

**Service for a test site**

**SPECIAL TECHNICAL TERMS AND  
CONDITIONS**

**251000166**

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## 1 Introduction

Within the framework of Ifremer's ScInObs project (Science and Innovations for subsea Observatories), a 6000 m moored profiler (called PROLIXE) is being developed.

The PROLIXE mooring is composed of a mooring line tensioned between a subsurface buoy and a dead weight along which the profiler moves. At the bottom of the mooring line, a docking station allows the profiler to recharge its batteries and to download the data acquired when docked. During the development and test period, the docking station is connected to a subsea cable in order to survey the mooring behaviour and to supply power. During an operational deployment, the PROLIXE mooring is autonomous and its docking station integrates power batteries.

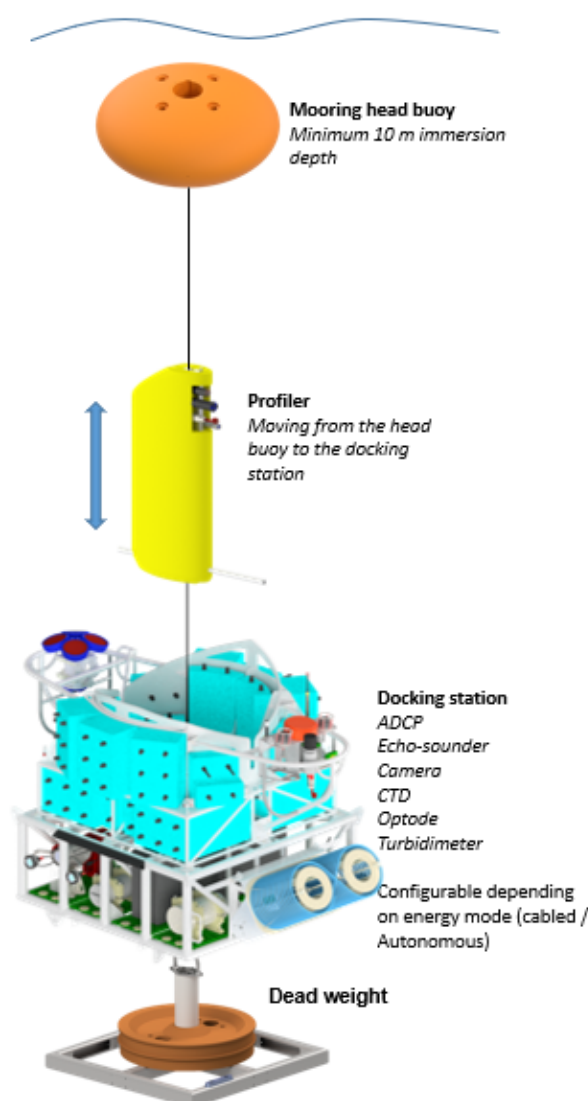


Figure 1 : Scheme of the PROLIXE mooring

**At the end of the development phase, the development team needs a test site to conduct sea trials of the mooring before its first operational deployment.**

## 2 Specifications

The objectives of this document are defined as needs with a mandatory or optional feature.

### 2.1 General needs of the test site (N1)

Index	Description	Detail	Feature
N1.1	Reliable and proven test site	The candidate should propose a test site which has been used for a minimum of one-year, last test should have taken place after 2023	Optional
N1.2	Availability period	The test site should be available for a one-month test in the period from march to June 2026	Optional
N1.3	Distance from the closest port	The transit duration between the closest port and the test site should take less than 12 hours	Optional
N1.4	Depth of the deployment site	The dead-weight should be dropped at a depth between 80m and 3000m	Mandatory

### 2.2 Power and data (N2)

Index	Description	Detail	Feature
N2.1	Underwater cable and connector	The test site should be equipped with a cable fitted with a subsea connector, which allows energy supply and communication with the connected instruments	Mandatory
N2.2	Minimal power	The connector should have a power supply of 150 W minimum	Mandatory
N2.3	Input voltage	The power voltage at the connector should be between 48 and 325 VDC	Mandatory
N2.4	Communication protocol and bitrate	The communication protocol at the connector should be Ethernet, with a minimum bitrate of 60 Mbps	Mandatory
N2.5	Connection with the underwater connector	If the subsea connector is specific (inductive connector, wet-mate connector), the candidate should propose to loan the corresponding connector to allow Ifremer to make an interface cable with the docking station connector	Mandatory

### 2.3 Naval means (N3)

Index	Description	Detail	Feature
N3.1	Ship equipped with lifting equipment (crane or A-frame)	As the dead-weight must be dropped with precision to be able to reach the subsea connector, the mooring must be deployed anchor-first. To enable the lifting of the dead-weight and the docking station together, the lifting equipment should have a minimum 4m high lifting point and a SWL of minimum 4 tons.	Mandatory
N3.2	Enough space on the ship deck	The ship should have enough space on its deck to allow the handling of the equipment Station and dead-weight stacked on a dock: 3m x 3m, buoy: Ø3m	optional
N3.3	Ship equipped with a capstan (or equivalent) on the rear deck	The mooring line cable is wound on a reel. Its lower shackle is connected to the docking station. After the dead-weight and the docking station are immersed, the cable is unwound to low the station and the dead-weight down. For that purpose, the cable must be slowed down by a deck equipment as a capstan. This mean should have a SWL of minimum 1.5 tons	Mandatory
	Ship equipped with a ROV with manipulators	To enable the connection and the disconnection of the docking station to the subsea connector, a ROV with manipulator is needed: Lifting capacity of 10 daN + connector weight in water	Mandatory
N3.4	The contractor must own the ship	-----	Optional
N3.5	If N3.4 is not met, the contractor must have a reservation priority with the ship-owner	-----	Mandatory