





WP3.1 Deployment and implementation of E-MARE

This section reports on procurement of equipment, description of the equipment and list of the prepared online resources.

I) Procurement of equipment

- 1. The procurement of equipment was initiated once approval was received from the project coordinator (University of Bremen) and endorsed in March 2020.
- 2. In May 2020, after receiving quotations from the suppliers, MARE technical team reviewed the equipment quotations and decided on which quotation to select for purchasing.
- 3. Final equipment purchase recommendation was attached in the fund transfer request to MARE project coordinators in September 2020.
- 4. A purchase orders were issued to the shortlisted vendors in October 2020.
- 5. Arrangement for delivery and installation were conducted in October and November 2020.
- 6. The installation of all equipment was completed between October and November 2020.
- 7. Once installation was completed, the equipment was inspected, tested and all details were recorded in inventory records.
- 8. Equipment use started in November 2020.
- 9. In October 2020, our team proposed new additional equipment to fully utilize the allocated money. On 1st December 2020 we proposed procurement of new additional equipment listed below for the approval from the EU;
 - I. Ultra-Premium Fixed Workstation
 - II. DJI Mavic Mini Drone Aircraft X 1 and all necessary parts.
 - III. Samsung 65" 4K UHD Smart TV, Wall partition size 10 x 8FT with custom Wall Mount /Rack TV Installation

These equipment are now under the process of procurement and will be reported in the third financial report.

Teaching and learning activities are supposed to be conducted via actual meeting. However, due to current Covid19 situation, all teaching and learning for the fall semester (Sept – Feb 2020) were conducted through online platforms (Webex meeting). The equipment installed are intended to be used for interactive teaching, seminar and meetings with UTM, UTP, and UniKL, as well as presentation sessions by students and staffs.



All relevant documents are available in the folder named: Evidence Equipment.

- 1. Three quotations from suppliers
- 2. Purchase Orders
- 3. Invoices
- 4. Delivery Orders
- 5. Inventory of the equipment

Description of the equipment

Equipment	Installation location	Quantity	Asset Number	Function/program installed	Studies activities (students and researchers)
Dell Inspiron 14 5000 (5490) 14.0- In. Display, Intel Core i7 Processor M.2 256 GBB 3Y Premium support	Institute of Oceanography and Environment A85-Bangunan Kompleks Penyelidikan INOS and Akuatrop 01-Aras Satu 001-Bilik Pegawai Bilik Pengarah INOS	2	UMT53357H202000709 UMT53357H202000710	This will be the main equipment use for the entire program especially during the development and the implementation of eLearning modules (WP3.1, 3.2, 3.3, 2.2 and 6.5).	Use for LCD display during discussion and meeting among researchers User: 2 Researcher/Science officer 2 PhD students Maximising the usage for all online meeting and e-science data access and analysis
FDR-AX700 4K HDR Camcorder with tripod and external microphone	Institute of Oceanography and Environment A85-Bangunan Kompleks Penyelidikan INOS and Akuatrop	1	UMT53357H202000711	This will be part of the development of eLearning modules (WP3.2).	Use to produce teaching videos. So far we are building a collection of video shots for various environment especially coastal, beach and ocean. This collection will be the main source of video editing that will produce teaching video in near future.









	01-Aras Satu 010-Makmal M.OSEA SATELIT AND INFORMATIK MARIN				User: 2 Researcher/Science officer Maximising the usage by increasing video content for teaching
Smart Projector (BenQ) with Audio system & HDMI fiber optic	Institute of Oceanography and Environment A85-Bangunan Kompleks Penyelidikan INOS and Akuatrop 00-Aras Bawah Bilik Pangkalan Data Institute of Oceanography and Environment A85-Bangunan Kompleks Penyelidikan INOS and Akuatrop 02-Aras Dua Bilik Bacaan INOS	2	UMT53357H202000707 UMT53357H202000708	This will be the main equipment use for the entire program especially during the development and the implementation of eLearning modules (WP3.1, 3.2, 3.3, 2.2 and 6.5).	Use for LCD display during discussion and meeting among researchers User/year: 3 Researchers 90 Bachelor Students 15 PhD/MSc Students This facility will be fully utilize if students present in campus during semester
Huawei Matepad: 4GB: 10.4 Inchies	Institute of Oceanography and Environment A85-Bangunan Kompleks Penyelidikan INOS and Akuatrop	12	UMT53357I202002344 UMT53357I202002345 UMT53357I202002346 UMT53357I202002347 UMT53357I202002348 UMT53357I202002349 UMT53357I202002350	The equipment will be one of the most important components for the implementation of MARE curricula and research training (WP6.5). It will enhance the learning	So far we have not use it since student do not yet come into campus . Researchers has already use it to learn the toolbox to use it for teaching.









	Aras Satu Bilik Pengarah INOS		UMT53357I202002351 UMT53357I202002352 UMT53357I202002353 UMT53357I202002354 UMT53357I202002355	experience by engaging more hands-on equipment and increase the involvement of the students in the classroom	User/year: 3 Researchers 90 Bachelor Students 15 PhD/MSc Students Maximizing the use by adding content
2 x LCD TV 60' with screen capacity + wireless presenter, Interactive video conferencing camera, mic and speaker	Institute of Oceanography and Environment A85-Bangunan Kompleks Penyelidikan INOS and Akuatrop 02-Aras Dua 002- Bilik Mesyuarat	1	UMT53357H202000712	The equipment will improve our capability in communicating with other institutions and expert and it will also support the running of collaborative sectoral platform (WP6.5).	that easily accessible using tablet for group discussion. Use for discussion with partner university. Student viva presentation Online Seminar User/year: 3 Researchers 15 PhD/MSc Students
DJI Mavic Mini Drone Aircraft X 1 and all necessary parts.	INOS	1	UMT533571202100062	This will be part of the development of eLearning modules (WP3.2).	Use to produce teaching videos. So far we are building a collection of video shots for various environment especially coastal, beach and ocean. This collection will be the main source of video editing that will produce teaching video in near future. User 2 Researcher/Science officer









				Maximising the usage by increasing video content for teaching
Ultra-Premium Fixed Workstation	1	UMT53357H20210027	This is important for the development of eLearning modules for doctoral students. (WP3.3). Part of the modules require heavy computational numerical modelling works such as coastal processes and dynamics. Thus, a high capacity PC is needed. (WP6.4)	Use to run software and ocean dataset for postgraduate student. User/year: 2 Researcher 2 PhD Students Fully utilize throughout the year for numerical modelling training and modelling run for the PhD projects
Samsung 65" 4K UHD Smart TV, Wall partition size 10 x 8FT with custom Wall Mount / Rack TV Installation	2	UMT53357H202100209 UMT53357H202100210	our capability in the postgraduate room. We plan to provide the postgraduate with enough capacity to improve communication especially with other institutions and expert as part of our collaborative sectoral platform (W.P6.4 and 6.5).	Just being installed, so far no student has been using it. In future it will be used Teaching Delft3D software in the software laboratory with partner university User/year: 3 Researchers 15 PhD/MSc Students 40 Bachelor Students

III) List of facilities provided in the digital classroom (Via eLearning platform):









- 1. Course Syllabus
- 2. Lecture Modules
- 3. Online lecture/discussion
- 4. Assignment
- 5. Course Assessments (test/Final exam)
- 6. Live Chat: Instant messaging