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## Submarine Rescue Capability: Special and Diving Operation – Submarine Rescue Ship (SDO – SuRS) Deployable Assets

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ITA Navy has started a new program for the acquisition of a Naval Vessel called SDO-SuRS (Special and Diving Operation – Submarine Rescue Ship).

In order to fulfill operational requirements, IT Navy has recently procured the so-called “SDO-SuRS Deployable Assets”. A temporary business grouping (RTI) between SAIPEM Spa (leader in robotics and offshore) and DRASS Srl (national excellence in the hyperbaric sector and rescue) is the enterprise selected for the scope. This grouping represents a national excellence and a technological reference point for IT Navy in the Submarine Escape and Rescue.

The new SDO-SuRS Deployable assets will have specific peculiarities such as: modularity, deployability, interoperability and complementarity.

Modular assets will be either installable on board the national mother ship SDO-SuRS or rapidly deployable in scalable configurations (from rapid intervention to deep rescue) on a vessel of opportunity, military or commercial, for far-from-home operations.

In order to establish a framework on damaged submarines rescue's topic between Countries within ISMERLO (International Submarine Escape and Rescue Liaison Office) and NATO organizations, Italy offers the opportunity of providing any type of technical-administrative support in design, procurement, Life Management System or training of SAIPEM - DRASS systems, useful to a potential cooperation in the Submarine Escape and Rescue.

On the whole the above mentioned Submarine Rescue packages consist of a several assets as follow:

- Submarine Rescue Vehicle (SRV) tethered type composed by a Rescue Chamber and a WROV (Working Class Remote Operated Vehicle) which will be managed both aboard the SDO-SuRS ship (Mother Ship) and aboard the Vessel of Opportunity. The system has to be designed/realized to perform the search and rescue of DISSUB as well as the transfer of crew inside the Diving Decompression Chamber.
- Portable Launch and Recovery System (PLARS) to permit the Launch/Recovery of SRV/SRC and WROV;
- Diving Decompression Chambers (DDC) with TUP (Transit Under Pressure) to face a specific sanitary treatment which could involve the submarine's crew;
- Ventilation System (VS) by means of which will be possible the change of dirty air inside of the distressed submarine as well as the air insufflation to main ballast tanks;
- Submarine Rescue Chamber (SRC);
- Working Class Remote Operated Vehicle (WROV) able to perform underwater work and completely redundant with the WROV associated to SRV.

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