

B6

Project management



Goal	The main goal of the training is to provide an overview of the basic knowledge about project management that is useful when completing doctoral research. The training also offers several activities that support the development or improvement of skills viable for project management.
Format	Training, workshop
Recommended duration	Min. 6 hours
Content of the training activity	<p>Theory 40% Group practice 60%</p> <p>Concept of a project (30 %)</p> <ul style="list-style-type: none">● What is a project● Phases of a project● Project limitations <p>Concept of project management and its main aspects (70 %)</p> <ul style="list-style-type: none">● Principle of project management and activities of project management● Organization of project team and group work● Project management tools● Project budget● Risk management● Project communication
Expected learning outcomes	<p>After taking this course/training activity, the PhD student should be able to:</p> <ul style="list-style-type: none">● understand what project and project management in research consists of● work on projects in groups and independently, understand a project group work dynamics● write a research project framework● plan a research project schedule and understand the project finance management● recognize project limitations and potential risks● communicate information related to research projects
Link to career opportunities in life-sciences	<p>The skills and knowledge acquired during the training are a good set of prerequisites that enable doctoral researchers to advance in their own independent research and studies, as well as contribute to team project activities. Moreover, the skills and knowledge can serve as a decent starting point for advanced project management training. Participants will be able to write research project proposals for their own individual projects as well as for research project groups. They will understand the basics of project financial management and link it with a project timeline. Project communication basic skills will be beneficial for communication within the project group, but also to communicate about project activities to the wide scientific public.</p> <p>Besides doctoral studies, the acquired skills, knowledge and tools for project management can also be used throughout the career path after the doctoral studies completion, whether it is in the academic, non-profit, public or private sector.</p>

Recommended training prerequisites:	Minimum B2 English language proficiency level. Be enrolled in doctoral studies with a certain research focus.
Sector specifics to be considered	The training should be tailored for doctoral researchers.
Recommended further steps	Further steps including advanced project management training focused on for example, project finance management, leadership, research project communication, teamwork and multicultural sensitivity in research communities, group activities' facilitation and conflict management, writing a research funding application or academic career planning are recommended further steps that people might benefit from.
Trainer/facilitator qualification	The trainer is a qualified and skilled person that understands and practices project management. The trainer has several experiences in managing various kinds of projects. The trainer also understands the specifics of the academic working environment and especially doctoral studies' requirements.

Recommendations and suggestions for course/activity setup and methods used:

Course/activity set-up and methods used	Training is tailored for the academic environment, therefore it focuses mostly on the aspects of project management that are likely to be experienced in research activities. Theory and exercises are complemented by examples of project case studies. Such case studies will help train participants to understand certain aspects within concrete contexts.	
	Duration	Activity description
	30 min	Training introduction, instructions, and the introduction of participants.
	70 min	Project, project phases, project limitations Group work (brainstorming on project title and objectives).
	70 min	Project management components, organization of project team. Group work (drafting a timeline, roles of team members and rules for working within a group).
	70 min	Project management tools (schemes/online tools/software), project budget. Group work (choosing a project management tool/s and getting familiar with the chosen one, estimating and creating project budget).
	60 min	Risk management, project communication. Group work (estimating potential risks for the project, drafting a project communication strategy).
	+ lunch break 60 minutes	

<p>Course/activity set-up and methods used</p>	<p>Work in groups could be done as follows. Participants of the course would be divided optimally into groups of 3 (max 4) members during the first group session. They will work in the same group throughout the whole training. The members of the groups do not necessarily need to be researchers from the same field as the project management approach applied in this training is basic and general. They will create/draft a project plan for an imaginary project of their choice.</p> <p>In the first exercise, there is a brainstorming phase within each group to choose an area of the imaginary project, its working title and objectives. The project should be a rather simple one (e.g. research seminar, conference, workshop, field or lab work, excursion, etc.). For example, a group of three doctoral researchers from fields such as forestry, microbiology and financial management decided to "organize" a 1-day workshop about edible mushrooms. All three of them can relate to the topic by their hobby, research field or simply just an experience from previously organising a workshop. The trainer can also prepare a list of titles of some example projects that groups can choose from. In this case, the groups will decide what type of project it is going to be and its objectives.</p> <p>The second exercise will focus on designing a timeline for the project, the roles that the team members would take and the group decides its rules for working together. For example, in the case of the mushroom workshop, the timeline of the project includes the preparation phase with deadlines (to contact speakers, complete the budget, apply for funding, advertise the event, book premises, open and close registration, etc.). It also can include an approximate schedule of the event itself for better planning. The group members will also decide their tasks and roles in this imaginary project. It is beneficial to discuss how the group should work and what practices should be avoided.</p> <p>The third exercise provides an opportunity for groups to discuss some project management tools (which will be presented by a trainer) and get some ideas about the tools' potential use for their project. They should discuss, which tool(s) they would choose for their project management and why. In the second part of this exercise, groups will draft and estimate their project budget.</p> <p>In the last exercise, the groups will try to assess potential risks for their project and discuss the alternatives/solutions for them. In the second part, the group will discuss how they would communicate within the project (meetings, channels) and also how they would communicate the project outside their group (with the public, colleagues, and potential participants).</p> <p>The order and content of the exercises can vary based on the trainer and the content he/she is going to present.</p>
<p>Recommended number of participants</p>	<p>Min: 9 Max: 15</p>

Forms of active engagement	<p>Active engagements are essential in this training because they offer time to imitate work in project groups and design research project plans (of potential/ illustrative projects).</p> <p>The most of activities will be performed in groups (3—4 members). In case of an online meeting, the groups will be active through MS Teams/Zoom. If the training is to be done in person, the groups will meet and communicate within the premises.</p> <p>Various online tools will be used for better facilitation and visualization of tasks (e.g. MS Excel/PowerPoint, Google Slides, Miro board). Flipcharts (or personal computers, if wanted) will be used in contact activities.</p> <p>Trainer/s will be circulating the groups and supporting the workgroup activities.</p>
Recommended pre-training activities	<p>Self-reflection: Think about your research and studies and how would you use project management in it.</p>
Follow-up activities/ Take home messages	<p>Plan a doctoral study and research applying research project management. Try to engage in some research project group activities.</p> <p>Self-reflection: What aspects of the research project management would you need to develop/improve in the future to advance more with your research?</p>
Training handouts	<p>Presentation and additional material (e.g. online sources, recommended literature) are shared with participants.</p>
Recommended study resources for participants	<p>Elsevier Research Academy: https://researcheracademy.elsevier.com/research-preparation/funding</p> <p>Project Cycle Management Training Handbook from CARICOM (pdf)</p> <p>Watt A. 2014. Project management. (pdf)</p> <p>Important Project Management Terms: https://project-management.com/pmo-and-project-management-dictionary/</p> <p>Project Budgeting Explained: https://www.project-management-skills.com/project-budgeting.html</p> <p>Agile Project Management: https://project-management.com/agile-project-management/</p> <p>Understanding Communication (in Organizational Behavior): https://open.lib.umn.edu/organizationalbehavior/chapter/8-2-understanding-communication/</p> <p>Communication: The Message is Clear (Project Management Institute): https://www.pmi.org/business-solutions/white-papers/communication-clear-message</p>
Assessment of acquired competences	<p>Self-assessment, group work results, feedback</p>
Reflection questions	<ul style="list-style-type: none"> ● What is a project, project management and what are their main elements to take into account when designing a project? ● What tools can be used to support project management and what are their pros and cons? ● What a schedule of a project should consist of? ● What kind of costs should be included in a project budget? ● How would you estimate the risks of a project?
Engagement of external experts	<p>The trainer should also have a role of an external expert.</p>

<p>Venue requirements</p>	<p>Online training - it is the responsibility of each participant to prepare a sufficient set-up for their training completion (camera, microphone, speakers working and active).</p> <p>In-person training - Fully technically-equipped room with sufficient capacity for all training participants. Enough space to form 3—5 groups of 3—4 participants and allow them to work without being disturbed.</p>
<p>Technical and material requirements</p>	<p>Online training — Camera, microphone, speakers working and active, and sufficient internet connection.</p> <p>In-person training — Desk computer or another alternative to share and display the slides, projector, speakers, flipcharts, sticky notes, and blank paper sheets. The room should be equipped with furniture (desks and chairs) that can be moved around. This will enable the formation of 3—5 groups of 3—4 participants and allow them to work comfortably in various locations without being disturbed.</p>