



Marine Microbial Biodiversity, Bioinformatics & Biotechnology



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Deliverable 9.3

Web Site

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Table of Content

SUMMARY	2
INTRODUCTION	3
MAIN MENU IN TOP ROW	4
SUB-MENUS TO TOP ROW	5
BOTTOM ROW OF MAIN MENU	6
RIGHT HAND COLUMNS	6
COMMUNICATION TARGETS AND STAKEHOLDER GROUPS FOR THE MICRO B3 PORTAL	7
FURTHER EXEMPLARY SCREEN SHOT	8
FEATURES UNDER DEVELOPMENT	10
NEW FEATURES IN DETAIL.....	10
LINKS WITH RELATED INITIATIVES	12
ANNEX 1: TABLE OF DISSEMINATION OF FIRST MICRO B3 PRESS RELEASE.....	13

SUMMARY

This Deliverable 9.3 will describe the website which is on its way to become a web portal for diverse user groups within and beyond the Micro B3 project participants and the marine biodiversity, bioinformatics and biotechnology communities.

It focuses on the structure of our portal, which has been set up in the last months and is underway to be extended

- to provide a wide range of links to relevant activities, initiatives, including legal information as well as
- announcing and promoting Micro B3 dissemination, outreach and training activities.

Its central aim is to ensure the targeted and timely dissemination of relevant information on marine microbial diversity, bioinformatics and biotechnological aspects to stakeholders from society at large. These encompass the industrial sector including SMEs related to KBBE, as well as policy makers, advisors and the general public, i.e. journalists, teachers, students and NGOs interested in the field of biodiversity protection and sustainable use of marine genetic resources.

INTRODUCTION

Jacobs University, as coordinator has already realized the first version of a website, with technical help from the company Ribocon and MPI Bremen at www.microb3.eu. It is providing key information on the main objectives and work packages of the project, partners, Advisory Board members as well as announcing internal and external events, etc.

The Micro B3 Portal is the public image of the project and the main tool for presenting the project to outside communities, especially for supporting dissemination to the general public. The Portal will also provide links to documents of strategic importance for (marine) biotech and biodiversity developments as well as to EU and international projects and initiatives, i.e. those represented by our Advisory Board members. The coordinator, EMPA and further WP Leaders will be major contributors to keep it updated and strengthen interactive elements as well as promoting all aspects related to the Ocean Sampling Day (OSD). We are using most appropriate web 2.0 tools for spreading project mission, activities, results and exchanging experiences. Twitter is already established on this portal to promote current news feeds of Micro B3 to a younger audience https://twitter.com/Micro_B3.

The Micro B3 Portal will allow fostering the active involvement of target audience in project activities by providing updated news and information, already tested with announcing the EU-US bioinformatics short course <http://www.microb3.eu/events/workshops/eu-us-training> and linking to a registration system, which is now being used for the first MB3 training course. It is being linked to the websites of partners especially to their ongoing activities like sampling campaigns, expedition, their results and other events. Links to the sampling sites and expeditions (Pilot OSD, Tara-Oceans, Malaspina cruises, long-term ecological research sites) will be especially important for generating public interest and supporting open days and other educational opportunities. Also, relevant results will be showcased by Micro B3.

The detailed content of the portal will be updated with the help of all partners throughout all operational phases of the project. The authors of publications will have to send their work to the project management according to the procedure explained in the CA. Once cleared and accepted the full publication or at least the abstract // link will be available via the Micro B3 website, depending on publication rights and based on our data policy developed in other work packages.

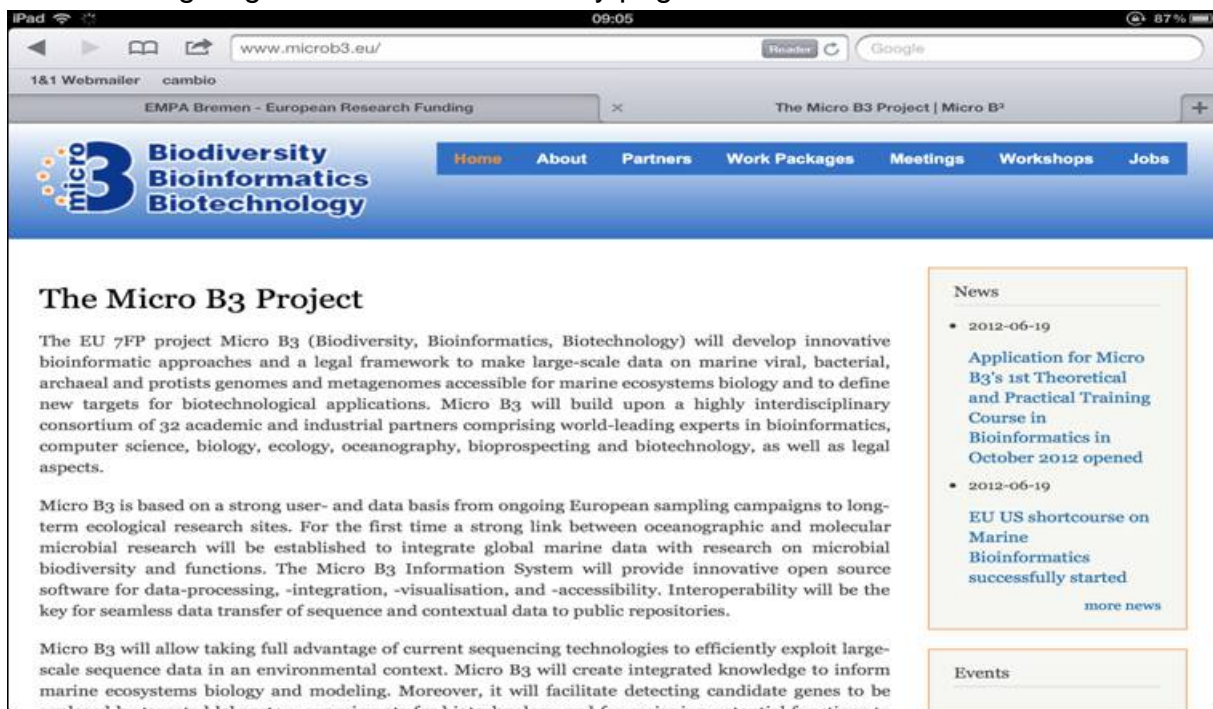
MAIN MENU IN TOP ROW

The portal so far consists of the following main sections, which can be found in the top row in the blue bar:

Home	Events/ Meeting
About	Events/ Workshops
Partners	Jobs
Work Packages	

Some of these are organized into sub-sections which will be shown and explained in the following text and screen shots.

Screenshot giving an overview of the entry page and the main menu:



SUB-MENUS TO TOP ROW

Several of the keywords lead to more detailed sub-options, if they are clicked on, as shown below for the Work Packages. This sub-menu remains visible, even if afterwards other main menu keywords (in the example "About") are opened.

Home

Background

What is Micro B3?

Micro B3 stands for "Microbial Biodiversity, Bioinformatics and Biotechnology" which reflects the three main pillars the project addresses. The central concept of this collaborative project (large-scale integrating project) is to team up an interdisciplinary and intersectoral set of world class European researchers to overcome current obstacles in marine biodiversity research and blue biotechnology. Micro B3 fully addresses the Ocean of Tomorrow Call Topic OCEAN.2011-2: "Marine microbial diversity – new insights into marine ecosystems functioning and its biotechnological potential".



Why does Europe need Micro B3?

The Planet Earth is a blue planet – with 70 % of its surface covered by oceans and 40 % of the World's population living within 50 km of a coastline, our heritage, economy and wellbeing are inextricably linked with the marine environment. Marine microbes are the 'gatekeepers' for the Earth System with an estimated contribution to global primary productivity between 50% to 90%. Recent investigations

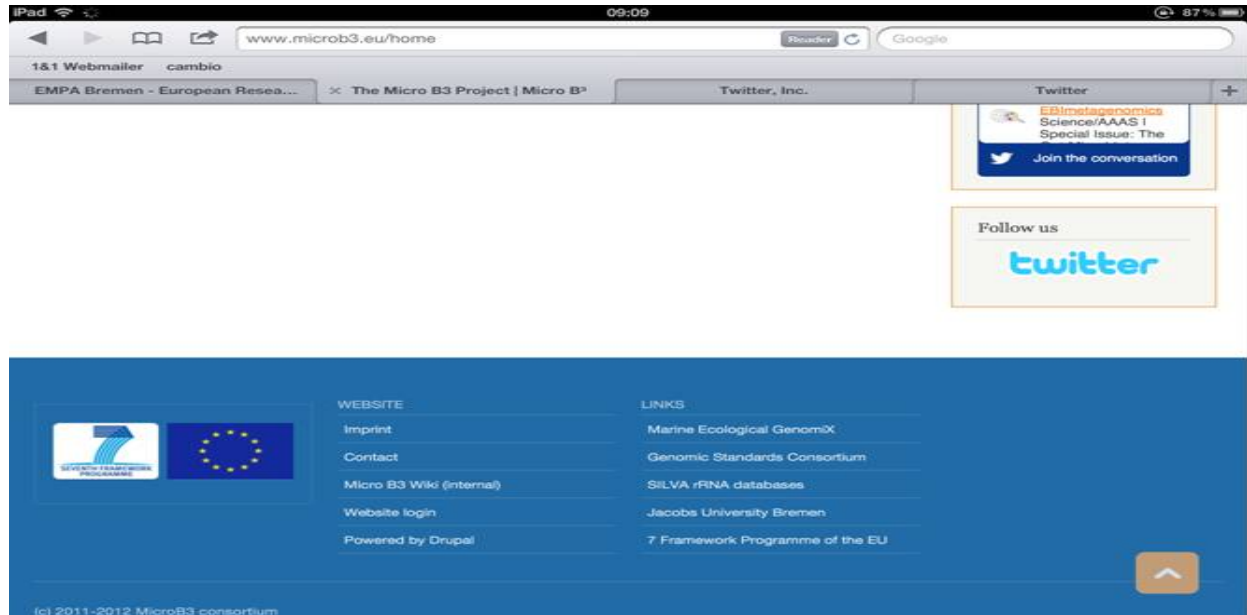
News

- 2012-06-19
[Application for Micro B3's 1st Theoretical and Practical Training Course in Bioinformatics in October 2012 opened](#)
- 2012-06-19
[EU US shortcourse on Marine Bioinformatics successfully started](#)
[more news](#)

Events

BOTTOM ROW OF MAIN MENU

In the bottom row, in the blue box further content items are listed under the headers WEBSITE and LINKS. This section is being extended to cover different sorts of information i.e. organized link lists to related initiatives as well as links directly to relevant background documents, some of which will also be accessible via the Work Package headers, then organized per work package (see final section).



RIGHT HAND COLUMNS

on the right hand side of the web portal are three features for short messages, all of which are always visible, no matter which page is opened:

1. the News section
2. The Events section
3. The Micro B3 tweet

The **following** two screenshots above show several elements. On the right side examples for the news, events and tweet columns are shown (status end of June 2012), on the left side a longer text on one upcoming meeting and one example for a full entry describing one of our advisory board members can be found.

Marine Microbial Biodiversity, Bioinformatics and Biotechnology, Deliverable 9.3. Web Site, June 2012

The screenshot shows the website's navigation menu with 'Meetings' highlighted. The main content area features a 'Meetings' section with a photo of three people and a list of events. A 'News' sidebar on the right contains two news items: 'Application for Micro B3's 1st Theoretical and Practical Training Course in Bioinformatics in October 2012 opened' and 'EU US shortcourse on Marine Bioinformatics successfully started'. A 'Home' link is visible at the top left.

Home

Meetings

4 months from now

- **Marine Microbiology & Biotechnology: Biodiscovery, Biodiversity and Bioremediation 2012**
Location: University College Cork, Ireland

News

- 2012-06-19
Application for Micro B3's 1st Theoretical and Practical Training Course in Bioinformatics in October 2012 opened
- 2012-06-19
EU US shortcourse on Marine Bioinformatics successfully started

more news

Events

The screenshot shows the 'Advisory Board Members' page. It lists 'Prof. Hans O. Pörtner' and 'Alex Hardisty'. Alex Hardisty's profile includes a photo and a detailed biography. A sidebar on the right contains an 'Events' section with two items: 'MicroB3 sampling groups workshop EBI 5-6 July 2012' and 'Micro B3 Bioinformatics I Training'. A 'Tweets related to Micro B3' section is also visible at the bottom right.

Prof. Hans O. Pörtner

Alex Hardisty

Alex Hardisty is Director of Informatics Projects in the School of Computer Science and Informatics at Cardiff University. He is a Chartered Information Systems Professional Fellow of the British Computer Society (BCS) and a Member of the Chartered Management Institute (CMI). His current interests span applications of computing to problems in biodiversity informatics, including the engineering of large-scale distributed computing systems (e-Infrastructures) and the socio-technical issues of new technology adoption.

Alex coordinates the Biodiversity Virtual e-Laboratory (BioVeL) project and leads work packages in two other projects concerned with developing research infrastructures: the Common Operations of Environmental Research Infrastructures (ENVRI) project and the Coordination of Research e-Infrastructures Activities Toward an International Virtual Environment for Biodiversity (CREATIVE-B) project. All 3 projects are funded by EC FP7.

In the ESFRI LifeWatch preparatory project, he has been responsible for determining and planning the technical strategy of LifeWatch to engineer an infrastructure for biodiversity research that is fit for scientific purpose, open and based on widely available industry standards. He continues to advise the LifeWatch start-up countries. Alex is also chair of the Design Team for the 4D4Life project, putting the Species2000/ITIS Catalogue of Life onto a sustainable e-Infrastructure footing.

Alex is formerly a member of the UK's JISC Committee for the Support of Research (JSR) and past-Chair of the Steering Committee for the Community Engagement and Support strand of the JISC e-Infrastructure programme. From 2002 – 2009 he was manager of the Welsh e-

Events

- **MicroB3 sampling groups workshop EBI 5-6 July 2012**
Thu, 2012-07-05 to Fri, 2012-07-06
EMBL-EBI, Hinxton, Cambridge, UK
- **Micro B3 Bioinformatics I Training**
Mon, 2012-10-08 to Fri, 2012-10-12
Max Planck Institute for Marine Microbiology, Bremen

all events

Tweets related to Micro B3

ARB_SILVA Due an technical problem our services were partially unavailable since yesterday. Problem is solved and services are

COMMUNICATION TARGETS AND STAKEHOLDER GROUPS FOR THE MICRO B3 PORTAL

In order to make all partners and especially the work package leaders aware of how diverse the stakeholders of Micro B3 are who will probably use our portal for initial or further information once they are made aware of its existence the description of our target groups from Del 9.1 is repeated here:

Private companies in the marine and biotechnological sectors including innovative SMEs

This target group includes end-users of the tools, standards and information systems developed, white, green and red biotech companies and also those SME producing bio- geo- or environmental informatics-related services. Priority should be given to key players which can integrate marine knowledge into the bio-based economic strategies and developments, which also could come from cluster or associations.

Marine and maritime research community

This target group includes mainly researchers from research institutes and universities, basic as well as applied, dealing with manifold aspects of marine research like bioinformatics, computer science, biology, ecology, oceanography, bio-prospecting and biotechnology as well as philosophy and legal aspects.

Policy makers, including selected agencies

This target group includes policy makers - in the fields of biodiversity protection and well as promotion of a bio-based economy - from international and EU level to regional level. Permitting and monitoring agencies are included as they deal with biodiversity and biotech aspects of marine sampling, in national waters and the EEZ.

The general public including non-governmental non-profit organizations, high-school students and teachers and other interested citizen

This target group includes the public at large as well as associations representing the interest of different groups. NGOs could be concerned with marine biodiversity protection, invasive species, harmful algal blooms but also with impacts of genetic and biotechnological techniques, including GMO and synthetic biology aspects, as far as relevant to Micro B3.

Further exemplary screen shot

The screenshots below give an overview on advisory board members; the same system is used for all 32 partners, a click on the name opens a window with more details (as shown for Alex Hardisty).

Technically the website for the AB members is a drop down list, showing all of them with the option to open a longer entry with photo and web link, for which one example is shown above.

For the work package somewhat more information is given and the leader named as a point of further contact as illustrated below.

Marine Microbial Biodiversity, Bioinformatics and Biotechnology, Deliverable 9.3. Web Site, June 2012

The screenshot shows a web browser on an iPad displaying the website www.microb3.eu/partners/advisory-board-members. The page features the MicroB3 logo (Biodiversity, Bioinformatics, Biotechnology) and a navigation menu with links for Home, About, Partners, Work Packages, Meetings, Workshops, and Jobs. The 'Advisory Board' link is highlighted. Below the navigation, the page title is 'Home » Partners' and the main heading is 'Advisory Board Members'. A paragraph describes the Advisory Board as an international network of six experts approved in 2011. A list of members is provided, each with a right-pointing arrow icon: Dr. Ian Joint, Prof. Jerome H. Reichman, Linda Amaral Zettler, PhD, Prof. Milton S. da Costa, Dr. Rolf Apweiler, Dr. Éamonn Ó Tuama, and Prof. Hans O. Pörtner. On the right side, there is a 'News' section with two entries from 2012-06-19: 'Application for Micro B3's 1st Theoretical and Practical Training Course in Bioinformatics in October 2012 opened' and 'EU US shortcourse on Marine Bioinformatics successfully started', with a 'more news' link. Below the news is an 'Events' section.

This following screenshot shows the lower part of the WP 9 description with contact data given.

It will be extended to link to relevant documents in the context of each work package, i.e. public deliverables, as well as EMBRC or EBI material relevant to bioinformatics training and dissemination.

information and providing advices, where appropriate, to stakeholders (CIESM), through workshops, in legal aspects of biodiversity protection (UCL) as well as in industrial biotech fields (EuropaBio, BIO-LIBERIS), a broad scope of users can be covered and new ideas generated and implemented.

The training committee will give input to and analyse the results of the diverse stakeholder needs. Questionnaires will be sent around widely in the first months of Micro B3 in conjunction with training courses and workshops already planned by the partners and associated projects like ELIXIR, EMBRC, LifeWatch, MAMBA, MG4U, EuroMarine and EuroFleets.

A detailed dissemination plan for Micro B3 will then be created, including outreach, training and capacity building elements, to be revised at mid-term. It will include workshops for the interested public, including policy-makers and dedicated short workshops for interaction with industry. Scientific training is planned to be organized into three course formats of different lengths, including one summer school. It will provide bioinformatics expertise to young Micro B3 scientist, and later also to the participants of the Ocean Sampling Day before and after this event. They and the trained new generation will be the seed for disseminating Micro B3 standards and tools. Courses or at least modules are planned to provide models for later repetition, and thus will be thoroughly documented. Multipliers will be selected to participate in order to enable this on smaller e.g. regional scales and in other languages where appropriate and useful to generate more long-term sustainability in capacity building.

To establish a flexible workshop and training environment in a highly collaborative effort is one of the mid- to long term goals of Micro B3. Such a continuous and consistent training pipeline involving all emerging bioinformatic and biodiversity infrastructures in Europe (LifeWatch, ELIXIR and EMBRC) would enable European scientists to continue “playing in the Champion’s League within marine microbial diversity research and innovation”.

Lead: Johanna Wesnigk, [Environmental and Marine Project Management Agency](#)

more news

Events

- **MicroB3 sampling groups workshop EBI 5-6 July 2012**
Thu, 2012-07-05 to Fri, 2012-07-06
EMBL-EBI, Hinxton, Cambridge, UK
- **Micro B3 Bioinformatics I Training**
Mon, 2012-10-08 to Fri, 2012-10-12
Max Planck Institute for Marine Microbiology, Bremen

all events

Tweets related to Micro B3

ARB_SILVA Due an technical problem

FEATURES UNDER DEVELOPMENT

New features in detail

The actual structure of the bottom row is being extended and reorganized into:

1. Links, with short explanations, logos and, where relevant, contact details to related ongoing initiatives like the Genomic Standard Consortium, EMBRC
2. Links to politically and legally important websites, I.e. of the Convention of Biological Diversity, the marine and KBBE-related portals of the European Union etc.
3. Publications and public deliverables. Here a list of outputs will be found, organized by work package, the downloadable documents will also be linked to the work package sections, but not duplicated. This section includes links to either downloadable (own) documents as well as to sites where relevant documents for the nine work packages on Micro B3 can be directly downloaded, also with a short description of their content, size and other characteristics
4. Media & Material, directly related to Micro B3: this part is further organized as shown below into:
 - Media response
 - Press releases
 - Printed material



Press Releases and Response

Press releases other printed material, i.e. slides of lectures given etc. and the related press responses are collected and documented for the plan for use and dissemination of results. Major media responses will also be presented in the web portal under the section **media & material** which has already been programmed and is just being filled with input, probably more links than the actual articles, as there as IPR issues involved here as well.

We will try to collect relevant information in several languages, as especially journalists are very grateful for short already published information in their mother tongue. (see Annex 1 of Del 9.2 for a short dissemination list of appearances of Micro B3 in Jan to April 2012, e.g. with a interview given for a German radio station, which still can be listened to online, but where we were not authorized to put it on the Micro B3 portal).

This is important as dedicated PR work is planned when special events take place, i.e. for the training courses and dissemination events and a major campaign, linked to the Ocean Sampling Day. It will be a prime opportunity for generating international and regional interest in the public at large, directly as well as via Europe-wide channels. It is planned to use the web portal to help with and later document the success of performing local press work with selected partners i.e. those having marine stations or providing ship time.

Members are encouraged to participate in local or regional events in order to promote Micro B3, especially within their home countries. Each Member should represent Micro B3 in at least one national/regional public event as well as to write a press release or short news for our web portal, associated to this event in the local language and in English, if possible.

OSD Blog

For the pilot OSD a blog was started, to try out another means to involve young marine scientist in following what is being done and actively contributing their own sampling experiences.

It can be found under <http://oceansamplingday.blogspot.co.uk/>



Ocean Sampling Day is a project of the Micro B3 consortium, an EU funded project working at the intersection of marine microbial biodiversity, bioinformatics and biotechnology. Also see <http://www.oceansamplingday.org>.

THURSDAY, 5 JULY 2012

San Pedro Ocean Time-series Ocean Sampling Day

What better way to appreciate the longest day of the year than waking up at 05:30AM? So, that's what we did on this year's summer solstice on June 20. We awoke to an overcast commute down the I405S freeway (one of the busiest in the country) in Los Angeles, CA to San Pedro, CA, but at these hours, of course, traffic is very light. We arrived in time to load the ship with plenty of time to spare for the 7AM departure. Our ship departed from the LA Harbor which is about 25 miles south of downtown LA and the University of Southern California (USC). The LA Harbor is the busiest port in the US and one of the busiest in the world.. Our destination was the San Pedro Ocean Time-series (SPOT) which is about halfway between the mainland in San Pedro, CA and Santa Catalina Island. SPOT is an on-going 12+ year monthly marine microbial time-series. We examine the dynamics of the microbial communities including protistan, bacterial, archaeal, and viral communities. The results show very interesting annually repeating cycles and co-occurrence patterns which may suggest ecological interactions (similar to those easily observed in larger organisms).

PAGES

- [HOME](#)
- [About OSD](#)
- [Micro B3 on Twitter](#)
- [Micro B3 Homepage](#)
- [Genomic Observatories \(GOs\) Network](#)
- [Earth Microbiome Project \(EMP\)](#)
- [Global Genome Initiative \(GGI\)](#)



POPULAR POSTS

Smart phone application for Ocean Sampling Day - collaboration with Epicollect

Links with Related Initiatives

Micro B3 will be collaborating with other European funded projects and relevant international initiatives – in particular

- MacUMBA, an emerging large EU-project on cultivating marine microbes
- MAMBA, a large EU-project on marine metagenomics
- MetaExplore, a large EU-project on metagenomics for bioexploration
- EMBRC, ELIXIR, Lifewatch and MIRRI (all Research Infrastructures from the ESFRI roadmap)
- BioVel a medium Research Infrastructures EU-project on bioinformatics
- MG4U, Marine Genomics for Users, a Coordination Action within KBBE
- EMODNet, an initiative of DG MARE related to marine knowledge
- The Genomics Standards Consortium (GSC) an international initiative
- Mirada Long Term Environmental Research (Part of NSF's US LTER Program
- Earth Microbiome Programme and
- Genomic Observatories initiatives

Therefore two-way links are being established through one of the link lists described above and by contacting the webmasters of each website. This process is also linked to some of our Advisory Board Members which represent some of these projects and initiatives. Thus short information on several initiatives is provided also under the description of our Advisory Board Members, (links are also provided there), to be found in a different more focused context that possible for just a link list.

Annex 1: Table of Dissemination of First Micro B3 Press Release

NO.	Type of contact	Special remark	Date of sending	Results/ Reactions	Link	Type of audience	Countries addressed
1	Newsletter						
a	EuroOcean Portal & Newsletter	Targets marine audience in EU	31.01.2012	Newsletter (01.02.2012)	http://www.eurocean.org/hp4/34	Science & industry	EU-wide
b	Thaloccean Newsletter No. 85	Investor newsletter for marine technologies	31.01.2012	Newsletter (17.02.2012)	http://www.thaloccea.com/	Science (4.2%), industry (39%), finance/law (35%), civil (14%), policy (7%), Media (0.8%)	international
2	Web portal						
a	Life Science Germany	German-speaking Europe	31.01.2012	01.02.2012	http://www.life-sciences-germany.com/index-term/micro-project-jacobs-univ-fp7-201202-database-marine-2001-82851.html	Science & industry	Germany
b	VBio.de	German Life Sciences Association, German news portal	31.01.2012	01.02.2012	http://www.vbio.de/informationen/alle_news/e17162?news_id=13330	Science	Germany
c	Schiff und Hafen	News section	31.01.2012	09.02.2012	http://www.schiffundhafen.de/news/offshore/single-view/view/eu-projekt-zu-umweltbiotechnik-und-blauer-biotechnologie.html	Maritime industry	Germany
c	IDW (Germany)	German Science, portal and Press Release distribution service	Via MPI	27.01.2012	http://www.idw-online.de/en/news460941?print=1&id=460941	Science & science journalists	Germany
d	MPI for Marine Microbiology	German, only	31.01.2012	See others	www.mpi-bremen.de	Science	Germany
e	Jacobs University Bremen	English and German	31.01.2012	See others	http://www.jacobs-university.de/2012/01/innovation-sea-jacobs-university-coordinates-eu-project-blue-biotechnology	Science & industry	EU-wide
3	Web 2.0 Tools						
a	Twitter	Micro B3 Twitter account	01.02.2012	See others	http://twitter.com/#/Micro_B3	Young Scientists	international
4	Interviews						
a	Radio Station NDR	Science feature	-	02.03.2012	http://www.ndr.de/info/audio/105491.html	Public	Northern Germany