Project acronym: BETTER Life

Title: Bringing Excellence to Transformative Socially Engaged Research in Life Sciences through Integrated Digital Centers

Project number: 101071314

Deliverable 4.1

Capacity Building Plan for SER in LS

Description: Capacity Building Plan is an instructional guideline to capacity building activities within WP4 in BETTER Life Project. The Plan gives Partners a description of the activities along with planning, instructional design, assessment and reporting guidelines.

Lead party for deliverable: PULS

Document type: Report (R)

Due date of deliverable: 30. 11. 2023

Dissemination level: PU

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Funded by the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Research Executive Agency (REA). Neither the European Union nor the granting authority can be held responsible for them.

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Deliverable Information	
Title	Capacity Building Plan for SER in LS
Deliverable number	4.1
WP number	4
Lead beneficiary	PULS
Author(s)	Viktoria Takacs, Ewelina Marek-Andrzejewska, Janusz Kloskowski, Piotr Tryjanowski, Gordana Racic, Arjan de Groot, Michal Lostak, Radek Rinn, Martin Jankovsky, Patrik Toula, Lina Landinez, Irena Benesova
Type	Report (R)
Dissemination Level	PU
Delivery date	30. 11. 2023

Project information	
Title	Bringing Excellence to Transformative Socially Engaged Research in Life Sciences through Integrated Digital Centers
Acronym	BETTER Life
Project no.	101071314
Type of Action	HORIZON Coordination and Support Actions
Website (Project)	www.betterlifehorizon.eu
Website (DCoE)	www.better-life-digital.eu

History of Changes

Version	Date	Comment	Revised by
Version 0.1	01. 11. 2023	First draft	Viktoria Takacs, Piotr Tryjanowski, Janusz Kloskowski,
Version 0.2	05. 11. 2023	Second draft	Lina Landinez
Version 0.3	15. 11. 2023	Third draft	Patik Toula, Michal Lostak
Version 0.4	22.11.2023	Fourth draft	Viktoria Takacs, Ewelina Marek - Andrzejewska, Piotr Tryjanowski
Version 1.0	28. 11. 2023	Final version	Susanne Winge, Patrik Toula, Arjan de Groot

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List of Abbreviations

Abbreviation	Definition
CBP	Capacity Building Plan for SER in LS
DCoE	Digital Center of Excellence
ECR	Early Career Researcher
EM	Engagement Manager
EU	European Union
HEI	Higher Education Institution
LS	Life Sciences
NGO	Non-governmental Organisation
SER	Socially Engaged Research
SME	Small and Medium-sized Enterprises

EXECUTIVE SUMMARY

An essential part of the BETTER Life project is the series of Capacity Building Actions that are planned from 01. 09. 2023 to 01. 09. 2024. Capacity Building Plan provides the reader with essential information and instructional background along with the assessment and evaluation guidelines for the planned activities (i.e., think-tank sessions, boot camps for ECRs, boot camps for EMs, virtual international winter school and on-site summer school). These capacity-building activities provide ECR opportunities (such as mentorship programs or specially trained engagement managers) and knowledge (new methods and information concerning SER). During the Capacity Building Actions, we plan to utilise the tools that were worked out during WP3 in alignment with WP2 standards and operational goals. As a result, Socially Engaged Research will be more available for ECRs in life sciences at Partners' High Education Institutions.

1. INTRODUCTION

BETTER Life "Bringing Excellence to Transformative Engaged Research in Life Sciences through Integrated Digital Centres" is a project funded by the European Commission under the Horizon Europe (Widening Participation and Spreading Excellence) Programme (Project number: 101071314).
The specific objectives of the project are to:

- consolidate a strategic vision for the BETTER Life DCoE oriented to stand as a world reference in SER in LS and committed to long-term sustainability
- build intra- and inter-institutional capacities to foster SER in LS through resources, guidelines, network cooperation, and policy designs at regional and international levels
- build individual capacities for boosting the social impact of the research developed by early career researchers by providing support to design, develop, and valorise research engaged with the surrounding ecosystems
- consolidate the BETTER Life DCoE as a global reference point in developing and pioneering transferable tools to foster SER in LS at individual, institutional, regional, and international levels.

To achieve these objectives, earlier WPs assessed the best practices and the local (partners' region-specific) need for engaged research in LS (WP2), defined the standards for SER and developed a toolkit for our needs (WP3). WP4 contains a series of training activities and think-tank sessions, allowing for testing of previous WPs findings.

Capacity Building Plan (CBP) is a document that develops background material for all training activities included in WP4 and is essential for providing coordinated actions among partners' HEIs and also, for ensuring qualities of the training.

CBP connects WP4 to previous WPs, standards, tools and mapping the needs of SER. The planned training activities will be organised around the conceptual space defined by the BETTER Life Standards for Socially Engaged Research in Life Sciences (Deliverable 3.1). Standards involve 4 main dimensions and 12 subdimensions:

1. Institutional capacities (i.e., support possibilities, research capacities, contextual

knowledge),

2. Stakeholder engagement (i.e., stakeholder involvement, networking and collaboration, shared power),
3. Relevance (i.e., scientific, contextual and quality assurance),
4. Impacts (i.e., enhanced local capacities, conceptual outcomes, instrumental benefits). Toolkits developed in WP3 will be tested, finetuned and improved during the boot camps as well as international summer and winter schools. At the same time, the toolkit set (developed within WP3) gives us novel opportunities for boosting SER in research conducted by ECRs in the field of life sciences.

CBP contains information on all planned training activities in the BETTER Life project concerning learning objectives of the training, instructional design, communication and recruitments, training plan, assessment and evaluation, and reporting guidelines and, as such, serves as a hint for all partners' HEIs to fulfil the tasks related to WP4.

The CBP is a result of teamwork, coordinated by the lead institution of WP4, while the task leader institutions prepared the plans for the events, and all plans were discussed among the partners.

2. Think Tank Sessions

2.1 Introduction and the Goals of the Planned Think Tank Sessions

A think tank is a group of experts who are brought together by an organisation, especially by a governmental one, to consider various problems and try and work out ways to solve them (Cambridge Dictionary[1]). This is an excellent approach for gathering diverse perspectives and ideas on needs, possibilities, and realities that are present in the partner institutions.

The overall goal of the think tank sessions within the BETTER Life Project is to create a feasible and adequate mentorship program for HEIs specialised in life sciences. Each HEI will establish a mentorship program tailored to their specific conditions. The mentorship program is one of the tools selected in WP3, so developing HEI-specific mentorship programs is a continuation of tool development.

The think tank sessions address operational goal 1: "To activate the network of regional stakeholders working in quadruple helix who will orient and guide the development of the socially engaged research in life sciences." Also, they are in alliance with operational goal 5: "To create a communication platform between the public and researchers in life sciences.". Think-tank sessions also align with some of the standards (deliverable 3.1). As the planned HEI-specific mentorship programs should fit into the institutional capacities of the organisation, aimed at involving the SER approach in cooperation with quadruple helix actors, standards," institutional background", and „stakeholder engagement" provide a good fit for this activity.

2.2 Preparation, Communication and Recruitment

Think tank sessions will be organised **from 01. 10. 2023 till 31. 01. 2024** by HEI partners, and each HEI Partner will be responsible for:

1. Choosing potential participants for the think tank sessions.
2. Sending invitations to the selected participants.

3. Organising online or face-to-face meeting(s) for participants.
4. Think tank sessions should develop a **concrete HEI-specific mentorship program** (that fits the already existing programs within the HEI)
5. Refining the mentorship program.
6. Preparing the internal report of the think tank session.

The Think tank sessions should be held on at least 3 occasions and their duration should be 2-3 hours each.

Participants should be experts with experience in Socially Engaged Research, e.g. a background experience in cooperation with stakeholders (quadruple helix actors). Moreover, think tank participants can also have different backgrounds, representing diverse stakeholders, including faculty members, students, alumni, administrators, and potentially external experts in mentorship and education.

Before the Think tank sessions, the organisers should designate a facilitator to guide the session and a note-taker to record ideas and discussions. Following this, organisers should collect relevant data, research, and best practices on mentorship programs in higher education.

2.3 Instructional Design (Proposed Agenda for Think Tank Sessions at all HEI Partners)

Three Think Tank sessions should be organised by each HEI partner of around 2-3 hours.

- The first session will introduce the project and map the institutional capacities of the HEIs, as well as ways of financing the establishment of mentorship programs.
- The second session involves finding cooperative stakeholders and choosing among them for establishing mentorship programs (Standard 2: “Stakeholder engagement”). Moreover, during the second meeting, details of the mentorship program will be planned.
- The third (and in case it is necessary, the following) sessions can be online. Participants will help in refining the plan for the mentorship program.

2.4 Training Deliverable Plan

The planned three sessions will be organised as online or face-to-face events, with the following contents:

First Session (online or on-site)

Introduction (15-20 min): The facilitator welcomes all participants and invites all participants to introduce themselves. **Brief presentation of the BETTER Life project (20 min):** Introducing the importance of SER in LS and the idea of the mentorship program. S/he will establish ground rules for respectful and productive discussion. Information on SER and describe the idea of the mentorship program. Encourage participants to share their perspectives on what the program should achieve.

Institutional capacities (Standard 1) (80 min).

- **Identify the already existing systems in HEI** with similar functions for the planned mentorship program. These are equivalent to standard "1.1 The support structures" (20 min).
- Via brainstorming, participants should **explore the existing human resources** (possible mentors) and suitable equipment in HEI that can serve as a base of the mentorship program. This part is connected to standard "1.2 Research capacities" (20 min).
- Participants should find several already **existing cooperation networks between** the HEIs and stakeholders (according to standard "1.3 Contextual knowledge") (20 min).
- The planned mentorship program should be low cost – based on the improvement of the existing expertise and cooperation schemes within HEIs, **fundraising possibilities, if needed** for a successful mentorship program, could be considered (20 min).

Second Session (online or on-site 3 hours)

- **Identify potential mentors outside HEIs**. (20 min): Based on existing stakeholder-research cooperation, institutions outside HEI should be found as potential participants in the mentorship programs (standard 2.1). Which potential outside institutions could provide mentors for the program?
- **Key Components and Structure** (20-30 min):

- Discuss and decide on the possible structure of the mentorship program, such as one-on-one mentoring, group mentoring, or a hybrid model.
- Explore the ideal duration, frequency, and format of mentor-mentee interactions (30 min).

➢ **Participant Selection and mentor-mentee matching** (20 min):
- Identify who should be eligible to participate as mentors and mentees. Discuss criteria for selecting mentors and mentees.
- Brainstorm strategies for recruiting mentors from faculties, alumni, or other sources.
- Discuss potential algorithms or criteria for matching mentors and mentees effectively.
- Address issues related to diversity and inclusion in matching.

➢ **Evaluation and Metrics** (20-30 min):
- Brainstorm ways to measure the success and impact of the program.
- Define key performance indicators (KPIs) and methods for collecting data.

➢ **Next Steps and Action Items** (15-20 min):
- Summarize key takeaways and action items.

Third Session (online, 1-2 hours)

➢ Share the proposal with participants for feedback and refinement.

➢ Similarly to other elements of the BETTER Life Project, we should apply the Continuous Improvement Principle during the think tank sessions and regularly make adjustments based on program feedback (after implementing the mentorship program at each HEI) and evolving needs.

By conducting a well-structured think tank session, HEI institutions can harness the collective wisdom and creativity of diverse stakeholders to develop a mentorship program that enables SER in LS, tailored to your institutions' goals and objectives.

2.5 Proposed Timeline

Preparation phase	01. 10. 2023 - 31. 11. 2023
Holding think tank sessions	31. 10. 2023 - 15. 01. 2024

Finalising mentorship program	15. 01. 2024 - 20. 01. 2024
Internal reporting on the think-tank sessions	30. 01. 2024

2.6 Reporting and Evaluation

HEI partners should provide the following information on the think tank sessions:

- **Participants description.**
  - How many experts were invited, and how many of them participated?
  - What was the main profile of the experts involved in the think tank sessions? (affiliation, quadruple helix actor and description of the participant's expertise).
- **Description of the sessions.**
- **Presenting the mentorship program as a final product of the think tank sessions.**
  - Who is involved in the planned mentorship program?
  - How many mentors and ECRs can be involved?
  - How is this program linked to earlier similar activities of HEI?

3. Virtual Boot Camps for Early Career Researchers (ECR)

Virtual boot camps for ECR are the most ambitious activity among all planned capacity-building actions. ECRs will be trained during three boot camps, providing learners with the skillset necessary to conduct knowledge of SER.

3.1 Introduction and the Goals of the Boot Camps for ECRs

The BETTER Life project shall provide training for early career researchers (ECRs) in three iterations of boot camps to facilitate the uptake of socially engaged research (SER) practices in the university environment. The project will utilise university infrastructure, human resources, and other compatible resources for conducting boot camps.

University project partners shall design and implement virtual boot camps for ECRs that thematically fit their expertise and use or adapt the good practices in SER either developed within the BETTER Life project or outside it to improve the capacities of the ECRs in conducting SER, reflecting local conditions and situation. The relative freedom of alignment of the thematic setup of the boot camps enables the project partners to take advantage of the particular strengths of each university partner while adhering closely to the social engagement aspect of the research, for which the ECRs will undergo training.

The boot camps will focus on sequentially developing or improving SER knowledge (Boot Camp I), skills (Boot Camp II), and competencies (Boot Camp III) of the participant ECRs. They shall also provide networking possibilities and peer-to-peer discussions, thus providing a holistic package intended to increase the ECR capabilities in SER.

Links to earlier defined project standards and goals
Early career researcher virtual boot camps link to other project activities through **Operational goal 4 of the Strategic and Governance Plan of the BETTER Life project** (to develop the sensibility for the benefits of socially engaged research in life sciences among early career researchers). The boot camps will train early career researchers in socially

engaged life sciences. The boot camps are also in line with **Operational Goal 8 of the Strategic and Governance Plan** (to utilise as much as possible innovative ICTs, new applications /developed by the Digital Centre of Excellence for socially engaged life sciences/ to train early career researchers and to use the new digital technologies and applications as the ways to facilitate SER in life sciences).

The boot camps must also be backed by the references to standards and frameworks of SER defined within the BETTER Life project (references to the standards and frames):
Institutional conditions: Research capacities address the necessary skills and expertise of researchers to engage in SER, including opportunities for participating in institutional and personal capacity building).
Relevance: Contextual relevance emphasises that research must be meaningful to stakeholders, focusing on community or societal challenges to make a significant impact. Scientific relevance represents the need for scientifically rigorous research.
Impact: Enhanced ecosystem capacities focus on enhancing systems and processes for community development, policymaking, and innovation, encompassing social, economic, and environmental aspects.

The mentor selection is in line with Operational goal 3: Setting up the communities of education in socially engaged research in life sciences, targeting early career researchers. Standard: **Institutional environment**: Support structures refer to the availability of organisational structures, such as funding, policy frameworks, tools, and administrative support, that enable and foster SER; Contextual knowledge points out to the organisation of previous experience, existing impacts, knowledge on the regional challenges and factors that shape research interventions, **Stakeholders engagement** - Networking and collaboration emphasises building and maintaining networks and collaborations with stakeholders).
Platform: initially, the university Learning Management Systems (e.g. Moodle, Illias) and ultimately the BETTER Life website, as part of the Digital Centre. The materials will be transferable from the local platforms to the project platform with the boot camps as testing and development grounds for the Digital Centre and its platform, as developed by MLU.

3.2 Preparation, Communication, and Recruitment

Firstly, forming a group of SER mentors at the university is necessary. The mentors will either have experience conducting transdisciplinary research or research that joins life and social

sciences. Additionally, the boot camps will include various actors from the quadruple helix willing to cooperate with ECRs.

Early career researchers will be selected from postgraduate or doctoral students and post-doctoral researchers interested in developing their capacities towards SER. Moreover, master students engaged in a research career can also be considered potential participants. The organisation of boot camps will be communicated to the target audience through multiple institutional channels, such as university news sites, student dissemination channels, social media, and directly by communicating with prospective participants and their thesis supervisors.

3.3 Instructional Design

Every university will organise three (3) boot camps for fifteen (15) ECRs, who will participate in all three boot camps. Each boot camp shall last for approximately one week. Because of the virtual and largely asynchronous nature of the boot camps, the participants do not need to complete each boot camp within one week but instead spend between 90 and 100 hours of study to complete the three boot camps:

- Boot Camp I will develop capacities in terms of knowledge. The first boot camp is introductory (basic). Its main goal is to provide and develop knowledge on socially engaged research (SER), particularly in life sciences. It will also start to develop the skills of sensitivity towards this kind of research among the participating ECRs. The boot camp will be scheduled to be opened between January 15 and March 14, 2024. A workload of about 30 hours from ECRs is expected.

- Boot Camp II will deal with the development of appropriate skills. The second boot camp will focus on building advanced skills to conduct socially engaged research in life sciences based on the knowledge from the first boot camp. Therefore, only those ECRs who successfully complete Boot Camp I will be allowed to start Boot Camp II. Besides methods for working with stakeholders, it will also introduce various toolkits for supporting SER developed in the BETTER Life project context. The boot camp will be scheduled from March 15 to May 15, 2024, to fulfil the number of allocated hours. A workload of about 30 hours from ECRs is expected.

- Boot Camp III will build competencies aligned with standards for socially engaged research in life sciences. The third boot camp will target the competencies of ECRs

to conduct socially engaged research in life sciences in the university environment from which the participating ECRs originate. They must demonstrate their competence in applying the knowledge and skills from the two previous boot camps. The boot camp will be scheduled from May 15 until August 14, 2024. A workload of about 35 hours for ECRs is expected.

The participants will be asked to collaborate with mentors and peers to co-create knowledge and skills. The mentors will vary, depending on the contents of the session in the boot camp.

After performing all activities of the boot camps, the participants must be assessed. Their work and progress in developing knowledge, skills, and activities in SER will be evaluated to receive a certificate. The boot camp can also be considered as a micro-credential learning activity. Micro-credentials certify the learning outcomes of short-term learning experiences, such as a short course or training. They offer a flexible, targeted way to help people develop their knowledge, skills, and competencies needed for personal and professional development. The CBP will follow the European approach to micro-credentials: https://education.ec.europa.eu/education-levels/higher-education/micro-credentials.

3.4 Training Deliverable Plan

Boot camp I: Knowledge (15. 1. 2023 – 14. 3. 2023)
Participant output (what they must deliver to pass): review paper/essay.
Documentation: participant satisfaction survey.

Section 1 – Introduction
Introducing the project with a pre-recorded video uploaded to the LMS. Introducing the participants (ECRs, mentors), ice-breaking activities (e.g., virtual campfire – mentors and participants speak about their pathway to research) using a virtual meeting platform, e.g., MS Teams, Zoom, or Google Meet.

Section 2 – Defining SER and Connected Research
Participants will prepare a description of their research (problem statement/research gap, methods used, already existing results or expected outcomes) using methods they prefer, e.g., online presentation or video recording. Mentors familiarise themselves with the uploaded problem statements prior to participant presentation before their peers.

Section 3 – Building knowledge on SER

Seminal papers and other literature are available to participants through the preferred LMS. Work is assigned to participants. The assignment is to prepare a paper/essay reviewing good practices in SER. Apart from a discursive, general overview of SER, each participant will choose two to three practices that fit the research problem they are dealing with, as stated in Section 2. Mentors will grade the assignments after submission. After grading and reviews, the assignments are made available to the participants as additional learning materials.

Section 4 – Reflections and Lessons Learned

Participants and mentors will reflect on the contents and format of the Boot camp. Participants will provide feedback on their satisfaction with what they learned.

Boot camp II: Skills (15. 3. 2023 – 14. 5. 2023)

Participant output: essay on practicality of particular practices + 1-2 BETTER Life toolkits.

Documentation: satisfaction survey.

Section 1 – Working with Stakeholders

Online pre-recorded presentations by project partners and other learning materials will be made available to the participants, describing key parts of engaging with stakeholders within research. The materials are intended to build the participants' skillsets in stakeholder work. The topics will cover stakeholder mapping practices, needs assessments, stakeholder network and other analyses, and perception analyses. They will also cover SER toolkits developed within the BETTER Life project.

Section 2 – Disseminating Research Findings

The section showcases multiple communication channels, strategies, and tools (e.g., BETTER Life toolkits) needed to successfully engage various target audiences (e.g., the scientific community, the general public, professionals, lobbyist groups, etc.)

Section 3 – Learning the Skills by Example

The section consists of online discussions between the group and selected successful actors whose research and practice centre around stakeholder engagement and research dissemination. Participants are asked to reflect on appropriate techniques when working with stakeholder groups, focusing on the differences in collaborating or approaching various stakeholder groups.

Section 4 – Reflections and Lessons Learned
Participants and mentors will reflect on the contents and format of the boot camp. Participants will provide feedback on their satisfaction with what they learned.

Boot camp III: Competencies (15. 5. 2023 – 14. 8. 2023)
Participant output: SER strategy for a case study. Additionally, a draft of the introduction and methods on a real scientific paper, which the participants could then submit once they gather the data. Furthermore, the group work could be gamified by making it a competition between the participant groups (award them 1st, 2nd, and 3rd place).

Section 1 – Recap on Knowledge Learned and Skills Developed in Boot Camps I and II
The session consists of an online discussion with participants on lessons learned from the first two boot camps. At the end of the discussion, participants are divided into three groups, and work is assigned.

Section 2 – SER Strategy
The assignment is first to create a SER strategy that covers research problems on which the participants work and second to simulate stakeholder engagement. Mentors will oversee strategy creation and provide feedback to each group.

Section 3 – Mock-up Studies
Based on the defined problem areas, the groups will simulate working with stakeholders using the most appropriate methods and techniques from Boot Camps I and II (e.g., mock-up focus groups, workshops, seminars, and other practices). In three repetitions, one group will conduct the mock-ups. The two other groups will serve as stakeholder group representatives, engaging in discussions and providing feedback to the group conducting the mock-ups. Mentors will oversee the process and provide feedback.

Section 4 – Reflections and Lessons Learned
Participants and mentors will reflect on the contents and format of the boot camps. Participants will provide feedback on their satisfaction with what they learned. Apart from an online survey, the ultimate reflection session will be held as an online discussion so the organisers can follow up and gather more in-depth insights for future work.

3.5 Proposed Timeline

Boot Camp I	15. 1. 2023 – 14. 3. 2023
Boot Camp II	15. 3. 2023 – 14. 5. 2023
Boot Camp III	15. 5. 2023 – 15. 8. 2023

3.6 Reporting and Evaluation

To document the progress and levels of satisfaction of the participants of the boot camps, satisfaction surveys will be filled out by the participants after each boot camp. Each participant will be graded after each boot camp on a pass/fail gradient and within Boot Camp III: Competencies, the group work assignments will be ranked by the mentors. To document attendance, screenshots from the LMS depicting the number of participants who initially signed into each boot camp and the grades awarded to the participants shall be stored on the project SharePoint and submitted to the relevant agency systems. Mentors will briefly summarise the activities they performed with boot camp participants. Where appropriate, the sections will be recorded and stored (with the informed consent of participants). The outputs of the activities of boot camps participants stored in LMS will be available to document the work.

4. Virtual Boot Camps for Engagement Managers

Similarly, to ECR, Engagement Managers (EMs) will also be trained in virtual boot camps. EMs are university employees, advising ECRs on connecting with different non-academic actors. Thus, the knowledge that will be gained in the BETTER Life project will help improve their skills, including SER, in the long term.

4.1 Introduction and Goals of the Boot Camps for EMs

The main objective of the boot camps for engagement managers is to build the intra- and inter-institutional capacities to foster societally engaged research in life sciences through raising the capacities of engagement managers, who are individuals from partner HEIs who would be tracking, measuring, and advising on SER in life sciences at institutional level.
HEI will choose two (2) engagement managers to support ECRs in life sciences during the capacity-building period and will be responsible for establishing and maintaining the DCoE.

The long-term objective is to continue engaging at least 5 local, regional and/or national authorities and 5 society representatives per region per year (at least 70 societal non-academic actors in total per year) upon the completion of the project.

4.2 Preparation, Communication, and Recruitment

Each HEI will organise three (3) boot camps for at least two (2) engagement managers, who are responsible for training ECRs, building the capacity of staff, and enhancing standards for SER in life sciences from the administrative perspective. The implementation will be monitored through indicators to provide evidence-based progression report. The engaging manager should be a person who works at university and whose job description covers cooperation with stakeholders or student practice.

HEIs should find potential participants among their employees. In most universities, there are already people working with existing PhDs. Students supporting mechanisms and services, carrier advisories, and these people are potential candidates as EMs. Eventually,

they might be people from the sustainability office, public relations office, technology and innovation transfers office.

Firstly, forming a group of SER mentors at university is necessary. Mentors for this event can be the same as for boot camps for ECRs. Eventually, the project team will seek mentors with experience in engagement management in the university environment (ecosystem) to attract them to participate in the boot camps.

Mentors will ideally have experience in conducting inter-disciplinary research, or at least in research that joins life and social sciences, or experience with being engagement managers. Additionally, various actors from the quadruple helix who are willing to cooperate with ECRs will be included in boot camps. The mentor selection is in line with Operational goal 3: Setting up the communities of education in socially engaged research in life sciences and targeting early career researchers.

- Standard: Institutional environment: Support structures refer to the availability of organisational structures, such as funding, policy frameworks, tools, and administrative support, that enable and foster SER,
- Contextual knowledge points out to the organisation of previous experience, existing impacts, knowledge on the regional challenges and factors that shape research interventions,
- Stakeholders' engagement - Networking and collaboration emphasises building and maintaining networks and collaborations with stakeholders).

4.3 Instructional Guidelines and Training Deliverable Timeline

Boot camp I: Introduction to SER (10 hours/one week)

Section 1 - Introduction

Mentors will introduce the project (including the definition of SER and standards for SER) using a virtual meeting platform (e.g., MS Teams, Zoom, or Google Meet).

Section 2 – Defining the Target Group

The engagement managers' task would be to define at least five (5) local, regional and/or national authorities and five (5) society representatives per region/country who should be tackled with SER in life sciences.

Boot camp II: Skills (10 hours/1 week)

Section 1 – Disseminating Research Findings

The section showcases multiple communication channels, strategies, and tools (toolkits) needed to successfully engage various target audiences (including the scientific community, general public, professional public, lobbyist groups, etc.). This section will focus on two BETTER Life toolkits that will be presented and explained to the EM.

Section 2 – Learning the Skills by Example

The section consists of online discussions between a group and selected successful actors (defined in Boot Camp I) whose research and practice centre are around stakeholder engagement and research dissemination. Participants are assigned to write reflections on appropriate techniques when working with stakeholder groups, focusing on the differences in collaborating or approaching various stakeholder groups.

Section 3 – Reflections and Lessons Learned

Participants and mentors will reflect on the contents and format of the Boot camp. Subsequently, participants will provide feedback on their satisfaction with what they learned.

Boot camp III: Competencies (10 hours/week)

Section 1 – Recapping on Knowledge and Skills Learned in Boot Camps I and II

The session consists of an online discussion with participants on lessons learned from the first two boot camps. At its end, participants are divided into three working groups.

Section 2 – Engaging with Stakeholders

Presentations, tables and other learning materials will be created by engaging managers that should cover stakeholder mapping practices, needs assessments, stakeholder network and other analyses, and perception analyses. The materials are supposed to be created for ECR to be used, thus describing key parts of engaging with stakeholders within research. The materials are intended to build the participants' skillsets in stakeholder work.

Section 3 – Mapping Stakeholders

Online meeting will be organised with predefined stakeholders to present them EM responsible for SER and to establish future cooperation where EM will track, measure, and advise on SER in life sciences on the institutional level and make a connection with stakeholders and ECR.

Section 4 – Reflections and Lessons Learned

Participants and mentors will reflect on the contents and format of the boot camps. Participants will provide feedback on their satisfaction with what they learned. Apart from an online survey, the ultimate reflection session will be held as an online discussion so the organisers can follow up and gather more in-depth insights for future work.

4.4 Proposed Timeline

Boot camp I	15. 01. 2024 – 14. 03. 2024
Boot camp II	15. 03. 2024 – 14. 05. 2024
Boot camp III	15. 05. 2024 – 15. 08. 2024

4.5 Assessment and Evaluation Plan of the Boot Camps for EMs

The WP4 leader (PULS) and Task 4.2 (CZU) and 4.3 (EDUCONS) leading and supporting institutions will nominate one person who will evaluate the boot camps' success using the following scales. They will use the information from mentors and an online test, which will include five questions, to be completed after each boot camp (questions regarding the evaluation of each topic and mentor engagement).

- Unsatisfactory: The institution did not meet the criteria of engaging two managers and 15 ECRs for all three boot camps.
- Satisfactory: The institution meets the criteria on an acceptable level. It engaged half of the criteria for all three boot camps.
- Excellent: The institution meets the criteria of engaging two managers and 15 ECRs for all three boot camps.

5. International Virtual Winter School

5.1 Introduction and the Goals of the Virtual Winter School

The BETTER Life Virtual Winter School targets explicitly Early Career Researchers (ECRs), and, as such, the program was tailored specifically to suit ECRs. The BETTER Life Consortium partners will advertise the Winter School within their own organisation as well as their regional networks to reach the necessary number of participants, as stated in the project proposal. As such, ECRs from other universities and regions are also welcome and expected to join. Within the scope of the Winter School, ECRs include Ph.D. students, young post-docs and master students who are motivated with a particular interest in socially engaged research (SER).

The primary focus is to introduce the concept of SER) among ECR, inform about its uses and applications, and spread awareness for it. As such, participants will receive an extensive overview of the applications, uses and procedures in SER. The two main goals are:

- To make participants sensible with regard to SER, and
- To generate interest for the more in-depth and detailed virtual boot camps that will take place in the future.

The BETTER Life Virtual Winter School presents approaches and concrete examples of how to utilise the concept of SER to ensure that academic research is more oriented towards overcoming social challenges, as well as providing a means on how to align their potential research with the needs of the general public. The Winter School aims to generate a better understanding of socially engaged research, inspire future research projects and academic activities, and showcase examples from practice.

5.2 Preparation, Communication, and Recruitment

To reach as many ECRs from life sciences as possible, a distribution list will be set up. The project partners will reach out to interested institutions and other HEIs in their region.

Participants can be study programme coordinators, junior research groups, HEI marketing, service offices or centres for continuing education.
The institutions and the ECRs will be made aware of the upcoming Winter School with a safe-the-date feature.

The call for participation will be issued approximately six weeks before the Winter School, and applications will be submitted via an online application form. A reminder will be sent via the mailing list two weeks and again within one week before the application deadline. The safe-the-date and the call for applicants will be sent out once by the task leaders and then again nationally by the respective project partners.

All participants will be informed in detail about the winter school programme in advance. An online introduction could be offered, and an information leaflet could be designed if necessary.

5.3 Instructional Design

Initially, participants will listen to several (expert) lectures introducing the concept of SER as well as providing concrete examples of their application, outcomes and lessons learned. Ideally, experts from the field of SER will be invited to hold these lectures, as this would provide all participants with a deeper understanding of the subject.

Afterwards, participants will spread into smaller groups within breakout sessions, where they will discuss the topic further amongst themselves, reflect on the theoretical knowledge gained, and develop a small presentation that will then be presented and discussed in the plenary session.

The entirety of the Winter School will be conducted virtually on three consecutive days, whereby each day will have a specific focus.

- Day 1 focuses on introducing the concept and providing participants with a better understanding of the concept, as well as several expert lectures and examples from practice.
- Day 2 focuses on an interactive exchange in smaller workshops during breakout rooms as well as reflecting on and discussing these outcomes in plenary. The topics of the sessions are determined by the Standards.
- Day 3 provides a wrap-up and an outlook of future efforts and potential

collaborations as well as an open space suited to the needs of the participants. Showcasing specific approaches such as “Reverse Conceptualization” would also be well-suited for Day 3.

5.4 Training Deliverable Plan

Draft AGENDA for BETTER Life Virtual Winter School	
DAY 1 – 3h total (For example: 09.00 – 12.00)	
30 Minutes	**Welcome and Introduction** ● Participants are welcomed to the Virtual Winter School ● Lecturers introduce themselves ● Objectives of the Winter School are discussed ● Agenda is presented
45 Minutes	**Session 1 – Expert Lecture** ● Introduction of the SER concept
45 Minutes	**Session 2 – Expert Lecture** ● Expectations regarding SER. What is the target area, how does it work, what are the expectations and necessities when attempting to align academic research with the SER approach
45 Minutes	**Session 3 – Expert Lecture** ● Addressing challenges and limitations when applying the concept of SER. What are the hurdles, and how can they be overcome?
15 Minutes	**Wrap – Up** ● Addressing open questions ● Outlook to Day 2
DAY 2 – 3h total (For example: 09.00 – 12.00)	
15 Minutes	**Recap and Outlook** ● Reflecting on the theoretical knowledge gained on the previous days ● Questions and Answers by participants ● Proceedings for Day 2. Potential making of groups, each ECR can visit two different WS-Sessions. ● Explanation of Tasks / Goals
45 Minutes	**Session 1 – Workshop in Breakout Rooms** ● Participants are split into groups ● Potential topics:

	1. How to identify key stakeholders and existing networks? 2. How to involve key stakeholders and existing networks? 3. How to involve societal stakeholders? 4. How to manage the engagement of the stakeholders and networks? 5. How to find the balance between contextual and scientific relevance? • Each group examines and analyses a specific case study of SER, focusing on the topic • Each group discusses the case study, addressing primarily the conceptualisation of the case study and its initial objective and goals • What is conceived well, what does the case study set out to do, etc.
10 Minutes	**Changing the groups**
45 Minutes	**Session 2 – Workshop in Breakout Rooms** • Participants are again split into groups (potential shuffling of groups/case studies. Each group now discusses the challenges and limitations of the case study about its implementation and outcomes. How were challenges addressed, and how did they limit the outcomes of the study
45 Minutes	**Session 3 – Plenary** • Groups reconvene in plenary • Each topic presents the main points of their discussion, the lessons learned and their analysis regarding the challenges and limitations of the case study. • Additional tasks TBD potentially
15 Minutes	**Wrap – Up** • Addressing open questions • Outlook to Day 3
DAY 3 – 3h total (For example: 09.00 – 12.00)	
15 Minutes	**Recap and Outlook** • Reflecting on the discussions of the previous day • Questions and Answers by participants • Proceedings for Day 3. Potential making of groups • Explanation of Tasks / Goals for the day
60 Minutes	**Session 1 – Reverse Conceptualisation** • Participants are provided with an “ideal SER study.” • Within the plenary, all participants and lecturers discuss how this ideal result can be achieved and what steps need to be taken

	• Participants are welcome to draw on their own experiences and apply the knowledge they have gained in the previous days – especially the methodological ideas and approaches showcased on Day 1 or examined in workshops on Day 2.
45 Minutes	**Session 2 – Bar camp** • Open floor and open space for discussions • Participants and lecturers discuss topics either suggested by participants or suggested by lecturers • Specific focus on benefits, challenges and steps of implementing SER
45 Minutes	**Session 3 – Scientific Workshop / Atelier** • Concrete ideas for scientific research are discussed • Participants can showcase their own research and receive input (as well as collaboratively engage with other participants) • Specific scientific approaches related to SER can be showcased and discussed
15 Minutes	**Wrap – Up** • Addressing open questions • Setting up follow-up activities with participants regarding collaboration • Introducing virtual boot camps and outlook to those

5.5 Proposed Time Schedule

Preparation phase	1. 12. 2023 – 29. 1. 2024
Call for participation	30. 1. 2024 – 29. 2. 2024
Preliminary information for participants	6. 3. 2024 – 8. 3. 2024
Winter School	11. 3. 2024 – 15. 3. 2024

5.6 Assessment and Evaluation of the Success of Winter School

During and after the Winter School, several feedback mechanisms are implemented. Participants can provide feedback through an online platform or forum, on which potential questions can also be addressed and resolved. As most parts of the winter school are planned in an interactive form, there is a possibility of immediate feedback from the participants. Additionally, an extensive feedback questionnaire will be sent to all participants upon completion of the Winter School and will focus on lessons learned and improvements to be made for future (virtual) events within the BETTER Life project.

6. On-site International School

6.1 Introduction and Goals of the On-site International School

Building upon the foundation laid in Task 4.5, which hosted a virtual international winter school, task 4.6 takes the concept of socially engaged research (SER) in life sciences a step further by bringing early research careers (ECRs) together in a physical setting. The on-site summer school offers a unique opportunity for participants to immerse themselves in a rich and interactive learning environment.

Early career researchers often lack an extensive network of peers to exchange ideas, collaborate on research, and face limited networking opportunities. Consequently, it is essential to establish conditions that foster such cooperation. The summer school will serve as a platform for ECRs to establish and nurture valuable connections with their peers from partner universities. Face-to-face interactions are invaluable for building lasting relationships, which can lead to future collaborations in research. Summer school also provides a platform for ECRs to exchange their research experiences, challenges, and successes. This knowledge exchange will result in innovative solutions and new perspectives, enriching the participants' understanding of SER in life sciences.

Summer school participants will engage in hands-on activities, workshops, and group projects to develop solutions to real-life problems in life sciences. This collaborative approach fosters a deep understanding of the societal impact of research. The summer school´s location in the Czech Republic allows participants to immerse themselves in Central Europe's cultural and regional dynamics. Understanding different contexts and challenges is essential for conducting socially engaged research with a global perspective. One of the primary aims is to understand the differences between and within the countries. Therefore, we can generate fresh ideas and innovative solutions for longstanding, often entrenched problems by concentrating on local and regional issues within the European Union while leveraging diverse perspectives from various countries. Fresh ideas and innovative solutions for longstanding, often entrenched problems can be developed. This approach will prove valuable for early career researchers, allowing them to observe how these challenges are addressed in different countries and regions.

Ultimately, the goal of task 4.6 is to cultivate a culture of SER in life sciences across Europe. By bringing together ECRs from various countries and regions, the summer school will help disseminate the principles and practices of SER, promoting integration into the research landscape.

Task 4.6´s on-site international summer school is a pivotal step in advancing the cause of socially engaged research in life sciences. It offers a unique opportunity for networking, knowledge sharing, co-creation, and regional engagement, all aimed at establishing a culture of SER. With the active involvement of all partner universities, this initiative holds great promise for shaping the future of research in the life sciences field across Europe.
This task aims at operational goal 4 of the Strategic and Governance Plan of the BETTER Life project: “To develop the sensibility for the benefits of socially engaged research in life sciences among early career researchers”.
The summer school refers to standards and frameworks of SER defined within the BETTER Life project (references to the standards and frames):

- Institutional conditions – Research capacities – are about the necessary skills and expertise of researchers to engage in SER.
- Impact – Enhanced ecosystem capacities, mean systems and processes for community development, policymaking, and innovation, encompassing social, economic, and environmental aspects are enhanced.
- Stakeholders Engagement - Networking and collaboration: the summer school will aim at building the network of those supporting SER in life sciences.

6.2 Preparation, Communication and Recruitment Plan

The summer school is intended to be conducted after boot camps. Therefore, it is open for those participating in the boot camps but also for those who did not participate, however, they are interested in learning about socially engaged research in life sciences. Bringing the two groups (those already trained in SER and those not trained in SER) will create a sort of a field experiment enabling an assessment of the efficiency of using various ways raising the awareness of SER. However, the idea behind recruiting the participants is to have many more newcomers into SER than those already being trained in some of the ways (it is because we want to train in total of 200+ early career researchers).

The summer school will be organised for 50 participants. They will be identified by the partners: CZU: 10, MLU: 9, UNICAM: 8, EMU: 6, DU: 6, PULS: 8, EDUCONS: 3). As indicated

above, a large majority of them (if not all of them) must be those who have not been trained. Participating universities are supposed to start information and recruiting campaign informing about summer school (in cooperation with respective offices within partner universities). It is also assumed that members of the partners in the project will participate in the summer school as mentors, trainers, and teachers. They will be from the teams involved in various WPs of the project.

The summer school will utilise the materials already developed within the project. Moreover, during the summer school preparation, a real case study aiming at creating the case for using SER in LS will be prepared in cooperation with actors from the local quadruple helix.

6.3 Instructional Design and Training Deliverable Plan

The summer school is designed to be intensive and span a one-week duration. The programme aims to balance academic activities, cultural immersion and network opportunities, all related to life sciences and socially engaged research. By integrating these three areas (pillars of summer school), it will be possible to establish professional and personal connections among participants. This is crucial for fostering enduring and fruitful further professional collaborations.

Preliminary agenda (because of the time of preparation, this plan might be changed since the summer school is expected to be implemented within 10 months from writing this plan):

Day 1 – Welcome and orientation (orientation sessions, introduction to the objectives of the summer school, ice-breaking activities, first touch of socially engaged research in life sciences through interactive activities)

Day 2 – Foundations of SER in life sciences (fundamentals of SER in life sciences, presentation of successful case studies, workshop on research methodology, brainstorming and small group discussions on potential SER research topic)

Day 3 – Field visits and data collection (visit to the local community, hands-on experience in data collection and participant observation, group analysis, guest speaker session featuring an SER expert sharing their experiences)

Day 4 - Co-creation and project development (workshop on co-creation techniques and collaboration in SER project, group formation, project brainstorming and initial planning session)

Day 5 – Research ethics and impact assessment (ethical considerations connected to community engagement, lecture on measuring the societal impact of research)

Day 6 – Project presentation and feedback (followed by peer and mentor feedback, reflection on challenges and potential solutions encountered during the project development)

Day 7 – Closing and networking (summary and evaluation, certification, informal networking with participants)

(Note: The Summer School Programme proposal will be adjusted to align with the consortium´s specific requirements and incorporate insights gained from the boot camps.)

Throughout the week, ample time should be allocated for group discussions, networking, and optional cultural programmes. This programme is designed to provide a comprehensive learning experience while fostering collaboration, cultural appreciation, and the advancement of SER in life sciences.

Socially engaged researcher in life sciences aims to address real-world problems and engage with communities and stakeholders. Here are some potential topics as potential issues for the workshop and summer course:

- Rural Entrepreneurship
- Agricultural Diversification
- Digital Economy in Rural Areas
- Local Food Systems and Value Chains
- Renewable Energy Development
- Green and Sustainable Business Practices
- Sustainable Agricultural Practises
- Food Security in Rural Communities
- Agroecology and Biodiversity Conservation
- Community-based Forest Restoration
- Local Crop Varieties and Food Heritage Preservation
- Waste Reduction and Recycling in Local Communities
- Environmental Education in Small Schools
- Renewable Energy Integration in Agriculture
- Rural Agri-tourism and Sustainable Tourism
- Farm-to-table Initiatives
- Community-based Forest Management

- Circular Economy Initiatives
- Forest-based Bioenergy and Biomaterials

Please note that the list of the potential topics is not exhaustive. It can be adjusted to align with the research direction of the participant (early career researchers). Additionally, it may need to be adopted based on the current circumstances during summer school preparation.

6.4 Proposed Timeline

Preparing the summer school	01. 09. 2023 – 31. 04. 2024
Nomination of participants from each partner university	31. 05. 2024
Organising summer school	16.-22. 09. 2024.

6.5 Assessment and Evaluation Plan

The participants' work will be accessed by the team of participants from partner universities. The students will work on projects in teams. The teams' projects will be assessed in terms of how well they incorporated the principles of SER into their design and how they reflect these principles. The participants of the summer school will be informed about detailed criteria of the assessment of their projects based on the prepared case study. To support quality assurance, the summer school participants will perform a mid-term evaluation (in the form of a qualitative assessment where the students in the form of narratives will express their expectations and how they were met). At the end, the participants will fill in the survey assessing the quality of the summer school.
The outputs of the activities of boot camps participants stored in LMS will be available to document the work.

7. Limitations for Capacity Building Activities Targeting ECRs

Without the acquisition of established and well-renowned experts in the field of SER, it may be challenging to find the necessary number of participants for the Winter School, Boot camps and Summer School. Without any concrete benefits, many ECR may be hesitant to join the workshops planned within the Capacity Building Activities of BETTER Life project, considering their busy schedule, the potential work involved during the workshop/breakout sessions and the lack of benefits from participating. Hence, to make the event enticing to ECR, concrete benefits would have to be taken into consideration, such as the acquisition mentioned above of experts in the field of SER or the issuance of certifications after the end of the event. However, it is unsure how beneficial these certificates would be to participants. In this case, participants could also be provided with ECR for their studies, though the particularities would have to be still discussed within the consortium.

CONCLUSIONS

Capacity Building Plan provides the instructional background of the planned Capacity Building Activities: Think Tank Sessions, Virtual Boot camps for ECRs, Virtual Boot camps for EMs, Virtual International Winter School, and On-Site International Summer School. All Capacity Building Activities are described along with learning objectives, instructional background and training deliverable plan, timing and assessment guidelines. Also, the potential risks of failing in fulfilling the Capacity Building tasks are considered. Based on the Capacity Building Plan, Partners can organise the Capacity Building Activities in a coordinated way.