

EOSC-hub trainers documentation

This is a support guide for those who develop training materials and deliver training events using EOSC-hub efforts. The purpose is for WP11 to efficiently manage training delivery and improve the quality of these events. This document also intends to collect best practices from our experienced trainers -- this will help to share experiences within EOSC-hub and beyond. It is a snapshot of a [google shared doc](#), which is used to collect group inputs and will be kept alive for updating.

Guide for EOSC-hub Trainers

Plan for Training

According to EOSC-hub DoA, WP11 should provide training plan by M3, M12, and M24

| Period | Training plan contents | By When | Status |
|--------------|--|---------|-------------------------------------|
| 1PY training | <ul style="list-style-type: none">• EOSC-hub core services training delivery• TSs training events | M3 | <input checked="" type="checkbox"/> |
| 2PY training | <ul style="list-style-type: none">• EOSC-hub core services training delivery• TSs training events | M12 | <input checked="" type="checkbox"/> |
| 3PY training | <ul style="list-style-type: none">• EOSC-hub core services training delivery• TSs training events• CCs training events | M24 | <input type="checkbox"/> |

WP11 uses a google sheet for internal management of planned training events.

https://docs.google.com/spreadsheets/d/1b2S_qSMvTZ5xPX9ovK-3MH7W-gv6alPKL_0P2Hqoy6o/edit#gid=1965946488

This training programme is supposed to be a "live document". New events/contributions from different TSs, CCs and research communities can feed into this programme during the course of the project and contribute to the creation of a knowledge network.

Prepare for Training

When you prepare for any trainings:

1. Please inform WP11 members about new upcoming training events:



HowTo

Write to training@mailman.eosc-hub.eu specifying:

- The title of the event;
- The date of the event;
- The place of the event;
- Website providing information on the training (if applicable)
- The type of the event (e.g.: webinar, f2f, hackathon, workshop, tech talk, etc.);
- The organizer and a key contact for the event;
- The target audience.

2. When needed, get supports for

- [Training e-Infrastructure](#)
- Review and feedback on training materials and delivery
- Promotion of the trainings
- [Financial supports](#)

3. Register the upcoming event/materials in the Training Catalogue.



HowTo

see [HowTo: Training Catalogue](#)

Deliver Training

1. Deliver training materials

 [Best Practises for Developing Training Materials](#)

2. Deliver a training event

 [Best Practises for Running a Training Event](#)

Templates and Tools

- Communication toolkit, including project logo, word and Powerpoint templates are available at: <https://wiki.eosc-hub.eu/display/EOSC/Communications+Toolkit>
- The current list of tools and/or services available for supporting the delivery of training events are available at: <https://wiki.eosc-hub.eu/display/EOSC/Online+tools+and+services+for+supporting+training>

Report for Training

1. WP11 collects feedback and statistics of training delivery. WP11 has prepared the following document templates.

- EOSC-hub_Training_Evaluation_Form_v1
 - This document is used to collect feedback about the training event. It has to be distributed to the participants for example at the beginning of the training session (people may leave before the end of the training, so it would be good to distributed it early).
 - Participants to training events are kindly invited to fill in the evaluation form before to leave the training room and return it back to the trainers.
 - Trainers are tasked to collect the evaluation form at the end of the event.
- EOSC-hub_Training_Event_Reporting_form
 - After the event, the trainers are kindly invited to use this template to produce a report about the event. The report will be used to monitor the work plan and produce metrics.
 - The report has to be sent to: giuseppe.larocca@egi.eu
 - Care should be taken for data protection issues, e.g., all personal information of participants should be removed if there are not permit from them.

HowTo

The training feedback forms are **MANDATORY** for each training event. It will be used for project reports. All the document templates are available at: <https://documents.egi.eu/document/3296>

- Training Attendance record:** 1 print out, distribute at the beginning, and collect at the end of the event
- Training evaluation form:** fill the part marked as [RED], N print out depending on participation, distribute at the beginning and collect before people leave
- Training Event Reporting form:** summary report after the training event, sent back to Giuseppe (giuseppe.larocca@egi.eu)

2. After the event, WP11 members and/or organiser also need to populate:

- The list of EOSC events, available at: <https://wiki.eosc-hub.eu/display/EOSC/Events>
- The dissemination activities, available at: <https://wiki.eosc-hub.eu/display/EOSC/Dissemination+Activities>

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Technical Support

For generic questions or inquiries related to the organisation of training events, please contact: training@mailman.eosc-hub.eu

Best Practises for Developing Training Materials

Training materials can be in various formats, include but not limited to:

- Slides: at the basic level all EOSC-hub service will be provided with one set of training materials in the form of presentation slides, e.g., ppt, pdf
- Slides with recording: e.g., ppt with recording of voice and demos
- Videos clips: e.g., camera recording of a live course etc.
- Self-study materials
- Hands-on exercises

Here we consider the slide presentation which is the basic request for EOSC-hub services training material. We recommend that an introduction level training material should cover the following aspects:

| Contents | Description |
|---|--|
| Basic information | title, authors, contact of authors, date, versions |
| Goal | stating the learning objective of the training material |
| Target audience | type of people for who this training material is relevant for |
| Context | <ul style="list-style-type: none"> • Where is the service located in the EOSC-hub architecture • The service can be used to support which phases of a research (data) lifecycle -- this would be easily understood by users • Service providers' information • Development backgrounds |
| Introduction | short and clear describe what the service does |
| Why should users choose to use the service | <ul style="list-style-type: none"> • What are the problems the service tries to resolve • How good the service is comparing to existing technology • What benefits can the service bring to the users • Who have already been using the service -- existing user base |
| What the service does -- provide information about | <ul style="list-style-type: none"> • What are the problems the service tries to resolve • How good the service is comparing to existing technology • What benefits can the service bring to the users • Who have already been using the service -- existing user base |
| How can users use the service | <ul style="list-style-type: none"> • Access interfaces • Different access options • Usage modes -- provide examples and use cases |
| Reference | <ul style="list-style-type: none"> • User guides to get started • Help desk information |
| Quiz or exercise | e.g. using Survey Monkey |

Reuse of Existing Materials

It is possible to reuse existing training material. However, the information **should be checked and kept up-to-date**.

Review

It is highly recommended that to have contents checked before publishing on an online training catalogue.

Evaluation should consider the following aspects:

- Recommended contents are covered
- Technology description is sound, logic is clear
- Keep target audience in mind, the contents are easily understood, expressions are simple and clear
- Licence issues -- special care should be taken whether there are contents related to licence or copyright issues

It is recommended to have a lightweight review process, e.g., identify 2 reviewers :

- a technical expert
- a user expert who has experiences of working with end users

Training Materials Developing Tools

(Thanks to Baptiste for the information) some nice tools for developing training courses including:

- **Teachable** <https://training.robustperception.io/p/introduction-to-prometheus> (quite nice, lots of features, seems to be generally praised by the users, there is also a free offer with unlimited courses but limited to one authors, and the interesting offer (5 authors) is 83 \$/month)
- **Thinkific**: <https://www.thinkific.com/> (a recurrent alternative to teachable)
- **Podia**: <https://www.podia.com/features> (a newcomer, trying to get some clients from teachable)
- **Newkajabi**: <https://newkajabi.com/> (most expensive (and maybe just too expensive for us) but seems nice wrt features)

Best Practises for Running a Training Event

Training is to develop abilities through practice with instruction (or supervision). Training is different from university teaching. Teaching is to provide knowledge, instruction or information. Training is more practical and specific, it focuses on doing. Tone of a trainer should be encouraging and enthusiastic rather than critical/skeptical as a school teacher.

Training events can be in various formats, for example:

- Webinars;
- Technical talk;
- Hand-on classroom style Instructor-led trainings
 - Advanced level including hand-on sessions
 - Popular requested by TS/CC
 - Core services training should consider to co-organise with EOSC-Hub conferences
 - Thematic and CC services should aim at community events (e.g. RI annual meetings)
- Hackathon, Summer/winter school
- Private coaching, individual hand-on instructor

Preparation

When preparing for the events, one can consider the following activities:

| Activities | Descriptions |
|--|--|
| Develop a training plan | <ul style="list-style-type: none">◦ Setting training goals◦ Assess end users' needs, e.g. use a pre-event survey to gather training requirements◦ Design the course using different training methods:<ul style="list-style-type: none">◦ presentation◦ teach dialogue◦ individual work◦ team work• role play• games◦ Create a training program |
| Prepare training material | See Best Practises for Developing Training Materials |
| Book training facilities and resources | Including e.g., <ul style="list-style-type: none">◦ The available EGI training e-Infrastructure<ul style="list-style-type: none">▪ https://wiki.egi.eu/wiki/Training_infrastructure▪ self-training facility: notebook - EGI supported notebooks◦ Remote meeting facilities (check the number of connections)◦ Meeting rooms, arrangement for catering, projectors, etc.◦ Feedback forms or online survey◦ Staffs◦ Request for financial support (if needed) |
| Create the agenda | For example, using the online training catalogue , and describing: <ul style="list-style-type: none">◦ Time◦ Location / connection methods◦ Introduction of the events◦ Trainers' information/organisation◦ Target audiences◦ Requirements for audience◦ Registration links |

| | |
|-------------------|---|
| Promote the event | <ul style="list-style-type: none"> ◦ Prepare advertising message ◦ Promote the training through appropriate communication channels, e.g., <ul style="list-style-type: none"> ▪ TCs/CCs mailing list and their communities ▪ EOSC-Hub news, twitter etc. (WP3) ▪ OpenAIRE Advance (if the event is relevant for the project) |
| Get supports | If technical support is needed, please contact: training@mailman.eosc-hub.eu |

 The following checklist can be used to ensure things are ready for the events:

- ☐ Materials (VMs/containers/slides/guides): completed and reviewed
- ☐ Advertising message: completed and reviewed
- ☐ Event webpage: created and online
- ☐ Event is promoted via right communication channel
- ☐ Event facilities: arranged
- ☐ Registration and logistic information: provided
- ☐ Request for trainees: provided
- ☐ Involved people: confirmed
- ☐ (Budget): approved
- ☐ Feedback forms: ready for distribution

Tips for promoting your events

Tip 1: Choose a date that works for your audience: Tuesdays and Thursdays make for good meeting days, avoid holidays and Fridays. Don't compete with similar events. Send out save the dates early. Build your schedule/agenda early and communicate it to your audience

Tip 2: Write an attractive and convincing message. Consider who are your main targets audience (industry, senior, academic, PhD/PostDoc), write a message that attractive (one-lines, joke, visual), and convincing ("*what is in it for me*", well know/respected trainers, quotes from participants, '*bring your own data/use cases/work*')

Tip 3: Promotion time: 3 weeks in advance for webinars -- people get next two-week calendar full. But don't be too early either -- people will forget. Send Reminder one-week, then 1-day before. For face-to-face events, at least 4 months in advance for small to medium size events.

Tip 4: Promote via right communication channels. Ask your joint organisers, your speakers, attendees, partner project or organisations for help with the promotion. Promote at conferences, mailing list; Use flyers, posters, etc. **Advertise on social media and consistently updates with information** about your events including registration page. Using google ad (small cost to put your adv at the top), twitter, LinkedIn, etc.

Delivery

When coming to the event day, the trainers can consider the following activities

| Activities | Descriptions |
|-------------------------|--|
| Pre-training activities | <ul style="list-style-type: none"> ◦ Check with event facilities, e.g. projector, microphone, remote connection ◦ Print the participants attending form (see Report for Training) ◦ Print the materials if there are needed ◦ Print feedback forms if they are needed (see Report for Training) (it is also possible to use an online tool such as SurveyMonkey. However, experience shows that using a print-out version can guarantee to receive feedback before students leave the room). |
| Training activities | <ul style="list-style-type: none"> ◦ Circulate the participants attending form to collect the list of participants attending the training event ◦ Deliver the training content ◦ Take photos of the events for dissemination purposes ( ask permission for faces). ◦ Final discussion on feedback for the services -- will the participants use the services in future, and how? ◦ Distribute feedback/evaluation forms (and collect them if they are physical copies) |

Post-training activities

- Upload materials to the event webpage.
- Collect feedback forms if they are not in the electronic forms, or remind the students to fill an online feedback form
- Clean up the EGI training e-Infrastructure after planned time if used
- Report feedback/evaluation to WP11. (see [Report for Training](#))
- Contact communication team for a newsletter, twitter, with pictures taken from the events.

Effective Training Techniques

Tip1: Combine different training styles:

- Powerpoint presentation
- Blackboard or whiteboard
- Video portion
- Storytelling

Tip2: Engage with audiences, use interactive methods, such as:

- Quizzes
- Small group discussion
- Team work
- Individual work
- Case studies
- Teach dialogue
- Active summaries
- Q&A sessions
- Role-playing
- Demonstrations
- Participant control: Create a subject menu of what will be covered. Ask participants to review it and pick items they want to know more about. Call on a participant to identify his or her choice. Cover that topic and move on to the next participant.
- Games (treasure hunt to find learning information, competition or cooperation team works)

 It may take longer time. Some methods, such as participant control, can be less structured. Trainers need to make sure that all necessary information is covered.

Tip3: Hands-on training:

- Demonstration: are attention-grabbers. Combined with the opportunity for questions and answers, this is powerful, engaging form of training. Give demonstration before letting the learners try.
- Hand-on exercise:
 - Can be either individual work or break-up groups
 - Depending on exercise, can consider either to group people with similar knowledge background or different expertise so they can learn from each others
 - Can encourage participants to bring their own data, work on own use cases/issues
 - The trainer should be active to:
 - Answer questions
 - Suggest more effective strategies
 - Correct errors
 - Guide toward goals
 - Give support and encouragement
 - Provide knowledgeable feedback

 You may need assistants for a large group (>20). Ask local host for volunteers.

The latest trends in training

- **Mobile learning:** meets the needs of millennial professionals, who want (and expect) instantaneous access to information. Look for more innovations in microcontent (short, mobile-optimised content, usually on a single topic and intended to spark curiosity), such as a brief (two-to three-minute) videos, charts, graphs, chat features, audio files and surveys that convey learning materials in a quick, easy-to-absorb format on smartphones or other type of portable electronic devices.
- **Social and Collaborative learning:** People get more of their information from social media platforms. Social learning tools take elements of popular social media channels and contextualise them within an organisation to allow team members to share and collaborate on content in new ways
- **Microlearning:** By delivering short, fast learning modules that take less than five minutes to complete, people can get the information they need, when they need it
- **Gamification:** using game mechanics to spur involvement in learning. Friendly competition is a great incentive for learning. Video games, simulations and other online games relating to workplace scenarios boost creative thinking and enhance problem-solving abilities.
- **Emphasizing Quality over quantity**
- **Improved tracking:** how learners responded to training, what concepts need follow-up
- **MOOC** (Massive Open Online Courses): it is an interactive approach where people from different parts of world share their knowledge in the form of communities. you can take course from the world's best university with the world's best teacher, it is completely free https://en.wikipedia.org/wiki/Massive_open_online_course
- **TED** (Technology, Entertainment, Design) : experts of the subject share their insights. Short, inspiring, story-driven.
- **Virtual Reality**