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B-Blue

Building the blue biotechnology community in the Mediterranean

WP 5 - Transferring

Knowledge Transfer Plan

Deliverable 5.2.1

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HAMAG-BICRO[1]

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List of Abbreviations and Acronyms

Acronym	
Med	Mediterranea
BBt	Blue biotechnology
WP	Work package
KT	Knowledge Transfer
KTP	Knowledge Transfer Plan
PP	Pilot project
CNR - IRBIM	National Research Council - Institute for Biological Resources and Marine Biotechnologies (Ancona)
ENEA	Italian National Agency for New Technologies, Energy and Sustainable Economic Development (Roma)
APULIA REGION	Apulia Region - Service Staff Structure to supporting the Coordination of International Policies
HCMR	Hellenic Centre for Marine Research
PEPMA	Panhellenic Union of Middle Range Fisheries Ship Owners
CMFO SA	Central Market Fishery Organisation
NKUA	National and Kapodistrian University of Athens
GSRI	General Secretariat for Research and Innovation
LEFKIPPOS	Science and Technology Park of Attica
UoC	University of Creta
NIB	National Institute of Biology,
AlgEN	Algal Technology Center
PMM TVT	Pôle Mer Méditerranée – Toulon Var Technologies
IFREMER	Institut français de recherche pour l'exploitation de la mer
IMEV	Institut de la mer de Villefranche

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About B-Blue project

10 partners with proved experience in the Blue Bioeconomy field from 8 Mediterranean (Med) countries and more than 300 Med stakeholders from universities, research centres, public authorities, business support organizations and Med multilateral organizations are 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 increasing their innovation capacity and their coordination to unlock the innovation potential in the field through joint transnational initiatives, also involving organizations from the southern shore of the Mediterranean. The transnational coordination framework which, the project aims to create, is based on an inclusive quintuple-helix approach that always include the socio-environmental perspective in the decisional process and is built on a common knowledge ground selected based on its potential of addressing the Sustainable Development Goal at Med level. The B-Blue works towards to 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).

About WP 5

The main objective of the WP 5 is to improve innovation capacity of the project partners both on horizontal knowledge of the BBt sector and on vertical issue of specific value chain. This package is dedicated to a knowledge transfer among different institutions and aims at transferring the knowledge collected and developed in the WP 3 and WP 4 activities to a selected group of key stakeholders of the blue biotechnologies (BBt) sector. So the idea of knowledge transfer is to create connection both at territorial level and at Med level in the community. Along with deliverables dedicated to implementation strategy (D 5.1.1) and performance monitoring (D 5.1.2), this WP includes report on the Knowledge Transfer Plan (D 5.2.1) and the report on the Key Performance Indicators for effective innovation knowledge transfer (D 5.2.2). This WP also includes two big transnational knowledge transfer workshops (in Portugal and Croatia), three national/regional bootcamps on horizontal innovation knowledge with high potential for market exploitation, eight national/regional seminars on vertical knowledge on specific value chains. These activities are complemented by the

activation of the digital knowledge package (e-learning material from WP 3) and an ICT matchmaking tool to unlock business opportunities matching innovation knowledge offer and demand in the BBt sector.

1. Executive summary

The report has the purpose of supporting the knowledge transfer and institutions 'capability building attempts in the field of blue biotechnology (BBt) at national level within Mediterranean region. In the report we describe knowledge transfer plans (KTPs) of the pilot projects (PPs) in the field of BBt. The basic idea of developing the KTPs for the pilot projects is to encourage activities on them. Our idea is that these initialized projects can become independent ones after the completion of the B-Blue project. There are five pilot projects, each of them covering the national BBt sector of the country it comes from. The countries included in this deliverable are Italy, Greece, Slovenia, Spain and France[2].

In the report, each action plan for knowledge transfer (KT) has an identical structure. The following elements are included: project idea, project objective, information about the project developers, information about stakeholders interested in PP activities, elements of knowledge transfer plan, dissemination activities, and communication activities. But each pilot project is specific due to the fact that different project partners appears as the project developers. Also, the partners cover the national market of the country they come from. The PP belongs to various value chains defined within WP 3 and each of them includes stakeholders from the various sectors (e.g. academia, business, and government), previously defined in WP 3. In case of Greek pilot project (except of GSRI which is the main stakeholder of the Greek PP only) the same institutions are project developers as well as the main stakeholders.

Differences in importance of various group of stakeholders between the pilot projects imply existence of different knowledge transfer plan related to it. Thus the greater importance of companies among the stakeholders of the pilot projects means that there will be a greater emphasis on formal channels of KT, as opposed to scenarios where research technology organisations are the main pilot projects' stakeholders. In this case, in terms of KTP a greater emphasis should be placed on informal knowledge transfer chanels. Additionally, the greater importance of companies among the stakeholders implies smaller number of channel of KT in

[2] According to the available information French pilot project has not been initialised yet. But the progress in terms of the initialisation of French pilot project is presented.

comparison with the scenario where the research technology organisation and academia are the main stakeholders.

2. Fundamental definitions

Blue biotechnology (BBt) is defined as *the production of renewable biological resources and the conversion of these resources and waste streams from the marine environments into value added products, such as food, feed, bio-based products and bioenergy* (European Commission, 2012). The European Commission, in its Communication "*Innovating for Sustainable Growth, a Bioeconomy for Europe*" (2012) states that "*in order to cope with an increasing global population, rapid depletion of many resources, increasing environmental pressures and climate change, Europe needs to radically change its approach to production, consumption, processing, storage, recycling and disposal of biological resources*". Two of the areas the Commission considers very promising are blue biotechnology (as part of the blue bioeconomy) and aquaculture (European Commission, 2012).

Knowledge transfer *(KT) is a concept which describes transfer of knowledge from one institution/organisation to others. In practice, there are various channels of knowledge transfer which compromise fomal and informal channels of knowledge transfer. According to Knell and Rojec (2008) i) foreign owned companies, ii) joint venture, iii) technical assistance programme and other forms of aid, (iv) technology licensing contracts, (v) imports from upstream suppliers, especially capital goods, (vi) exports to downstream customers can be considered as formal channels of knowledge transfer, whereas (vii) research collaboration, (viii) subcontracting agreements and (ix) exchange of people, hiring skilled labour, education, training and trade fairs are informal channels of knowledge transfer. Frequently knowledge transfer happens among the institutions/organisations of different types of activities, e.g. from universities or research technology organisations to the private companies.*

Knowledge transfer plan *(KTP) means a group of activities which connect project developers, project stakeholders and wider audiance interested in the project result. Project developers create a project. They have their own objectives which frequently in case of an innovative project includes the development of their innovation capacities. This is important, since this facilitates carrying out knowledge transfer to their stakeholders. At the heart of it is knowledge that is transferred between institutions alongside with other accompanying activities (e.g. the knowledge transfer often goes hand in hand with the exchange of experts who should know how to use transferred knowledge in a new company/organisation). For this reason the*

company and/or the organisation need(s) a plan for carrying out a knowledge transfer. The knowledge transfer plans also include dissemination and communicating activities.

Pilot project (PP) *is an initial small-scale implementation that is used to prove the viability of a project idea.*

3. Knowledge Transfer Plan: collecting information and methodology

The first step in development of KTPs related to the PPs was revision of available deliverables within WP 3 and WP 4. After that, on March 23, 2021 during *WP 5 on line project meeting*, a presentation *How to carry out knowledge transfer plan* was given. As a project team we proposed conducting of two surveys using questionnaires to the project partners.

On March 30 we sent two questionnaires to the pilot projects' developers and their stakeholders. The first was *Questionnaire on the pilot projects results and knowledge transfer plan in the field of blue biotechnology* (we will refer to it as *PP questionnaire*), whereas the second was *Questionnaire on stakeholders' interests in participation in the knowledge transfer* plan (we will refer to it as *Stakeholders questionnaire*). The aim of the *PP questionnaire* was to explore how the developers of the pilot projects are planning to implement their knowledge transfer plan within BBt. The focus was on the analysis of the activities related to KT that the developers of the pilot projects plan to carry out until the end of B-Blue project as well as after the completion of B-Blue project. Using the questionnarire we collected background information on the pilot project. Furthermore, we assessed the characteristics of the pilot projects: their stakeholders, the objectives and elements of the transfer plan. The *Stakeholders questionnaire* had focus on exploring stakeholders' interests in participation in the pilot projects' knowledge transfer plan. Same as in *PP questionnaire* where in part A and part D we used the methodology developed in D 3.2.1 and D 3.3.1, in part B and part D of the *Stakeholders questionnaire* we used the methodology developed in the deliverables. Using the questionnaires we collected information about the pilot projects, especially about the PP initialisators (i.e. supply side of the PP) as well as the information about demand of the PPs.

While creating the questionnaires, we were motivated by the relational questionnaires developed by Bekkers and Freitas (2008), which were aiming at exploring the importance of the knowledge transfer channels between university and industry in Netherlands. Similar to our analysis of the pilot projects and stakeholders interested to participate in various pilot project activities, Bekkers and Freitas assessed the relevance of the individual knowledge

channels by perception of university researchers (knowledge supply) on the one hand and industrial researchers (knowledge demand) on the others. We argue that this approach can be used in case of future similar projects in the BBt, where a pilot project is located in one Mediterranean country and it includes stakeholders in other Mediterranean countries. The surveys were anonymous, and their results were used as inputs for creation of this deliverable.

4. Knowledge Transfer Plans of the Pilot projects

As it mentioned earlier, the main idea behind the pilot projects' action plans is to outset the new projects which will be developed in post B-Blue project period. Thanks to the received PP questionnaire, the knowledge transfer plan was created for Italian, Greek, Slovenian and Spanish pilot projects. Along with the two groups of participants, stakeholders and audience, there are two groups of activities related to PPs, dissemination and communication. Whilst the aim of the dissemination activities is to reach stakeholders who are well informed about the topic of the project, communication activities target a broader public audience, endeavouring to engage them in a two-way information exchange about the topics related to BBt.

Action plan of the Italian pilot project

The pilot project is named Use of macroalgae biomass for high value compounds and valorization of aquaculture discards. It is supposed to be a demonstration site. This site was developed by CNR – IRBIM, ENEA, APULIA REGION. The demostration site will be a physical place where it will be possible to carry out a joint experimentation on the selected value chains (aquaculture discard valorization and algae production for high value compounds) with the stakeholders from industry, academia and governance. The site, which has been identified as a private plant located in Apulia Region and dealing with fish and shellfish farm as well as with algae production, will be then made open to other stakeholders to transfer the outcomes, methodologies, business model and applicability of the pilot activities in other national/international territories. The activities herein performed will be focused on the use of shells discarded from such production to produce a carbonate-rich powder which will be used as an additive to feedings use in poultry farming; at the same time, cultivated macroalgae will be processed to obtain a high-value biofertilizer which will be used in agriculture. Microbiological, chemical and environmental analyses will be carried out to assess safety, quality and sustainability of such processes at each step.

The principal objective of this action plan is to enhance innovation capacities of the developers in the field of micro and macro-algae production for high-value compounds and to Improve their capacities to participate in the field related international research/business network and international research projects.

The main regional, national and local stakeholders that will be involved in the action plan are the following: *Gargano Shell Fish Farm*, *South Agro*, *Bio4dreams*, *BlueInvest* and *ClusterBIG*.

These stakeholders will be involved in the following activities:

Gargano Shell Fish Farm's and *South Agro's* employees will use learning materials about blue biotechnology (i.e. books, videos, research findings, reports, best practice examples, etc.) until the end of the project.

Gargano Shell Fish Farm's, *South Agro's*, *Bio4dreams'* and *ClusterBIG's* employees will use trainings and workshops materials about Bluebiotechnology sector in Mediterranean until the end of the project.

Gargano Shell Fish Farm's, South Agro's, Bio4dreams' and *Blueinvest's* employees will participate in intra-organisational cooperation and in expert exchange in the field of the BBt until the end of the project.

ClusterBIG's employees will participate in conference(s) in Mediterranean BBt sector until the end of the project

Bio4dreams' and *ClusterBIG's* employees will use online platforms in BBt for Mediterranean and worldwide for BBt community information exchange until the end of the project.

*BlueInvest's a*nd *ClusterBIG's* employees will participate in government's driven cooperation in Mediterranean BBt sector between the firm and knowledge-based partner, via public grants until the end of the project.

The main messages to be communicated to target audiences referring to this pilot project

Encourage dialogue between the academic community, industry representatives and policy makers on internationalisation in the pilot project's field.

The pilot project will use following communication tools that will target audience

On–line platform for information exchange

Conference

The pilot project will use following communication tools that to target individuals and institutions:

Print materials:

A series of events

Materials prepared for the Training workshops

Action plan of the Greek pilot project

This pilot project is named Developing the critical mass to sustain BBt value chains in Greece. The main idea of the pilot project is to create a knowledge network that could boost the development of the selected value chains in Greece and namely: micro and macroalgae for high value added products, integrated multi-trophic aquaculture, valorisation of aquaculture/fisheries/processing by-products and discards. The main scope is to bridge the gap by developing and implementing optimal development of the value chains bringing together universities, advance technological institutes, research centres/labs, SME and large companies. The stakeholder(s) can participate in the pilot project as organisation/institution's employee(s) or solely as the expert(s).

PP developers are The Hellenic Centre for Marine Research (HCMR) and its associate Partner the General Secretariat for Research and Innovation (GSRI). The main stakeholders of the project: the University of Crete, (UoC), The National Technical University of Athens (NTUA), the company MicroPhycos, LEFKIPPOS Science and Technology Park of Attica, the Ministry of Rural Development & Food / Managing Authority of the Greek EMMF for the first two value chains and the National and Kapodistrian University of Athens (NKUA), the Central Markets Fishery Organisation (CMFO) SA and the Panhellenic Union of Middle Range Fisheries Ship Owners (PEPMA) for the third value chain.

The principal objective of this action plan is to enhance innovation capacities of the developers in the fields of algae production, IMTA , aquaculture/fisheries discard valorisation in Greece and to promote this initiative into a national level to become a focal point in this field for support to businesses and policy makers.

These stakeholders will be involved in the following activities:

All stakeholders' employees will use learning materials about blue biotechnology (i.e. books, videos, research findings, reports, best practice examples, etc.) until the end of the project.

All stakeholders' employees will use trainings and workshops materials about blue biotechnology sector in Mediterranean until the end of the project.

CMFO, *PEPMA*, *GSRI, LEFKIPPOS, and the Ministry of Rural Development & Food* will be mentored in the field of blue biotechnology until the end of the project.

HCMR's, NKUA's , UoC's, NTUA's, MicroPhycos, and GSRI's employees will participate in intra-organisational cooperation and in expert exchange in the field of the BBt until the end of the project.

All stakeholders' employees will participate in conference(s) in Mediterranean BBt sector until the end of the project.

All stakeholders' employees will use online platforms in BBt for Mediterranean and worldwide for BBt community information exchange until the end of the project

HCMR's, CMFO's, PEPMA's, NKUA's, UoC's, NTUA's, MicroPhycos and LEFKIPPOS employees will participate in Idea competitions in BBt for Mediterranean until *the* end of the project.

*HCMR's, PEPMA's, NKUA's, UoC's, NTUA's, MicroPhycos e*mployees will participate in government's driven cooperation in Mediterranean BBt sector between the firm and knowledge-based partner, via public grants until the end of the project.

HCMR, CMFO, PEPMA ,NKUA , UoC, Lefkippos and MicroPhycos, will apply for public grants in Mediterranean BBt for developing prototypes, refine their business plans, conduct customer trails and market research.

PEPMA's employees will recieve subsidies in form of lowering costs for product development, including employee costs, materials, capital investments, cheaper usage of offices and equipment in BBt, etc.

The main messages to be communicated to target audiences referring to this pilot project

Provide accurate and up–to–date information on project activities

Encourage dialogue between the academic community, industry representatives and policy makers on internationalisation in the pilot project's field.

The pilot project will use following communication tools that will target audience

On–line platform for information exchange

Conference

The pilot project will use following communication tools that to target individuals and institutions:

Print materials:

A series of events

Materials prepared for the Training workshops

Action plan of the Slovenian pilot project

This pilot project is named Work Café. The main idea of the pilot project is to co-create value chains relevant to Slovenia and to use the connections to lobby the strategic plan development. This pilot project is conceived as online event, where stakeholders will use the Zoom and micro (other type of on line) platforms to present the topic of blue biotechnology and foster a discussion on blue biotechnology among the stakeholders of value chains. The developer of the pilot project is National Institute of Biology (NIB), Marine Biology Station Piran. The main regional, national and local stakeholders that will be involved in the action plan are the following Jožef Stefan Institute, Technology Park Ljubljana, Government Office for Development and European Cohesion Policy, AlgEN and National Institute of Chemistry and Soline d.d.

Importantly, as the B-Blue project, its Work Café and other activities coincide with the iteration of the Smart Specialization Strategy in Slovenia, project partners from NIB will advocated to include the BBt content into the existing pillars, mainly health, circular economy and materials. We will strive to nucleate the existing knowledge on the organisms and processes, relevant for BBt and the necessary KT that will promote the advancement in Technological readiness level. The initial value chains will focus on cosmetics, waste valorization, biomaterials, plastic degradation, among others. The target organisms for valorization include algae, fungi and bacteria.

These stakeholders will be involved in the following activities:

All stakeholders' employees will use learning materials about blue biotechnology (i.e. books, videos, research findings, reports, best practice examples, etc.) until the end of the project.

All stakeholders' employees will use training and workshop materials about blue biotechnology sector in Mediterranean until the end of the project.

All stakeholders' employees will be mentored in the field of blue biotechnology until the end of the project.

All stakeholders' employees will participate in intra-organisational cooperation and in expert exchange in the field of the BBt until the end of the project.

The main messages to be communicated to target audiences referring to this pilot project

Encourage dialogue between the academic community, industry representatives and policy makers on internationalisation in the pilot project's field.

Improve innovation capacity of NIB to participate in international research/business network and international research project in the pilot project's field.

The pilot project will use following communication tools that will target audience

On–line platform for information exchange

The pilot project will use following communication tools that to target individuals and institutions:

Print materials

Materials prepared for the Training workshops

Action plan of the Spanish pilot project

Spanish pilot project is named Innovation in aquaculture and sustainable production of high value-added compounds and services using algae. University of Murcia and Regional

Government of Murcia are developers of it. This pilot project aims to create a knowledge network of actors involved in aquaculture innovation and algae production. In this pilot project, experimentation will be encouraged in pilot areas to improve practices in the field of aquaculture. The network, result of the pilot project will bring together all the regional and many Spanish Mediterranean aquaculture stakeholders from various professionals fields: growers, producers, business developers, investors, participants from government. The main regional, national and local stakeholders that will be involved in the action plan are the following organisations: Tilamur, The Blue Future, Cluster Acuiplus, Regional Government of Murcia (we will refer to them as Regional government) and Ministry of Fisheries (we will refer to them as Ministry). The main objectives of this action plan is to enhance innovation capacities of the developers in the fields of Blue Biotechnology in Spain, to promote this initiative into a regional and national level, to become a focal point for support to businesses and academia, to participate in international research/business network and in international research projects. Achieving of the objectives should be parallel with stakeholders engagemenets in lobbying activities with local and national policymakers with the aim to improve regulation adjusted to the value chains[3].

These stakeholders will be involved in the following activities:

All stakeholders' employees will use learning materials about blue biotechnology (i.e. books, videos, research findings, reports, best practice examples, etc.) until the end of the project.

Blue Future and the Regional Goverment stakeholders' employees will use trainings and workshops materials about blue biotechnology sector in Mediterranean until the end of the project.

Regional Goverment and Ministry stakeholders' employees will be mentored in the field of blue biotechnology until the end of the project.

All stakeholders' employees will participate in intra-organisational cooperation and in expert exchange in the field of the BBt until the end of the project.

Tilamur, Cluster Acuiplus, Regional Goverment and Ministry stakeholders' employees will participate in conference(s) in Mediterranean BBt sector until the end of the project.

Cluster Acuiplus, Regional Goverment and Ministry stakeholders' employees will use online platforms in BBt for Mediterranean and worldwide for BBt community information exchange until the end of the project

All stakeholders' employees will participate in Idea competitions in BBt for Mediterranean until *the* end of the project.

[3] In this action plan the value chains are Production of algae for the production of high added value compounds and Valorization of products related to fisheries and aquaculture discards.

Tilamur, Regional Government and Ministry stakeholders' *e*mployees will participate in government's driven cooperation in Mediterranean BBt sector between the firm and knowledge-based partner, via public grants until the end of the project.

Tilamur and Cluster Acuiplus stakeholders' *e*mployees will apply for public grants in Mediterranean BBt for developing prototypes, refine their business plans, conduct customer trails and market research.

The main messages to be communicated to target audiences referring to this pilot project

Provide accurate and up–to–date information on project activities

Encourage dialogue between the academic community, industry representatives and policy makers on internationalisation in the pilot project's field.

The pilot project will use following communication tools that will target audience

On–line platform for information exchange

Conference

The pilot project will use following communication tools that to target individuals and institutions:

Print materials:

A series of events

Materials prepared for the Training workshops

Action plan of the French pilot project

The French pilot project will focus on two complementary value chains: integrated multitrophic aquaculture (also known as IMTA) and algae production for high value compounds. Those two value chains are highly interconnected and share common stakeholders. IMTA is a very integrative concept that allows a high level of complementarity with algae production for high-value compounds. Thus, it will be possible to gather the stakeholders from the two value chains for the same pilot activity, as well as to do separate and more specific ones.

Three complementary organisations will guide the French pilot project activities:

- IMEV;
- IFREMER;
- PMM-TVT, as partner and French BBH responsible.

IMEV – Institut de la mer de Villefranche

IMEV is the Marine institute of Villefranche with over 130 years of marine science activity. It focuses on 5 missions: research, observation, training, scientific mediation and welcoming. It is made out of:

1 university campus,

2 research laboratories,

3 sets of infrastructures in Villefranche-sur-Mer.

IMEV is a true marine science campus with a multidisciplinary approach based on developmental biology, biological oceanography and marine physics and chemistry. It has cutting-edge scientific platforms and carries out technological innovations to respond to current scientific issues and questions.

IFREMER – Institut français de recherche pour l'exploitation de la mer

The French research institute for exploitation of the sea (IFREMER) is recognised worldwide as one of the leading institutes in marine science and technology, IFREMER is committed to sustainable development and open science. It conducts research, produces expertise and creates innovations to protect and restore the ocean, exploit its resources responsibly, share marine data and offer new services to all stakeholders.

The French pilot project activities began on April 15th with the organisation of a work café which gathered the main stakeholders for the 2 value chains chosen in France. It was an opportunity to present the project, its objectives and to define – through discussion with the stakeholders – the objectives of the french Hub, stakeholders' needs and next activities. For more information on this event, please see D4.2.

A set of pilot project activities have already been considered to follow the workcafé : Working group meeting on the topic Microalgae potential: recent developments and collaboration opportunities (May, 2021); Technical workshop on both sustainable integrated multi-trophic aquaculture and Microalgae (May, 2021); Webinar on topic Horizon Europe funding opportunities for bioeconomy (June, 2021); Working group on topic Regulatory barriers and

succes stories (September 2021 or October 2021) and finally Ocean Hackathon (November 2021).

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6. Appendices

QUESTIONNAIRE ON THE PILOTS PROJECTS' RESULTS AND KNOWLEDGE TRANSFER PLAN IN THE FIELD OF BLUE BIOTECHNOLOGY

B-Blue project aims at gathering the key actors of the Med BBt sector and increasing their innovation capacity and their coordination to unlock the innovation potential in the field through joint transnational initiatives, also involving organizations from the southern shore of the Mediterranean. The aim of this questionnaire is to explore how the pilot projects' developers are planning to implement the knowledge transfer plan within BBt. The analysis of the activities that the pilot projects' developers plan to carry out after the completion of BBt is also in focus. In part A and part D of the questionnaire we use methodology developed in the previous parts of BBt project in D 3.2.1 and D.3.3.1, respectively.

This questionnaire is divided into four sections and will require 20 minutes of your time:

Part A	Background information on the pilot project
Part B	The assessment of the pilot project's stakeholders
Part C	The assessment of objectives of the pilot project's knowledge transfer plan
Part D	The assessment of elements of the pilot project's knowledge transfer plan

For any further information or clarifications please contact Maja Ljubić Čmelar, e-mail: b-blue@hamagbicro.hr and/or Maja.LjubicCmelar@hamagbicro.hr)

The survey is anonymous, and the results of it will be used as input for creation of deliverables named Knowledge transfer plan (KTP) (D.5.2.1) and Key performance indicators for KTP implementation monitoring (D.5.2.2) respectively.

1.1 PART A: ABOUT THE PILOT PROJECT

In this part of the questionnaire, we use the categories for description of the pilot projects same as the categories developed in deliverable 3.2.1. (i.e. used for the identification of the best practice).

1) Background information[4]

1.2 Name of the pilot project	
1.2 Developer(s) of the pilot project	
1.3 Funding sources	
1.4 General idea of the project	
1.5 Description of the pilot project	
1.6 Concerned sector/field of interest	
1.7 Category	
1.8 Technology readiness level	
1.9 Business readiness level	

[1] Within the separate link that came with the questionnaire, a description of each category in the row in this question was made. This was done with the aim of making it easier to complete this questionnaire.

2. Please provide information about your position in the organization:

2.1 Head of the unit..... ❑1

2. 2 Chief engineer ..... ❑2

2. 3 Senior administrator (analyst) / researcher..... ❑3

2.4 Junior administrator (analyst) / researcher..... ❑4

PART B: ASSESSMENTS OF THE PILOT PROJECT STAKEHOLDERS

3) Evaluate the relative importance of the following pilot project groups in your country by giving them weights: 1 (nonrelevant), 2 (very little relevant), 3 (slightly relevant), 4 (moderate relevant), 5 (very relevant), 6 (strongly relevant) 7 (extremely relevant).

3.1 Sectoral agencies	❑1	❑2	❑3	❑4	❑5	❑6	❑7
3.2 Higher education and research institutions	❑1	❑2	❑3	❑4	❑5	❑6	❑7
3.3 Business support organisations	❑1	❑2	❑3	❑4	❑5	❑6	❑7
3.4 Large firms and SMEs	❑1	❑2	❑3	❑4	❑5	❑6	❑7

4. Please, rank below five most important stakeholders of your pilot project in your country

4.1 _____ **4.2** _____ **4.3** _____

4.4 _____ **4.5.** _____

5. For each above ranked stakeholder (in question 4) please provide a brief your expectation about its activities in your Knowledge transfer plan as many as needed. Please take into consideration that Ostalo means other

5.4.1 *	
Stakeholder's employees will use learning materials about Blue biotechnology (i.e. books, videos, research findings, reports, best practice examples, etc.) until the end of the project;	
Stakeholder's employees will use trainings and workshops materials about blue biotechnology sector in Mediterranean until the end of the project	
Stakeholder's employees will be mentored in the field of blue biotechnology until the end of the project	
Stakeholder's employees will participate in intra-organisational cooperation and in expert exchange in the field of the BBt until the end of the project;	
Stakeholder's employees will participate in conference(s) in Mediterranean BBt sector until the end of the project	
Stakeholder's employees will use online platforms in BBt for Mediterranean and worldwide for BBt community information exchange until the end of the project	
Stakeholder's employees will participate in idea competitions in BBt for Mediterranean until the end of the project	
Stakeholder's employees will participate in governments driven cooperation in Mediterranean BBt sector between the firm and knowledge-based partner, via public grants until the end of the project	
Stakeholder's employees will apply for public grants in Mediterranean BBt for developing prototypes, refine their business plans, conduct customer trails and market research	

Stakeholder' s employees will receive subsidies in form of lowering costs for product development, including employee costs, materials, capital investments, cheaper usage of offices and equipment in BBt, etc.;	
Stakeholder' s employees will apply for public procurement of innovation in Mediterranean BBt	

5.4.2 *	
Stakeholder's employees will use learning materials about blue biotechnology (i.e. books, videos, research findings, reports, best practice examples, etc.) until the end of the project;	
Stakeholder's employees will use trainings and workshops materials about Blue biotechnology sector in Mediterranean until the end of the project	
Stakeholder's employees will be mentored in the field of blue biotechnology until the end of the project	
Stakeholder's employees will participate in intra-organisational cooperation and in expert exchange in the field of the BBt until the end of the project;	
Stakeholder's employees will participate in conference(s) in Mediterranean BBt sector until the end of the project	
Stakeholder's employees will use online platforms in BBt for Mediterranean and worldwide for BBt community information exchange until the end of the project	
Stakeholder's employees will participate in idea competitions in BBt for Mediterranean until the end of the project	

Stakeholder's employees will participate in governments driven cooperation in Mediterranean BBt sector between the firm and knowledge-based partner, via public grants until the end of the project	
Stakeholder' s employees will apply for public grants in Mediterranean BBt for developing prototypes, refine their business plans, conduct customer trails and market research	
Stakeholder' s employees will receive subsidies in form of lowering costs for product development, including employee costs, materials, capital investments, cheaper usage of offices and equipment in BBt, etc.;	
Stakeholder' s employees will apply for public procurement of innovation in Mediterranean BBt	

5.4.3 *	
Stakeholder's employees will use learning materials about blue biotechnology (i.e. books, videos, research findings, reports, best practice examples, etc.) until the end of the project;	
Stakeholder's employees will use trainings and workshops materials about blue biotechnology sector in Mediterranean until the end of the project	
Stakeholder's employees will be mentored in the field of blue biotechnology until the end of the project	
Stakeholder's employees will participate in intra-organisational cooperation and in expert exchange in the field of the BBt until the end of the project;	

Stakeholder's employees will participate in conference(s) in Mediterranean BBt sector until the end of the project	
Stakeholder's employees will use online platforms in BBt for Mediterranean and worldwide for BBt community information exchange until the end of the project	
Stakeholder's employees will participate in idea competitions in BBt for Mediterranean until the end of the project	
Stakeholder's employees will participate in governments driven cooperation in Mediterranean BBt sector between the firm and knowledge-based partner, via public grants until the end of the project	
Stakeholder' s employees will apply for public grants in Mediterranean BBt for developing prototypes, refine their business plans, conduct customer trails and market research	
Stakeholder' s employees will receive subsidies in form of lowering costs for product development, including employee costs, materials, capital investments, cheaper usage of offices and equipment in BBt, etc.;	
Stakeholder' s employees will apply for public procurement of innovation in Mediterranean BBt	

5.4.4 *	
Stakeholder's employees will use learning materials about blue biotechnology (i.e. books, videos, research findings, reports, best practice examples, etc.) until the end of the project;	

Stakeholder's employees will use trainings and workshops materials about blue biotechnology sector in Mediterranean until the end of the project	
Stakeholder's employees will be mentored in the field of blue biotechnology until the end of the project	
Stakeholder's employees will participate in intra-organisational cooperation and in expert exchange in the field of the BBt until the end of the project;	
Stakeholder's employees will participate in conference(s) in Mediterranean BBt sector until the end of the project	
Stakeholder's employees will use online platforms in BBt for Mediterranean and worldwide for BBt community information exchange until the end of the project	
Stakeholder's employees will participate in idea competitions in BBt for Mediterranean until the end of the project	
Stakeholder's employees will participate in governments driven cooperation in Mediterranean BBt sector between the firm and knowledge-based partner, via public grants until the end of the project	
Stakeholder' s employees will apply for public grants in Mediterranean BBt for developing prototypes, refine their business plans, conduct customer trails and market research	
Stakeholder' s employees will receive subsidies in form of lowering costs for product development, including employee costs, materials, capital investments, cheaper usage of offices and equipment in BBt, etc.;	
Stakeholder' s employees will apply for public procurement of innovation in Mediterranean BBt	

5.4.5 *	
Stakeholder's employees will use learning materials about blue biotechnology (i.e. books, videos, research findings, reports, best practice examples, etc.) until the end of the project;	
Stakeholder's employees will use trainings and workshops materials about blue biotechnology sector in Mediterranean until the end of the project	
Stakeholder's employees will be mentored in the field of blue biotechnology until the end of the project	
Stakeholder's employees will participate in intra-organisational cooperation and in expert exchange in the field of the BBt until the end of the project;	
Stakeholder's employees will participate in conference(s) in Mediterranean BBt sector until the end of the project	
Stakeholder's employees will use online platforms in BBt for Mediterranean and worldwide for BBt community information exchange until the end of the project	
Stakeholder's employees will participate in idea competitions in BBt for Mediterranean until the end of the project	
Stakeholder's employees will participate in governments driven cooperation in Mediterranean BBt sector between the firm and knowledge-based partner, via public grants until the end of the project	
Stakeholder' s employees will apply for public grants in Mediterranean BBt for developing prototypes, refine their business plans, conduct customer trails and market research	

Stakeholder' s employees will receive subsidies in form of lowering costs for product development, including employee costs, materials, capital investments, cheaper usage of offices and equipment in BBt, etc.;	
Stakeholder' s employees will apply for public procurement of innovation in Mediterranean BBt	

PART C: THE ASSESSMENT OF OBJECTIVES OF THE PILOT PROJECT'S KNOWLEDGE TRANSFER PLAN

6. Please, list the importance of the following statements related to Knowledge transfer plan by giving them the weight: 1 (nonrelevant), 2 (very little relevant), 3 (slightly relevant), 4 (moderate relevant), 5 (very relevant), 6 (strongly relevant) 7 (extremely relevant)

The main objectives of the pilot project's activities towards external audience are the following							
6.1 Provide accurate and up–to–date information on project activities	❑1	❑2	❑3	❑4	❑5	❑6	❑7
6.2 Encourage dialogue between the academic community, industry representatives and policy makers on internationalisation in the field of the pilot project	❑1	❑2	❑3	❑4	❑5	❑6	❑7
The main messages to be communicated to target audiences of the pilot project							
6.3 Increase innovation capacity in the field of the pilot project	❑1	❑2	❑3	❑4	❑5	❑6	❑7
6.4 Raise your competitiveness in areas related to the pilot project	❑1	❑2	❑3	❑4	❑5	❑6	❑7

6.5 Improve capacity to participate in international research/business network and international research project in the field of the pilot project	❑1	❑2	❑3	❑4	❑5	❑6	❑7
6.6 Develop its capacity to act as focal point for development of expertise related to the pilot project in a national economy	❑1	❑2	❑3	❑4	❑5	❑6	❑7
6.7 Develop its capacity to act as focal point for development of expertise related to the pilot project in Mediterranean countries	❑1	❑2	❑3	❑4	❑5	❑6	❑7

PART D: THE ASSESSMENT OF ELEMENTS OF THE PILOT PROJECT'S KNOWLEDGE TRANSFER PLAN

In this part of the questionnaire, we adopt methodology and use categories for description of the pilot projects same as the categories developed in deliverable 3.3.1 named Blue biotechnology tools for innovation transfer and capacity building. These categories (i.e. activities in row) can be found in table below.

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7. Please, indicate which type of activities are you planning use as the element of the knowledge transfer plan of the pilot project

Type of Activities	Yes In the period of B- Blue project	Yes After completion of B- Blue project	No
7.1 Enabling learning materials in BBt for Mediterranean (i.e. books, videos, research findings, reports, best practice examples, etc.);			
7.2 Organising trainings and workshops materials in Mediterranean BBt sector;			
7.3 Mentoring of the organisation employees in Mediterranean BBt sector			
7.4 Intra-organisational cooperation and organising expert exchange in Mediterranean BBt sector;			
7.5 Hosting, organising, participating in conferences in Mediterranean BBt sector;			
7.6 Usage of online platforms in BBt for Mediterranean and worldwide for BBt community information exchange			
7.7 Idea competitions in BBt for Mediterranean;			
7.8 Customer immersion in BBt for Mediterranean			
7.9 Government driven cooperation in Mediterranean BBt sector between the firm and knowledge-based partner, via public grants			

7.10 Public grants in Mediterranean BBt for developing prototypes, refining business plans, and conducting customer trails and market research			
7.11 Subsidies in form of lowering costs for product development, including employee costs, materials, capital investments, cheaper usage of offices and equipment in BBt, etc.;			
7.12 Public procurement of innovation in Mediterranean BBt			

8. Please rank below three most important knowledge transfer activities from the above list (insert the number of the activities):

1. _____ 2. _____ 3. _____

QUESTIONNAIRE ON STAKEHOLDERS' INTEREST IN PARTICIPATION IN THE KNOWLEDGE TRANSFER PLAN

B-Blue project aims at gathering the key actors of the Med BBt sector and increase their innovation capacity and their coordination to unlock the innovation potential in the field through joint transnational initiatives, involving organizations from the southern shore of the Mediterranean. Unlike the pilot project results questionnaire where focus was on the pilot project developers, this questionnaire has focus on stakeholders interested in participation within pilot projects‘ knowledge transfer plan.

In part B and part D of the questionnaire we use methodology developed in the previous part of BBt project in D 3.2.1 and D.3.3.1 respectively.

This questionnaire is divided into four sections and will require 20 minutes of your time:

Part A	Background information
Part B	Participation in BBt Value Chain and Stakeholder's status in the pilot project
Part C	The sources of information and cooperation with other organisations
Part D	Participation in the pilot project s Knowledge Transfer Plan

The survey is anonymous, and the results of it will be used as input for creation of deliverables named Knowledge transfer plan (KTP) (D.5.2.1) and Key performance indicators for KTP implementation monitoring (D.5.2.2) respectively.

PART A: BACKGROUND INFORMATION

1. The organisation name and country of origin:

_____

2. Type of organisation:

2.1. Government ministry..... □1

2.2. Public Agency..... □2

2.3. Research Institute ..... □3

2.4. University ..... □4

2.5. Private profit organisation (enterprise; consultancy company) ..... □5

2.6. Private not-for-profit organization ..... □6

2.7. Other:_____ ..... □7

3. Your position in the organization:

3.1 Head of the unit..... □1

3.2. Chief engineer ..... □2

3.3. Senior administrator (analyst) / researcher..... □3

3.4. Junior administrator (analyst) / researcher..... □4

4. How many people (FTEs) does your organisation employ (please estimate if you do not exact number)?

_____

5. How many persons (FTEs) are involved in internal R&D activities in your organisations (please estimate if you do not exact number)?

_____

PART B: PARTICIPATION IN BBt VALUE CHAIN AND STAKEHOLDER'S STATUS IN THE PILOT PROJECT

In this part of the questionnaire, we use the categories for description of the Value Chains developed in deliverables D 3.2.1.

6. Evaluate the relative importance of the following BBt value chain in your country by giving them weights 1 (nonrelevant), 2 (very little relevant), 3 (slightly relevant), 4 (moderate relevant), 5 (very relevant), 6 (strongly relevant) 7 (extremely relevant).

6.1. Algae production for high-value compounds,	❑1	❑2	❑3	❑4	❑5	❑6	❑7
6.2. Aquaculture/fisheries discard valorisation in added value sectors,	❑1	❑2	❑3	❑4	❑5	❑6	❑7
6.3. Use of microorganisms and ICT tools for marine environment restoration,	❑1	❑2	❑3	❑4	❑5	❑6	❑7
6.4. Sustainable integrated multi-trophic aquaculture (IMTA).	❑1	❑2	❑3	❑4	❑5	❑6	❑7

7. How do you perceive participation of your organisations in BBt project?

7.1. My organisation is a Sherpa group member ..... ☐1

7.2. My organisation is a Frontrunner member..... ☐2

7.3. My organisation is a Project partner..... ☐2

PART C: SOURCES OF INFORMATION AND COOPERATION WITH OTHER ORGANISATIONS

8. Evaluate the relative importance of the following source of information for your organisation by giving them weights 1 (nonrelevant), 2 (very little relevant), 3 (slightly relevant), 4 (moderate relevant), 5 (very relevant), 6 (strongly relevant) 7 (extremely relevant).

8.1. Knowledge source within your own enterprises and organisation	❑1	❑2	❑3	❑4	❑5	❑6	❑7
8.2 Suppliers of equipment, materials, components, or software	❑1	❑2	❑3	❑4	❑5	❑6	❑7
8.3. Competitors or other enterprises	❑1	❑2	❑3	❑4	❑5	❑6	❑7
8.4. Universities or other higher education institutions	❑1	❑2	❑3	❑4	❑5	❑6	❑7
8.5. Governmental or private non-profit research institutes	❑1	❑2	❑3	❑4	❑5	❑6	❑7
8.6. R&D laboratory / enterprise	❑1	❑2	❑3	❑4	❑5	❑6	❑7
8.7. Consultants	❑1	❑2	❑3	❑4	❑5	❑6	❑7
8.8 Academic conferences/workshops	❑1	❑2	❑3	❑4	❑5	❑6	❑7
8.9 Academic journals/publications	❑1	❑2	❑3	❑4	❑5	❑6	❑7
8.10 Fairs or exhibitions	❑1	❑2	❑3	❑4	❑5	❑6	❑7
8.11 Patent databases	❑1	❑2	❑3	❑4	❑5	❑6	❑7

PART D: PARTICIPATION IN THE PILOT PROJECT'S KNOWLEDGE TRANSFER PLAN

This part of the survey consists of two questions. In the following question a stakeholder describes its role in knowledge transfer plan of the pilot project's developer. That is followed by the stakeholder's evaluation of the activities related to the knowledge transfer plan. The categories (from 10.1 to 10.12) mentioned in question 10 were developed in deliverable 3.3.1.

9. Please provide a brief overview of your engagement in BBt project i.e. how are you planning participate in the pilot project's knowledge transfer plan

_____

_____

_____

10. Evaluate the relative importance of the activities related to knowledge transfer plan of the pilot project by giving them weights 1 (nonrelevant), 2 (very little relevant), 3 (slightly relevant), 4 (moderate relevant), 5 (very relevant), 6 (strongly relevant) 7 (extremely relevant).

10.1 Enabling learning materials in BBt for Mediterranean (i.e. books, videos, research findings, reports, best practice examples, etc.);	❑1	❑2	❑3	❑4	❑5	❑6	❑7
10.2. Organising trainings and workshops materials in Mediterranean BBt sector;	❑1	❑2	❑3	❑4	❑5	❑6	❑7
10.3. Mentoring of the organisation employees in Mediterranean BBt sector	❑1	❑2	❑3	❑4	❑5	❑6	❑7
10.4. Intra-organisational cooperation and organising expert exchange in Mediterranean BBt sector	❑1	❑2	❑3	❑4	❑5	❑6	❑7
10.5 Hosting, organising, participating in conferences in Mediterranean BBt sector;	❑1	❑2	❑3	❑4	❑5	❑6	❑7

10.6. Usage of online platforms in BBt for Mediterranean and worldwide for BBt community information exchange	❑1	❑2	❑3	❑4	❑5	❑6	❑7
10.7 Idea competitions in BBt for Mediterranean	❑1	❑2	❑3	❑4	❑5	❑6	❑7
10.8 Customer immersion in BBt for Mediterranean	❑1	❑2	❑3	❑4	❑5	❑6	❑7
10.9 Government driven cooperation in Mediterranean BBt sector between the firm and knowledge-based partner, via public grants	❑1	❑2	❑3	❑4	❑5	❑6	❑7
10.10 Public grants in Mediterranean BBt for developing prototypes, refining business plans, and conducting customer trails and market research	❑1	❑2	❑3	❑4	❑5	❑6	❑7
10.11 Subsidies in form of lowering costs for product development, including employee costs, materials, capital investments, cheaper usage of offices and equipment in BBt, etc	❑1	❑2	❑3	❑4	❑5	❑6	❑7
10.12 Public procurement of innovation in Mediterranean BBt	❑1	❑2	❑3	❑4	❑5	❑6	❑7

11 Please, rank below three most important knowledge transfer activities from the above list (insert the number of the activities):

1. _____ 2. _____ 3. _____