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Report on status seminar

Work Package 5

Joint activities: implementation to joint calls and training & education activities

Publication date: November 2017



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Lead Beneficiary: **Ministerio de Economía, Industria y Competitividad (MINECO)**

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Work Package leader: **Foundation for Science and Technology (FCT), Portugal**

Task 5.6 – Monitoring of the funded research projects

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EXECUTIVE SUMMARY

The ERA-MBT status seminar took place in Oslo, the 21st of November 2017, in the framework of the final conference ‘Oceans of opportunities’ (20th and 21st of November 2017).

The status, achievements and views from the funded projects were presented. The project coordinators emphasised the goals and outcomes of the 16 projects funded by ERA-MBT in the three Joint Transnational Calls (JTCs).

Information on the ERA-NET Marine Biotech final conference, Oslo, 20-21 November 2017 can be found at: <http://www.marinebiotech.eu/final-conference>.

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BACKGROUND

Marine Biotechnology ERA-NET launched three Joint Transnational Calls (JTCs) for proposals during the 4 years project period and funded a total of 16 projects in the field of marine biotechnology. The responsibility and task on how to follow up the funded research projects are detailed in ERA-MBT Description of Work (DoW):

Description of Task 5.6: “Monitoring of the funded research projects” according to the DoW:

(Task leader: MINECO, Spain)

“Status seminars Implementation of the monitoring system for funded research projects (developed in task 5.1.) will allow early detection of problems of the scientific and collaborative progress of the transnational research consortia and subsequent corrective measures applied by the involved funding organisations. The main activity of this task concerns the organization and evaluation of a mid-term and a final status seminar for each joint call (D5.8) A mid-term status seminar will give the funding organisations and members of a monitoring panel the opportunity to review the projects’ progress. The monitoring panel will assess the project progress and give recommendations for work plan changes, if required. The strategy for the follow up of projects that finish after the end of the ERA-NET will be established in close collaboration with WP2”.

The three JTCs were scheduled as follows:

- JTC1 submission deadline 30 April 2015, project start end of 2015/early 2016
- JTC2 submission deadline 16 March 2016, project start end of 2016/early 2017
- JTC3 submission deadline 7 March 2017, project start end 2017/early 2018

This meant that only projects funded from the JTC1 had delivered mid-term reports in 2017, and it was decided that a status seminar would be combined with the ERA-MBT final conference in November 2017. There had been continuous contacts between the different funding organisations during the project period, and in no cases corrective actions had been detected.

The projects funded from the JTC2 had likewise only been running for a period of less than a year at the time of the ERA-MBT final conference, and it was decided that this event could serve as an early mid-term seminar for those projects.

The projects funded from the JTC3 had received information about their successful selection for funding, but it was decided still to have these projects presented at the ERA-MBT final conference. Such an arrangement made it possible to show the final outcome of all the ERA-MBT calls, and stakeholders could consider a full overview of research funded by the ERA-NET. Further details on each of the calls and the presentations given at the ERA-MBT final conference are described in the following chapters.

In addition some ERA-MBT partners participated in a joint call launched from ERA-NET COFASP and one launched from ERA-NET IB2. Status for these projects will be followed up from the respective ERA-NETs in charge of the calls and funding agencies involved and are therefore not reported here.

ERA-MBT JOINT TRANSNATIONAL CALLS

Features of the Calls

Three Joint Transnational Calls (JTCs) were operatively managed during the four-year period of ERA-MarineBiotech. Funding was granted for a maximum of three years according to national regulations.

In the JTC1 and 2, projects had to have a minimum of three and a maximum of eight participants from a minimum of three different ERA-MBT partner countries/regions. In the JTC3, a maximum of five partners was established, although, if partners funded by UEFISCDI (Romania) and MIZS (Slovenia) were included in the consortium, the maximum number of partners could be increased up to six.

The participation of an industrial partner in the consortium was recommended in all the calls, but was not stated as mandatory.

Aim of the Calls

The JTCs aimed to stimulate joint European research and development activities in marine biotechnology under the following three topics:

- JTC1 on “The development of biorefinery processes for marine bioresources”
- JTC2 on “Bioactive molecules from the marine environment – Biodiscovery”
- JTC3 on “Metagenomic approaches for valorization from the marine environment”

Application procedure

Proposals were submitted through the ERA-MBT online Electronic Submission System: www.submission-marinebiotech.eu

Partnering

Project partners could use the [partnering platform](#) within the submission system to enter offers and requests for project ideas and build up a project consortium. The tool was continuously available during the ERA-MBT project period.

Start of projects and Consortium Agreement

Considering that the various funding agencies had different calendars to formalize contracts and funding, research consortia of funded projects needed to agree on a common starting date of the transnational project, taking into consideration the recommendations of each funding organization involved.

Each consortium prepared and agreed on a Consortium Agreement for cooperation, signed by all participants, in accordance with national rules, to clarify potential IPR matters and other management issues.

Monitoring of the funded projects

The coordinator of each funded project must submit **a mid-term and a final scientific project report** to the Joint Call Secretariat in due time, according to the instructions provided. Each participant must in addition follow their national reporting requirements. The final scientific report will be due after the end of ERA-MBT. The follow up will be coordinated from FCT (WP5 responsible) with the involved funding agencies. In addition, the projects will be taken up in and followed in the new cofund on Blue Bioeconomy if successful.

Any publications resulting from the funded projects must acknowledge the national funding agencies and ERA-MBT.

ERA-MBT projects status seminar at the final conference 'Oceans of opportunities'

The ERA-MBT final conference '*Oceans of opportunities*' took place at The Research Council of Norway (RCN), on the 20th and 21st of November 2017. The status seminar was held in the morning of the 21st and consisted on a presentation of each ERA-MBT funded project.

The projects funded in the JTC1 were presented after the second and third calls, because they are more mature. Furthermore, the time frames for the presentations of the projects were different depending on the ERA-MBT call (please see the Programme of the ERA-MBT final conference in Annex I).

A template for the project presentations was provided to the presenters. Further, the presenters had been instructed to relate their project perspectives to that of the ERA-MBT Strategic Roadmap for Research and Innovation, and comment on how well their projects contributed to the strategies proposed, or if gaps or deficiencies could be identified. The presentations of all projects were very successful and gave good feedback on external effects and considerations related to the research areas. All projects were very well in line with the activities envisioned in the Strategic Roadmap and some gave valuable feedback on topics and priorities to be considered for future developments of MBT.

In addition, the project coordinators prepared very good posters on their projects; the posters were exhibited next to the conference room, and provided opportunities for conference participants to discuss project details with the presenters.

The participants of the ERA-MBT final conference were provided with a booklet in which all funded project were presented with a fact sheet giving details such as abstract, consortium composition and financial overview.

1ST ERA-MBT JTC

Timeline

Submissions of proposals were held in two steps: A pre-proposal step with submission deadline by December 10, 2014, and a full proposal step for invited consortia with submission deadline by April 30, 2015. Projects were expected to start at the end of 2015 / beginning of 2016.

Call documents

- Call Text: [download here](#)
- Guidelines for Applicants: [download here](#)
- Call brochure: [download here](#)

Selected projects

The following six projects were funded in the framework of the first ERA-MBT JTC:

1. [MARBioFEED](#) - Enhanced biorefining methods for the production of marine biotoxins and microalgae fish feed
2. [Mar3Bio](#) - Biorefinery and biotechnological exploitation of marine biomasses
3. [MicroMBT](#) - Discovery and training of microbial biocatalysts for biomass conversion using moving bed technology (MBT)
4. [NEPTUNA](#) - Novel Extraction Processes for multiple high-value compounds from selected Algal source materials
5. [SeaRefinery](#) - The Seaweed Biorefinery – for high value added products
6. [ThermoFactories](#) - Thermophilic cell factories for efficient conversion of brown algae biomass to high-value chemicals

Acronym	Duration (month)	Coordinating Country	Requested funding (€)	Funded by
NEPTUNA	24	IE	759,976	BE-FWO, IE-MI, NO-RCN
SeaRefinery	36	DK	1,406,156	BE-IWT, DK-IFD, IS-RANNIS, IE-MI, NO-IN
MARBioFEED	36	IE	615,000	NO-RCN, ES-MINECO, IE-MI
ThermoFactories	36	NO	1,946,559	DK-IFD, IS-RANNIS, NO-RCN, PT-FCT, SE-FORMAS
MicroMBT	36	NO	1,503,285	NO-RCN, PT_FCT, SE-FORMAS
Mar3Bio	36	NO	2,180,424	NO-RCN, NO-IN, SI-MIZS, SE-FORMAS

Mid-term reports of the projects funded in the first JTC

A reporting area in the JTC1 ERA-MBT Electronic Submission System was established, where the coordinators uploaded the mid-term reports.

2ND ERA-MBT JTC

Timeline

Submissions of proposals were held in a one-step procedure. Full proposals were invited from 1 December 2015 and closed on 16 March 2016 (15:00 CET). Projects were expected to start in the beginning of 2017.

Call documents

- Call Text: [download here](#)
- Guidelines for Applicants: [download here](#)
- Call brochure: [download here](#)

Selected projects

The following five projects were funded in the framework of the second ERA-MBT JTC:

1. [BlueShell](#) - Exploring Shellfish By-products as sources of Blue Bioactivities
2. [BLUETEETH](#) - Marine Origin Biopolymers as Innovative Building Blocks from the Sea for the Development of Bioresorbable Multilayered Membranes for Guided Bone Regeneration
3. [CYANOBSITY](#) - Cyanobacteria as a source of bioactive compounds with effects on obesity and obesity-related co-morbidities
4. [MARPLAST](#) - Marine microorganisms for bioplastics production
5. [Novofeed](#) - Novel feed ingredients from sustainable sources

Acronym	Duration (month)	Coordinating Country	Requested funding (€)	Funded by
BlueShell	36	BE	1,152,000	BE-FWO, SE-FORMAS, IT-MIPAAF, NO-RCN, IE-MI
BLUETEETH	36	PT	797,000	PT-FCT, IS-RANNIS, NO-IN
CYANOBSITY	36	PT	1,289,000	PT-FCT, SE-FORMAS, DE-BMBF/PtJ, IS-RANNIS
MARPLAST	36	NO	1,261,000	NO-RCN, SE-FORMAS, RO-UEFISCDI
Novofeed	36	NO	1,283,000	NO-RCN, BE-FWO, IT-MIPAAF, IS-RANNIS

3RD ERA-MBT JTC

Timeline

Submissions of proposals were held in a one-step procedure. Full proposals were invited from 13 December 2016 and closed on 7 March 2017 (15:00 CET). Projects were expected to start early 2018.

Call documents

- Call Text: [download here](#)
- Guidelines for Applicants: [download here](#)
- Call brochure: [download here](#)

3rd call results

The following five projects were funded in the framework of the third ERA-MBT JTC:

1. [DIVE-IT](#) - Droplet In-Vitro transcription/translation Enzyme Identification
2. [MarBioTech](#) - Advanced Marine Biotechnology toolbox for accessing the uncultivated marine microbial biodiversity and its novel biomolecules
3. [META-MINE](#) - Mining the microbiomes from marine wood-digesting bivalves for novel lignocellulose depolymerizing enzymes
4. [ProBone](#) - New tools for prospecting the marine bone-degrading microbiome for new enzymes
5. [PROMiSE](#) - Protist Metabolome Screening

Acronym	Duration (month)	Coordinating Country	Requested funding (€)	Funded by
DIVE-IT	36	DE	1,032,000	DE-BMBF/PtJ, CA-Genome BC, ES-MINECO
MarBioTech	36	DE	1,515,000	DE-BMBF/PtJ, NO-RCN, CA-Genome BC, NO-IN
META-MINE	36	NO	1,711,000	NO-RCN, DE-BMBF/PtJ, RO-UEFISCDI, FRCT-SRMCT-GRA-PO
ProBone	36	NO	940,000	NO-RCN, ES-MINECO, DE-BMBF/PtJ, RO-UEFISCDI
PROMiSE	36	DE	1,074,000	DE-BMBF/PtJ, ES-MINECO, CA-Genome BC

APPENDICES

APPENDIX 1: PROGRAMME OF THE ERA-MBT FINAL CONFERENCE: ‘OCEANS OF OPPORTUNITIES’

Day 1

Monday, 20 November 2017

Session 1: Achievements from ERA-MBT

Chair: Steinar Bergseth (Coordinator, The Research Council of Norway)

13:00 – 15:00 *Deputy Director General Jartrud Steinsli, Norwegian Ministry of Fisheries and Coastal Affairs*

European marine policies to develop the blue bioeconomy enabled by marine biotechnology

Niels Gøtke, Ministry of Higher Education and Science – Denmark

ERA-MBT achievements

Steinar Bergseth, The Research Council of Norway

Impact of the ERA-MBT roadmap and context for the bioeconomy in Europe

Dermot Hurst, Marine Institute, Ireland

Industry – research interactions

Sigurdur Björnsson, RANNIS – The Icelandic Centre for Research

Communication as a tool in commercialising MBT knowledge output

Torger Børresen, The Research Council of Norway

Dialogue

15:00 – 15:20 **Break**

The 5 Roadmap themes seen from the outside

Chair: Dermot Hurst (Marine Institute, Ireland)

15:20 – 18:30 **Biomass production and processing**
Johan Robbens, Flanders research institute for agriculture, fisheries and food

Case

Jon Funderud, Seaweed Energy Solutions AS, Norway

Exploration of the marine environment

Donatella de Pascale, Consiglio Nazionale delle Ricerche, Italy

Case

Hulda Hreggvidsdottir, Zymetech ehf, Iceland

Product innovation and differentiation

Helena Vieira, University of Lisbon, Portugal

Case

Hans Kleivdal, Uni Research, Norway

Enabling technologies and infrastructure

Thibaud Mascart, University of Ghent, Belgium

Case

Espen Hansen, The Arctic University of Norway

Policy support and stimulation

Kathrine A. Hansen, JPI-oceans

Case

Ángel E. Muñiz Piniella, European Marine Board

Group discussions on the 5 themes, and summing up in a facilitated dialogue between a panel and the participants.

18:30 Mix and mingle + dinner for all at the RCN facilities

Day 2

Tuesday, 21 November 2017

Session 2: Status, achievements and views from the funded projects

The 2nd Call projects - Biodiscovery (10 min each)

Chair: Adrianna Ianora (The International Advisory Group, ERA-MBT)

8:30 – 9:30 **BlueShell** - Exploring Shellfish By-products as sources of Blue Bioactivities
Katleen Raes, Ghent University

BLUETEETH - Marine Origin Biopolymers as Innovative Building Blocks from the Sea for the Development of Bioresorbable Multilayered Membranes for Guided Bone Regeneration
Håvard Jostein Haugen, University of Oslo

CYANOBEITY - Cyanobacteria as a source of bioactive compounds with effects on obesity and obesity-related co-morbidities
Ralph Urbatzka, CIIMAR - Interdisciplinary Center of Marine and Environmental Research

MARPLAST - Marine microorganisms for bioplastics production
Hilde Hansen, University of Tromsø - the Arctic University of Norway

Novofeed - Novel feed ingredients from sustainable sources
Fiona Provan, International Research Institute of Stavanger

Dialogue & QA

The 3rd Call projects – Metagenomics (5 min each)

Chair: Alan Dobson (The International Advisory Group, ERA-MBT)

9:30 – 10:10 **MarBioTech** - Advanced Marine Biotechnology toolbox for accessing the uncultivated marine microbial biodiversity and its novel biomolecules
Wolfgang Streit, University of Hamburg

ProBone - New tools for prospecting the marine bone-degrading microbiome for new enzymes
Gro Elin Kjæreng Bjerga, Uni Research

PROMiSE - Protist Metabolome Screening
Tilmann Harder, Alfred Wegener Institut, Helmholtz Zentrum für Polar und Meeresforschung

DIVE-IT - Droplet In-Vitro transcription/translation Enzyme Identification
Josef Sperl, Technical University of Munich

META-MINE - Mining the microbiomes from marine wood-digesting bivalves for novel lignocellulose depolymerizing enzymes
Bjørn Altermark, The Arctic University of Norway

Dialogue & QA

10:10 – 10:30 **Break**

The 1st Call projects – Biorefinery processes (20 min each)

Chair: Torger Børresen (The Research Council of Norway)

10:30 – 12:45 **ThermoFactories** - Thermophilic cell factories for efficient conversion of brown algae biomass to high-value chemicals
Trygve Brautaset, Norwegian University of Science and Technology

MARBioFEED - Enhanced biorefining methods for the production of marine biotoxins and microalgae fish feed
Jane Kilcoyne, Marine Institute

Mar3Bio - Biorefinery and biotechnological exploitation of marine biomasses
Håvard Seletta, SINTEF Materials and Chemistry

MicroMBT - Discovery and training of microbial biocatalysts for biomass conversion using moving bed technology (MBT)
Peik Haugen, UiT-The Arctic University of Norway

NEPTUNA - Novel Extraction Processes for multiple high-value compounds from selected Algal source materials
Dagmar Stengel, National University of Ireland Galway

SeaRefinery - The Seaweed Biorefinery – for high value added products
Wolfgang Stelte, Danish Technological Institute

Dialogue & QA

12:45 – 13:30 **Lunch**

Session 3: Marine biotechnology – a continued enabler in a blue bioeconomy setting

Chair: Steinar Bergseth (Coordinator, The Research Council of Norway)

13:30 – 14:45 **What's in it for a marine region? A voice from the Baltic**
Deniz Tasdemir, GEOMAR Centre for Marine Biotechnology, Germany

The importance of marine regions, as seen from a Swedish partner

Jessica Hjerpe Olausson, Västra Götaland Region, Sweden

SME challenges

Ernst Kloosterman, International Advisory Group, ERA-MBT

Marine infrastructures in Europe (EMBRC & EMBRIC)

Adrianna Ianora, Stazione Zoologica Anton Dohrn, Italy

Dialogue and QA

14:45 – 15:00

Break

15:00 – 16:00

Blue Growth and relevant H2020 activities

Øystein Rønning, The Research Council of Norway

Presentation of the announced ERA-NET Cofund Blue Bioeconomy

Kristin E. Thorud, Coordinator, The Research Council of Norway

Dialogue and QA

Final words

Research Manager Håvard Sletta, SINTEF Biotechnology and Nanomedicine, Norway

APPENDIX 2: LIST OF PARTICIPANTS OF THE ERA-MBT FINAL CONFERENCE: ‘OCEANS OF OPPORTUNITIES’

Participants list

This participant list has been composed on 17 November 2017. Any registration after this date, has not been inserted in this list.

Aasen Inga Marie	SINTEF, Norway
Akintoye Muyiwa	Quorn Foods, UK
Altermark Bjørn	UiT - The Arctic University of Norway, Norway
Angell-Hansen Kathrine	JPI Oceans, Belgium
Arlov Øystein	SINTEF Biotechnology and Nanomedicine, Norway
Assheuer Thomas	Project Management Juelich, Germany
Bergseth Steinar	The Research Council of Norway, Norway
Bjerga Gro	Uni Research AS, Norway
Björnsson Sigurdur	The Icelandic Centre for Research, Iceland
Børresen Torger	ERA-NET MarineBiotech, Denmark
Brautaset Trygve	NTNU, Norway
Chacón Esther	State Research Agency-Ministry of Economy, Industry and Competitiveness, Spain
Cristobal Susana	Linköping University, Sweden
Danckaerts Elien	Flanders' FOOD, Belgium
De la Calle Fernando	PharmaMar, Spain
de Pascale Donatella	Institute of Protein Biochemistry, National Research Council, Italy
De Raedemaeker Fien	Flanders Marine Institute, Belgium
Denaro Renata	Institute for Coastal Marine Environment CNR, Italy
Devriese Lisa	Flanders Marine Institute, Belgium
Dobson Alan	University College Cork, Ireland
Einarsson Hjörleifur	University of Akureyri, Iceland
Erlendsson Lýður Skúli	RANNIS, Iceland
Fronth Nyhus PA	MMS, Norway
Funderud Jon	Seaweed Energy Solutions AS, Norway
Geirsdóttir Margrét	Matís ohf, Iceland
Goksøyr Anders	University of Bergen, Norway
Gøtke Niels	Danish Agency for Science and Higher Education, Denmark
Hansen Torfinn	UiT - The Arctic University of Norway, Norway
Hansen Hilde	UiT - The Arctic University of Norway, Norway
Hansen Espen	UiT - The Arctic University of Norway, Norway
Harder Tilmann	Alfred Wegener Institute for Polar Marine Research, Germany
Haugen Peik	UiT - The Arctic University of Norway, Norway
Haugen Håvard J	Department of Biomaterials, University of Oslo, Norway
Haukeland Caroline	Polar Algae, Norway
Hjerpe Olausson Jessica	Region Västra Götaland, Sweden
Hov-Gylthe Tina Rebecca	The Research Council of Norway, Norway
Hreggvidsdóttir Hulda	Zymetech, Iceland

Hurst Dermot	Marine Institute, Ireland
Ianora Adrianna	Stazione Zoologica Anton Dohrn, Italy
Jakobsen Greta	Marinova, Denmark
Kandziora Jella	Projektträger Jülich, Germany
Kilcoyne Jane	Marine Institute, Ireland
Kleivdal Hans	Uni Research, Norway
Kloosterman Ernst	Biotech North, Norway
Kobrin Irina	Project Management Juelich, Germany
Mascart Thibaud	Ghent University, Belgium
Muñiz Piniella Ángel	European Marine Board, Belgium
Neyts Alexandra	Norwegian University of Science and Technology, NTNU Oceans, Norway
Nilsen Mari Mæland	International Research Institute of Stavanger, Norway
Norton Marta	Fundação para a Ciência e Tecnologia, Portugal
Pierechod Marcin	The Arctic University of Norway, Norway
Porter Keegan	AquaTT, Ireland
Provan Fiona	International Research Institute of Stavanger, Norway
Raes Katleen	Ghent University, Belgium
Robbens Johan	Institute for Agricultural and Fisheries Research, Belgium
Rønning Øystein	Research Council of Norway, Norway
Rydberg Ellen	Regional Västra Götaland, Sweden
Samdal Ingunn A.	Norwegian Veterinary Institute, Norway
Sanz Victoria	Ministry of Economy, Industry and Competitiveness - third party: FECYT, Spain
Sletta Håvard	SINTEF Materials and Chemistry, Norway
Smalås Arne O.	UiT - the Arctic University of Norway, Norway
Sperl Josef	TU Munich, Germany
Steinsli Jartrud	Norwegian Ministry of Fisheries and Coastal Affairs, Norway
Stelte Wolfgang	Danish Technological Institute, Denmark
Stengel Dagmar	National University of Ireland Galway, Ireland
Streit Wolfgang	Universität Hamburg, Germany
Svenson Johan	RISE Research Institutes of Sweden, Sweden
Tasdemir Deniz	GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany
Thorud Krisitn E.	The Research Council of Norway, Norway
Urbatzka Ralph	CIIMAR, Centre of Marine and Environmental Research, Portugal
Van Den Bossche Tim	VIB - Ghent University, Belgium
Vang Birthe	Nofima, Norway
Vieira Helena	University of Lisbon, Portugal
Whitaker Ragnhild	Nofima, Norway

APPENDIX 3: PICTURES OF THE ERA-MBT FINAL CONFERENCE: ‘OCEANS OF OPPORTUNITIES’

PICTURE I. Welcome to the ERA-MBT Final Conference participants by Steinar Bergseth, the Coordinator



PICTURE II. ERA-MBT Final Conference participants



PICTURE III. 1st Joint Call project presenters



PICTURE IV. 2nd Joint Call project presenters



PICTURE V. 3rd Joint Call project presenters

