



Operational Sensing Life Technologies for Marine Ecosystems

Deliverable 4.4 – Participatory technologies training material

Lead Beneficiary: CSIC

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Preface

This document is a deliverable for the ANERIS project, funded under the European Union's Horizon Europe Research and Innovation Action under grant agreement No. 101094924.

The purpose of this document is to present the Participatory Technologies training material, which consists of **several living documents** compiling all the training materials that have been done during this first year of ANERIS. Among those training materials, there are two separate lines. The first one includes all the materials related to the technology itself, either on how to use the MINKA website or the app. The second group consists of training materials designed to engage communities and train participants on citizen science activities using MINKA.

Summary

ANERIS aims to establish a network of **Operational Marine Biology (OMB) products** by creating, testing, and implementing the next generation of scientific tools and methods. An important part of those tools are participatory technologies, which require citizen participation and therefore training materials to ensure citizens can take part in these technologies.

The main training material developed within ANERIS for participatory monitoring are several User Guides. These guides have been designed to show **how to use the MINKA platform** (<https://minka-sdg.org>), which is the **participatory observatory of reference** in the ANERIS project. It involves detailed training for the following technologies: **AWIMAR**, the web services associated to MINKA, developed by Marsbased, QuantaLab, and CSIC, and **AMAMER**, developed by Dribba in association with QuantaLab and CSIC, that correspond to MINKA mobile services. Moreover, some of the guides would work for both technologies (web and mobile).

In addition, and along with this training material, other materials have been created to be able to train and engage participants in complementary citizen science activities. Those materials have been developed in two local languages, Portuguese and Catalan, but have been included as part of these training materials, to highlight the rich diversity of end users of these technologies.

All the training material has been uploaded in the **dedicated Zenodo space** created specifically for **ANERIS outcomes** (<https://zenodo.org/communities/aneris>).

List of Abbreviations

AWIMAR - Adaptive Web Interfaces for MARine life reporting, sharing and consulting

AMAMER - Advanced Multiplatform App for Marine life Reporting

CAT - Catalan language

PT - Portuguese language

1. The MINKA Platform user guides

The main training materials developed during the first year of ANERIS are the User guides. Several user guides have been designed to explain in detail how to use two different technologies developed within ANERIS, (AWIMAR for web based and AMAMER for mobile technologies) and also general training related to both of them.

Both technologies will be improved during the whole duration of the project, including the development of new functionalities in both, AWIMAR and AMAMER. That is the reason why these user guides will be a living document and will be updated along with the development of new functionalities and improvements made on the technologies.

Below there is the list of the existing user guides:

1.1 User guide - MINKA platform infrastructure

The guide explains how to use MINKA web services, based on the AWIMAR technology.

[10.5281/zenodo.10371697](https://doi.org/10.5281/zenodo.10371697)

1.2 User guide - Projects

The guide explains how to create and manage your own participatory project in the MINKA platform.

[10.5281/zenodo.10371462](https://doi.org/10.5281/zenodo.10371462)

1.3 User guide - Identify

The guide explains how to identify observations reported in the MINKA platform. Moreover, the user can find detailed information on how to add an identification to observations from other participants, how to use the section **Identify** (that include services to identify multiple observations) or best practices to take into account to facilitate the interactions among different participants.

[10.5281/zenodo.10371748](https://doi.org/10.5281/zenodo.10371748)

1.4 User guide - Search info

The guide explains how to search for information on the MINKA platform. Moreover, you can find detailed information on how to search for information including what filters are and how to use them, or what is a place and what is it for.

[10.5281/zenodo.10370680](https://doi.org/10.5281/zenodo.10370680)

1.5 User guide - Upload data

The guide explains how to upload observations to the MINKA platform.

[10.5281/zenodo.10371440](https://doi.org/10.5281/zenodo.10371440).

1.6 User guide - MINKA app

The document explains the technology AMAMER, which includes the MINKA mobile technologies that has been developed by Dribba in collaboration with QuantaLab and CSIC. Starting with a general overview of MINKA associated App and then diving into the different functionalities. The guide includes also a description of the differences between the website functionalities and the Mobile App.

[10.5281/zenodo.10369564](https://doi.org/10.5281/zenodo.10369564)

1.7 User guide - translation

MINKA has been conceived to support multilingual services. The document contains detailed information on how to use Crowdin, the collaborative platform used to translate MINKA into different languages. It works for both the website and the App. In addition, it explains how to correct any mistakes that may be in the current languages used on the platform as well as how to add a new language.

[10.5281/zenodo.10389884](https://doi.org/10.5281/zenodo.10389884)

2. Participatory training materials

In addition to the user guides, different ANERIS partners are working on further training material, including a guide on dedicated participatory events (such as BioBlitzes or BioMARathons).

As mentioned before, an important part of the MINKA platform is the participation of citizens that provide biodiversity data. FECDAS and Biopolis have both been organising several citizen science activities involving a wide range of participants, from communities of divers to families, teachers or schools and universities. Reaching the general local public requires using materials such as biodiversity guides or leaflets, among others, **in local languages reflecting the local biodiversity**. That is the reason why we include the training materials created by both partners in local languages (Catalan and Portuguese) covering those particular needs.

2.1 Federació Catalana d'Activitats Subaquàtiques (FECIDAS)

FECIDAS has organized and led many citizen science activities, with communities of divers. In order to engage the local diving clubs and diving centers across the Catalan coast, FECIDAS has developed several training materials, all of them in Catalan. Those training materials are listed below, including a brief description of the document and the link to access these documents.

- **Biodiversitat forum (CAT):** Compilation of the results obtained during several biodiversity censuses at FORUM, with common species, highlight observations and other resources linked to this area.

<https://doi.org/10.5281/zenodo.10370537>

- **ANERIS presentació centres-clubs (CAT):** Introduction to ANERIS and how to get involved with the citizen science activities led by FECIDAS.

<https://doi.org/10.5281/zenodo.10370496>

- **Biodiversitat marina Port de Tarragona (CAT):** Presentation including an introduction to ANERIS and the particular biodiversity that you can find at the Tarragona port.

<https://doi.org/10.5281/zenodo.10370587>

- **Guia d'espècies Tarragona (CAT):** Biodiversity guide of the particular organisms that you can find at the Tarragona port.

<https://doi.org/10.5281/zenodo.10370789>

- **Manual d'usuari MINKA - FECIDAS (CAT):** Presentation on how to use the MINKA platform by uploading pictures.

<https://doi.org/10.5281/zenodo.10370813>

- **Ecobriefing - Bones pràctiques busseig (CAT):** Best practices while diving and taking pictures underwater.

<https://doi.org/10.5281/zenodo.10370633>

- **Presentació ANERIS - FECIDAS - MINKA (CAT):** presentation which includes an introduction of ANERIS and how to use the MINKA platform.

<https://doi.org/10.5281/zenodo.10370838>

2.2 BIOPOLIS

Biopolis has also led citizen science activities in the north of Portugal. The north of Portugal counts with a diverse intertidal biodiversity. In order to explain this biodiversity to participants, be able to engage the local community, and increase participation in MINKA, BIOPOLIS has created the following materials in portuguese:

- **Seja guardião das suas praias - Leaflet (PT):** Brief guide of intertidal biodiversity including a list of organisms as well as pictures to help identify them. In addition, the guide explores key concepts such as exotic species or relict species.

<https://doi.org/10.5281/zenodo.10370543>

- **Guia de identificação de espécies - INTERTIDAL (PT):** Identification guide on the species that can be found on the intertidal zone of the north coast of Portugal, highlighting the biodiversity richness of this habitat.

<https://doi.org/10.5281/zenodo.10370629>