

PROJECT PERIODIC REPORT

Grant Agreement number: 244164

Project acronym: MARINETT

Project title: Marine Research Knowledge Transfer and Uptake of Research

Funding Scheme: Coordination and support action

Date of latest version of Annex I against which the assessment will be made:

Periodic report: 1st 2nd 3rd 4th

Period covered: from 1st Feb 2011 to 31st July 2012

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¹ Usually the contact person of the coordinator as specified in Art. 8.1. of the Grant Agreement .

² The home page of the website should contain the generic European flag and the FP7 logo which are available in electronic format at the Europa website (logo of the European flag: http://europa.eu/abc/symbols/emblem/index_en.htm logo of the 7th FP: http://ec.europa.eu/research/fp7/index_en.cfm?pg=logos). The area of activity of the project should also be mentioned.

Declaration by the scientific representative of the project coordinator

I, as scientific representative of the coordinator of this project and in line with the obligations as stated in Article II.2.3 of the Grant Agreement declare that:

- The attached periodic report represents an accurate description of the work carried out in this project for this reporting period;
- The project (tick as appropriate)³:
 - has fully achieved its objectives and technical goals for the period;
 - has achieved most of its objectives and technical goals for the period with relatively minor deviations.
- The public website, if applicable
 - is up to date
 - is not up to date
- To my best knowledge, the financial statements which are being submitted as part of this report are in line with the actual work carried out and are consistent with the report on the resources used for the project (section 3.4) and if applicable with the certificate on financial statement.
- All beneficiaries, in particular non-profit public bodies, secondary and higher education establishments, research organisations and SMEs, have declared to have verified their legal status. Any changes have been reported under section 3.2.3 (Project Management) in accordance with Article II.3.f of the Grant Agreement.

Name of scientific representative of the Coordinator: .David Murphy

Date: ...16...../10...../ ...2012.....

For most of the projects, the signature of this declaration could be done directly via the IT reporting tool through an adapted IT mechanism.

³ If either of these boxes below is ticked, the report should reflect these and any remedial actions taken.

1. Publishable Summary

1.1 Project context and objectives

Knowledge is a major source of competitive advantage in business. European marine research projects could play a pivotal role in the sustainable development of our natural resources and in knowledge-based ocean governance. The European Commission has provided a significant investment in marine research and development in the last 12 years across FP6 and FP7. The latest figures estimate that more than €1.98 billion was allocated to almost 985 projects (€863 million for 471 FP6 projects and €1,123 million for 514 FP7 projects; Source: EurOcean). However, a considerable proportion of this potentially valuable knowledge is not being exploited because key stakeholders are not aware of its existence or cannot access it. Not all of the new knowledge generated has had the expected impact.

With a view to achieving optimal exploitation and enhancing the impact of EC-funded research, the MarineTT project was developed to deliver the widest range of benefits to society from the marine research being conducted at European level.

MarineTT has developed a Knowledge Management and Transfer Methodology to detect and compile usable knowledge from past and in-progress EC marine research projects and follow through on this discovery by taking the steps that are needed to transfer the knowledge to the correct end-user, thereby increasing the opportunity for uptake and contributing to value creation and innovation.

MarineTT's objectives, in relation to marine research, are to:

- Obtain a more comprehensive understanding of the knowledge generated by reviewing research outcomes with a view to identifying what knowledge can be transferred for exploitation.
- Unlock the potential of knowledge by developing and trialling an innovative evaluation mechanism to identify those research outputs with the most promise for technology transfer, training and education, policy-making, or further research.
- Connect and transfer knowledge to key stakeholders, customising communication methods to end-user needs, and making best use of cost-effective channels for communication.
- Improve the quality of the previous EurOcean internet portal by focusing on the availability of potential knowledge rather than the existence of projects.
- Develop customised Knowledge Transfer rendering it ready for uptake by different target end users and resulting in measurable impact.
- Transfer the tools and methodologies developed by MarineTT to other research sectors

1.2 Description of the work performed since the beginning of the project and the main results achieved so far

Key elements of the work performed since the beginning of the second phase of the project and the main results achieved so far include:

MarineTT Infobase Development and Implementation (WP2)

In order to provide free and easy access to the information gathered through MarineTT, the **Marine Knowledge Gate 1.0** was developed and launched in March 2012 as part of Work Package 2 on Information Management (WP2). It is an online infrastructure to collate, manage and deliver information from EC-funded marine research projects and the knowledge generated. It has a tailored search functionality in line with cutting-edge search engines, which directs users to the most relevant information based on their needs, consequently improving the access to EC research results for industry, multipliers, the civil society, and policy-makers. The Marine Knowledge Gate 1.0 provides an inventory of 1,279 marine projects from eight EC Funding Programmes, as well as information on 593 Knowledge Outputs (KOs) from 148 FP6 & FP7 marine projects that responded to the MarineTT survey (432 KOs from 102 FP6 marine projects and 161 KOs from 46 FP7 marine projects). The system also includes information on 3,897 institutions involved in FP6 and FP7 marine projects.

The Marine Knowledge Gate 1.0 makes results of EC-funded Marine research accessible to stakeholders and end-users. The search functionality allows the user to navigate and consult the existing KO information by: KO Types (case studies, prototypes, RTD protocols, etc.); potential end-user groups (scientific community, policy-makers, industry, environmental managers, educators and others); sectors and sub-sectors to potentially benefit; KO status (whether the KO is completed or in progress); and KO availability (whether the knowledge is publicly available). The Short Title and Knowledge Description fields provide a concise summary of the KO that, together with the information on the related project, provide sufficient information to allow users of the service to determine if the KO is relevant to them.

The Marine Knowledge Gate 1.0 has been continuously updated with FP7 marine projects during the lifetime of MarineTT. Moreover, the Marine Knowledge Gate 1.0 will continue to be updated after the end of the MarineTT project and different Funding Programmes will be added on a regular basis and also at particular times when relevant events take place (i.e. specific European calls).

The Marine Knowledge Gate 1.0 can be seen as a library of the most-up to-date KOs and developments in marine research and has the potential to become the most relevant repository of marine research knowledge as it will be managed and updated regularly. In addition, to ensure its future sustainability, the Marine Knowledge Gate 1.0 allows project coordinators to add and update projects as well as KOs.

Several new and current FP7 projects intend to upload their KOs to the Marine Knowledge Gate 1.0 as outlined in their DoWs. Potential improvements based on future requirements or on users' feedback may take place if required (e.g. including national-level projects).

Expert Review and Validation of Collected Knowledge (WP3)

The knowledge collection phase (WP2) identified 148 projects with 593 Knowledge outputs which required further analysis. KOs from each of the surveyed projects were recorded in a matrix template, the 'Knowledge Outputs Table' (KOT). The KOT provided detailed information on KOs and identified the potential end-user, practical application, IP/confidentiality issues, degree of completion and knowledge transfer activities achieved.

Although the survey was carefully developed and involved the consideration of appropriate 'Information fields' which would be used to assess the KOs and would ultimately inform the knowledge transfer process for that KO, the quality of the information provided in the survey varied greatly. The MarineTT team considered it necessary to conduct additional knowledge gathering post-survey.

Knowledge gathering post-survey required the MarineTT team to review the available information and documentation for each of the 148 projects (including project website, final report, executive summaries, brochures and others, as well as the full response to the survey) in order to gain a better understanding of the 593 KOs and to identify any KOs which were not captured by the survey. Approximately half a day was given for each individual project review.

This process was also an exercise in quality control in that it incorporated a check that websites and links provided were extant and that each field of the survey response was clear and correct. Incorrect web-links and non-live websites were recorded. During these reviews a number of KOs not recorded by the survey were discovered. These previously unrecorded KOs were noted and as much supporting detail as possible provided by the MarineTT team member undertaking the additional knowledge gathering was recorded. The potential benefit of transfer for each output was completed and outputs were ranked accordingly. In addition, a follow-up list was used to track those project coordinators who needed to be contacted again for clarifications. The completed KOT for each project was sent to the coordinators for their review and input.

The final step in the knowledge analysis phase was the 'external validation' of the knowledge outputs by an international expert group. MarineTT categorised all KOs according to six themes, and experts were invited according to each theme as well as domain relevance (industry, education, policy). Experts were requested to review the results of the 'internal validation' and to identify high-potential outputs for transfer. These sessions were held between May and August 2011. Expert validation identified 55 projects where knowledge outputs could have high potential to impact end-users. However, eight of these projects were dealt with by other knowledge transfer initiatives, leaving 47 for knowledge transfer within MarineTT.

The validation process also informed the further evolution of the MarineTT Knowledge Management process and provided recommendations for its improvement. In addition, the experts identified knowledge clusters which will be provided on the MarineTT website with a link to the Marine Knowledge Gate 1.0.

Consultation with RTD performers and Stakeholders (WP4)

Two workshops to explore the challenges to effective Knowledge Transfer and the barriers to innovation from research were organised. Implementation of the MarineTT Knowledge Analysis WP (WP3) and Knowledge Transfer (WP5) identified a number of barriers to stakeholder access and uptake of relevant knowledge and innovation from research. These barriers were discussed with a wider audience at two dedicated MarineTT workshops:

1. From Marine RTD to Measurable Value Creation - An Open Stakeholder Workshop to Explore the Challenges and Solutions to Effective Knowledge Capture and Transfer (23 May, 2012)
2. How do we get more Innovation from Research? - Bringing together and learning from pioneering initiatives and novel approaches (19 July, 2012)

Based on the outcome of both of these workshops, MarineTT developed Best Practice Guidelines for Knowledge Management and Transfer. The guidelines are not a deliverable of the project and will not be ready for submission with the final report but the partnership has committed to producing the product post-project.

Knowledge Transfer (WP5)

However, the KOT content was limited and it was essential to validate key characteristics of each KO before developing tailor-made knowledge transfer plans and ultimately carrying out transfer. In particular, during the expert validation and review of knowledge, it became apparent that another review of the knowledge compilation was needed to establish the relevance of what had been collected. This additional review step, which was entitled Due Diligence, was carried out on all of the 47 projects that were considered to have knowledge of high potential to impact end-users (originally 55 projects were identified, but experts considered that high-potential outputs from eight projects should be transferred through other knowledge transfer initiatives). Key Elements in the Due Diligence phase include:

1. Verify all final **Knowledge Output** details
2. Determine **willingness** of KO owner and other beneficiaries to help in knowledge transfer
3. Clarify **Intellectual Property** rights (IP)
4. Confirm **Primary End User(s)** and assess capacity for uptake
5. Identify suitable **Transfer Methodology**: technical level, medium, channel
6. Classify if knowledge can be **clustered** or is stand-alone for transfer

Expert validation during the analysis phase identified 47 projects with knowledge outputs with high-potential to impact end users. In order to complete the Due Diligence process, MarineTT team members with competencies in and experience of each of the marine themes were selected to carry out a Due Diligence exercise on the short list of 47 projects. Results of the Due Diligence phase of MarineTT recorded a number of issues with many KOs which eliminated them from moving forward to the tailor-made targeted knowledge transfer stage. KOTs were updated based on the information provided by the coordinators. All contacts with coordinators were logged and a contact template developed. Following the phone interview a standard interview report was completed for each project. MarineTT members' observations on the conversations were recorded. Due Diligence identified a number of barriers to transfer that significantly affected the transfer potential of the knowledge, and in consequence, the development of individual tailor-made transfer plans per KO.

At the end of the Due Diligence phase, the MarineTT team held a meeting where a decision was made on whether the KO was ready for transfer and a go/no go decision was taken. Nine projects with high-potential KOs were developed as Case Studies for Transfer following Due Diligence.

The MarineTT project was promoted widely through press releases, organisation of workshops, participation at other events and through the Knowledge Transfer phase (WP5) where collaboration and cooperation with other knowledge transfer initiatives was established.

1.3 Expected Final Results and Potential Impact

MarineTT is expected to make a real contribution to improving access to European-funded research results for industry, multipliers, the civil society, and policy-makers. The project aims to produce:

- A comprehensive marine research infobase with project information, objectives and results from all recent and ongoing EC marine-funded projects (**Deliverable 2.3: Upgraded Infobase**)

- A search-friendly “knowledge outputs” repository, categorising outputs by relevance to different types of end-users including policy-makers, industry, education, scientific community (**Deliverable 2.3: Upgraded Infobase**)
- An innovative methodology for the collection and assessment of research outcomes, focusing on the impact of knowledge and the cost of transfer (**Deliverable 3.1: A Matrix Template, Deliverable 3.2: Project Profile Matrix, Deliverable 3.3: Recommendations for Consideration, Deliverable 4.6: Action Items for Transfer**)
- Stakeholder consultation workshops to develop conclusions to issues affecting knowledge transfer and strategic recommendations for knowledge transfer requirements (**Deliverable 4.1: Invitations to Participate, Deliverable 4.2: Agendas, Deliverable 4.3: Workshop Proceedings, Deliverable 4.4: Handbooks, Deliverable 4.5: Needs Analysis**)
- A critical review of how knowledge transfer is managed in European-funded research and suggestions for improvement to ensure the continued availability marine research knowledge for the sustainable management of marine resources (**Deliverable 5.5: Guidelines for the Sustainable Management of Marine Resources**)
- Knowledge transfer for successful translation, transfer and uptake of scientific knowledge outputs for industrial competitiveness, policy development, decision-making, management actions, education and public awareness (**Deliverable 5.1: Sorting Knowledge Report, Deliverable 5.2: Knowledge Delivery Plan, Deliverable 5.3: Impact Assessment, Deliverable 5.4: Qualitative and Quantitative Assessment of Knowledge Transfer Report**)
- Further dissemination of the project outcomes and results (**Deliverable 6.2 Project Brochure, Deliverable 6.5 Annual Report**)

1.4 Further Information

A public website was developed for the MarineTT project:

<http://www.marinett.eu/>

A ‘LinkedIn’ group, MarineTT- Marine Knowledge Transfer was established to promote the findings and outcomes of the project:

<http://www.linkedin.com/groups/MarineTT-Marine-Knowledge-Transfer/>

The Marine Knowledge Gate 1.0 is available at:

<http://www.kg.eurocean.org/>

2. Project objectives, work progress and achievements, project management

Project objectives for the period

The following project objectives fall under the reporting period of this periodic report:

WP1 – Project Management and Internal Communication

This WP dealt with planning, organising and managing resources to bring about the successful completion of project goals and objectives and was organised to support all other work packages. The objectives of WP1 were to:

- Plan, organise and manage resources to bring about the successful completion of the project goals and objectives.
- Facilitate all communication (e.g. written, verbal, interpersonal, virtual) within the consortium to ensure that concerns are addressed, to establish formal roles and responsibilities and to provide clarity.

WP2 – Knowledge Collection

WP2 was responsible for upgrading the existing EurOcean infobase of European marine research funded projects (www.mapinfobase.eurocean.org/) and to increase the content, both in terms of number of projects profiled and to provide more useful information per project.

The objectives of WP2 were to:

- Collect and manage information from one or more sources
- Make that information accessible to end users
- Involve those who have a stake in, or a right to the information
- Organise and control the structure, processing and delivery of information

WP3 – Knowledge Analysis

MarineTT introduced an innovative model of knowledge evaluation to select the most valuable knowledge for pilot case studies. The analysis will be driven by experts with different perspectives from industry, policy and research.

The objectives of WP3 were to:

- Refine and trial a knowledge analysis matrix
- Measure knowledge in terms of a cost-benefit matrix

WP4 – Consultation with RTD performers and Stakeholders

Activities in this WP related to planning consultation workshops across areas of marine environment research. Each workshop was a one-day event and RTD coordinators, policy-makers and other stakeholders participated.

The objectives of WP4 were to:

- Gain a better appreciation for the knowledge already generated from European marine research projects funded under the 6th Framework and underway in FP7
- Identify needs in terms of research, knowledge transfer and policy
- Confirm and/or refine the knowledge analysis (Work Package 3)

WP5 – Knowledge Transfer

WP5 addressed the final stage of the knowledge management process, i.e. transferring knowledge to target end-users for uptake and exploitation. Knowledge was customised to target end-users and effectively transferred using a variety of standard and innovative mechanisms. The knowledge collection undertaken during WP2 and the knowledge analysis performed in WP3 informed the volume of transfer to be carried out.

The objectives of WP1 were to:

- Customise information and knowledge so that it is ready for uptake by different target end-users
- Develop and make use of the latest tools, resources and communication channels resulting in cost effectiveness and maximum impact
- Measure the impact of the uptake of knowledge

WP6 – Project promotion

WP6 was another horizontal WP that supported the other WPs, raising public and sectorial awareness of the MarineTT project, its objectives, and results. It also aimed to promote MarineTT project activities, major events and products developed.

The objective of WP1 was to:

- Disseminate the information about the project – i.e. its objectives, activities, partners, major events

Work Progress and Achievements during the period

Work Package 2 - Information Management

In accordance with the MarineTT Description of Work (DoW), EurOcean is responsible for WP2. During the second reporting period, the following tasks have been achieved:

- Upgrade of the Marine Knowledge Gate 1.0
- Identification of FP7 marine-related projects and collection of standard project details from the CORDIS online database. It is worthwhile noting here that FP6 marine-related projects were already identified and standard project details included in the EurOcean MaP Infobase by EurOcean prior to MarineTT
- Development of the MarineTT online survey to collect information on 'knowledge outputs' from project coordinators and to validate and complete standard project details
- Execution of an online survey targeting project coordinators from FP6 and FP7 marine-related projects

The information required by the MarineTT project has been collected from different sources. Standard project details were largely collected from the official EC source for FP-funded projects, the CORDIS online database, and official project websites were also consulted. Information on the knowledge generated by FP6 and FP7 marine-related projects was collected through a survey. EurOcean developed an online survey for coordinators to provide specific information on the 'knowledge outputs' produced by their respective projects. Project coordinators also validated and completed standard project details extracted from the EC CORDIS online database and managed through the MarineTT Infobase. Final reports from some of the projects surveyed, which were neither provided by the project coordinators nor available in the CORDIS repository (please see 'Evaluation of the CORDIS Advanced Search' below) were provided by the MarineTT EC Scientific Officer.

The online survey was live for approximately four months (July-October 2010) and targeted 509 marine-related projects (325 from FP6 and 184 from FP7). The survey had a total response rate of 61%, from which 38% (40% for FP6 and 35% for FP7) of the responses provided sufficient information on 'knowledge outputs' to carry out the knowledge analysis (Work Package 3) under the responsibility of AquaTT.

To access the MarineTT online survey, visit <http://marinettsurvey.eurocean.org/login.jsp> and use the following log in details:

Username: 30103

Password: abbHJ0rx

In order to structure and manage the information gathered, a MarineTT Infobase was developed. Building on previous efforts, the MarineTT Infobase is an adapted and upgraded version of the existing EurOcean MaP Infobase for FP6 marine-related projects. This new version comes complete with a MarineTT layout and new fields for standard project details of FP7 marine-related projects. Fields dealing with partner institutions' information have also been included for FP6 marine-related projects, using data from the EurOcean MaP Infobase. A modified search facility allows for user-friendly access to the newly available information.

Since the last reporting period the MarineTT Infobase has been populated with information on 'Knowledge Outputs' to become the Marine Knowledge Gate 1.0.

With regard to Deliverable 2.2: 'Research project profile template', it was agreed by the partners that this can be completed only once the fields on 'Knowledge Outputs' are clearly defined according to the results of the analysis of the survey responses (WP3). Thus, Deliverable 2.2 was carried out between July and August 2011, before the consultation process began (WP4).

Deliverable 2.3: 'Upgraded Infobase', refers to the updating of the MarineTT Infobase base with the results of the survey, knowledge analysis and consultation process. By its very nature, this is an ongoing deliverable and was a continuous

process for the final months of the project. The original DoW states that this deliverable is ongoing and doesn't specify a delivery date.

An extra, non-contractual WP2 deliverable which describes the methodology and results of the collection of the MarineTT information requirements was agreed at the 3rd partnership meeting in December 2010. Deliverable 2.4: 'Marine projects gathering methodology and results', includes an executive summary, a detailed description of the methodology and a PowerPoint presentation. The MarineTT partnership agreed that such a report would provide a useful reference document for the Commission, or for other projects carrying out similar work in the future. It details the approach taken by the MarineTT project and what issues were encountered.

Work Package 3 – Knowledge Analysis

In accordance with the MarineTT DoW, AquaTT is responsible for WP3: Knowledge Analysis.

During the second reporting period, the following tasks to meet WP3 objectives have been performed:

Organisation of Knowledge Outputs and Collection of Associated Documentation

- Collation of Information: the documentation from each of the projects that replied to the survey was collated. This included the survey itself and any additional documentation such as the project brochure, final report, activity reports and the project website.
- Final Project List for Knowledge Analysis: a final list of projects to be included in the analysis was compiled. Only projects with an adequate survey quality were included. Surveys of adequate quality were those which had a completed knowledge outputs section. In addition, all marine transport projects were excluded from MarineTT as these will be covered by the MARPHOS project (Official EC request). A total of 148 projects were included in the analysis.
- Division of the projects into Marine Themes: for the purpose of the knowledge analysis the 148 projects were divided into one of six marine themes. These themes include: Environmental Monitoring, Fisheries, Aquaculture, Climate Change, Water Resource Management and Ocean Energy. These themes were chosen by firstly studying the themes used by the Marine Institute in their Sea Change Programme (<http://www.marine.ie/home/research/SeaChange/NationalMarineTechnology/>) and then adopting suitable themes which would cover the breadth of projects included in MarineTT.
- Collection of Additional Final Reports: a list of completed projects who did not submit their final report along with the survey was compiled. This list was submitted to the EC Project officer for MarineTT who helped to source a number of the final reports. In addition, the project coordinators from these projects were contacted individually to request the final reports. In total 64 final reports were collected from the 148 projects included in the knowledge analysis phase.

Development of the Knowledge Analysis Matrix

- A matrix to analyse the knowledge outputs from each project was developed. This matrix is known as the "Knowledge Outputs Table". The KOT was reviewed by the EurOcean team who provided additional inputs. The KOT table evolved further over the Knowledge Analysis process and was constantly updated and improved. The main fields in the final KOT table include: Project Acronym, Framework, End Year, Website, Knowledge ID Number, Short Title, Knowledge Description, Knowledge Type, Marine Sector to Potentially Benefit, End-User and Application, IP/Confidentiality Issues, Details of IP/Confidentiality Issues, In Public Domain, Output Complete, Output Completion Details and Knowledge Transfer Information. All of the information required to analyse each knowledge output in the project is captured in the KOT.

Analysis of Knowledge Outputs

- Analysis of the Knowledge Outputs for each Project: in order to get a comprehensive overview of each project and to understand the knowledge outputs all of the documentation received for each of the projects was studied in detail. This included the completed survey, the project website and any other documentation which was collected, including final reports, activity reports, publications, project brochures etc.
- Completion of the Knowledge Outputs Overview Table per project: one Knowledge Outputs Overview table was completed per project. These included outputs which were recorded on the survey and any additional outputs which were identified after review of the additional material (website/final report etc.).
- Completion of a Combined Knowledge Output Overview table per Marine Theme: the individual project tables for each theme were combined into one table. This thematic table contains all the knowledge outputs for that particular marine theme. The combined table was then used for the internal and external Validation process.

Internal Validation of the Knowledge Outputs

- The MarineTT partnership carried out an internal validation on each of the thematic combined KOTs. The purpose of the internal validation was to ensure that the information contained in the tables was clear and concise, to reach agreement on the potential end-user and potential applications and finally to assign a preliminary ranking for potential benefit of transfer for each of the outputs.
- The potential of each KO was assessed and a preliminary score of Low, Medium or High assigned. An internal validation session was held for each of the marine themes. Questions to be posed to the coordinator were also noted and the MarineTT team followed up with the project coordinators to seek clarification prior to the external validation by the expert groups.

External Validation of the Knowledge Outputs

- The final step in the knowledge analysis process was the external validation of the combined knowledge output tables for each of the themes by a group of experts. The expert groups consisted of thematic experts from each of the marine themes and domain experts from education, policy and industry.
- The experts were provided with the combined thematic tables which had been internally validated by the MarineTT team and any additional information which they required such as completed surveys and additional project documentation. They were asked to complete a desk study on the outputs in advance of a group session with the other experts. The purpose of the external validation process was to authenticate the results of the internal validation session and to highlight the highest potential outputs.

Theme	Expert Panel	Date
Aquaculture	Dr. Reid Hole – University of Nordland Dr. Richard Fitzgerald - NUIG Dr. Panos Christofilogainnis - Aquark	31 May 2011
Marine Renewable Energy	Dr. Ronan Long - NUIG Dr. Ray Alcorn – HMRC Dr. Gareth Davies - Aquatera	7 June 2011
Water Resource Management & Environmental Monitoring	Prof. Mark Emmerson – QUB Dr. Emanuel Goncalves – ISPA Mr. Michael O Cinneide - EPA	13 June 2011
Climate Change	Dr. Anthony Grehan - NUIG Dr. Sergio Castellari – CMCC	20 July 2011

	Dr.Tiago Capela Lourenço – University of Lisbon	
Fisheries	Dr. Dave Reid – Marine Institute Dr. Hazel Curtis - SeaFish Dr. Marina Santurtun – AZTI Mr. Lorcaín O Cinneide - IFPO	4 August 2011

Regarding Deliverable 3.1: 'A matrix template was completed', for the purposes of the project this template has been renamed as the Knowledge Output Table (KOT). The KOT table has evolved over the knowledge analysis process and the final version, which has been submitted, was approved by the MarineTT Advisory Board in February 2011.

The fields of the KOT table informed Deliverable 3.2: 'Research Project Profile template'. However, these fields were not finalised until the knowledge analysis process was complete (WP3). Therefore deliverable 3.2 was postponed until July 2012.

Deliverable 3.3: 'Recommendations for Consideration', relied on the completion of the Internal and External Validation steps of the Knowledge Analysis process. Therefore, the final version of Deliverable 3.3 will be available in July 2012 (Month 30).

Work Package 4 – Consultation with RTD Performers and Stakeholders

In accordance with the MarineTT DoW, AquaTT is responsible for WP4 – Consultations with RTD performers and stakeholders. During the second reporting period, the following tasks have been achieved:

- Overview of the main needs and potential solutions to overcome critical knowledge transfer barriers to achieve significant innovation from research as perceived by RTD performers and stakeholders from the marine community

This overview of the way knowledge from EC-funded projects is managed was gained through the implementation and completion of WP3 (Knowledge Analysis) and WP5 (Knowledge Transfer). As a result of the outcomes from these WPs the nature of WP4 changed and instead focused on the current knowledge management approaches in EC-funded research.

Implementation of the MarineTT Knowledge Management and Transfer Methodology identified a number of barriers to stakeholder access and uptake of relevant knowledge and innovation from research. These barriers were discussed with a wider audience at two dedicated MarineTT workshops:

1. From Marine RTD to Measurable Value Creation - An Open Stakeholder Workshop to Explore the Challenges and Solutions to Effective Knowledge Capture and Transfer (23 May, 2012)
2. How do we get more Innovation from Research? - Bringing together and learning from pioneering initiatives and novel approaches (19 July, 2012)

Prior to the first MarineTT Stakeholder Workshop, an online survey was carried out for respondents to put forward what they perceive to be the most critical barriers to knowledge transfer for the marine sector in relation to the full science lifecycle.

The objectives of the 1st workshop were to:

- Map the barriers to knowledge capture, transfer and uptake of research for innovation that exist in the current research environment
- Identify any interdependencies between barriers
- Prioritise the critical challenges to uptake of research results and subsequent innovation
- Develop a collective plan of potential options that could be implemented across the system to resolve the critical barriers

Participants of the first workshop were drawn from the marine sector and across all stakeholder groups and proposed 54 solutions to the most commonly encountered barriers to knowledge transfer.

The objectives of the 2nd workshop were to provide coordinators from similar knowledge management projects with a platform for an open exchange of experiences and ideas on overcoming barriers to innovation from research, including:

- Identifying common issues affecting innovation from research
- Providing potential solutions to these barriers
- Validating these potential solutions based on project experiences and perspectives

Participants drawn from other knowledge transfer initiatives and various research sectors provided 64 solutions to the barriers presented. All 64 solutions proposed were validated or refuted by participants with experience of the effectiveness of the solution. Participants voted for the proposed solutions that they considered to have most merit for removing the barrier to transfer. Deliverables 4.3: 'Proceedings' and Deliverable: 4.4 'Handbooks' (submitted with the final report) provide a detailed report on the format and structure of the workshops and included the discussion and outcomes from the two events.

Deliverable 4.5: 'Needs analysis report' provides an analysis of the responses received through the MarineTT survey in terms of the main needs and potential solutions to overcome the most critical barriers to transfer the knowledge generated through EC-funded marine related research.

The MarineTT online survey ran for a week in May 2012 and targeted different types of stakeholder communities (including experts from science, industry and policy dealing with knowledge transfer issues) from the marine sector and beyond from all over Europe. From the 70 responses received, most corresponded to researchers (60%), followed by industry and others, including consultants, NGOs etc. (33%), and a much smaller representation of policy-makers and funding agencies (7%). Responses provided a total of 344 knowledge transfer barriers, which were further classified into 45 categories. Based on a combination of indicators and considering the vast array of responses as well as each type of stakeholder, 22 categories were identified as forming the most relevant priority barriers. The analysis of the main needs extracted from these priority barriers has been carried out through the incorporation of the potential solutions also provided by the respondents.

Work Package 5 – Knowledge Transfer

In accordance with the MarineTT DoW, AquaTT is responsible for WP5 – Knowledge Transfer. During the second reporting period, the following tasks have been achieved:

- New tailored search online system providing powerful analytical potential for different types of users
- Nine case studies for transfer were conducted

The Marine Knowledge Gate 1.0 (last version of the MarineTT Infobase) includes a tailored search functionality in line with cutting-edge search engines (e.g. Google), which directs users to the most relevant information they need, consequently improving the access to EC research results for industry, multipliers, policy-makers and society. Available search fields both from projects and KOs allows users of the service to extract both quantitative and qualitative information for further analysis, therefore offering powerful analytical potential for different types of stakeholders.

The Marine Knowledge Gate 1.0 also provides interactive homepage graphs. These graphs display the information available at the time of accessing the infobase in terms of number of 'Projects' and 'Knowledge Outputs' by Programme, Country and Funding, hence providing users with a rapid analytical overview of the infobase content by using the most relevant indicators.

The homepage interactive graphs, besides visually displaying the content of the infobase, also provide pre-determined search options that guide users through the information available in the infobase.

Individual Transfer Plans were developed for each case study with the aim of ensuring that the KOs generated reached their target audience quickly and effectively and to optimise the uptake of the KOs by end users.

Targeted knowledge transfer is a complex process and requires considerable investment of resources if it is to be effective. In order to develop Targeted Knowledge Transfer Plans, the case study projects were subjected to more in-depth analysis by the MarineTT team members who also engaged further with the project coordinators and project partners. It is of paramount importance that sufficient time and resources be given to selecting the most appropriate medium for knowledge transfer, but also to developing an understanding of the value chain in which the KO will enter.

Four projects from the Fisheries theme advanced to Case Study phase: UNCOVER, SAFMAMS, EMPAFISH and MARIFISH. Knowledge generated by these fisheries-related projects had high-potential KOs relevant to participatory research and development of Marine Protected Areas and therefore similar end-users of the knowledge were identified. It was decided that a synthesis paper summarising the main findings and outputs of the projects would be prepared.

MarineTT established a collaborative relationship with another FP7 project entitled KNOSSOS (Knowledge from Science to Societies <http://www.unep.org/research4policy/Home/tabid/52142/Default.aspx>) in order to assist in the transfer of results from the Fisheries Theme projects. KNOSSOS, a United Nations Environment Programme (UNEP) initiative, has launched a new web platform and will also develop a series of policy briefs aiming to improve the understanding of environmental scientific research among policymakers.

In collaboration with KNOSSOS it was decided that three policy briefs would be developed concerning:

- Advancing Ecosystem-based Fisheries Management (main brief)
- Stakeholder Participation (supporting brief)
- Developing sustainable Fishing Gears and Practices (supporting brief)

The briefs are short summary documents (less than ten pages for main briefs and five for supporting briefs) written specifically with the policy-making end-user in mind. The development of these briefs included not only the four projects with high-potential KOs but also results from 10 other fisheries projects gathered during MarineTT. During the Collect & Understand phase of MarineTT many project coordinators provided supplemental documents including publications, which were shared with KNOSSOS in order to develop these briefs. Knowledge generated by other fisheries projects though not of similar high potential was also included in the policy briefs. The fisheries brief will be validated by the European Commission, presented at a KNOSSOS launch event in the European Parliament and will be placed on the KNOSSOS and MarineTT websites. KNOSSOS also intends to use the Twitter online social media to inform their followers about the briefings.

Environment Theme Case Studies for Transfer

Harmful Algal Bloom Cluster (SEED, HABIT, SPIES-DETOX and MIDTAL)

Three projects with related KOs on Harmful Algal Blooms and with similar end-users were forwarded for Case Study from the Environmental Theme as well as one project from Aquaculture (Spies-Detox). Because of the inter-relationship of the results of the selected projects, MarineTT decided that their high-potential KOs should be transferred together. Knowledge Outputs from ten other Harmful Algal Bloom projects (considered by external expert review to have low or medium-potential impact on end-users) were also included in the transfer.

MarineTT created a Harmful Algal Bloom comparison template for the main KOs: each project's novel aspects and its contribution to state-of-the-art were recorded. The comparison template was then forwarded to an internationally respected Harmful Algal Bloom researcher (with experience of all projects in the cluster) for completion. The comparison template was likewise forwarded to an expert in the monitoring and assessment of Harmful Algal Blooms for water quality for completion. These templates, when completed by experts with significant experience in these fields of research will certainly provide not only a valuable and succinct critical comparison but also an independent evaluation of the knowledge outputs from the projects. MarineTT has identified national water quality monitoring labs, national and international HABS researchers as the end-users of the Comparison Template. It will also be forwarded to the United Nations GEOHABS office for information. At the time of writing the template is in the final stages of completion by the experts and will be transferred in the coming weeks.

MIDTAL

KOs from the MIDTAL project were considered for individual knowledge transfer in addition to the HABS Cluster Transfer. MIDTAL has developed a Microarray technology for the detection of toxic algae and toxins. This technology is suitable for large monitoring agencies that process a high volume of samples and is suitable for use internationally as it detects over 160 different HAB species.

The main barrier to transfer of the KOs from MIDTAL came from a lack of dissemination and transfer during the project's lifetime.

MarineTT assisted the MIDTAL coordinator by:

- Outlining the procedures needed to become an EU accredited methodology and technology
- Developing an information factsheet highlighting the main benefits and novel aspects of the Microarray technology
- Developing a webinar on the Microarray techniques
- Inviting participants to the webinar
- Making the webinar recording available for download on the MarineTT website

Aquaculture Theme Case Studies for Transfer

Two projects from the Aquaculture Theme were selected for Case Study – AQUAETREAT and SPIES-DETOX

However, KOs from SPIES-DETOX were related to Harmful Algal Blooms and as such have been incorporated in to the HABS Comparison template which will be transferred to the relevant monitoring authorities and also to Harmful Algal Bloom researchers via the Environmental Theme Case Study for transfer.

AQUAETREAT

AQUAETREAT has developed a novel treatment system (T.R.E.A.T.) for the treatment, recycling and re-use of fish farm effluent. Efficient cost-effective effluent treatment methods and systems were developed which can be applied to all types of land-based fish farms regardless of species. Different processes including microfiltration, centrifugation, bioreactors, constructed wetlands and algal ponds can be used for different effluent treatments. The most innovative aspect of the commercially available T.R.E.A.T. system is the potential added value resource from the recycling process which utilises the sludge by-product of the effluent treatment. The coordinator has set up a spin-off company that has successfully commercialised the product.

The second KO from the AQUAETREAT project was the production of an AQUAETREAT manual which included details of case studies where the systems were trialled, cost-benefit analyses made of the three different sites, along with legislative information, relevant information on the sludge recycling and possibilities for creating an added value resource.

Though AQUAETREAT was undoubtedly successful, the MarineTT team nevertheless identified a number of barriers to knowledge transfer and uptake of the KOs including:

- A lack of awareness of project achievements amongst the potential end-users
- Lack of transfer outside the coordinator's region (Italy)
- Small-scale transfer activities, i.e. coordinator visited aquaculture ventures within Italy to showcase the system
- Other potential end-users neither identified nor transferred to
- Large volumes of information used to achieve and support knowledge transfer

In collaboration with the coordinator, MarineTT prepared a synopsis of the T.R.E.A.T. system handbook with information on the AQUAETREAT project. This sharp and concise synopsis was circulated to end-users throughout Europe, not only to inform them of the KOs but also to provide details of a new demonstration site launching in early 2013 which will allow prospective users to view a full- scale working system.

The synopsis was forwarded to all members of the Federation of European Aquaculture Producers (FEAP) as well as to members of the Nordic Network of Recirculatory Aquaculture Systems. Because of the broad scope of the AQUAETREAT project, its treatments processes could potentially be used to improve water quality within a water catchment area, and therefore other end-users, such as agriculture and river basin district managers, could be identified.

Work Package 6 - Project Promotion

In accordance with the MarineTT DoW, EurOcean is responsible for WP6 on Project Promotion. During the second reporting period, the following tasks have been achieved:

- The development of the second MarineTT brochure (Deliverable 6.2) was postponed until March 2012 in order to promote one of the most relevant MarineTT products – the Marine Knowledge Gate 1.0.
- The official project website (Deliverable 6.3) has been upgraded during the second period of the project to provide easy access to all the relevant MarineTT items in a user-friendly and visually attractive way.
- Press articles promoting major MarineTT activities (Deliverable 6.4) were released at strategic times, once major milestones were achieved, as agreed by the MarineTT partnership.
 - The third press release was postponed until July 2011, when preliminary results and recommendations from the knowledge analysis process (in WP3) were available. This press release also included feedback from the MarineTT Brussels Showcase (June 2011) from representatives of DG MARE, DG RTD, DG ENV,

major European and National marine research institutions, as well as consultancy companies in European marine affairs. It was released in CORDIS Wire, Ecsite e-news and MegaPesca.

- The fourth press release, on the launch of the Marine Knowledge Gate 1.0, was distributed in March 2012 through CORDIS Wire and OceanSp@ce, and included in the Spring-Summer 2012 issue of the FarneTT Magazine, in the June 12 issue of the Aquaculture Europe Magazine, and in the Apr/May 12 issue of the EAS-SG newsletter.
- The fifth press release announcing the 1st MarineTT Stakeholder Workshop “From Marine RTD to Measurable Value Creation” was released in May 2012 through CORDIS Wire and OceanSp@ce and announced in the calendars of JPI Oceans and Aquaculture.
- The sixth press release on the results of the 1st MarineTT Stakeholder Workshop and announcing the second workshop on “How to get more Innovation from Research” was released at the end of May 2012 in CORDIS Wire and the beginning of June 2012 in JPI Oceans News.
- A final press article summarising the main MarineTT findings and providing links to major MarineTT products is foreseen after the completion of the project once all the MarineTT products are finalised. This final press article will be sent to the media channels of previous press releases, including CORDIS Wire, and it is expected to be the main approach in promoting the MarineTT products to the wider European research and policy communities.
- The MarineTT project has been promoted using both AquaTT’s and EurOcean’s existing services and networks. News items have been posted on the partners’ websites and distributed to their respective networks through their e-newsletters. AquaTT has a monthly e-newsletter (Training News) with almost 6,000 registered subscribers and EurOcean has a semi-monthly e-newsletter with around 2,700 registered subscribers. New items included:
 - MarineTT Brussels Showcase announcement (May & Jun 11 AquaTT Training News)
 - Marine Knowledge Gate 1.0 Launch (Jan/Feb 12 AQUAT-NET e-Newsletter, Feb 12 AquaTT Training News, Mar 12 EurOcean e-Newsletter and website)
 - 1st MarineTT Stakeholder Workshop announcement “From Marine RTD to Measurable Value Creation” (April 12 AquaTT Training News, May 12 EurOcean e-Newsletter and website)
 - 2nd MarineTT Workshop “How to get more Innovation from Research” announcement (Jun 12 AquaTT Training News, Jul 12 EurOcean e-Newsletter and website) and outcomes (Jul 12 AquaTT Training News, Jul 12 EurOcean website)
- MarineTT was promoted at the following three main events:
 - ICES Annual Science Conference (19th - 23rd Sep 2011, Gdansk, Poland)
AquaTT and EurOcean set up a MarineTT Exhibition Stand at the ICES Annual Science Conference 2012 and distributed MarineTT factsheets, booklets of KOT samples and MarineTT Survey Methodological Materials and mobile screen cleaner gimmicks of the MarineTT project. The MarineTT Knowledge Transfer Methodology was presented through the MarineTT poster and preliminary findings were promoted. Contacts were established and a MarineTT presentation was arranged for at the next Steering Committee of the Regional Advisory Councils (RAC).

- 1st Innovation Convention organised by the EU (5th -6th Dec 2011, Brussels, Belgium)
Following the advice of the MarineTT Project Officer, the MarineTT partners applied for a stand to exhibit the Marine Knowledge Gate 1.0 at the above convention. The proposal to the exhibition is presented in Annex 6. Although the proposal was not finally accepted, AquaTT and EurOcean members attended the convention in order to gain a better understanding of the Commissions' concept of innovation and to promote MarineTT among the knowledge transfer networks and professionals attending.
- 3rd European Science Foundation Marine Board Forum (18th Apr 2012, Brussels, Belgium)
AquaTT provided a MarineTT presentation at the 3rd ESF Marine Board Forum "New Technologies for a Blue Future" to the attendants from 71 organisations. The presentation can be downloaded from the 3rd ESF Marine Board Forum website.

Additionally, the promotion of the MarineTT project was carried out at the following events:

- EFARO Meeting (24th - 25th May 2011, Sopot, Poland)
AquaTT gave a MarineTT Presentation at the EFARO meeting to the 38 participants and distributed MarineTT Factsheets.
- RAC Steering Committee (21st February 2012, Brussels, Belgium)
AquaTT presented the MarineTT project to the RAC coordinators meeting at the Steering Committee of the Regional Advisory Councils (a total of to the 25 participants). The presentation can be downloaded from the MarineTT website.
- North Western Waters Regional Advisory Council (NWWWS RAC) Executive Committee Meeting (5th July 2012, Dublin, Ireland)
AquaTT presented the MarineTT project at the NWWWS RAC Executive Committee Meeting to a total of 40 participants, including Executive Committee members, Secretariat members, Commission and ICES representatives and the observers to the meeting. The list of participants and the organisations they represent is detailed in Annex I of the meeting minutes and a summary of the MarineTT presentation is also provided.
- Aqua2012 EAS/WAS Conference (1st to 5th September 2012, Prague, Czech Republic)
AquaTT presented the MarineTT project to the 20 participants of the session on "Education, Extension and Technology Transfer" at the Aqua2012 Conference "Global Aquaculture: Securing our future". The abstract title was "Insights into the Innovative MarineTT Knowledge Management methodology". The MarineTT project was also promoted through the MarineTT factsheets and mobile screen cleaner gimmicks distributed at the AquaTT stand.

The MarineTT partners have both also been involved in other FP7 projects. Project meetings were used to promote the MarineTT project to the corresponding consortiums.

- EuroMarine KoM (21st - 23rd Mar 2011, Gothenburg, Sweden)
EurOcean attended the Kick-off Meeting of the EuroMarine project (follow-up of the three targeted Marine Networks of Excellence: EUR-OCEANS; MarBEF and Marine Genomics Europe) as a member of the Advisory Board. The MarineTT project was promoted by the distribution of MarineTT factsheets and mobile screen cleaner gimmicks.
- 1st SEAS-ERA Strategic Forum (07th Sep 2011, Brussels, Belgium)

AquaTT and EurOcean attended the SEAS-ERA Strategic Forum and distributed MarineTT factsheets and mobile screen cleaner gimmicks.

- Marcom + Meeting (08th Sep 2011, Brussels, Belgium)
AquaTT and EurOcean attended the Marcom + Meeting and distributed MarineTT Factsheets and mobile screen cleaner gimmicks.
- CLAMER Final Conference (15th Sep 2011, Brussels, Belgium)
AquaTT attended the final conference of the CLAMER project and distributed MarineTT factsheets and mobile screen cleaner gimmicks.
- EuroMarine Advisory Board Meeting (17th -19th Jan 2012, Bremen, Germany)
EurOcean attended the Advisory Board Meeting of the EuroMarine project. The MarineTT project was promoted by the distribution of MarineTT factsheets and mobile screen cleaner gimmicks.
- Joint SEAS-ERA/CPMR Atlantic Governance Consultative Workshop (23rd -24th Apr 2012, Lisbon, Portugal)
EurOcean attended the Joint SEAS-ERA/CPMR Atlantic Governance Consultative Workshop. The MarineTT project was promoted by the distribution of MarineTT factsheets and mobile screen cleaner gimmicks.
- SEAS-ERA Network Steering Committee Meeting (7th - 8th Jun 2012, Porto, Portugal)
EurOcean provided advice to develop the Knowledge Transfer Strategy for the SEAS-ERA project following the MarineTT Knowledge Transfer Methodology. A presentation using MarineTT insights as example was presented at the SEAS-ERA meeting to the 16 participants.
- 1st MarineBioTech Project Workshop (26th-27th Apr 2012 , Faro, Portugal)
EurOcean presented the MarineTT project and the Marine Knowledge Gate 1.0 at the 1st MarineBiotech project workshop “Mobilisation and Engagement of Funding Agencies and Stakeholders” for the establishment of an ERA-Net and distributed MarineTT factsheets and gimmicks.
- The MarineTT project was also promoted through the organisation of a MarineTT Showcase (7th Jun 2011, Brussels). The preliminary results and recommendations from the knowledge analysis process carried out by MarineTT were presented at a showcase in Brussels to 17 participants including representatives of DG MARE, DG RTD, DG ENV, major European and national marine research institutions, as well as consultancy companies in European marine affairs. The showcase acted as a forum for key individuals at European level to provide MarineTT with feedback and insight, raising awareness at the same time. All presentations are available from the ‘Events’ section of the MarineTT website. Booklets on KOT samples extracted from projects and on the survey ethodological materials were produced as promotion and dissemination materials for the MarineTT Brussels showcase.
- Mobile screen cleaners were developed as innovative gimmicks in order to promote the MarineTT project and the Marine Knowledge Gate 1.0. The MarineTT project distributed 2.000 units of the MarineTT gimmicks at the events attended and organised during the second period of the MarineTT project. Distribution of 2.200 gimmicks on the Marine Knowledge Gate 1.0 were also used to promote this MarineTT knowledge management tool after the completion of the project.
- A series of cartoons to convey the insights gained by MarineTT of the barriers to knowledge transfer and innovation from research have been produced. The cartoons were commissioned by and are under the copyright

of AquaTT. These cartoons were used during the MarineTT Stakeholder Workshops and included in several of the MarineTT presentations at various events attended for the promotion of the project (e.g. MarineTT presentation at the 3rd ESF Marine Board Forum). The cartoons are also available under the Audio Visual Materials of the Media Section of the MarineTT website.

- MarineTT established a LinkedIn group in April 2012 with the purpose of fostering debate on knowledge transfer for the marine sector. The group now has 215 members. Feedback on the Marine Knowledge Gate 1.0, attendance to the MarineTT Stakeholders Workshops and participation in the MarineTT online survey were promoted through this LinkedIn group. Knowledge Transfer-related news is regularly posted and the group has become a dissemination channel of the issues raised and discussed during the MarineTT project.
- The outcomes of the MarineTT Stakeholder Workshops have also been promoted through workshop reports. The reports for the 1st and 2nd MarineTT Stakeholder Workshops are available under 'Events' in the Media Centre section of the MarineTT website. In addition the reports for both workshops were circulated amongst workshop participants as well as the Marine Knowledge Transfer LinkedIn group for feedback.
- A MarineTT Best Practice Guidelines on Knowledge Management and Transfer booklet is being produced to promote the insights gained from the implementation of the MarineTT Methodology on knowledge transfer and the outcomes of the MarineTT consultation process (MarineTT stakeholder workshops). It is foreseen that 1,000 printed units will be produced and distributed among coordinators of European research projects (from the listings gathered throughout the MarineTT project). The guidelines will also be distributed to the invitees of the MarineTT stakeholder workshops including stakeholders from across the marine science system, including policy-makers (EC & Member State level) and industry (technology platforms, professional associations, European associations), as well as project coordinators from relevant marine projects dealing with knowledge transfer. It will also be distributed among the invitees to the MarineTT Brussels Showcase including representatives of DG MARE, DG RTD, DG ENV, major European and national marine research institutions, as well as consultancy companies in European marine affairs. Additionally, the guidelines will also be accessible through the MarineTT website, once finalised after completion of the MarineTT project.
- A MarineTT Publication Booklet "Knowledge Transfer: The MarineTT Experience" is being produced with the aim of promoting the MarineTT project and products, and especially the methodology on knowledge transfer, that will include a summary of the conceptual and practical details involved in the development and implementation of the methodology. The experience and insights gained during the project in terms of lessons learned, barriers encountered and recommendations to overcome them will be central to this publication. It will be distributed among representatives of DG RTD, DG ENV and DG MARE as well as from other high level EC institutions that might be interested in the results of the project, such as the participants of the MarineTT Brussels Showcase (e.g. Bureau of European Policy Advisers – BEPA) and of the MarineTT stakeholder workshops. The MarineTT Publication will also be accessible through the MarineTT website, once it is finalised after completion of the MarineTT project.
- Openness and transparency have been central tenets of the MarineTT project. In an effort to reduce duplication of effort and to share insights and learning, MarineTT contacted projects and initiatives funded under the same call as MarineTT as well as related FP7 calls. This collaboration with other initiatives was also a means of promoting the MarineTT project and products.
 - The MarineTT collaboration with the KNOSSOS project was established to assist in the transfer of results from fisheries-related projects to contribute to the reform of the Common Fisheries Policy. Using knowledge gained through the KOTs of the fisheries projects provided by MarineTT, KNOSSOS are currently finalising three policy briefs on: Advancing Ecosystem Based Fisheries Management (main

brief); Stakeholder Participation (supporting brief); and Developing Sustainable Fishing Gears and Practices (supporting brief).

- The Knowledge Capture and Analysis Methodology developed during the lifetime of MarineTT has been adapted and applied to other knowledge management projects including: Marine Genomics for Users (MG4U); Supporting Governance and Multi-Stakeholder Participation in Aquaculture Research and Innovation (AquaInnova); and Aquaculture Infrastructures for Excellence in European Fish Research (AQUAEXCEL). The methodology has proven to be adaptable across disciplines including aquaculture and genomics.
- The process has been successfully used to capture and analyse KOs from research at national level and has been trialled at the NCE Aquaculture, a cluster from the Norwegian Centres for Expertise.
- Throughout the MarineTT knowledge capture and analysis process, projects with similar subjects, objectives or KOs were assigned to Knowledge Output Clusters. These clusters are considered a valuable source of knowledge and could be used to inform end and next users of general developments in a particular area. Clustering of related projects and knowledge outputs provides an overview of the research ongoing in a particular sector and the MarineTT methodology can be used to reduce the overlaps, duplications and fragmentation of research so that the highest return on investment in research can be achieved. A total of 24 Clusters of Knowledge Outputs, including details on the projects combined to form each of the clusters, will be available through the MarineTT website by accessing a specific online tool using visual representation.

Communication with other related Projects

Besides contact with all marine-related FP6 and FP7 projects throughout the process, the MarineTT partnership has been in contact with a number of other projects with whom collaborations were broached, including:

KNOSSOS (Knowledge from Science to Society): MarineTT and KNOSSOS established a working relationship through which a policy brief and two supporting briefs on aspects of fisheries management were developed in response to the knowledge transfer needs identified following due diligence of the knowledge outputs.

CLAMER: is an FP7 coordination and support action project coordinated by the Netherlands Institute for Marine Research. CLAMER have produced a number of factsheets on climate change and marine projects. The MarineTT team and the CLAMER coordinator are investigating the possibility of integrating the information from these factsheets into the MarineTT infobase.

MG4U (Marine Genomics for Users): MG4U is an FP7 coordination action project coordinated by the Centre National de la recherche scientifique, Paris. The MarineTT project coordinator, AquaTT, is a project partner in MG4U. The MarineTT partnership has provided the MG4U coordinator with all marine genomics-related MarineTT surveys for inclusion in their analysis. This will ensure that the knowledge outputs from these projects are analysed by genomics experts and transferred to the most appropriate audience.

AQUAINNOVA (Supporting Governance and Multi-Stakeholder Participation in Research and Innovation): AQUAINNOVA is an FP7 support action coordinated by the European Aquaculture Technology and Innovation Platform (EATiP). The MarineTT coordinator, AquaTT, is a project partner in the AQUAINNOVA project. AQUAINNOVA carried out a knowledge analysis survey of aquaculture projects prior to the MarineTT survey and was able to provide advice on how best to evolve the survey and to optimise the MarineTT online survey.

Sea for Society: The MarineTT partnership has provided the Sea for Society coordinator with KOs relevant for inclusion in their analysis of marine resources, inland activities and sustainable development. This will ensure that the KOs from these projects are analysed and disseminated to the most appropriate audience.

2.3 Project management during the period

In accordance with the MarineTT DoW, AquaTT is responsible for WP1: 'Project Management and Internal Communications'.

The following is a list of the management tasks and achievements during the second reporting period:

- EurOcean organised two Advisory Board meetings during the second reporting period:
 1. The first Advisory Board meeting was held in Dublin on February 2nd 2011
The advisory board were presented with an overview of the project, a status update on each of the work packages, and in particular the knowledge analysis methodology. The board commented on the methodologies and also provided strategic level advice for the project.
 2. A second Advisory Board Meeting was held in Lisbon on June 20th 2011
A review of the status of WP3 (Knowledge Analysis) was the main point of discussion, and plans with respect to the knowledge transfer phase were also discussed.
- EurOcean organised three partnership meetings during the second reporting period:
 3. The 4th partnership meeting was held in Lisbon on March 11th 2011
This partners meeting followed the internal validation meeting. Discussion focused on the composition of the expert groups for validation and review and a decision to hold the Brussels Showcase was taken.
 4. The 5th partnership meeting was held in Lisbon on June 21st and 22nd 2011
Discussion at this partners meeting was shaped by the discussions from the Advisory Board meeting held on the previous day. As a result of the delays in the knowledge analysis phase, which in turn would affect the focus of WP4, it was agreed that a six month extension to the project should be sought. It was also agreed that MarineTT should be promoted more widely.
 5. The 6th partnership meeting was held in Dublin on 30th and a 31st January 2012
A review of the status of WP5 (Knowledge Transfer) specifically Due Diligence and how it affected the development of WP4 (Consultation with RTD Performers and Stakeholders) was the main point of discussion. The change in focus of WP4 was discussed and a new format for the stakeholders' workshops developed. Plans with respect to the knowledge transfer phase were also discussed.
- AquaTT managed all project reporting aspects of the MarineTT project. This involved production of all reports relating to project management, cost statements and financial reports, documentation of management meetings and the interim project report.

During the Knowledge Analysis (WP3) and Knowledge Transfer (WP5) phases of MarineTT, the starting dates of work planned were delayed due to the interdependencies between the work packages. However, this was foreseen by the partners relatively early in the second reporting period and an extension to the project was requested and obtained. This extension was necessary to ensure that all contractual obligations could be met within the final 15 months.

The length of time it took to complete both Work Package 2: 'Information Management' and Work Package 3: 'Knowledge Analysis' was underestimated. Work Package 2 included the design and implementation of the MarineTT online survey, the collection of the survey responses and all associated documentation. The design and build phase of the online survey was completed in month 5 (July 2010). The MarineTT partnership realised that the success of the project was largely dependent on the successful design of the survey. Therefore, additional time was allocated to survey design to ensure that a best in class survey was distributed. The implementation of the survey and collection of the survey responses and additional documentation ran from Month 5 (July 2010) until Month 9 (October 2010). Difficultly establishing the contact details for project coordinators and poor quality survey responses were the main issues encountered by the MarineTT partnership during survey implementation and collection. For many FP6 projects, it proved more difficult to identify contact details for the project coordinators. Many of these projects have been complete for a number of years and the individuals who coordinated the projects have since moved on from the lead institutions. Every effort was made to contact the coordinators via extensive web searches and phone calls.

The MarineTT partnership also encountered the difficulty of poor quality responses. Work Package 3: 'Knowledge Analysis' could not commence until the survey collection process was complete. Additional post-survey knowledge collection was undertaken in Work Package 3. This post-survey collection involved the study of all 148 surveys which qualified for inclusion in the knowledge analysis process and all the additional project documentation such as final reports, project brochures, and the project websites. Such a detailed study was required in order to fill out the knowledge output overview table accurately. This process was very time-consuming, particularly since many project coordinators had not provided detailed information during the initial survey. This work package also involved the development of the matrix template, which evolved over a number of months before it reached the final approved format.

The knowledge that was collected underwent an internal validation by the MarineTT team which was followed by an external validation by expert groups. Work Package 3 was due to be completed in Month 17 of the project but was not completed until month 20. Delays were due to identification of appropriate experts and selection of dates to meet. The final review was held on the 4th August 2011. Following these reviews coordinators were once again provided with the updated Knowledge Output Table for their project and asked to review and accept changes.

Work Package 5 (Knowledge Transfer) began by contacting the coordinators to complete a Due Diligence exercise. Key elements in the Due Diligence phase include:

1. Verify all final **Knowledge Output** details
2. Determine **willingness** of KO owner and other beneficiaries to help in Knowledge Transfer
3. Clarify **Intellectual Property** rights (IP)
4. Confirm **Primary End User(s)** and assess capacity for uptake
5. Identify suitable **Transfer Methodology**: technical level, medium, channel
6. Classify if knowledge can be **clustered** or is stand-alone for transfer

At the end of the Due Diligence phase, the MarineTT team held a meeting where a decision was made on whether the Knowledge Output is ready for transfer and a go/no go decision was taken.

3.3 Deliverables and Milestones Tables

Deliverables

TABLE 1. DELIVERABLES

Del. no.	Deliverable name	Version	WP no.	Lead beneficiary	Nature	Dissemination level ⁴	Delivery date from Annex I (proj month)	Actual / Forecast delivery date Dd/mm/yy	Status No submitted/ Submitted	Contractual Yes/No	Comments
1.1	European Commission Contracts	Final	1	AquaTT	O	CO	1	Month 1 19/02/2010	Submitted	Yes	Completed
1.2	Partner Contracts	Final	1	AquaTT	O	CO	1	Not required	Not Obligatory	No	It was decided at the first partnership meeting in February 2010

⁴

PU = Public

PP = Restricted to other programme participants (including the Commission Services).

RE = Restricted to a group specified by the consortium (including the Commission Services).

CO = Confidential, only for members of the consortium (including the Commission Services).

Make sure that you are using the correct following label when your project has classified deliverables.

EU restricted = Classified with the mention of the classification level restricted "EU Restricted"

EU confidential = Classified with the mention of the classification level confidential " EU Confidential "

EU secret = Classified with the mention of the classification level secret "EU Secret "

											that a partner contract would not be required as there are only two partners in the consortium.
1.3	Board-level meeting	n/a	1	EurOcean	O	RE	3	Month 12 02/02/2011 Month 16 20/06/2011	Submitted	Yes	The first board meeting was postponed until month 12 when advice could be sought on the knowledge analysis methodology.
1.4	Partnership Meetings	Final	1	AquaTT	O	RE	1, 6, 12	Month 13 09/03/2011 Month 16 21/06/2011 Month 23 30/01/2012	Submitted	Yes	Six partnership meetings were held over the 18 month reporting period.
1.7	Intranet	Final	1	AquaTT	O	CO	1	Month 1 February 2010	Submitted	Yes	An intranet system was set up BaseCampHQ in month 1. The

											following is a link to the intranet: https://aquatt.ba.secamphq.com/login
1.8	Risk Management Plan	Final	1	AquaTT	R	CO	2	Month 4 30/05/2010	Submitted	Yes	Completed
1.9	Final plan for use and dissemination of the foreground			AquaTT	R	CO	30	Month 30 31/07/2012	Submitted	Yes	Completed
1.10	Awareness and wider societal implications			AquaTT	R	CO	30	Month 30 31/07/2012	Submitted	Yes	Completed
2.1	Adapted system & search facility	Final	2	EurOcean	O	CO	3	Month 14 31/03/2011	Submitted	Yes	Completed
2.2	Research project profile template	Final	2	EurOcean	O	RE	3	Draft version submitted Month 6-05/07/2010 Final version submitted with Final Report	Submitted	Yes	A draft version was first submitted with first Interim Report. It was agreed by the partners that this could be completed only once the KO fields were clearly defined according to the results of the

											analysis of the survey responses (WP3). The final template was developed together with Deliverable 2.3 'Upgraded infobase'
2.3	Upgraded infobase	Final	2	EurOcean	O	PU	Ongoing	This deliverable is ongoing until the end of the project in July 2012. Final version submitted with Final Report	Submitted	Yes	The development of the MarineTT Infobase was an ongoing process until the end of the project. The majority of the work took place once the knowledge analysis (WP3) and consultation (WP4) phases were completed. The final version of the MarineTT Infobase – Marine Knowledge Gate 1.0 – was launched in March 2012.
2.4	Marine projects gathering methodology and results	Final	2	EurOcean	R	RE	This deliverable was not included in the original	Month 14 30/03/2011	Submitted	No	An extra non-contractual WP2 deliverable describing the methodology and

							DoW.				results of the MarineTT knowledge output collection process has been added. This is a useful reference document for the Commission and for other projects carrying out similar work in the future. It details the approach taken by the MarineTT project, what issues were encountered and lessons learned.
3.1	A Matrix template	Final	3	AquaTT	O	PU	5	Month 12 02/02/2011	Submitted	Yes	
3.2	Project Profile Template	n/a	3	AquaTT	O	RE	10	Postponed until Month 30	Submitted	Yes	The fields of the KOT Table (Deliverable 3.1) will inform Deliverable 3.2.

											However these fields were be finalised until the knowledge analysis process was complete (WP3). The deliverable was delayed due to delay in WP3
3.3	Recommendations for consideration	n/a	3	AquaTT	R	PU	7	Postponed until Month 30 – July 2012	Submitted	Yes	The internal validation and external validation steps of the knowledge analysis was postponed to month 30 due to delays in completing WP3 (Knowledge Analysis), WP 4 (Consultation with RTD performers and Stakeholders) and WP5 (Knowledge Transfer)
4.1	Invitation to participate	Final	4	AquaTT	O	PU	7-15	Postponed until	Submitted	Yes	This deliverable was postponed to

								Month 28 (May 2012)			month 28 when WP3 (Knowledge Analysis) and Due Diligence of WP5 (Knowledge Transfer) were complete
4.2	Agendas	Final	4	AquaTT	O	PU	7-15	Postponed until Month 28 (May 2012)	Submitte d	Yes	This deliverable was postponed to month 28 when WP3 (Knowledge Analysis) and Due Diligence of WP5 (Knowledge Transfer) were complete
4.3	Workshop proceedings	Final	4	EurOcean	O	PU	24-30	Final version submitted with Final Report	Submitted	Yes	Workshop Proceedings were produced for each of the two MarineTT Stakeholder Workshops organised during the consultation phase (WP4).
4.4	Handbooks	Final	4	AquaTT	O	PU	24-30	Final version submitted with Final Report	Submitte d	Yes	Handbooks were produced for each of the two MarineTT Stakeholder

											Workshops organised during the consultation phase (WP4).
4.5	Needs analysis	Final	4	EurOcean	R	PP	24-30	Final version submitted with Final Report	Submitted	Yes	This deliverable provides an analysis of the responses to a MarineTT online survey carried out for stakeholders to put forward what they perceive the most critical barriers to Knowledge Transfer for the Marine Sector to be along the full Science Lifecycle.
4.6	Action items for transfer	Final	4	AquaTT	O	CO	9-15	Postponed until Month 30 (July2012)	Submitted	Yes	This deliverable was postponed until month 30 (July 2012) due to delays in the completion of WP3 (Knowledge Analysis) and WP5 (Knowledge Transfer).
5.1	Sorting Knowledge	Final	5	AquaTT	R	RE	18	Postponed	Submitted	Yes	This deliverable

	Report							until Month 30 (July2012)	d		was postponed until month 30 (July 2012) due to delays in the completion of WP3 (Knowledge Analysis)
5.2	Knowledge Delivery Plan	Final	5	AquaTT	R	CO	18	Postponed until Month 30 (July2012)	Submitted	Yes	This deliverable was postponed until month 30 (July 2012) due to delays in the completion of WP3 (Knowledge Analysis)
5.3	Impact Measurement Assessment	Final	5	AquaTT	O	CO	30	Postponed until Month 30 (July 2012)	Submitted	Yes	
5.4	Qualitative and Quantitative assessment report of Knowledge Transfer	Final	5	AquaTT	O	CO	30	Postponed until Month 30 (July2012)	Submitted	Yes	
5.5	Guidelines on the Sustainable Management of Marine Resources	Final	5	AquaTT	R	PU	30	Postponed until Month 30 (July2012)	Submitted	Yes	
5.6	Prototype online	Final	5	AquaTT Eur	R	PU	30	Final version	Submitted	Yes	The online search

	analytical tool			<u>Ocean</u>				submitted with Final Report			functionality of the Marine Knowledge Gate 1.0 (Deliverable 2.3 'Upgraded infobase') was developed to provide users with analytical potential. As EurOcean was responsible for the infobase, it was agreed by the partners in the 6th Partnership Meeting (30th-31st Jan12) that Deliverable 5.6 was to be developed by EurOcean.
6.1	Project promotion plan	Final	6	EurOcean	R	CO	2	Month 4 14/05/2010	Submitted	Yes	Complete
6.2	Project Brochure	Final	6	AquaTT	R	PU	2, 13	Month 8 30/09/2010 Month 30 31/07/2012	Submitted	Yes	A MarineTT leaflet was developed in the first month and used to promote the project until month 8 when the official project brochure

											was finalised. The 2 nd project brochure has been postponed until Month 30 (July 2012) when the Marine Knowledge Gate 1.0 was finalised.
6.3	Project Website	Ongoing	6	AquaTT	O	PU	3	Month 2 30/03/2010	Live	Yes	The MarineTT project website is live and was launched at the end of June 2010.
6.4	Press releases	Final	6	EurOcean	O	PU	24 & 30	Final version submitted with Final Report	Submitted	Yes	A total of 4 press articles (1 of them non-contractual) were released during the second period of the project. Note that one of them was due the last month of the previous period of the project (Jan 2011, in accordance to the DoW). In addition, a final press article will be released after the

											completion of the project once all the MarineTT products are finalised.
6.5	Annual report	Final	6	EurOcean	R	RE	30	Final version submitted with Final Report	Submitted	Yes	Completed
6.6	Project Poster	Final	6	AquaTT	O	PU	This was added as an extra deliverable and wasn't included in the original DoW.	Month 8 Sept 2010	Submitted	No	A MarineTT poster (extra deliverable) was also developed as part of the project promotion material. These materials were developed by AquaTT with the assistance of EurOcean.

Milestones

TABLE 2. MILESTONES							
Milestone no.	Milestone name	Work package no	Lead beneficiary	Delivery date from Annex I dd/mm/yyyy	Achieved Yes/No	Actual / Forecast achievement date dd/mm/yyyy	Comments
1	Project Administration	1	AQUATT	Ongoing	Yes	Ongoing	European Commission contracts in place, Partner contracts not required. Interim report complete. Financial reporting complete.
2	EurOcean Infobase Updates	2	EUROCEAN	12	Yes	Postponed until Month 26 (March 2012)	Delivery of this milestone was delayed as a result of the delays associated with WP3 (Knowledge Collection). Knowledge Analysis (WP3) was completed in October 2011 (Month 21) and completed matrix templates were required for each project before the Infobase could be updated.

3	Knowledge Appraisals	3	AQUATT	9	Yes	Postponed until Month 21 (October 2011)	Time taken to complete Knowledge Analysis was significantly underestimated. The knowledge analysis was due to be completed and internally validated by the end of March 2011 (actual completion date May 2012) and external validation by expert was to be completed by the end of April 2011 (actually completed August 2011). Coordinator review of the internal and expert validation was completed in October 2011.
4	Thematic Workshops	4	AQUATT	15	Yes	Postponed until Month 28 (May 2012)	Time taken to complete WP3 (Knowledge Analysis) was significantly underestimated. Elements of WP 5 (Knowledge Transfer) also affected this milestone. The Stakeholder workshops were held in May 2012 (Month 28) and July 2012 (Month 30).

5	Knowledge Transfer Brokerage event	5	AQUATT	22	Yes	Postponed until Month 28 (May 2012)	Time taken to complete WP3 (Knowledge Analysis) was significantly underestimated. Elements of WP 5 (Knowledge Transfer) also affected this milestone. A change in the direction of the project meant that the event was a not a brokerage event but a review of current Knowledge Transfer mechanisms an barriers associated with uptake of research.
6	Project Promotion	6	EUROCEAN	Ongoing	Yes	Ongoing	Many project promotion activities have been undertaken in the second reporting period of the project; Several press Releases have been submitted, the MarineTT website is live and a second brochure has been produced. An annual promotion report has been submitted with the Final Report.

7	Internal Communication	1	AQUATT	Ongoing	Yes	Ongoing	Internal communication is carried out via the Intranet portal (Basecamp), via regular Skype calls and by email. Three partnership meetings were held during the second reporting period.
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3.4 Explanation of the use of the resources

TABLE 3. PERSONNEL, SUBCONTRACTING AND OTHER MAJOR COST ITEMS FOR BENEFICIARY 1 FOR THE PERIOD			
Work Package	Item description	Amount in € with 2 decimals	Explanations
1,3,4,5	Personnel direct costs	€131,382.00	2 x Senior Management, 1 x Programme Officer, 2 x Project Officer
5	Subcontracting	€10,475.00	Provide Expert Assistance in Knowledge Transfer Case Studies
	Major cost item 'equipment'	NIL	
1,4,5,6	Major cost item 'travel & subsistence'	€35,887.27	Travel and subsistence for MarineTT team to attend partnership meetings, advisory board meetings, knowledge workshops, dissemination events and other events relevant to MarineTT.
3,4,5,6	Remaining direct costs	€88,943.09	Other Direct Costs incurred for Expert Thematic Meetings, Knowledge Workshops, Knowledge Transfer Case Studies and Dissemination Events & Materials.
1-6	Indirect costs	€51,242.47	Transitional Flat Rate 20%(7% EC contribution)
TOTAL COSTS		€317,929.83	

Table 3.2 Personnel, subcontracting and other major cost items for Beneficiary 2 for the period

Work Package	Item description	Amount in € with 2 decimals	Explanations
1, 2, 3, 4, 5, 6	Personnel direct costs	124.050,28	Salaries of senior officer for 18 months, 1 junior officer for 18 months, 1 junior officer for 18 months and 1 engineer for 11 months
1, 2	Subcontracting	7.579,34	3 Accounting exercises (July 2011, January 2012 and July 2012), graphic design & printing, and IT programming
2, 6	Major cost item 'equipment'	816,84	apple computer, laptop, computer & screen, server 1, server 2& services, printer
1, 3, 4, 6	Major cost item 'travels'	11.916,52	Flight tickets to 1 partnership meeting, 1 Advisory Board meeting, 1 workshop with experts, 3 consultation workshops with stakeholders, and 3 dissemination events (2011 ICES Conference, Innovation Conference, RAC Meeting)
1, 3, 4, 6	Major cost item 'subsistence'	2.293,37	Expenses from 3 partnership meetings, 2 Advisory Board meetings, 3 consultation workshops with stakeholders, and 3 dissemination events (2011 ICES Conference, Innovation Conference, RAC Meeting)
1, 6	Major cost item 'others'	405,69	Including 'Room hire' for 1 Advisory Board meeting and 'Others' (Copies & bookbinding for 1 Advisory Board meeting and 1 consultation workshop)
1, 2, 3, 4, 5, 6	Remaining direct costs	17.098,87	Considering total expenses for period 1 (108.039,09 Euros) including Subcontracting and the Total Cost of the MarineTT project for EurOcean (272.200,00 Euros) AND total expenses for period 2 (147.062,04 Euros) including Subcontracting
1, 2, 3, 4, 5, 6	Indirect costs	27.896,54	20% of Personnel direct costs and Major cost items or 'other direct costs' (equipment, travels and subsistence)
TOTAL COSTS		174.958,58	Including Personnel direct costs, Subcontracting, Major cost items and Indirect costs

