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Dissemination level		
PU	Public	x
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)	

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1 INTRODUCTION

Building on the professional and regulatory input by DAN Europe, the Advisory Board started to chart a regulatory and professional acceptance road-map document. This road-map will provide a clear, well-intentioned, intermeshed set of sequential measures to be taken in order to facilitate the penetration of the CADDY concept of robot-assisted human diver operations into the scientific, technical, and leisure- and sports-oriented diver community.

For the follow up of this task it is necessary for the Advisory Board will organize bilateral, multilateral, in-person or e-facilitated discussions with targeted professional divers, regulators, representatives of diver education, training and administration bodies (associations, schools etc.), and possibly round tables or discussion panels.

2 SEGMENTATION of DIVER COMMUNITIES

The first step in the regulatory and professional acceptance is to reach a consensus on segmentation according to different diver categories through emails and Skype meetings with DAN and the advisory committee members:

1. Offshore Diving
2. Inshore Diving
3. Inland Diving
4. Fish Farms
5. Fishing and collecting activities (abalony, sea cucumber, etc.)
6. Scientific Diving
7. Media Diving
8. Recreational Diving
9. Public safety (police, fire brigade etc)
10. Armed forces

On the other side, each type of diving activities has its own particular needs, rules, standards and regulations. Segment number 10 is beyond the scope of CADDY project. Within these different segments it is possible to identify two major groups according to the regulations and standards:

Occupational Diving and Recreational Diving.

The gray area will include recreational diving instructors, guides and dive leaders. In fact, this gray segment includes both individuals who are carrying out these tasks for a living as well as for leisure. On the other side, there is a third party who is taking a major role in diving: This is the medical Community. Both recreational and occupational diving regulations have a medical component because diving is an activity performed in extreme environment and impose constraints related to the health status of the divers. In summary, three different type of road map is drafted for three different communities. Each sector roadmap is divided into three steps: Induction, dissemination and consensus. In the induction phase, the CADDY project will be presented to the target community: this will cover the first half of the project life time (1-18 M). In the dissemination part, concrete results will be shared; this phase can start after the first sea trials with AUVs. The last step is the consensus on the use of the AUVs as a buddy, this can start right after the validation trials.

3 REGULATORY AND PROFESSIONAL ACCEPTANCE ROAD-MAP FOR OCCUPATIONAL DIVING

3.1 Induction

Each country has its own occupational diving standards. Even in Europe, despite the efforts of the EDTC (European Diving Technology Committee) there is a lack of consensus standards for the working diver among EU members. Three organizations are active in setting the industry standards in occupational diving:

- Association of Diving Contractors (ADC) dominating the continental America.
- International Marine Contractors Association (IMCA) dominating the off shore oil and gas industry worldwide and positions himself away from all the remaining occupational activities.
- EDTC who is involved in harmonization of all occupational diving activities in Europe. In fact, IMCA, IDFR (International Diving Regulators Forum) are members of EDTC as well.

In addition to these, there is an emerging association in China as well. DAN Europe presented the CADDY project in the EDTC meeting, International Meeting of Chinese Diving and Salvage Association during the first 12 months. IMCA was also present at these meetings, so there was no need to repeat the induction in a IMCA meeting. The CADDY project will be also presented during the ADC meeting in New Orleans on the 11th of February 2015.

3.2 Dissemination

The results of the CADDY initial experiments will be shared in IMCA annual meeting. Most of the EDTC, ADC and Chinese Salvage and Diving Association members will be present during the IMCA meeting. The dissemination phase might start right after the first sea trials.

3.3 Consensus

The target is to draft a consensus standard on the use of AUV as diver buddy at the EDTC. This can be followed by the adoption of the standards by member countries. In order to be able to take place in the IMCA code of practice documents or ADC guidelines, there is a need for CADDY type of AUV's to take place in the commercial diving market.

4 REGULATORY AND PROFESSIONAL ACCEPTANCE ROAD-MAP FOR MEDICAL SOCIETIES

4.1 Induction

The CADDY project is presented in the European Undersea and Hyperbaric Society Meeting (EUBS). The project awareness is ensured in Europe to a great extent. In fact, the German Medical Society Newsletter- CAISSON reserved its cover for the CADDY project pictures. The article in CAISSON will be printed in German as well. It is also aimed to present the CADDY project to the American medical audience through the Undersea&Hyperbaric Society (UHMS) annual meeting in 2015 or 2016.

4.2 Dissemination

The results of the validation trials as well as the intermediate results on physiological tele-monitoring of divers will be presented in EUBS and UHMS meetings as well as indexed journals on Environmental and Occupational Medicine. There are also chances to have publications on physiology journals.

4.3 Consensus

The medical experts always take place during the redaction of regulations and code of practices. So, proper dissemination of the CADDY results will provide the basis for the acceptance of the AUVs used as diver's buddies.

5 REGULATORY AND PROFESSIONAL ACCEPTANCE ROAD-MAP FOR RECREATIONAL DIVING

5.1 Induction

The recreational diving is not clearly regulated in many countries. However, the diving standards are imposed by diving federations and diving organizations. The world largest diving organization professional Association of Diving Instructors (PADI), published an article on CADDY. The project is also presented by one of the user board member companies, INNOVASUB, in the world largest B-to-B professional trade show in diving: DEMA (Diving Equipment Manufacturers Association) and got the attention of several medium size underwater robot manufacturers who are involved in recreational diving as well such as: Deep Trekker, Seabotix and Open ROV.

5.2 Dissemination

The active dissemination of the results through the user board members are foreseen for the period following the open water sea trials. The DAN journal, Alert Diver will continue to give the updates of the project and more sports diving magazine involvement is needed for the effective dissemination of the results.

5.3 Consensus

Similar to the commercial diving market, in order to be able to take place in the regulations or the recreational diving agencies, there is a need for CADDY type of AUV's to take place in the recreational diving market.