CASE STUDY 3

FACTSHEET

ANERIS

aneris.eu

FROM PICTURES TO SCIENCE – GET TO KNOW WHAT YOU SEE

PARTNERS

LEAD PARTNERS: CSIC, Quanta, Marsbased, Dribba, BIOPOLIS, MedCities, FECDAS

INVOLVED RIs: MINKA (as the citizen observatory of reference in ANERIS), LifeWatch, EOSC, EGI

Biobiltz in Mersin, coordinated by MedCities

Image provided by MedCities team

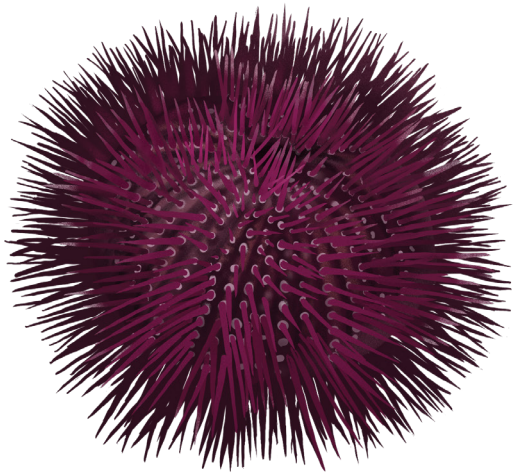
KEY MESSAGES

- **Transform everyday underwater pictures** into scientifically validated data.
- **Support accurate species identification** and marine biodiversity monitoring, improving the detection of invasive, protected and sensitive species.
- **Collect new insight into phenology**, for instance, certain species' forward shifts in reproductive timing, which can act as a signal of broader environmental change.
- **Help the participatory community** increase their knowledge of marine life, leading to the discovery of previously unrecorded species.
- **Encourage people to engage and explore** the surrounding marine biodiversity more broadly using the MINKA observatory.

TECHNOLOGIES INVOLVED

AMAMER, AWIMAR, AMOVALIH

Case Study 3 incorporates a mix of technical, procedural and community-engagement challenges. On the technical side, it ensures that the MINKA observatory works properly and complying with the European GDPR and data security requirements. Operationally speaking, better promotion of MINKA is required to help ordinary people understand its purpose and how and when to use MINKA versus other well-known platforms. From a participatory standpoint, Case Study 3 needs to ensure complete coverage of spatial and temporal resolution of the uploaded observations. This can be achieved by actively engaging local communities and a diversity of participants, including schools, NGOs, divers and snorkellers, etc., rather than relying on the same group of past contributors. Underlying all of this is the broader challenge of sustaining engagement over time, rather than one-off participation.



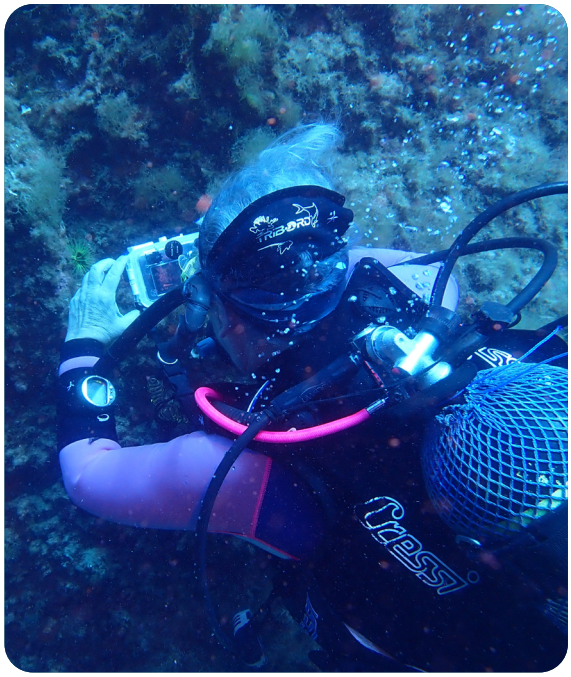
Scientific illustration of *Paracentrotus lividus*

Provided by Pensoft

WHO BENEFITS AND HOW?

Case Study 3 contributes knowledge and expertise to a wide range of interested parties. For instance:

- **Local people**: direct knowledge about the surrounding biodiversity.
- **Divers**: a channel to communicate what is observed underwater and easier access to biodiversity information.
- **NGOs**: optimisation in their everyday conservation work and more clarity about what exactly needs protection.
- **Municipalities and local administrations**: promotion of science-tourism and better care of specific areas.
- **Policymakers and managers**: evidence better informing their decisions.
- **Scientists**: access to large volumes of data recorded and validated with sensitive information and at high resolution.
- **Research infrastructures**: expanded service provision.



Participant in BioMARató 2026 taking an underwater snapshot
Image provided by CSIC team

Overall, Case Study 3 reminds us of an important challenge that marine scientists have come across for years - if you don't know what you have, you can't manage it. This case study addresses that gap directly by providing access to everyone who wants to know more about the biodiversity in our seas and coasts.

The BioMARató (ES) and BioMARatona (PT) are citizen science events that encourages people to actively participate in documenting marine and coastal biodiversity, registering the observations into the MINKA observatory. Both events are co-funded by ANERIS, which uses this large-scale participatory engagement to support its Operational Marine Biology approach to monitoring marine ecosystems.
Explore us at: **https://biomarato.org/en/**

Volunteer in BioMARatona taking images of species during an outing in 2025 in Portugal
Image provided by BIOPOLIS team

Underwater snapshot from BioMARató 2024 of *Mola mola*
Photo by @jmestras via MINKA Citizen Observatory

POLICY-RELATED CONTRIBUTIONS

The work done within Case Study 3 contributes to expanding the knowledge of marine species, including threatened species and species regulated under protection treaties, to Non-Indigenous Species (NIS) and Invasive Alien Species (IAS) regulation and to the broader EU biodiversity policies. It also supports the protection of sensitive and vulnerable species, alongside phenology-related monitoring linked to global warming.

Funded by the European Union

ANERIS receives funding from the European Union's Horizon Europe research and innovation programme under grant agreement No 101094924. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Commission. Neither the EU nor the EC can be held responsible for them.