TRAINING COURSE ON UNDERWATER ARCHAEOLOGICAL SITES SYNTHESIS

Introduction to the U-MAR project

Aim of U-MAR project

The general aim of the project U-Mar is to develop the knowledge and the valorization of heritage related to underwater archaeology by following these **specific objectives**:

1) Training professional figures with specific skills in underwater archaeology, how to valorize it and how to manage these cultural sites. The project will therefore train new experts capable of fostering the touristic offer of these sites from multiple points of view, by setting up an ad hoc innovative training course.

2) Developing sustainable, responsible, and environmentally friendly tourism around underwater archaeology, improving the tourist-cultural offer, and expanding the reference target of users. These objectives will be reached also by making underwater archaeology more accessible to people not willing or not able to dive or swim, by creating digital pathways to the sites and by developing interpretation centers on land.

3) Providing guidelines for organizations that want to develop strategies for enhancing the underwater archaeological heritage, with different possibilities of application depending on the context and with a particular focus on the creation of underwater archaeological itineraries, with their specific heritage and on the professional's skills required.

4) Increasing knowledge of the underwater archaeological heritage and the importance of its conservation and enhancement, not only by tourists, but above all by young people and local communities living in those territories.

U-Mar project wants to develop underwater archaeology and tourism linked to this sector by improving professional skills of cultural operators working in these sites. These objectives match with horizontal and sectoral programme priorities in the following way:

- The project addresses the horizontal priority **"Environment and fight against climate change"** as underwater tourism is directly linked to sustainable tourism with low or no environmental impact.

  In fact, it is characterized by high regulation and low intensity of flows and at the same time, it is very attentive to the environment and the culture of the territory.

  Cultural operators working in this sector need to have specific knowledge on environmental preservation and must be able to transfer this knowledge to tourists approaching this kind of activity.

  Finally, this type of tourism requires areas where there is already a legal protection of the environment, such as marine protected areas, or archaeological, such as underwater parks.

- Despite this sector is directly linked to nature, the project also addresses **"digital transformation through development of digital readiness, resilience and capacity"** as one of the aims of the project is making underwater archaeology accessible to a wider public by using digital innovative tools to access underwater heritage without having to physically dive into the water.

  At the same time, professionals will have to develop new digital and technological skills to address tourists both inside and outside water.

As underwater tourism represents an incredible opportunity for economic development, the project will:

- **Adapt vocational education and training to labour market needs**, in fact workers will be trained based on a real need to develop this sector and use it as a tourist offer and sustainable economic resource. Adapting vocational training to the needs of labour market, the project will also increase working opportunities for students wanting to specialize in the specific sector of underwater archaeology.

- At the same time, the project **"increases the flexibility of opportunities in vocational education and training"** as it allows cultural operators already working in this sector to scale up in their work to adapt their competences to new needs of the labour market.

In fact, the professional figure trained within the project will have specific competences not only from a cultural point of view but especially on the management of underwater itineraries, cooperation with other involved tourism stakeholders, communication, and dissemination strategies, etc., which are key competences to develop tourism linked to underwater archaeology.

U-MAR Course Introduction

A new training course on the enhancement of underwater archaeological sites is being developed to address the needs of cultural and tourist operators to improve their knowledge in sectors useful to foster the valorization of these sites and for the development of tourism linked to underwater archaeology.

Present training courses related to this topic are mainly focused on the cultural and historical part of the sites, but they do not dwell on aspects more related to the promotion of these heritages and consequently their relative tourist promotion and cooperation with other cultural and commercial actors.

Therefore, target groups to be addressed by U-Mar Training Course will be:

- cultural and tourist operators
- students studying archaeology, underwater cultural heritage, and tourism.

The new and innovative U-MAR Training course encompasses together all competences and expertise of project partners in order to address the shortcomings of existing training courses and with the aim of creating professional figures who actively contribute to the development of this sector.

The course is divided in seven learning units:

1. Underwater archaeology, its documentation techniques, and the importance of in situ protection of Underwater Cultural Heritage.
2. Communicative Interpretation, valorization, and dissemination of underwater heritage.
3. Shared management strategies.
4. Assessment of the impact of tourist activities on the marine environment, with a focus on the natural environment and cultural heritage.
5. Creation of cultural underwater itineraries.
6. Digital transition of cultural activities.
7. Legislation for protection, musealization, tourism and recreational diving.

The Training course will be made of both written and audio/video materials and it will be uploaded on the E-learning Platform realized within the project, so that it can be accessible. The course will be in English to be equally transferred in all European countries. Moreover, the partnership decided not to translate it in national languages since a basic competence of cultural and tourist operators, as well as of the students of these subjects, is the knowledge of the English language.

LU1 – UNDERWATER ARCHAEOLOGY, ITS DOCUMENTATION TECHNIQUES, AND THE IMPORTANCE OF IN SITU PROTECTION OF UNDERWATER CULTURAL HERITAGE

Underwater archaeology aims to study the relationship of societies of the past with the sea or with fluvial or lake dweller spaces through the material evidence that are witnesses of our ancestors.

In order to document, research and interpret the underwater cultural heritage with respect and in scientific manner, certain knowledge, methodological approaches, and skills need to be learned and perfected by the specialists dedicated to the protection and valorization of underwater cultural heritage.

Since some underwater cultural heritage remains undisturbed and in a good state of preservation, the in-situ approach is primarily taken into consideration for its dissemination or distribution to the public.

These terms and notions form the basis of this learning unit and a starting point of the course.

LU2 – COMMUNICATIVE INTERPRETATION, VALORISATION, AND DISSEMINATION OF UNDERWATER CULTURAL HERITAGE

Interpretation is a key part of the dissemination process and can only be carried out by professionals and experts with knowledge of the underwater cultural heritage.

Using a myriad of available materials, techniques and ever-rising technologies, the information of the shared underwater cultural heritage can be disseminated to the public adequately and respectfully, while keeping the educational experience interactive and captivating to the audience. In order to do so, certain channels of interpretive communication and the required approaches are established so that the audience can truly understand and continue the valorization of underwater cultural heritage.

The importance of the communicative interpretation aspect in the dissemination process forms the core of this learning unit.

LU3 – SHARED MANAGEMENT STRATEGIES

The management principles used in shared management strategies are the focus of this learning unit. In order to establish a collaborative production of usage and services that are shared between the great majority of people and various regions, destinations or organization, these principles are highlighted as playing an important role in a sharing economy.

Preservation, conservation, and presentation of underwater cultural heritage requires sustainable and affordable solutions which requires implementation of interdisciplinary knowledges from related scientific fields.

Working on these challenges can implement tourism- based economies in coastal areas which can include sustainable activities directed on underwater cultural heritage.

LU4 - ASSESSMENT OF THE IMPACT OF TOURIST ACTIVITIES ON THE MARINE ENVIRONMENT, WITH A FOCUS ON THE NATURAL ENVIRONMENT AND CULTURAL HERITAGE

Underwater cultural heritage can have significant benefits from cultural tourism, where submerged sites can be an attractive option.

Although not all sites can be accessed in situ to the public, a considerable number of them could be made approachable to the average tourist without threatening their state of preservation.

With the increase of man deriving activities, such as SCUBA diving, pleasure boating and commercial industrial activities, the very delicate marine environment has been under continuous threat of damage and destruction.

The contents of this learning units serve as an introduction to the possible future means and approaches of disseminating the underwater cultural heritage while emphasizing the importance and means of protection of the underwater environment.

LU5 – CREATION OF CULTURAL UNDERWATER ITINERARIES

There are innumerable sites representing millennia of human maritime activities throughout the world's oceans and seas.

The exponential rise of diving community tourism activities and accessibility of underwater cultural resources to the mentioned sites has raised questions on logistical issues concerning their protection during the visits of the broader audiences.

Heritage tourism, especially on underwater cultural sites, presents itself as one of the fastest- growing segments of the tourism industry.

Visitors appreciate the opportunity to experience firsthand authentic sites and artefacts to connect to their past. These opportunities are particularly exceptional when it comes to visiting underwater sites which have been managed to welcome and educate the public.

Underwater cultural itineraries, parks and museums are good model for dissemination and education of UCH sites to the diving community but may still remain remote and mysterious to non-divers.

Local and national maritime museums, historical societies, and university programs can supplement local preserve systems by creating land-based interpretative venues that help in connecting UCH sites and their importance with local and national history.

This learning unit presents the case studies from project partners that are exemplary in creating underwater cultural itineraries.

LU6 – DIGITAL TRANSITION OF CULTURAL ACTIVITIES

For maritime cultural heritage, and especially the submerged one, virtual reality has special significance when disseminating results of research of heritage that is not as accessible by the public due to the nature of its surrounding environment and skills one must have just for visiting UCH site, let alone researching it.

Underwater photogrammetry, real-time video recording or transmission, virtual reconstruction, 3D model printing, augmented realities and virtual dives are just some of the methods offered by the ever-evolving technology and used in presenting the UCH to broader audiences.

Methods and possibilities by which enhancement and dissemination of maritime and underwater heritage are numerous and growing proportionally with technological advances.

By allowing users to actively engage in education on UCH (the possibility of influencing the outcome, having goals and objectives within the experience, problem solving and overcoming obstacles), the audience and the presenters can profit from user enjoyment, learning and the emotional aspects of the experience.

Knowing the audience, their information consumption, and media of choice, and ultimately their needs and learning times are facts of crucial importance for the sake of tailoring the experience for maximum effectiveness of conveying the information, allowing for a more rewarding experience.

Finally, a balance between enjoyment, emotional engagement, historical accuracy, and learning must be obtained and respected. Technologies are means and not an end in themselves.

As in the previous learning unit, this learning unit provides examples of good practice in digital transition of cultural activities that disseminate underwater cultural heritage.

LU7 – LEGISLATION FOR PROTECTION, MUSEALIZATION, TOURISM AND RECREATIONAL DIVING

As much as archaeological documentation is indispensable to the research of cultural heritage, so is the legal authorization and strict regulation concerning the access, knowledge, and enhancement of cultural heritage. Protection of underwater cultural heritage requires competence and qualification through detailed recoding, reporting and documentation before, during and after archaeological activities.

This learning unit serves as an introduction to the most valuable legal international act on protection of the underwater cultural heritage, The UNESCO 2001 Convention on the Protection of the Underwater Cultural Heritage.

After presenting the historical milestones that proceeded the 2001 Convention and its guiding principles, a brief overview of the state of project partner's countries in regard to the UNESCO 2001 convention and their respective laws regarding the legal protection of underwater cultural heritage on their national territories is presented.