

Remtech Esonda 20 settembre 2023

***Rimozione dei
sedimenti 4.0***

Bartolomeo Mongiardino

HYDRO MAINTENANCE SERVICE

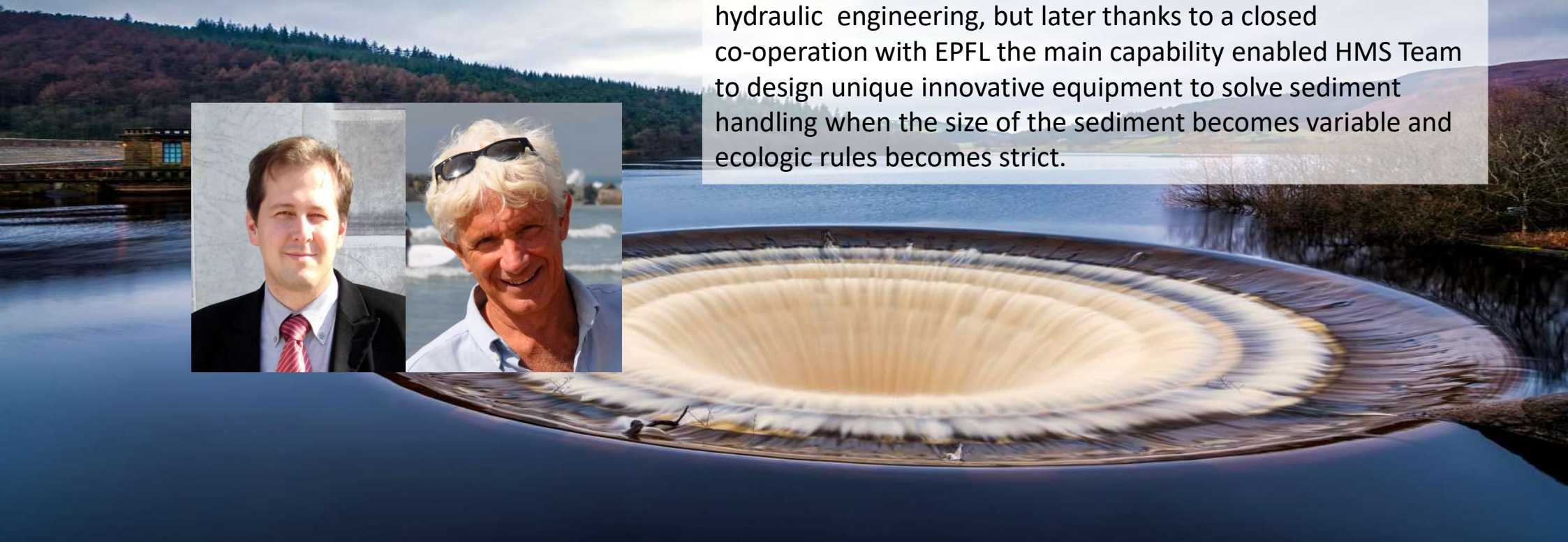
Rimozione dei sedimenti 4.0



In 2006 **Bartolomeo Mongiardino** and **Fernando Binder** founded Hydro Manitenance Service as an engineering practice serving the hydropower companies in Central Europe

Switzerland - Italy - Austria - France - Germany

HMS main competence was sediment management and hydraulic engineering, but later thanks to a closed co-operation with EPFL the main capability enabled HMS Team to design unique innovative equipment to solve sediment handling when the size of the sediment becomes variable and ecologic rules becomes strict.



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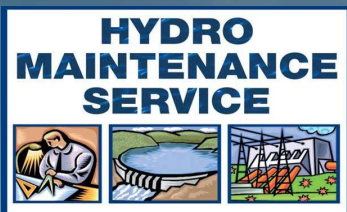


By developing new and sophisticated equipment and patented sediment treatment plants HMS Team is now able to design and manufacture floating sediment handling equipment for all Hydropower plants.

HMS is based in Central Switzerland, the perfect place where you can find precision and reliability.



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HMS design and sales **robotic equipped** dredger to conduct desanding job
This saves time, money and increases safety while decreasing asset risk.....



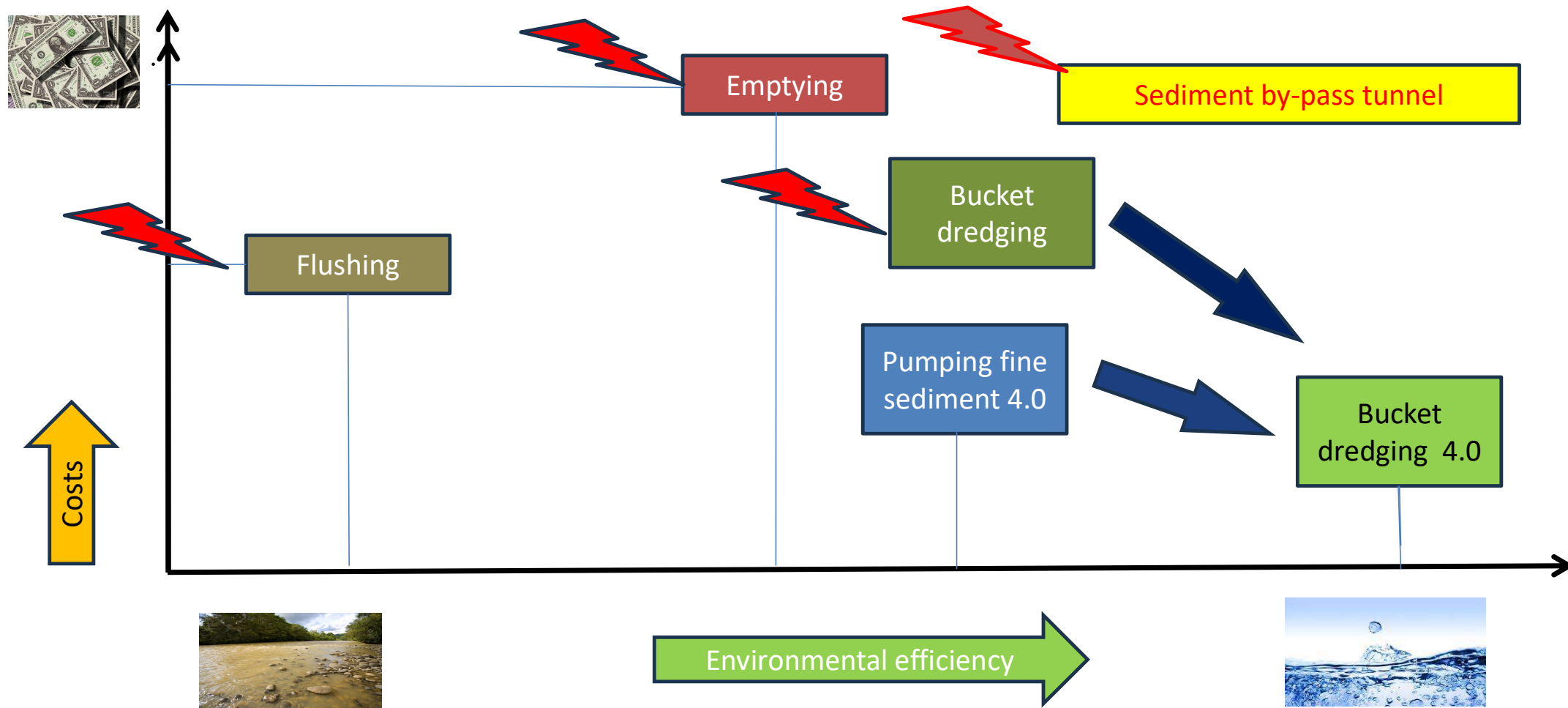
2010
The Radio
Controlled Dredger ..

2016
Underwater
Dredging Robot

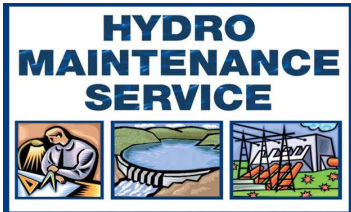
2012
The Super Light
Dredger
Can be positionad
by helicopter



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POWER SOURCE
100 KVA
GRID or POWER GENERATOR

CONNECTION
FLOATER-GRID
FLOATING CABLE
COLLECTING WINCH ON-SHORE

WORKING DIMENSIONS
TRIANGULAR - SIDE 26'
Height 16'

LIFTING WINCH
Used to LIFT and DROP

CLAMSHELL BUCKET
HYDRAULIC - CAPACITY 68 cf

WEIGHTS
FLOATER 20,000 lb
CLAMSHELL BUCKET 6,000 lb

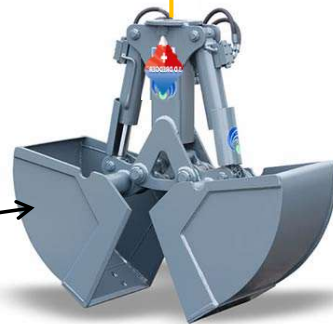
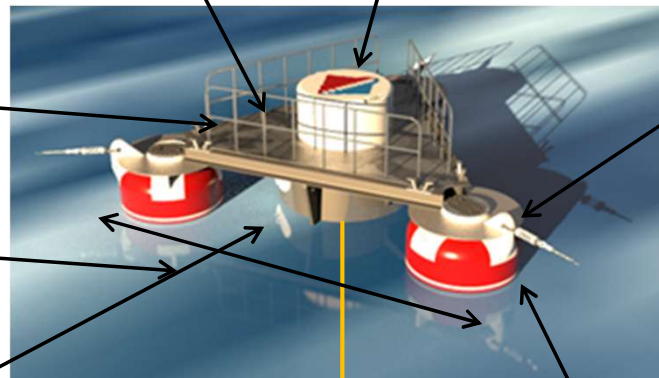
WINCHES X4
Used for moving the dredger

CONTROL
COMPLETELY REMOTED CONTROLLED
NO OPERATORS ON-BOARD
THE 3D DREDGER IS CONTROLLED UP TO 600ft
AWAY FROM E REMOTE CONTROL
GREATLY REDUCING THE RISK TO OPERATORS

FLOATERS X4 - Dia 7' X 8'
passes through the door of an ISO CONTAINER

LOGISTICS
THE 3 D DREDGER™ CAN BE
LOADED IN 5 – 20" CONTAINER
3 - EACH FLOATERS & ACCESSORIES
1 - UPPER STRUCTURE
1 - CLAMSHELL & ACCESSORIES

DRAFT 6'



MAIN DIMENSIONS AND FEATURES

PATENT PENDING

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**2019-2022
Tender
95 projects**

Guardians of the Reservoir Challenge

Help sustain America's reservoirs. We're looking for ways to remove sedimentation that regularly accumulates in reservoirs.



**US Army Corps
of Engineers®**

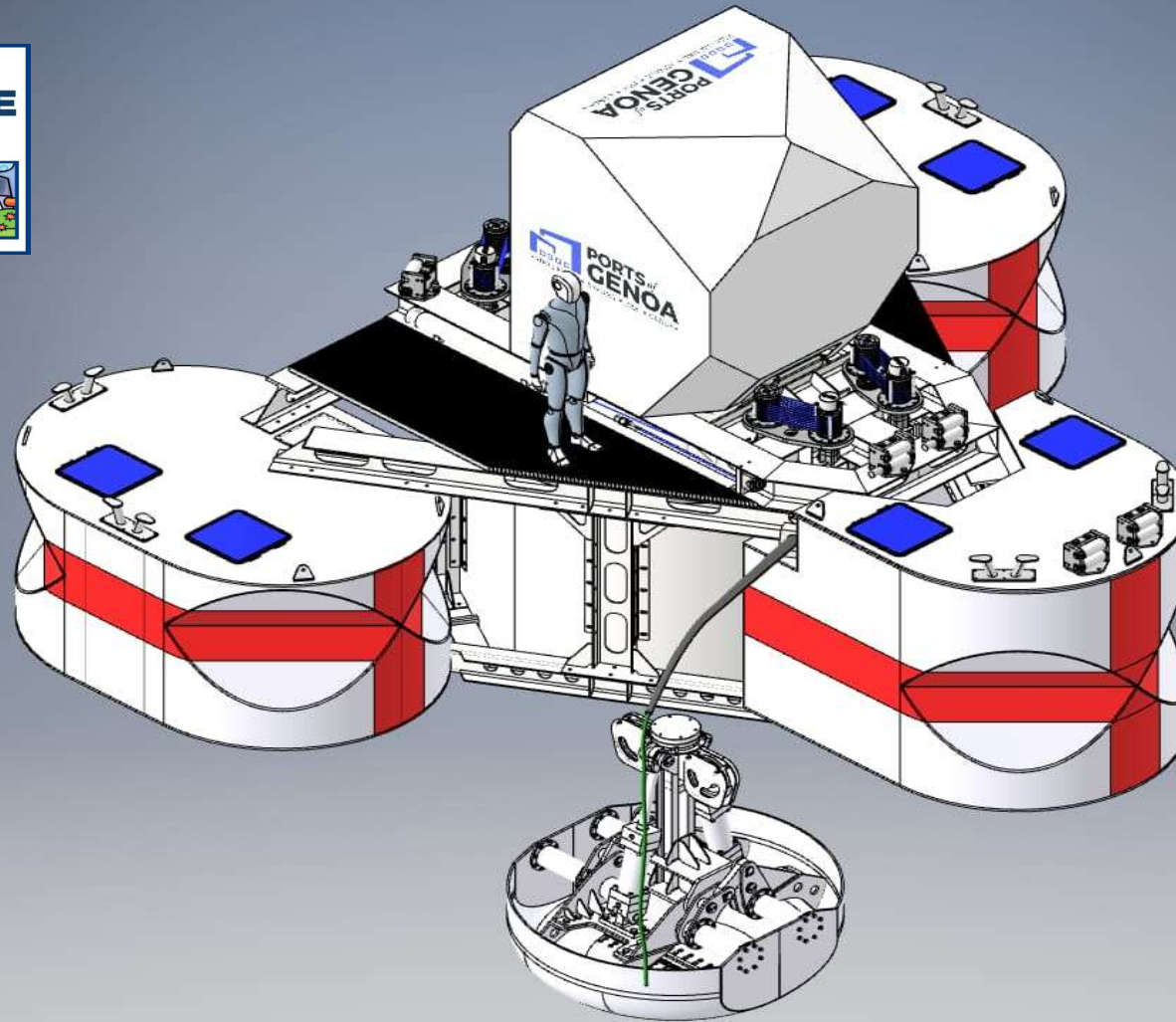
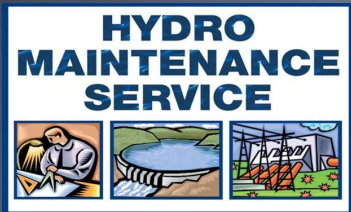


— BUREAU OF —
RECLAMATION



Versatility Award presented to the 3D Dredger Team: The 3D Dredger (3DD) team is developing a fully autonomous dredging system designed to handle sediment and larger debris using three dredging attachments. The system is designed for deployment in **any environment**, without impacting operation or recreation. The 3DD team consists of inventors at Hydro Maintenance Service and their U.S. partner Prometheus Innovations, LLC. **The team is represented by Bartolomeo Mongiardino, Nicholas LaBry, and Kenneth LaBry.**

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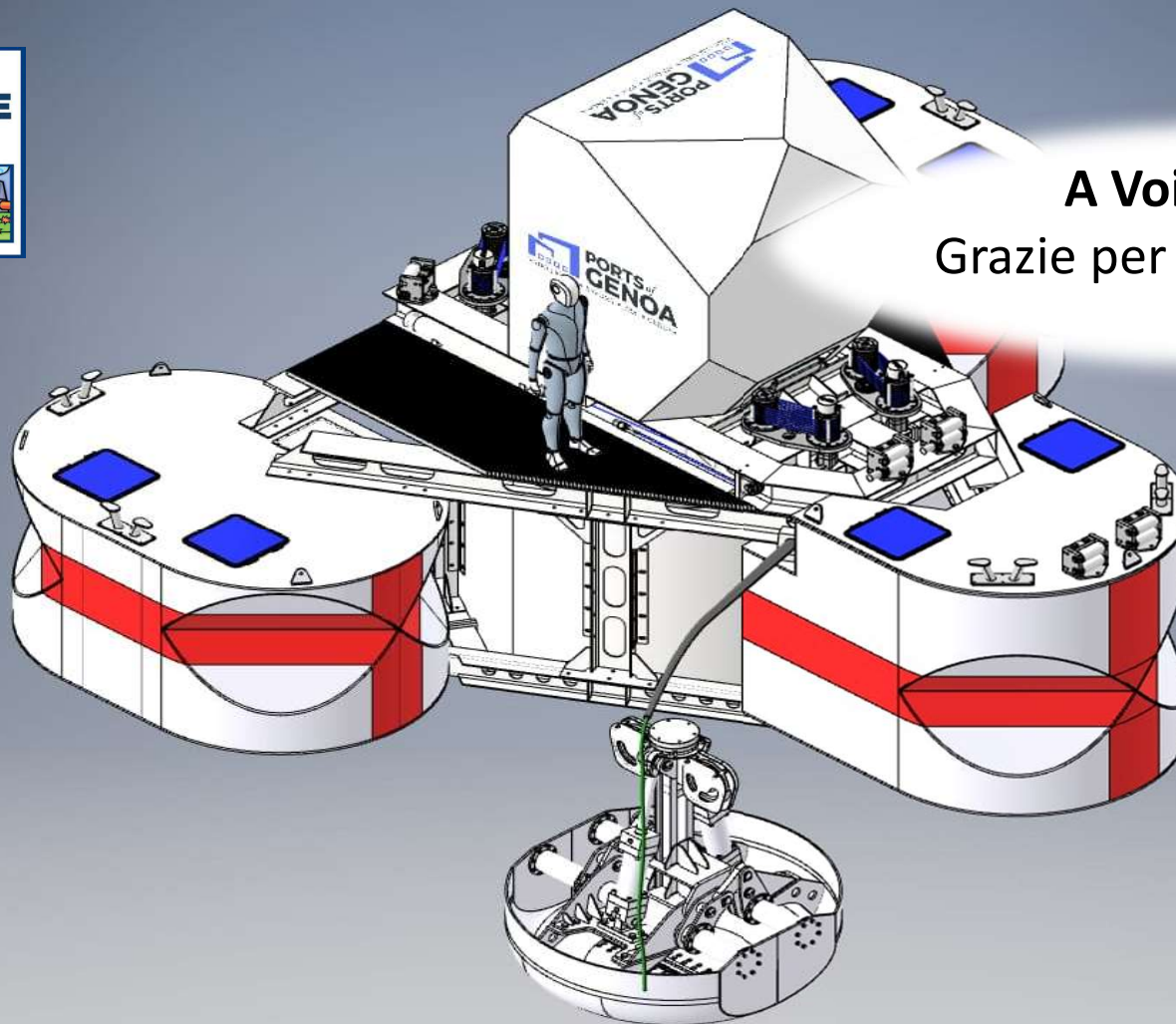
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**HYDRO
MAINTENANCE
SERVICE**



A Voi la parola !
Grazie per il gentile ascolto.

