

# euRathlon 2015

17<sup>th</sup> - 25<sup>th</sup> September 2015, Piombino, Italy

## Requirements for marine robots

### Mass

There is a limit of 100 kg both for Autonomous Underwater Vehicles (AUVs) and Unmanned Surface Vehicles (USVs)

### Size

There are no size limitations for any of the vehicles. A maximum of one AUV and one USV can be used at the same time during the trials even if the teams can bring spare robots. The used robots in one trial have to be communicated to the judges before the start of the trial.

### General

Power constraints: All entries must be battery powered. All batteries must be sealed. The open circuit voltage of any battery in an entry may not exceed 60 Volts DC.

No materials (except for compressed air) may be released by the entry into the waters of the Arena. Any vehicle leaking a fluid will be deemed unsafe. All vehicles must carry a clearly legible 'label' showing the vehicle weight in air. All vehicles must have 2, 3 or 4 clearly identified lifting points onto which standard commercial lifting slings may be easily attached / detached – on land or in the water – in a safe manner.

All vehicles will be required to install strobe lights.

All entries must bear a clearly marked OFF switch that a diver can readily activate. The switch must disconnect the batteries from all propulsion components and devices in the AUV. Note that this does not have to kill the computer. Upon reactivation, the vehicle must return to a safe state (propellers do not start spinning). All entries must be positively buoyant by at least one half of one percent of their mass when they have been shut off through the OFF switch.

Vehicle operation must conform to any regulations or restrictions imposed by the applicable marine-use authority.