B-Blue

Building the blue biotechnology community in the Mediterranean

WP4 - Testing

DELIVERABLE 4.1.1

WP4 Implementation strategy

November 2020

Charlène AUREGAN[1], Colin RUEL [2], Christophe AVELLAN [3]

with contribution of *Cristian CHIAVETTA (ENEA)*

[1] Pôle Mer Méditerranée – Toulon Var Technologies, 93 forum de la Méditerranée, 83190 Ollioules, France
[2] Pôle Mer Méditerranée – Toulon Var Technologies, 93 forum de la Méditerranée, 83190 Ollioules, France
[3] Pôle Mer Méditerranée – Toulon Var Technologies, 93 forum de la Méditerranée, 83190 Ollioules, France

Document information	
Project Acronym:	B-Blue
Project Title:	Building the blue biotechnology community in the Mediterranean
Grant Agreement no.	7032
Programme	Interreg MED 2014-2020
Project Start Date:	01/09/2020
Project duration	22 months
Related work package	WP4
Lead partner for this document	PMM-TVT
Due date	November 2020
Submission date	November 2020
Dissemination level	Internal

Revision history

Date	Author/ Reviewer	Version/Notes
30/10/2020	Charlène AUREGAN, Colin RUEL, Christophe AVELLAN	Definition of the structure
06/11/2020	Charlène AUREGAN, Colin RUEL	First version
17/11/2020	Cristian Chiavetta	Review and comments
30/11/2020	Charlène AUREGAN, Colin RUEL	Last version

List of Abbreviations and Acronyms

Acronym	
BBH	Blue Biotechnologies Hub
BBt	Blue Biotechnologies
PMM-TVT	Pôle Mer Méditerranée – Toulon Var Technologies
PPs	Project partners
R&D	Research & Development
WP	Work package

Table of contents

About B-Blue project

10 partners with proved experience in the Blue Bioeconomy field from 8 Med countries and more than 300 Med stakeholders from universities, research centres, public authorities, business support organizations and Med multilateral organizations, working together for 22 months to create the Blue Biotechnologies (BBt) community in the Mediterranean. The exploitation of marine bio-resources through biotechnological solutions is a field with massive potential for innovation and economic growth. This field is a relatively young discipline, so opportunities and key enabling factors need a coordination. B-Blue project aims at gathering the key actors of the Med BBt sector and increase their innovation capacity and their coordination in order to unlock the innovation potential in the field through joint transnational initiatives, involving also organizations from the Southern Shore of the Mediterranean. The transnational coordination framework, the project aims to create, is based on an inclusive quintuple-helix approach always including the socio-environmental perspective in the decisional process and building on a common knowledge ground selected on the basis of its potential of addressing the SGDs at Med level. B-Blue project works towards the implementation of a transnational coordination mechanism for the BBt community through the mutual interconnection of the digital BBt community platform and a Med network of territorial based-collaborative space on selected BBt value chains (BBt HUBs).

1. About the work package (WP)

1.1. General aim of the WP

WP4 tackles the need to build & structure a MED community of stakeholders with a quintuple helix approach. This community shall be able to address the challenges of BBt to generate innovation by showcasing the real business potential inherent in the sector.

WP4 aims at supporting the creation of a network of MED territorial innovation communities in the BBt sector (hereinafter Blue Biotechnologies Hubs – BBH). The BBt community will be built through the identification, mapping and gathering of the most relevant stakeholders in the 5 selected territories that are: Italy, Slovenia, Greece, Spain, and France. Each territory will choose one or two BBt value chain(s). Once gathered in their respective territory, the stakeholders will be able to participate to the development of knowledge and to exchange about the chosen value chains' needs and challenges. To answer innovation challenges, they will define and implement 1 pilot case per territory – 5 pilot cases in total – leading to the creation of 5 BBHs.

1.2. Blue biotechnology value chains to be addressed

Blue biotechnology can be defined as the "application of science and technology for the production of knowledge, goods and services from (marine) biological resources"[4]

As for now, the commercially available blue biotechnology products include drugs and enzymes obtained from sponges, molluscs, and snails. However, other applications are being developed, mostly in cosmetics, food supplements and aquaculture.

As part of B-Blue, 4 BBt value chains have been suggested for the BBH:

- algae production for high-value compounds,
- aquaculture/fisheries discard valorisation in added value sectors,
- use of microorganisms and ICT tools for marine environment restoration,
- sustainable integrated multi-trophic aquaculture (IMTA).

The value chains selection will be based on the results of D3.2.2 – BBt research challenges & market-oriented evaluation of most promising value chains.

[4] Francocci F., Paifelman E., Ciappi E., Cedre A., Le Corff C., Ruel C., Efstratiou C., Falini G., Giannakourou A., Solano-Lopez J.M., Strogyloudi E., Raddadi N., Pistocchi R., Valentini S. and Barbanti A., 2019. MISTRAL Blue Growth Book. State of the art assessment and overview on the most relevant drivers and opportunities in the Mediterranean Blue Economy. MISTRAL project, Deliverable D3.1.2; DOI 10.5281/zenodo.3242281

1.3. Living labs methodology

1.3.1. Living labs concept

WP4 will follow the Living Labs approach to create the BBt community. This concept is part of open innovation approaches.

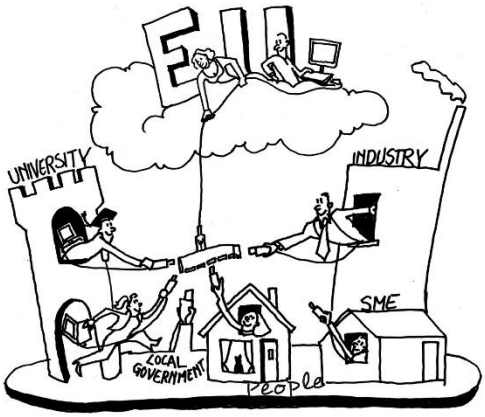


Figure 1 – Quadruple Helix model
Source: European Commission[5]

Open innovation is an answer to the challenges Europe faces and for which collaboration is an essential key element. It is "a positive approach for innovation which helps solving key European challenges by embracing change and not resisting it"[5]. This concept is based on the Quadruple Helix model where public authorities, industry, academia and civil participants co-create together, overcoming the concept of public awareness to get in more efficient co-creation process.

It enables the co-creation of innovative user-oriented solutions. Therefore, the innovation process developed with this approach is meant to lead to the concretisation of a product or service. It usually brings together stakeholders from the quadruple helix to ensure the product or service answers a tangible need. Together they participate to the co-creation, exploration, experimentation, and evaluation of innovative ideas/concepts in real life use cases. User communities are involved to ensure the product or service adoption by users.

Thus, living labs must be open to the different types of stakeholders and allow them to co-create. There is a variety of activities or events to organise to help them in this co-creation process. Here is a non-exhaustive list of possibilities:

- Workshops for creative ideas emergence;
- Competitions;
- Hackathons;
- Study visits;
- Fab Labs (fabrication laboratory).

[5] For more information: https://ec.europa.eu/digital-single-market/en/open-innovation-20

Living labs approaches allow to organise co-creation activities to foster innovation. For a living lab to be efficient, it must be defined considering both the sector's challenges and stakeholders' needs. This aspect will be presented in more details in part 3 – Guidelines for the implementation of activities.

1.3.2. B-Blue Living lab approach: Blue biotechnologies Hubs

Within the framework of B-Blue, living labs will be called "Blue Biotechnologies Hub" (hereinafter referred as BBH) **and will involve stakeholders from the quintuple helix** (researchers, public authorities, industries, civil society, and environmental issues related stakeholders).As explained above, possible living labs activities are plentiful, and stakeholders needs will have to be taken into account when defining them. This approach will be explained in detail in part 3 – Guidelines for the implementation of activities.

1.4. Glossary

This part aims at clarifying the different roles people can play in the project.

Stakeholders

Stakeholders are any person with an interest or concern in the project. They can be involved in different ways:

- On one specific BBH activity;
- On all BBH activities;
- As a Sherpa Group member;

Sherpa Group

The Sherpa Group works as an advisory board. Its members can be local PPs, frontrunners & key stakeholders, but must be involved in the project as advisers or experts and thus have a great knowledge of the sector in the territory. For instance, such role implies to:

- Help identifying the stakeholders who could benefit from the pilot activities of the local BBH;
- Use his/her expertise in the field to express his/her opinion on the choice of value chain, type of activities tailored to local needs, etc.

Frontrunners

Stakeholders having real experience (with some activity carried out) in a given value chain and who can show their experience with the intention of helping other interested actors.

2. Testing phase overview

Led by Pôle Mer Méditerranée-Toulon Var Technologies (PMM-TVT), the Testing WP is organised around 3 activities and 6 deliverables. It lasts 16 months from October 2020 to February 2022 and requires the participation of the following project partners (PPs):

PPs full name	Hereinafter referred to as:
Pôle Mer Méditerranée – Toulon Var Technologies	PMM-TVT
Hellenic Centre for Marine Research – Institute of Oceanography and IMBBC	HCMR
National Research Council – Institute for Biological Resources and Marine Biotechnologies	CNR
Italian National Agency for New Technologies, Energy and Sustainable Economic Development	ENEA
National Institute for Biology – Marin Bology Station Piran	NIB
University of Murcia	UMU

Table 1 – WP4 involved partners

This chapter defines in detail the activities and associated deliverables, the responsibilities of the PPs to perform it, the timeline as well as the budget allocation.

2.1. Activities, deliverables and responsibilities

2.1.1. Activity 4.1 – WP4 Coordination & monitoring

The first activity aims at ensuring a functioning coordination through day-by-day management and monitoring of WP4 activities.

The main objective of the activity is to define the common methodology to be followed by the pilots (D4.1.1 – Implementation strategy) and the tools for monitoring and data collection (D4.1.2 – Performance monitoring).

This activity gathers 2 deliverables as detailed in the table below:

Deliverables	Responsible PP	Comment/Contributions	Delivery date
D4.1.1 – WP4 Implementation strategy	PMM-TVT	PMM-TVT will develop WP4 global strategy and propose it to the partners involved in testing activities during a half day online meeting.	11-2020
D4.1.2 – WP4 Performance monitoring	ENEA	ENEA will prepare a questionnaire for the partners in charge of testing activities so they can evaluate the performance of their BBH.	02-2022

Table 2- Deliverables for activity 4.1

Partners' involvement: PMM-TVT is responsible for the elaboration of the common methodology. ENEA is responsible for WP4 monitoring. PMM-TVT, HCMR, CNR, NIB, and UMU are responsible for the implementation of a local BBH.

2.1.2. Activity 4.2 – Blue Biotechnologies Hub territorial activation

This activity will allow the activation of the 5 BBH through the realisation of 5 pilot cases. Each interested partner will be supported by a Sherpa Group. Together they will define the pilot activities' details.

Local stakeholders (research centre and universities, companies, clusters and business organisations, public authorities) will be directly involved by participating to a workshop to support the development of the selected value chain. This workshop is organised in relation with the Awareness workshops (WP2) and will allow to define:

- Needs;
- Potential evaluation;
- Innovation challenges.

Sherpa Groups will be composed by local partners, frontrunners, and key stakeholders. The Sherpa Groups members will be identified in:

- WP2: activity 2.6.1 – Blue Biotech Awareness Days;
- WP3: activity 3.2 – Characterisation of the BBt community & its potential for innovation to achieve SDGs in the Med area.

The activity gathers 2 deliverables as detailed in the table below:

Deliverables	Responsible PP	Comment/Contributions	Delivery date
D4.2.1 – Definition of territorial approach & involvement of target groups for BBH implementation	**ENEA**	Each PP involved in testing activities shall finetune in a report its methodological approach for the implementation of pilot activities, defining both Hub's scope (value chain and key stakeholders) and Hub's main goals.	03/2021

D4.2.2 – Blue Biotechnology Hub innovation community work café	**ENEA**	Report on half a working day. It will present: • how needs, priorities and goals of the HUB have been defined together with the Sherpa group & key stakeholders. • An action plan for the activities on selected value chains & community enlargement.	04/2021

Table 3 – Deliverables for activity 4.2

Partners' involvement: PMM-TVT, HCMR, CNR, NIB, and UMU are responsible for organising a local BBH innovation community work café. This half working day will allow stakeholders and the Sherpa group to define the hub scope and the action plan for the implementation of the pilot activities. These elements will be reported on a report.

2.1.3. Activity 4.3 – Territorial & transnational actions for the BBH Innovation Community

This activity aims at implementing the customised territorial capacity building pack: typology of activities involving local stakeholders, chosen by BBH (D4.2.2 – Blue BBt innovation community work café), in coherence with the pre-identified needs of the value chain(s) selected. The results of the tests will be analysed and compiled in a final report.

This activity gathers 2 deliverables as detailed in the table below:

Deliverables	Responsible PP	Comment/Contributions	Delivery date
4.3.1 – BBH territorial community implementation & empowerment	**PMM-TVT**	Implementation of the pilot activities by each PP responsible for a pilot case and production of one report per territory. A specific template will be provided to the partners.	02/2022
4.3.2 – BBH communities' international cooperation: cross border exchange in view of the MED BBHs network activation	**PMM-TVT**	Each BBH shares experiences & contributes to results: • on at least 1 value chain; • with at least 1 other BBH. The final report presents the results and the transnational cooperative approach carried out.	02/2022

Table 4 – Deliverables for activity 4.3

Partners' involvement: CNR, NIB, UMU, HCMR and PMM-TVT implement a customised set of pilot activities in their respective territory and report on them, leading to the production of 5 reports for 4.3.1. Each individual report shall mention at least:

- Description of activities implemented;
- Attendance lists;
- Main results

CNR, NIB, UMU, HCMR and PMM-TVT share experiences and contribute to the results. PMM-TVT will produce the final report (D4.3.2).

2.2. Deliverables summary

Deliverables	Responsible PP	Contributor(s)	Quantity	Type	Due date
D4.1.1 – WP4 Implementation strategy	PMM-TVT	ENEA	1	Report	11/2020
D4.1.2 – WP4 Performance monitoring	ENEA	CNR, PMM-TVT, NIB, UMU, HCMR	1	Report	02/2022
D4.2.1 – Definition of territorial approach & involvement of target groups for BBH implementation	ENEA	CNR, PMM-TVT, NIB, UMU, HCMR	5	Report	03/2021
D4.2.2 – Blue Biotechnology Hub innovation community work café	ENEA	CNR, PMM-TVT, NIB, UMU, HCMR	5	Report	04/2021
4.3.1 – BBH territorial community implementation & empowerment	PMM-TVT	CNR, NIB, UMU, HCMR	5	Report	02/2022
4.3.2 – BBH communities' international cooperation: cross border exchange in view of the MED BBHs network activation	PMM-TVT	CNR, NIB, UU, HCMR	1	Report	02/2022

Table 5 – Deliverables table

2.3. Timeline

The WP Testing runs from October 2020 to the end of February 2022. The WP lasts 17 months.

		Oct. 20	Nov. 20	Dec. 20	Jan. 21	Feb. 21	Mar. 21	Apr. 21	May 21	Jun. 21	Jul. 21	Aug. 21	Sep. 21	Oct. 21	Nov. 21	Dec. 21	Jan. 22	Feb. 22
WP 4 - Testing																		
Task 4.1 WP 4 Coordination & monitoring																		
D4.1.1	WP4 Implementation strategy		D4.1.1															
D4.1.2	WP4 Performance monitoring																	D4.1.2
Task 4.2 Blue Biotechnologies Hub territorial																		
D4.2.1	Definition of territorial approach & involvement of target groups for BBH implementation						D4.2.1											
D4.2.2	Blue Biotechnology Hub innovation community work café							D4.2.2										
Task 4.3 Territorial & transnational actions for																		
D4.3.1	BBH territorial community implementation & empowerment																	D4.3.1
D4.3.2	BBH communities' international cooperation: cross border exchange in view of the MED BBHs network activation																	D4.3.2

Table 6 – Testing WP Gantt Chart

2.4. Budget

The WP budget represents € 355 700 distributed among the partners as follows:

		Staff costs	Office and administration	Travel and Accommodation	External Expertise and Services	Equipment	Total budget
1	**ENEA - Italian National Agency for New Technologies, Energy and Sustainable Economic Development**	34 000 €	5 100 €	1 000 €	0 €	0 €	40 100 €
2	**National Institute of Biology - Marine Biology Station Piran**	18 700 €	2 805 €	0 €	2 000 €	0 €	23 505 €
3	**Apulia Region - Service Staff Structure to supporting the Coordination of International Policies**	1 400 €	210 €	500 €	0 €	0 €	2 110 €
6	**National Research Council - Institute for Biological Resources and Marine Biotechnologies**	20 200 €	3 030 €	5 800 €	65 000 €	12 000 €	106 030 €
7	**Hellenic Centre for Marine Research - Institute of Oceanography**	32 000 €	4 800 €	4 200 €	15 950 €	0 €	56 950 €
8	**Pôle Mer Méditerranée – Toulon Var Technologies**	62 700 €	9 405 €	0 €	16 000 €	0 €	88 105 €
9	**University of Murcia - Information and communication Engineering Department**	19 000 €	2 850 €	4 050 €	13 000 €	0 €	38 900 €
	TOTAL	188 000 €	28 200 €	15 550 €	111 950 €	12 000 €	**355 700 €**

Table 7 – Testing WP Budget

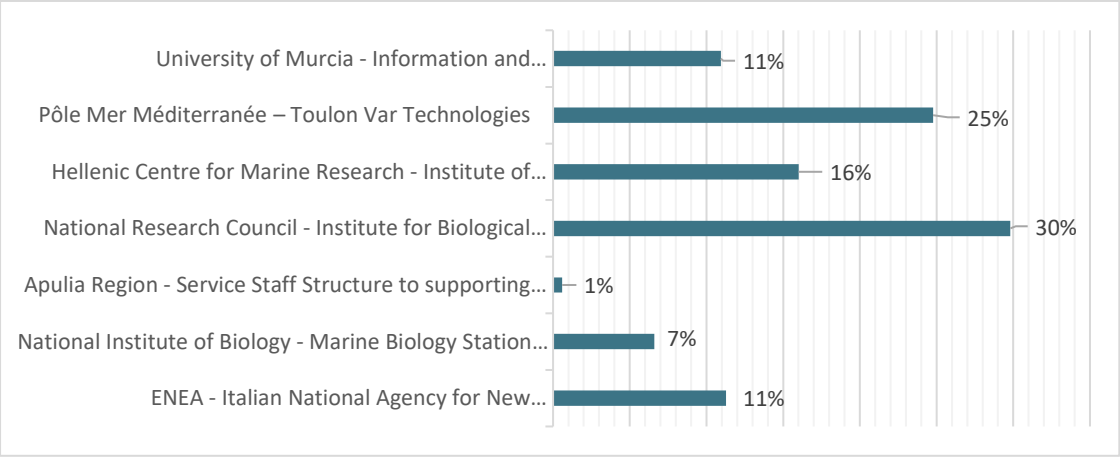


Figure 2 – Budget allocation per partner

2.5. Targeted stakeholders for testing activities

2.5.1. Stakeholders identification

Deliverable 2.2.1 – Communication plan – stakeholders' mapping details how stakeholders will be identified and involved. As a reminder, they will be:

- Identified and classified into the following categories: administrative and public bodies, industry and SMEs, Scientific institutions and academia, NGO's, media representatives, past and current projects, other;
- Mapped individually (interest/influence);
- Positioned in the stakeholder map to determine which ones are key opinion leaders.

The types of stakeholders to be targeted can be:

- Scientific institutions and academia;
- Start-up and spin-off;
- Would-be entrepreneurs;
- SMEs;
- Sectoral agencies in targeted markets;
- Administrative, funding and public bodies;
- Syndicate and professional organisations;
- NGOs.

The types of stakeholders to be targeted are likely to be tailored depending on the value chain chosen. When defined, the Sherpa Group can be consulted to complete the list of identified stakeholders

2.5.2. How to reach stakeholders

Identified stakeholders will be encouraged to take part into BBHs through:

- **Direct communication**: partners will invite the stakeholders they identified to join the workshops. One of the primary means of stakeholder outreach is done via e-mail to inform targeted BBt stakeholders about events and activities. Phone calls will also be used as they remain a quick and easy means of contacting stakeholders.

- **B-Blue communication channels** - Twitter and website. They will be used to share catching messages from rapid dissemination purposes. The aim will be to promote the activities and extend the target groups' participation. Other communication channels could be developed under WP 2 - Communication.

- **MarineBiotech:** this website gathers European BBt stakeholders and classifies them by categories.

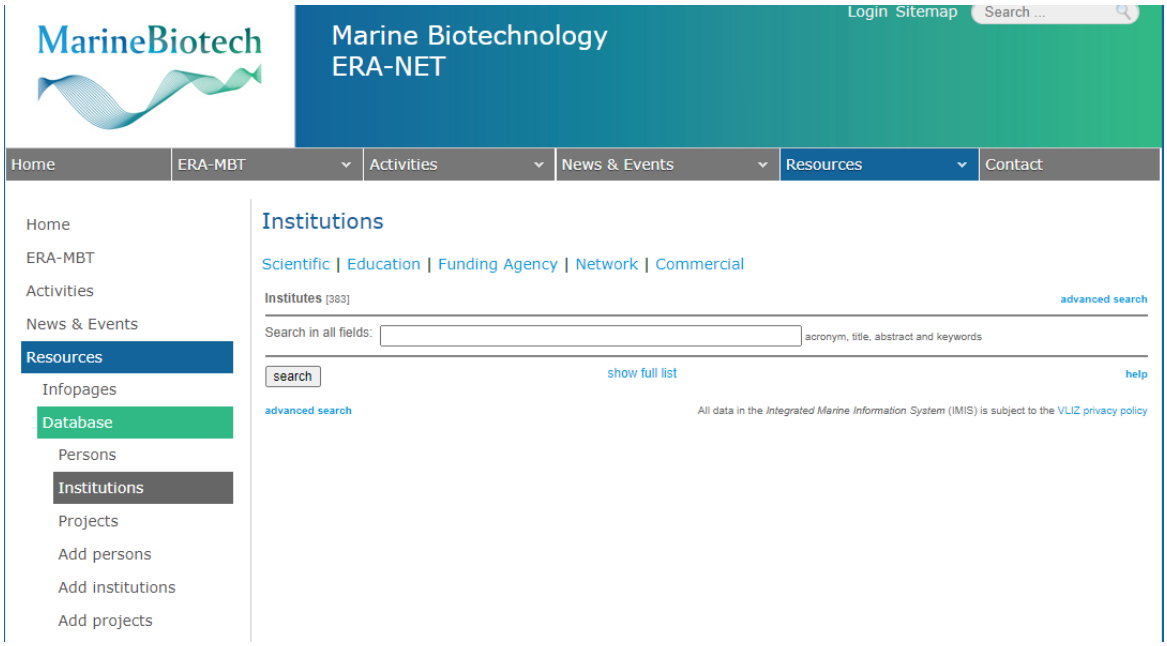


Figure 3 – Marine Biotechnology ERA-NET for stakeholders' identification

- **Marina platform**: this website (https://www.marina-platform.eu/registeredarea/community) includes different European communities on Blue economy

3. Guidelines for the implementation of activities

3.1. Context of WP4 pilot activities' implementation

WP4 implements a participatory process aimed at bringing together universities & research centres, companies, public authorities, intermediaries & local communities to design & develop community's needs-based innovative services/tools spread by Sherpa groups through transnational networking & cross border knowledge exchange. The living lab approach will therefore be used.

The implementation strategy is detailed in this deliverable. It is reviewed by ENEA and communicated to the consortium.

3.1.1. Five territories targeted for the implementation

Testing activities will be implemented in a geographically wide range of MED areas. 5 territories have been selected for the implementation of the pilot activities and creation of BBHs. For each territory, one partner has been designated as responsible:

Local BBH Territory	Partner
Slovenia	NIB – National Institute of Biology
Greece	HCMR
Italy	CNR - National Research Council
France	PMM – TVT - Pôle Mer Méditerranée
Spain	UMU – University of Murcia

Table 8 – Project partners responsible for testing activities at local level

3.1.2. Main steps for the implementation

WP4 will follow 3 steps for the implementation of the BBHs (living labs). The following steps are specifically defined for WP4. WP3 activities will complement this methodology and can be found in Del.3.1.1 WP3 Implementation strategy. An additional calendar merging WP3 and WP4 activities will be provided to the partners for a better understanding of their complementarity.

The steps for WP4 Implementation are the following:

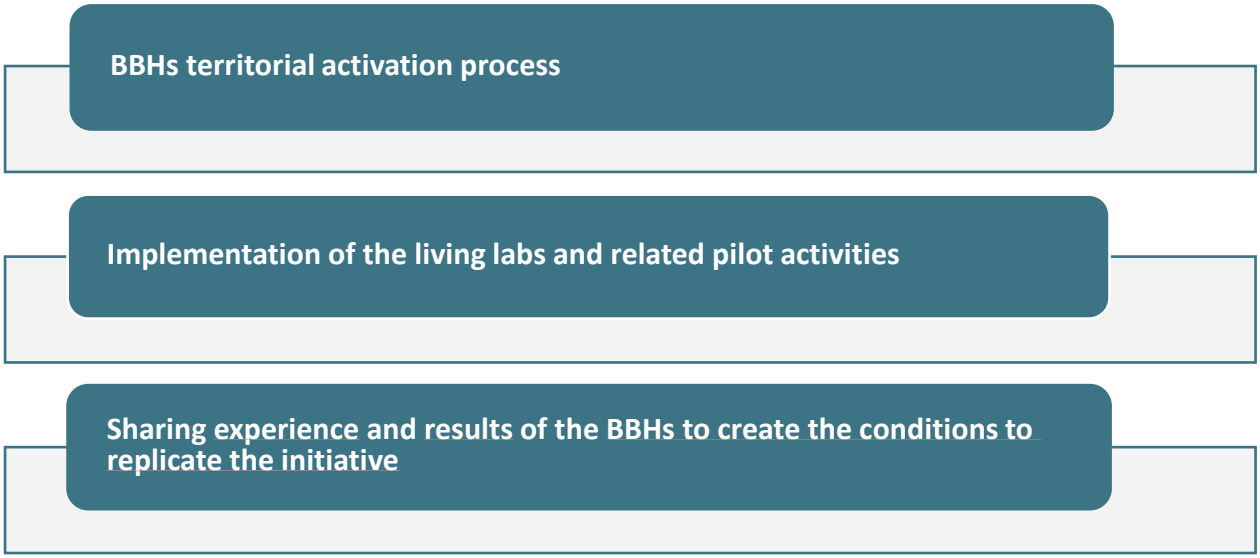


Figure 4 – WP4 steps for the implementation of the BBHs

3.1.3. KPIs to reach

As defined in the project proposal, at least **120 organisations** from the quintuple helix should be involved in the BBHs. Therefore, there should be between 20 & 25 organisations in each BBH, even if this repartition is likely to vary considering partners' local contexts:

Partner	KPI
NIB – National Institute of Biology	20-25 organisations
HCMR	20-25 organisations
CNR - National Research Council	20-25 organisations
PMM – TVT - Pôle Mer Méditerranée	20-25 organisations
UMU – University of Murcia	20-25 organisations
Consortium	120 organisations involved = MED BBt community

Table 9 – KPI for the involvement of BBHs' stakeholders

3.2. BBHs territorial activation process

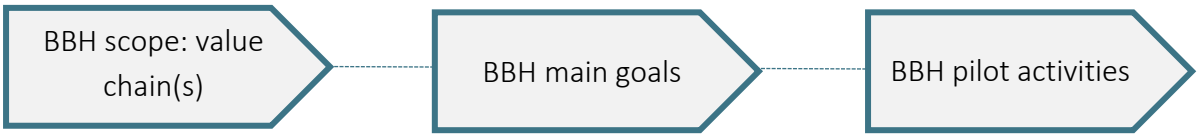
BBHs will be activated through the implementation of 5 pilot cases. 5 Sherpa Groups will be created to support the implementation of the pilot cases. Sherpa Groups will be composed by frontrunners of the sector, key stakeholders identified previously (WP3, WP2 Awareness workshops & work café) and the local B-Blue partners.

The first step for each partner in charge of creating a BBH is to define the pilot activities' details, in collaboration with its Sherpa Group. As a second step, needs and innovation challenges will be defined during workshops.

3.2.1. Definition of the territorial approach and HUB scope

Based on the methodology presented in this deliverable, each partner will finetune in a report its methodological approach for the implementation of pilot activities on its territory. Therefore, deliverable 4.2.1 Definition of territorial approach & involvement of target groups for BBH implementation, must detail the following BBH components:

- Definition of the HUB's scope: territorial scope and value chain(s) chosen. One to two value chain(s) can be chosen.
- Definition of the HUB's main goals
- Selection of stakeholder's target groups, considering the value chain(s) chosen
- Selection of the pilot activities, considering the value chain(s) chosen



Associated deliverable: D.4.2.1 - Definition of territorial approach & involvement of target groups for BBH implementation

- **Quantity:** 5
- **Responsible(s):** NIB, HCMR, CNR, PMM-TVT, UMU
- **Contributor(s):** none
- **Delivery Month:** 03/2021

3.2.2. BBH innovation community work café

Each partner in charge of a BBH will organise a work café. It will last for at least half a day and can be organised back-to-back with the Awareness workshop (WP2) as explained in the proposal. However, due to Covid-19 constraints, it is not mandatory to organise both workshops together.

The participants to this work café will be local BBt key stakeholders and members of the Sherpa Group.

This local half working day will address the following aspects:

- Needs and priorities of the stakeholders for the chosen value chain;
- The specific goals the HUB should tend towards;
- Action plan for the implementation of pilot activities;
- Action plan for the community enlargement.

Defining these elements is the last step before the implementation of activities.

Associated deliverable: D.4.2.2 – Blue Biotechnology Hub innovation community work café

- **Quantity:** 5
- **Responsible(s):** NIB, HCMR, CNR, PMM-TVT, UMU
- **Contributor(s):** none
- **Delivery Month:** 04/2021

3.3. Implementation of the living labs and related pilot activities

The overall pilot case development methodology is based on a collaborative territorial approach to create an appropriate space (BBH) for the interaction of communities with different knowledge & interests to reach a critical mass for the BBt sector, to generate innovation & transfer it to business.

3.3.1. Territorial and transnational actions for the BBH innovation community

Activities that could be implemented will be defined considering WP3 results.

They can be (but are not limited to):

Workshops for creative ideas

Bringing together different types of stakeholders working or having an impact or interest on the same value chain can be the first step to co-creation, especially if the stakeholders targeted do not have opportunities to meet.

Hackathons

Originally, hackathons gather a large number of computer programmers and stakeholders involved in software development to collaborate intensively on creating a software by the end of the event, which lasts one or several days. This concept can be adopted to other domains. For example, the Ocean Hackathon gathers stakeholders from the marine and maritime sectors to work intensively for 48 hours and give a response to a specific challenge. For such an event to lead to innovative ideas, it must target a very specific challenge to be addressed in a given time.

Fab Labs: sharing research infrastructures and knowledge

"Fab Labs" (Fabrication Laboratory) aim at encouraging entrepreneurs to turn their ideas into new products and prototypes by offering them access to a wide range of advanced digital manufacturing technology. This concept, developed at the Massachusetts Institute of Technology (MIT), can be adapted to B-Blue by providing to SMEs the environment, skills and materials to develop their ideas. Opening research centres to SMEs would facilitate them in their project development. They could both access research infrastructures and get scientific mentoring.

Competitions

Competitions are a way to gather stakeholders with innovative ideas on a common topic. It has several benefits. Firstly, it is a good exercise for project holders to make a presentation of their project to other stakeholders addressing similar challenges. If project holders are not yet skilled in elevator speeches, it can be the opportunity to train them. Besides, it is a way for project holders to get to know each other and exchange about their respective ideas which can lead to the creation of new synergies and a better understanding between different types of stakeholders.

Other types of activities are also possible as long as they are chosen considering the selected value chain and stakeholders' group.

It is preferable that each living lab organises various activities. Each partner should report on pilot activities by including in a report: attendance list (cf. 6.1), description of activities implemented, analysis of the main results.

The format will depend on stakeholders' needs for the BBt value chain addressed:

- Workshops aim at the emergence of ideas;
- Hackathons address a specific challenge for which an answer must be given in a relatively short period of time;
- Fab Labs provide project holders with the right environment for their project's maturation;
- Competitions allow to create synergies between ideas that are already well-developed.

Associated deliverable(s): D.4.3.1 – BBH territorial community implementation and empowerment

- **Quantity: 5**
- **Responsible(s):** NIB, HCMR, CNR, PMM-TVT, UMU
- **Contributor(s):** none
- **Delivery Month:** 02/2022

3.4. Sharing of experience and results of the BBH

3.4.1. BBH communities' international cooperation

Partners will exchange experiences & knowledge and build the connection among the pilots to define long term BBHs collaborations.

Each BBH should share its experience with at least one other BBH. Sharing the experience of the BBH will allow to create the conditions to replicate the initiative in other value chains and/or MED networks. It can be done in many ways, but some suggestions are:

- As part of a project event;
- Through the organisation of a study visit to show concrete results of the local BBH;
- Through bilateral meetings between two or more Sherpa Groups;
- Through the organisation of an online event gathering several BBHs.

For an efficient sharing of experiences, the following points could be addressed:

- Main results and achievements of the BBHs;
- Main difficulties and how they were overcame;
- Things that could have been done differently;
- Specific mechanisms and tools used;

- Good practices developed;
- Impact on local BBt stakeholders;
- Means deployed to ensure the outliving of the BBH after the end of the project.

Associated deliverable: D.4.3.2 – BBH communities international cooperation: cross border exchange in view of the MED BBHs network activation

- **Quantity:** 1
- **Responsible(s): PMM-TVT**
- **Contributor(s):** NIB, HCMR, CNR, PMM-TVT, UMU
- **Delivery Month:** 02/2022

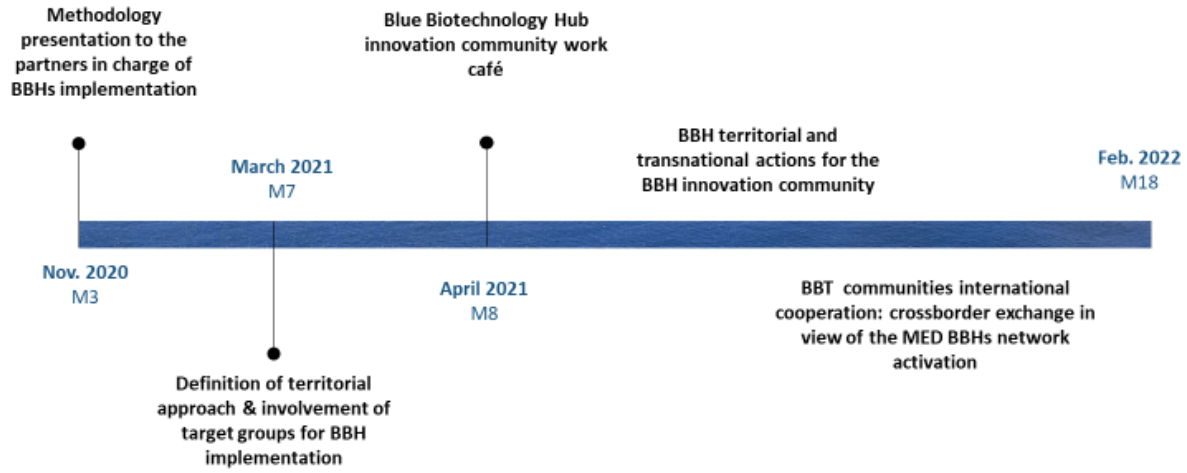


Figure 5 – WP4 Steps summary

4. Evaluation of the testing phase

Testing phase performance will be assessed by the realisation of Del. 4.1.2 – WP4 Performance monitoring. ENEA will send a questionnaire to the partners responsible for BBH. These partners (CNR, NIB, UMU, HCMR and PMM-TVT) will complete the questionnaire and send them back to ENEA. Once all the data collected, ENEA will compile the results in a report (Del.4.2.1).

The analysis will consist of a qualitative and quantitative analysis of the pilot activities and BBH as a whole.

Possible indicators:

- Number of participants to the pilot activities and information on their main sectors and affiliation
- Type of stakeholder composing the BBHs and Sherpa Groups;
- Number of pilot activities carried out;
- Number of agreements/initiatives (if any) as results of the testing phase

Associated deliverable(s): D.4.1.2 – WP4 Performance monitoring

- **Quantity:** 1
- **Responsible(s):** ENEA
- **Contributor(s):** CNR, NIB, UMU, HCMR and PMM-TVT
- **Delivery Month:** 02/2022

5. Collaboration between partners

Partners responsible for implementing a BBH will meet on a regular basis to facilitate the integration of local BBHs at a Mediterranean scale.

Presentation of the implementation strategy

A first meeting with the partners responsible for the implementation of pilot cases and creation of BBHs is held in November 2020 and organised by PMM-TVT. The methodology is presented to involved PPs during this meeting.

Value chains presentation

BBHs partners will be gathered for a second meeting when all value chains will be defined, that is to say by March 2021. It will be the opportunity for partners to exchange on the chosen value chains and action plans established. A template will be provided for the establishment of action plans. Synergies between BBHs will be envisaged during this discussion and sharing of good practices/tools will be encouraged.

Progress of the implementation

Half-way through the period for the implementation of pilot activities, another meeting will be organised to exchange on each partner's progress. The main points addressed will be:

- State of implementation of the BBH,
- Difficulties encountered,
- Tools and good practices developed that could be useful to other partners.

Preparation for the sharing of experience

This last meeting will be held at the end of the implementation of activities. It will aim at helping BBHs to share their experience one with another.

Associated deliverable: D.4.1.1 – WP4 Implementation strategy

- **Quantity:** 1
- **Responsible(s):** PMM-TVT
- **Contributor(s):** ENEA
- **Delivery Month:** 11/2020 (M2)

6. Annexes

6.1. Attendance sheet

Project co-financed by the European Regional Development Fund

Date & Place:……

Organisation	Name	Position	Email	Signature

7. Figures and tables

7.1. Figures

7.2. Tables