A HOLISTIC APPROACH FOR PROMOTING THE BLUE ECONOMY GROWTH: THE CASE STUDY OF THE PAGURO WRECK

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Adrireef Interreg Italy -Croatia

The new strategy of the EC for sustainable blue economy in the green transaction context, highlights the importance of scientific research and innovation for protecting and restoring marine ecosystems to achieve climate-neutrality by 2050.

Within this context the Adrireef project (Innovative exploitation of Adriatic Reefs in order to strengthen blue economy) investigated the underexploited potential for sustainable use of some natural and artificial reefs located in the Adriatic Sea.

The wreck of the Jack-up rig Paguro was one of the case study considered in the project.

OSPAR 98/3 Decision

Most of the platforms at the end of their production life cycle (approximately 50 years) are completely removed following the decommissioning procedures defined by the Protection of the Marine Environment of the North-East Atlantic (OSPAR, 98/3 Decision);

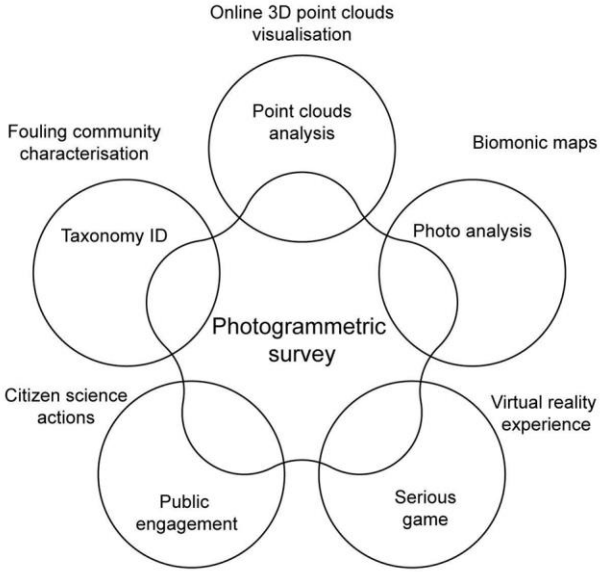
disused offshore installations must be considered as dumping sites in accordance with the definition of pollution

However disused offshore assets represent a distinct habitat where the settlement and the growth of invertebrate and fish species support a complex tropics webs based on local biomass production, and the attraction of other species.

Monitoring at the Paguro wreck

Biological, oceanographics, socio-economic factors were investigated to identify strengths, weaknesses and opportunities for commercial activities pointing at the blue growth principles.

The results underline that the Paguro wreck represents a natural and historical heritage supporting local tourism and public awareness.

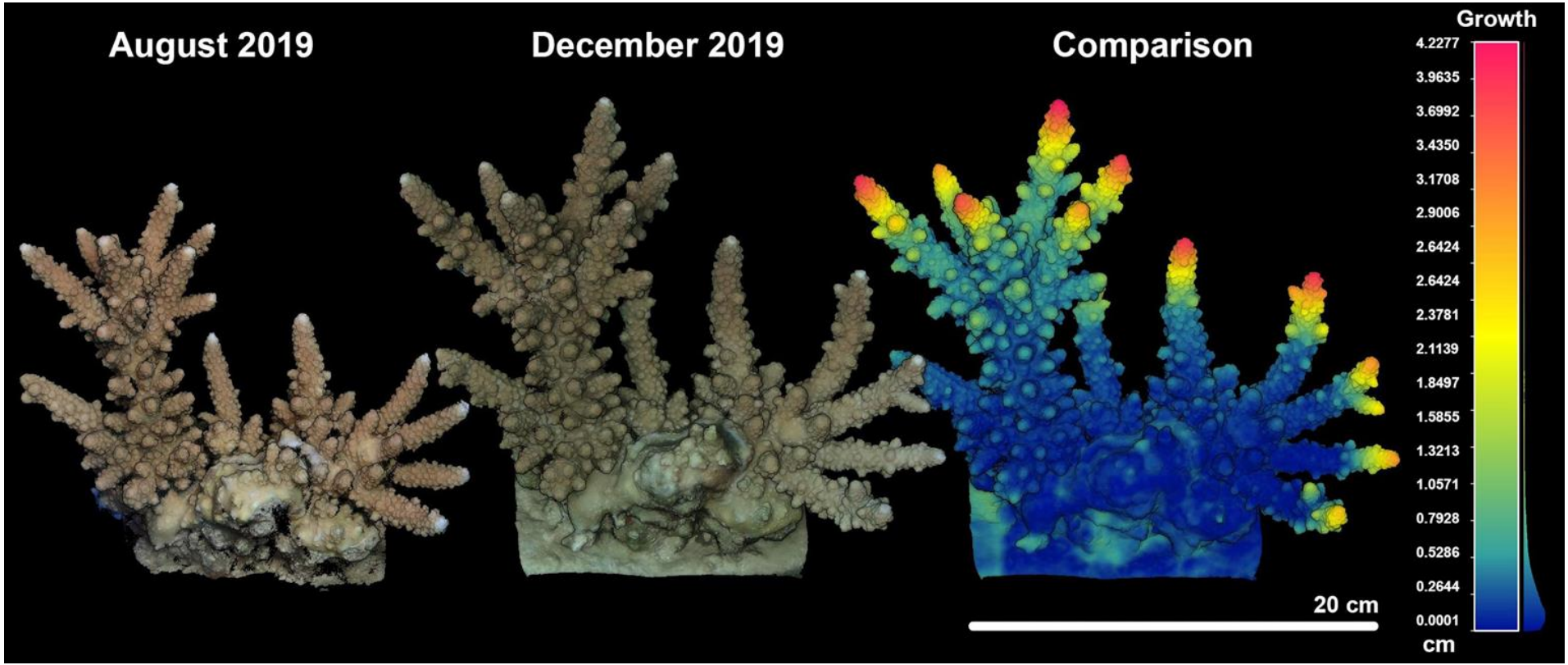


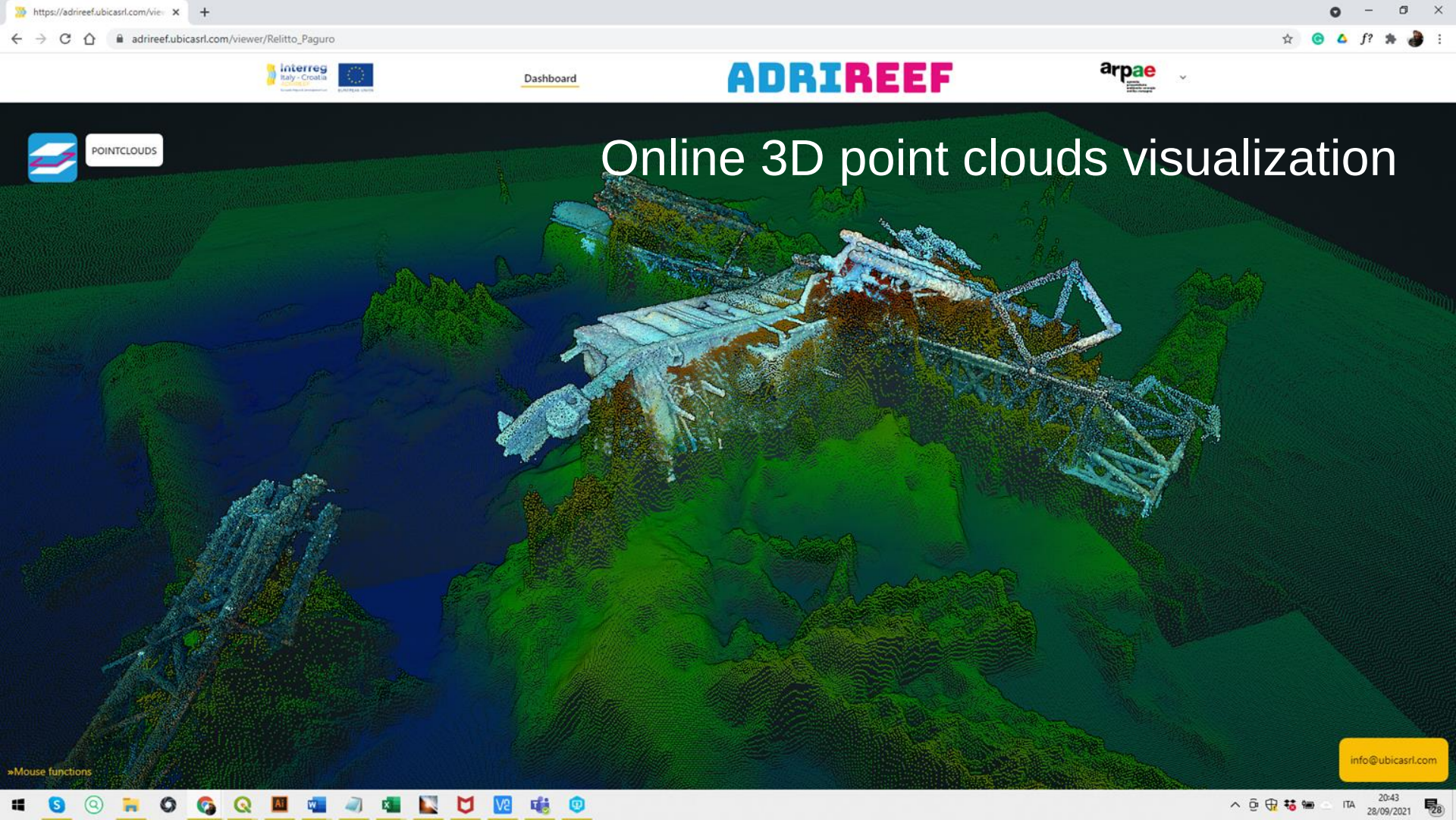
Photogrammetry

Photogrammetry is an optical based technology for estimating the 3D structure of a scene from 2D overlapping images, acquired by a moving sensor.

Common feature points are identified within the collected images and 3D spatial relationships are established between points.

Photogrammetry

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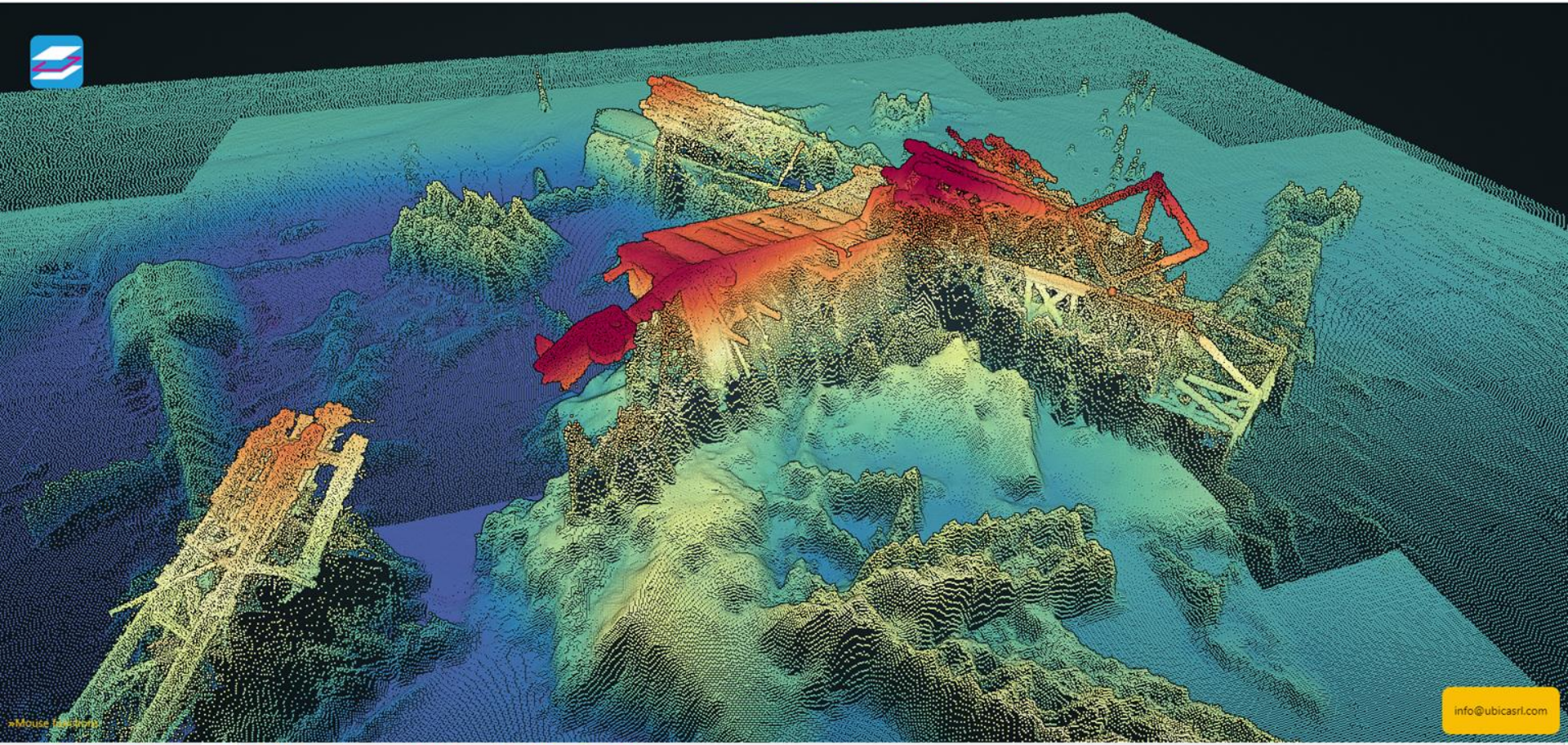
CLASSIFICATION
Twilight community with the filter feeder Ostrea edulis and suspension feeders (i.e. E. arenaceus)
Twilight community with the filter feeder Ostrea edulis and detritivorous species (i.e. O. fragilis)
Infralittoral community with Mytilus galloprovincialis and filter feeders (i.e. H. mediterranea)
No classification
Bionomic map
info@ubicasrl.com



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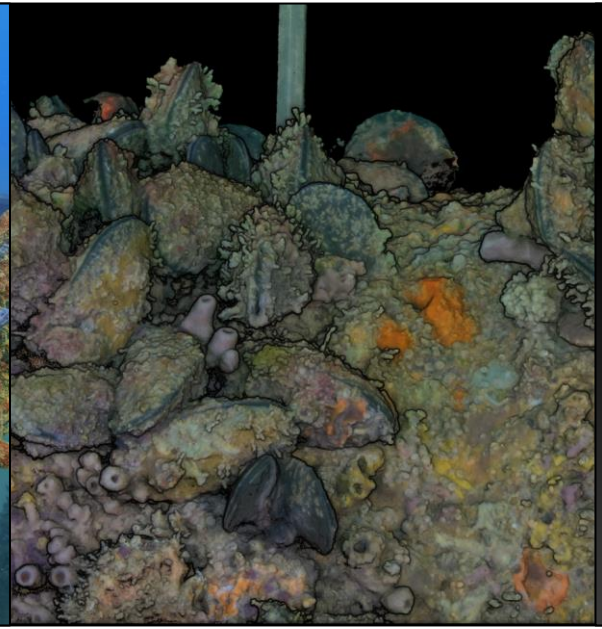
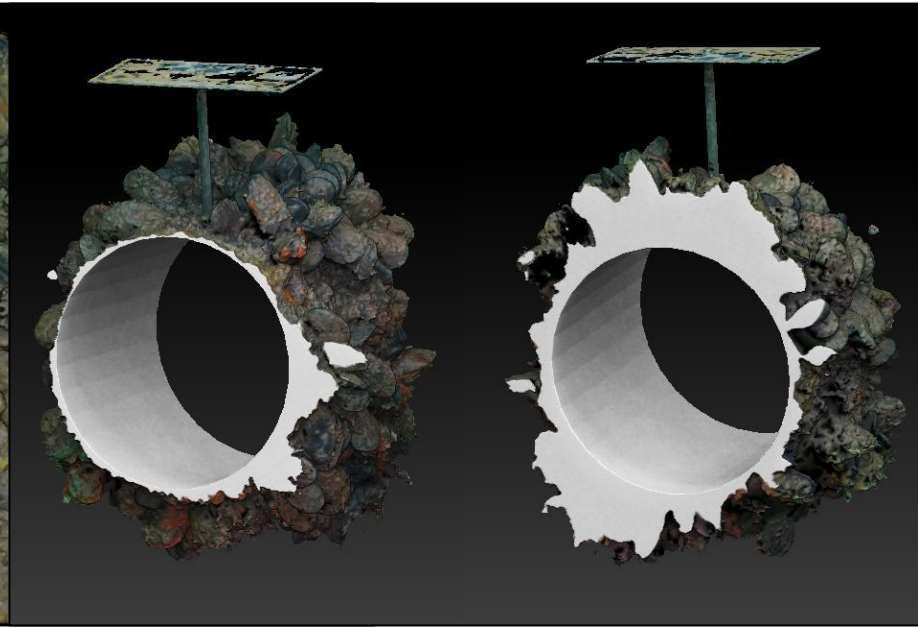
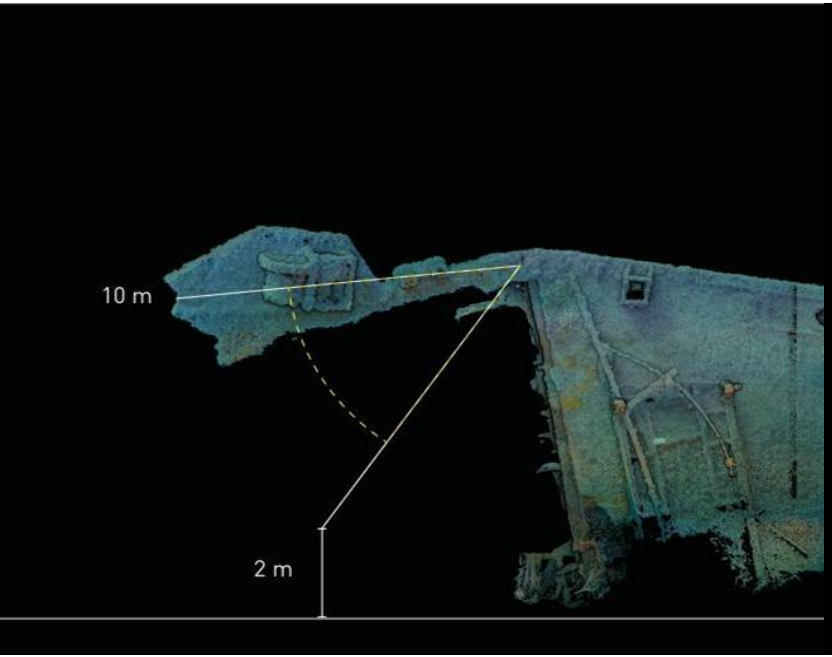
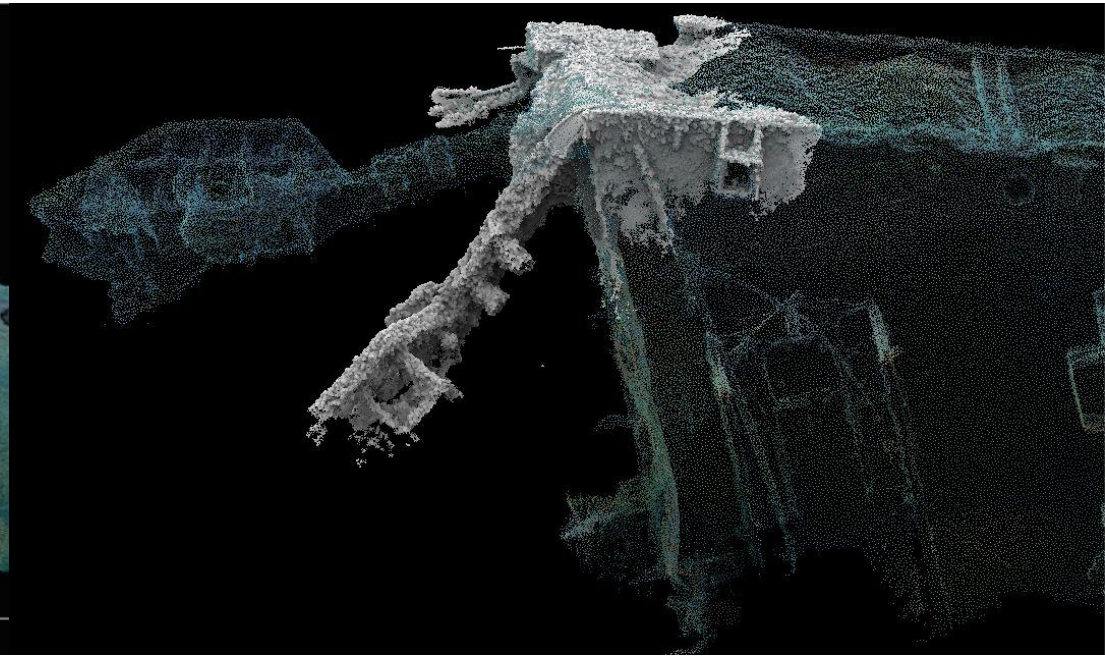
Fouling community characterization



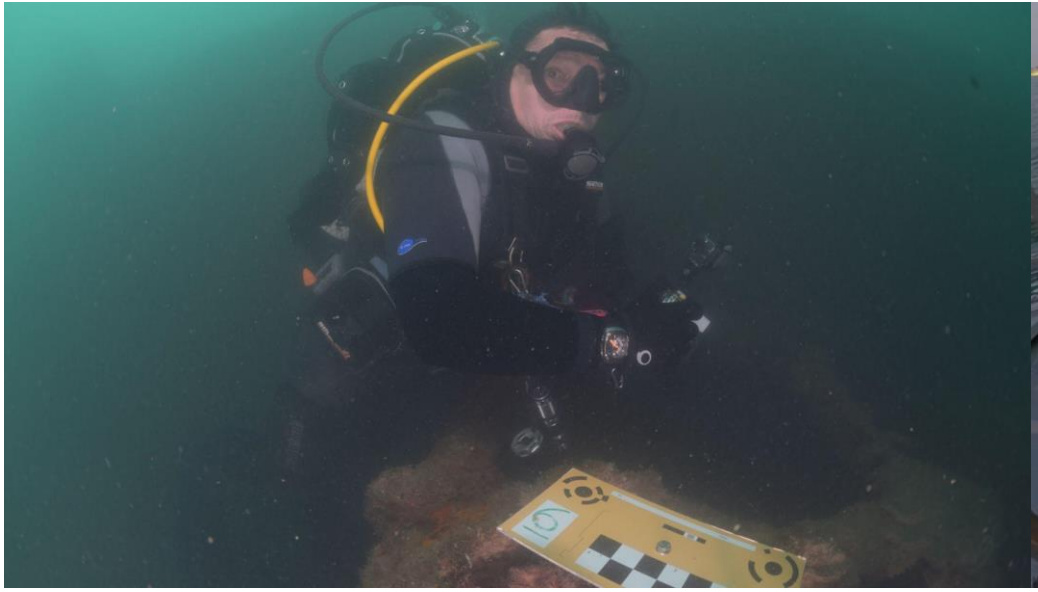


Structural integrity





Public engagement in monitoring actions



VR experience

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Comune
di Ravenna

Take home message

Photogrammetry is a very flexible technology which successfully support several other investigation approaches.

Outcomes support blue economy activities at site (Scientific research and scuba diving) and public awareness

The methodologies and achieved results could be applied in other study cases for triggering alternative uses of offshore assets at the end of their production life cycle.

Thank you for the attention

Thank you to all the Daphne team members and to the Associazione Paguro