



## Science Diver in the Blue Economy Era - International Conference

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### The deepest Spot in the northern adriatic sea; a deep-sea experience in an overall shallow sea

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#### ABSTRACT

Mare-Mundi is an Austrian non-governmental organization dedicated to marine research and protection, our main place of action is the Croatian island of Krk. Exactly here, between the islands of Cres and Plavnik, lies the deepest point of the Northern Adriatic Sea in the Krusija Channel, a "deep sea" trench with a depth of 125 meters. This trench is the focus of our project *go-deep*, which has been running since the beginning of the year. We have set ourselves the goal of investigating the particularities of these still largely unknown ecosystems within this trench, in particular the biodiversity and species composition, but also the pollutant load within the living organisms there. A special feature of this project will be that we will investigate the existing ecosystems at different sea depths, which means that we will work with different diving methods (snorkeling, TecDiving, ROV). A special challenge for our diving teams will be the correct collection of biological samples by remote operated underwater vehicle (ROV). By means of these ROVs, we can not only take high-resolution images of the different habitats (steep walls, rocky and muddy seabeds, etc.), but also collect meaningful samples with the help of special manipulation tools, which can be scientifically studied at a later stage. Our samples will include both organic and inorganic samples, mainly sediment, detritus, seagrass remains and also living organisms such as mussels, sponges, fish or crustaceans. Apart from the ecological relevance of these samples, we also want to screen them for residues of certain biologically active contaminants (for example the dirty dozen). Especially the comparison to reference samples from shallower marine areas will give us some information about the threats to these still unknown ecosystems. Finally, our overall goal is to be able to declare areas like these as marine protected areas (MPAs) in the long term, through projects like *go-deep*.