

**Financial/Administrative co-ordinator**

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**Executive Summary**

**Main Achievements**

- Project Meeting in Gdansk, Poland
- 3<sup>rd</sup> User Workshop in Gdansk, Poland
- Poster Presentation at the WMO Conference in Zurich, Switzerland
- Completion of Deliverables for WP3 and WP5

**Progress in implementation of the 'Description of Work'**

- Attendance at the Metadata Workshop in Brussels.
- Completion of Metadata Structure Design
- Completion of Supported Data Structures
- Completion of research into SOAP, and agreement of it's inclusion
- Completion of DAE Design
- Completion of Products Catalogue Design
- Completion of Data Warehouse Design
- Completion of E-Commerce Engine Design

**Problems encountered**

- Late Delivery of WP3 and WP5 Deliverables
- Late Delivery of 6<sup>th</sup> Quarterly Report
- Late Delivery of 2<sup>nd</sup> Period Cost Statement

**Highlights for next reporting period**

- Presentation of Mermaid at Conference in Quito, Ecuador
- Completion of first phase of DAE (WP6)
- Completion of WP 4 Deliverables (D5 and D6)
- Continuation of applications development (WP7)

**Anticipated problems for next reporting period**

- Slight delay in Commencement of initial testing phase.
- Another change in Project Team Management of Partner No.4 (MO)

**1 – Overview**

**1.1 Objectives**

<i>Objectives</i>	<i>Progress towards achieving objectives</i>
<p><b>Workpackage 1:</b></p> <ul style="list-style-type: none"> <li>❑ Ensure the smooth running of the project</li> <li>❑ Maximise exchange of data and information between project participants</li> <li>❑ Ensure the optimal focusing of effort towards meeting the project objectives</li> <li>❑ Ensure the timely delivery of high quality deliverables to the EU</li> </ul> <p><b>Workpackage 3:</b></p> <ul style="list-style-type: none"> <li>❑ Design and implementation of data broker central data warehouse and buffer dataset formats, based on data structures specification database</li> <li>❑ Design and development of suitable high speed search utilities to search and retrieve data subsets based on spatial, temporal, data type and other search criteria</li> <li>❑ Specification and establishment of metadata database to support all identified data types</li> <li>❑ Design and implementation of data packaging suitable for compression and parameterisation of supported data types for fast transmission</li> </ul>	<p>Regular correspondence by e-mail to assess the status of each partner.</p> <p>Project Meeting in May in Gdansk. (all partners except NC).</p> <p>Attendance at the multi-project Metadata Workshop in Brussels.</p> <p>Final Evaluation of Metadata structure with regard to those standard suggested at the review.</p> <p>Completion and consortium acceptance of Metadata structure Specification.</p> <p>Completion and consortium acceptance of design of Products Catalogue database.</p> <p>Completion and consortium acceptance of design of Data Management Warehouse database.</p> <p>Completion and consortium acceptance of design of data compression specification.</p> <p>Completion and delivery of all WP3 deliverables.</p>

**1 – Overview (cont)**

**1.1 Objectives**

<i>Objectives</i>	<i>Progress towards achieving objectives</i>
<p><b>Workpackage 5:</b></p> <ul style="list-style-type: none"> <li>❑ Site creation, customisation and maintenance, with the adoption of conceptual presentation language to permit designers to describe site presentation at a high level of abstraction.</li> <li>❑ Dynamic merchandising for capturing and publishing information changing with time and continuously refreshed by sources.</li> <li>❑ Order Purchasing Interface, to handle targeted functions – such as service billing, product tax, shipping and handling charges, payment authorisations, inventory checks and interface to invoicing programs – according to specific business rules.</li> <li>❑ Industry-standard security to create a secure environment for customers, partners and site/application administrators with strong, integrated HTTP Authentication and Windows Challenge Response.</li> <li>❑ Business analysis, to let users create custom reports for in-depths analysis of site usage data.</li> </ul>	<p>Final Evaluation of E-commerce documentation by all partners.</p> <p>Completion and consortium acceptance of E-commerce Engine Design Specification.</p> <p>Completion and Delivery of all WP5 deliverables.</p>

1.1 Objectives

<i>Objectives</i>	<i>Progress towards achieving objectives</i>
<p><b>Workpackage 4:</b></p> <ul style="list-style-type: none"> <li>❑ design and development of the communications protocols between the Data Broker to external data provider and user systems</li> <li>❑ Establishment of data and messaging communications protocols between the Data Broker and the Broker Interface Applet</li> <li>❑ Design and development of Broker Interface Applet to be hosted by user systems and service communications protocols with the data broker</li> <li>❑ Implementation and testing of data despatch systems using realistic datasets</li> </ul> <p><b>Workpackage 6:</b></p> <ul style="list-style-type: none"> <li>❑ Integration of the software modules developed in WP3, WP4 and WP5 into the Data Broker prototype.</li> <li>❑ Detailed design and specification of the Data Broker based on the enabling technologies developed in WP3, WP4, and WP6.</li> <li>❑ Development of the Data Broker GUI with the Broker Interface Component and Broker Manager integration.</li> <li>❑ Development of the Broker Manager and linking to the E-commerce Manager</li> <li>❑ Configuration of the host web-site and establishment of the Data Broker</li> <li>❑ Development of test plan and testing of Data Broker with sample datasets.</li> </ul>	<p>Agreement of use of SOAP for communications protocols by all partners.</p> <p>Development and design of all broker interfaces, specifically by TXT and BMT.</p> <p>Continued design of Broker Interface Component</p> <p>Frequent and informal correspondence between design teams from TXT and BMT.</p> <p>Commencement of detailed development of DAE and RDAE</p> <p>Commencement of detailed development of E-commerce engine.</p> <p>Continued development of Data Warehouse, and Products Catalogue databases, including communication between these.</p> <p>Development of Search and Retrieval algorithms.</p> <p>Research into optimum arrangement for hosting the test and final service.</p> <p>Design of integration of all modules.</p> <p>Compilation of test datasets.</p>

1.1 Objectives

<i>Objectives</i>	<i>Progress towards achieving objectives</i>
<p><b>Workpackage 7:</b></p> <ul style="list-style-type: none"> <li>□ Integration of the Data Broker Applet within an existing marine emergency response simulator to create an example of links between a sophisticated end user application and the Data Broker</li> <li>□ Development of a simple data retrieval application to demonstrate the type of web-based application that a data provider or user could construct to utilise the Data Broker service.</li> <li>□ Linking the 3 project participant data providers to the Data Broker.</li> </ul>	<p>Discussion of requirements of WP7 at project meeting, and agreement of scope and schedule of work. Initial concepts for IMGW-OM's application discussed. Agreement that this application should be more sophisticated than was originally detailed in the contract, in order to make it potentially more useful.</p> <p>Development of initial concept ideas.</p> <p>Research of potential requirements for such an application.</p> <p>Development of data structures for this application.</p>

**1.2 Milestones- Foreseen**

<i>Milestone</i>	<i>Planned date</i>	<i>Actual date</i>	<i>Comments</i>
<b>No milestones were planned for this reporting quarter.</b>			
<b>Milestones foreseen for the forthcoming quarter:</b>			
M05.1 Completion of designs for interfacing and communications	End of Sept. 2001	-	This document is almost complete, but may be slightly late in completion.
M06.1 Completion and Testing of code and Documentation	End of Sept. 2001	-	This milestone is likely to be delayed by up to 3 months. This is due to a slight delay in the completion of the core components required for integration. Testing cannot begin until these have been integrated. The date for this milestone as set in the contract was unrealistic, as the deadline for completion of the interfacing coincides with the deadline for completion of testing. This is impossible, since a period after the completion of the interfacing is required to perform the testing. This is scheduled to be 6 -8 weeks from the time of interface completion,.

**1.3 Deliverables - Foreseen**

<i>Deliverable Code &amp; Name</i>	<i>Planned delivery date</i>	<i>Actual delivery date</i>	<i>Comments</i>
D2 Data Warehouse and Supported Data Structures design /documentation	<b>Feb 2001</b>	<b>June 2001</b>	This deliverable was late, as was anticipated in Quarterly Report nos. 4 and 5, due mainly to poor scheduling initially. However, the deliverable has now been issued.
D3 Metadata Structure and Products Catalogue Design /Documentation	<b>Feb 2001</b>	<b>June 2001</b>	This deliverable was late, as was anticipated in Quarterly Report nos. 4 and 5, due mainly to poor scheduling initially. However, the deliverable has now been issued.
D4 Compression and Packaging Routines, Design /Documentation	<b>Feb 2001</b>	<b>June 2001</b>	This deliverable was late, as was anticipated in Quarterly Report nos. 4 and 5, due mainly to poor scheduling initially. However, the deliverable has now been issued.
D7 E-Commerce engine design/documentation	<b>March 2001</b>	<b>June 2001</b>	This deliverable was late, as was anticipated in Quarterly Report no. 4 nos. 4 and 5, due mainly to poor scheduling initially. However, the deliverable has now been issued.
<b>Deliverables scheduled for the forthcoming quarter:</b>			
D5 Broker Interface Component Design /Documentation	<b>End Sept 2001</b>	-	This deliverable is almost finished, and should be completed on schedule
D6 Communications Protocols and Despatch Systems Design /Documentation	<b>End Sept 2001</b>	-	This deliverable is almost finished, and should be completed on schedule

**1.4 Deviations from Plan**

<i>Causes and Description</i>	<i>Corrective actions</i>
<p><b>Workpackage 4</b> The deliverables within workpackage 4 are significantly dependent on work that is scheduled to be carried out in Workpackage 6:- at a later date. Some re-scheduling of work was therefore required, which may well mean a slightly late delivery of some workpackage 4 deliverables. However, this should be compensated by the fact that work scheduled for later in the project has already been addressed, at least in principal. The Deliverables D5 and D6 should be completed on schedule.</p>	<p>It was not possible to design the interfaces and communication protocols (WP4 deliverables), before at least the draft design of the Broker components had been completed. This work was scheduled for WP6 (after WP4). The original schedule was therefore not logical in its sequence, and has had to be re-organised. However, the main WP4 deliverables should still be completed on time.</p>

**2 – Contractual Arrangements**

None

**3 - Project Meetings (held and foreseen)**

<i>Title</i>	<i>Data and Place</i>	<i>Main conclusions</i>
Project Meeting: Kick-off meeting of WP 7 and WP 4 status meeting	9 <sup>th</sup> May 2001, Gdansk	All partners (except NC) present. Agreement on technology for WP 4. Discussion of requirements of WP7, and work schedule. Agreement on work required in both workpackages. Detailed discussion on requirements of these workpackages. Design of the decisions to be made. Revision of schedule for WP6.
<b>Meetings Planned:</b>		
Technical Meeting	13 September - Bracknell, UK	MO and BMT to be present. To discuss and implement the 2 <sup>nd</sup> phase of the RDAE development.
Technical Meeting	16 <sup>th</sup> October -Southampton, UK	Planned for integration of key components currently being development in parallel by BMT and TXT.
Project Meeting	End October - TBA	To discuss status of project, and implement the testing phase in detail.

**4 - Dissemination / Promotional Information****4.1 Conferences and/or Workshops attended/organised/foreseen by the project**

<i>Date</i>	<i>Title</i>	<i>Number of persons attended + other information</i>
10 <sup>th</sup> May, 2001	Marine Data Access System 3 <sup>rd</sup> User Workshop Gdansk, Poland	34 attendees from a variety of Polish organisations, in addition to the Project partners (except NC). Project Flyers were distributed, and the attendees took the opportunity to discuss the project with a variety of representatives of the marine environment users domain.
17 <sup>th</sup> May 2001	Metadata Workshop, Brussels, Belgium	Workshop hosted by the EU and attended by representatives of approximately 20 EU projects, including MERMAID, to discuss international metadata standards and structures.

**4.2 Articles Published , Press coverage, development web sites, etc.**

<i>Date and Type</i>	<i>Details</i>

**5 – Main results**

<i>Description</i>	<i>Details</i>
WP3 Deliverables (D2, D3, D4)	Agreed, Completed and Issued to the EU Project Officer
WP5 Deliverables (D7)	Agreed, Completed and Issued to the EU Project Officer

**6 - Reporting per partner and per workpackage**

**Partner name: BMT (CO 1)**

**WP 1: Project Management**

Activities:

- Preparation for and participation in Project Meeting in Gdansk (9<sup>th</sup> May)
- Management of partners effort and cooperation in the delivery of required documents, especially the Metadata Specification.
- Preparation and delivery of project reports and deliverables
- Preparation and delivery of Consortium Amendment documentation
- General Administration

**WP 3: Data Management**

Activities:

- Completion of Metadata Specification
- Completion of DataWarehouse database Specification
- Completion of Product Catalogue Database Specification
- Completion of Supported Data Structures Specification

**WP 5: E-commerce Integration**

Activities:

- Review and modification of e-commerce specification

**WP 4: Data Broker Interfacing and Communications**

Activities:

- Discussion of SOPA and other issues at meeting in Gdansk
- Development of communication technologies

**WP 6: Data Broker Prototyping**

Activities:

- Discussion of WP6 deliverables and action plan at the meeting in Gdansk
- Development of DAE and RDAE
- Development of Search and Extraction Routines

**Partner name: TXT (CR 2)**

**WP 1: Project Management**

Activities:

- In the reporting period, TXT attended a project meeting + users workshop in Gdansk – Poland (May) Preparation of this meeting from a Management point of view is the main activity performed in this task

**WP 3: Data Management**

Activities:

- Investigation and development of SOAP technology to be integrated in the DAE
- search applet specifications
- Data Access Engine functional specifications
- components integration

**WP4: Data Broker Interfacing and Communications**

Activities:

- Testing and implementation of the SOAP technology
- Interface Component development started

**WP 5: E-Commerce Integration**

## Activities:

- E-commerce engine development
- E-commerce GUI development
- E-commerce gateway definition and development
- E-commerce integration issues and development plan (to be continued in WP6)
- On-line transaction web services integration
- WP5 closure

**WP6: Data Broker Prototyping**

## Activities:

- Start of integration of e-Commerce engine in the DataBroker
- Interface Component integration with the eCommerce Gateway

**WP7: Data Broker Application Prototyping**

## Activities:

- IMGW Application scope was discussed
- BMT and IMGW application integration issues (technology, functionalities) were analysed

**Partner name: CEDRE (CR 3)****WP1 – project management**

## Activities :

- Participation to Project management decisions and progress reporting

**WP3 – Data management**

## Activities

- Contribution to work on metadata format and metadata database design

**WP 4 – Data Broker Interfacing and Communications**

## Activities

- Follow-up of actions undertaken by Project partners in charge

**WP5 – E commerce integration**

## Activities

- Participation in partners discussion and decision making on e-commerce issues related to suppliers interests (suppliers offering free of charge of paid information) and to end user requirements

**WP 6 - Data broker prototyping**

## Activities

- Preparation to and participation in WP6 kick-off meeting in Poland. Work on data extracted from the marine pollution Plan for the French “departement” of “La Manche”, to produce prototype datasets from typical data that could be operationally provided to Mermaid by Cedre as a supplier offering free of charge environmental information. Data formats prepared are scanned maps, databases, photos and text.

**WP 9 – Dissemination and use**

## Activities

- Support to future Mermaid presentations in Quito and Zurich

**Partner name: MO (CR 4)****WP1: Project management**

## Activities:

- Various follow-up actions from Project Review and Concertation meetings.

**WP3: Data management**

## Activities:

- Data format options: further discussions on formats to be implemented
- Further work on GRIB2 development and implementation.
- Metadata: further consideration of available existing standards, and completion of deliverable document on procedures and standards to be followed in MERMAID.
- Attended meeting in Brussels: Metadata Concertation meeting for EU marine/coastal projects involving parties engaged in coastal management issues. Notable that there seems little progress being made towards uniform metadata standards across disciplines. No reasons evident to change the approach currently being used in MERMAID.

**WP5: E-commerce integration**

## Activities:

- Further examination of developing technologies

**WP4: Data broker interfacing and Communications**

## Activities:

- Further examination of developing technologies

**Partner name: IMGW-OM (CR 5)****WP1: Project management**

## Activities:

- Preparation for and chairing of the kick-off meeting of WP 7,
- Preparation for and chairing of the of Marine Data Access System User Workshop in Gdansk
- Reporting

**WP4: Data broker interfacing and Communications**

## Activities:

- Participation in the conceptual development of the concept of the interfacing between Data Broker and external user application
- Working on data files to be used as testing files. Evaluation of the data organization and structure of the database suitable for MERMAID.
- Working with subcontractor on the communication issues related to the application.

**WP 6: Data Broker Prototyping**

## Activities:

- Participation in the discussion and evaluation of the WP6 concept
- Continued evaluation of the Data Broker Components related to the application to be developed in frame of WP 7

**WP7: Data Broker Applications**

## Activities:

- Participation in the kick-off meeting of WP7. Preparation of the presentations as a basis for further discussion on the stand-alone application issue during the meeting.
- Evaluation of the different concepts of application as the result of kick-off meeting. Analysis of existing commercially available tools suitable for development of the application.

- Hosting 3<sup>rd</sup> Marine Data Access System User Workshop. Preparation of presentations both by IMWM-OM and the subcontractor. Evaluation of results of the workshop in relation to overall goals of the MERMAID.
- Working with subcontractor on the concept of the application to be developed.
- Preparation of example data sets to be used for the development of the application.
- Evaluation of necessary development of IMWM-OM database to be most suitable for the application

**Partner name: NC (CR 7)**

No activities were scheduled for this reporting period

**6 – Project Effort**

<b>Effort for the reporting period (person-hours)</b> (preferably presented as an Excel sheet either per partner or per person)											
<b>Contractor designation</b>	<b>Acronym</b>	<b>WP 01</b>	<b>WP 02</b>	<b>WP 03</b>	<b>WP 04</b>	<b>WP 05</b>	<b>WP 06</b>	<b>WP 07</b>	<b>WP 08</b>	<b>WP 09</b>	<b>Total</b>
CO1	BMT	70.25	-	187	176	66	316	158.5	-	39	<b>1012.75</b>
CR2	TXT	29	-	308	378	140	476	84	-	-	<b>1415</b>
CR3	CEDRE	4	-	12	50	66	47	-	-	6	<b>185</b>
CR4	MO	25	-	210	10	10	-	-	-	-	<b>255</b>
CR5	IMGW	30	-	-	99	-	72	248*	-	-	<b>449</b>
CR7	NC	-	-	-	-	-	-	-	-	-	<b>-</b>
<b>Total</b>		<b>158.25</b>	<b>-</b>	<b>717</b>	<b>713</b>	<b>282</b>	<b>911</b>	<b>490.5</b>	<b>-</b>	<b>45</b>	<b>3316.75</b>

*\* In addition this effort performed by the IMGW-OM, a further 140 person-hours effort was performed by their subcontractor (BMT-MC) on this workpackage.*

**Cumulative Effort to-date (person-hours)**

(preferably presented as an Excel sheet either per partner or per person)

Contractor designation	Acronym	WP 01		WP 02		WP 03		WP 04		WP 05		WP 06		WP 07		WP 08		WP 09		Total	
		P	A	P	A	P	A	P	A	P	A	P	A	P	A	P	A	P	A	P	A
CO1	BMT	504	683.25	1120	1813	2009	2143	450	451	280	303	377	421	280	158.5	-	0	140	363	5160	6335.5
CR2	TXT	168	160	1120	1232	1540	1540	300	462	1820	2086	754	616	93	84	-	0	140	140	5935	6320
CR3	CEDRE	84	100	280	128	0	32	120	70	280	114	108	77	47	-	-	0	0	47	918	568
CR4	MO	84	223	1260	223	560	395	180	55	560	75	229	0	0	-	-	0	70	17	2943	987
CR5	IMGW	84	120	420	284	280	294	120	204	140	105	175	142	467	248	-	0	0	152	1686	1549
CR7	NC	84	29	280	76	0	0	0	0	0	0	0	0	47	-	-	0	0	5	411	110
<b>Total</b>		<b>1008</b>	<b>1315</b>	<b>4480</b>	<b>3756</b>	<b>4389</b>	<b>4404</b>	<b>1170</b>	<b>1242</b>	<b>3080</b>	<b>2683</b>	<b>1642</b>	<b>1256</b>	<b>933</b>	<b>491</b>	<b>-</b>	<b>0</b>	<b>350</b>	<b>724</b>	<b>17053</b>	<b>15869.5</b>

P: planned A: actual

NB. The unit of person-hours has been used, with 1 month = 140 hours. The number of productive hours per month in fact varies between partners from 132 to 140 hours.

Estimates for effort planned have been calculated as a linear average per month over the entire workpackage duration. Please note that there were some errors in the figures in previous reports, which have been amended in this report.