim.	
b. Design and Methodology Well-designed plan and data collection methods. Data collection is systematic, appropriate and complete.	
c. Data Analysis and Interpretation Systematic data analysis. Explanation of what the data collected means.	
d. Discussion of results Appropriate conclusion including awareness of limitations. Further applications/other possible research listed for the project.	
2. Creativity	
3. Display Organization of material.	
4. Report/video/interview Clear, concise.	

Other comments:

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Appendix D: Feedback Questionnaire for Exhibitors (this may be an online questionnaire)

Thank you for being part of our team in the organisation of the MOST Fair. We would be grateful if you would kindly find some time to send us your comments and feedback by filling in the following questionnaire. Your input would help us make future editions of the MOST Fair better and more worthwhile.

1. Name of 'Exhibitor':

2. Please name one aspect of the MOST Fair that you enjoyed most. Why?

3. Please name one aspect of the MOST Fair that you enjoyed least. Why?

4. Suggest one way how we can improve future editions of the MOST Fair.

5. Would you like to participate in future editions of the MOST Fair? YES /NO. Why?

6. Please write additional comments here.

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Appendix E: Feedback Questionnaire for Schools: teachers & students presenting (this may be an online questionnaire)

Thank you for being part of our team in the organisation of the MOST Fair. We would be grateful if you would kindly find some time to send us your comments and feedback by filling in the following questionnaire. Your input would help us make future editions of the MOST Fair better and more worthwhile.

1. Name of School:

2. How would you rate the pre-event information and correspondence?

Very Good / Good / Satisfactory / Poor

3. How would you rate the standard of organisation at the MOST fair?

Very Good / Good / Satisfactory / Poor

4. Did the fair give you an opportunity to disseminate your ideas? How would you rate the opportunity?

Very Good / Good / Satisfactory / Poor

5. In your opinion what were some positive aspects of the MOST fair?

6. Suggest one way how we can improve future editions of the MOST Fair.

7. Please write any students' comments that you might have.

8. Please write additional comments here.

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Appendix F: Feedback Questionnaire for Schools: teachers & students visiting the fair (this may be an online questionnaire)

Thank you for visiting the MOST fair. We would be grateful if you would kindly find some time to send us your comments and feedback by filling in the following questionnaire. Your input would help us make future editions of the MOST Fair better and more worthwhile.

1. Name of School:

2. Which stall/ stand/ activity did you/your students enjoy most? Why?

3. Which stall/ stand/ activity did you/your students enjoy least? Why?

4. Suggest one way how we can improve future editions of the MOST Fair.

5. Please write any students' comments that you might have.

6. Please write additional comments here.

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Appendix G: Examples of Fairs – Plans of the participating countries

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