

ANNEXE 2

**English version of the document :
Buoy support structure_CCTP_CNRS DR016_AO3**

PARIS-NORMANDIE DELEGATION

SPECIAL TECHNICAL SPECIFICATIONS

(In french : CCTP = Cahier des Clauses Techniques Particulières)

PUBLIC SUPPLY CONTRACTS

SUBJECT:

**Purchase of Mechanical structure for supporting buoys for new
detection lines for the KM3NeT-ORCA project as part of NEPTUNE
funding by the Normandy region.**

Lot n°02

BUYER :

CNRS-Délégation Paris-Normandie
3 rue Michel Ange
75794 PARIS Cedex 16

CONTRACTUAL FORM:

Single-award framework agreement based on unit prices following a formal open tender procedure in accordance with Articles L. 2124-2, R. 2124-2 and R. 2161-2 to R. 2161-5 of the Public Procurement Code.

This is a supply contract subject to the provisions of the General Administrative Clauses for Public Supply Contracts (CCAG/FCS) issued by the decree of 31 March 2021.

This document comprises 10 pages, including the cover page.

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LIST OF ABBREVIATIONS

CCAG	Cahier des Clauses Administratives Générale = General Administrative Terms and Conditions
CCTP	Cahier des Clauses Techniques Particulières = Special Technical Specifications
CCAP	Cahier des Clauses Administratives Particulières = Special Administrative Terms and Conditions
EPST	Etablissement public à caractère scientifique et technologique = Public scientific and technological institution
FCS	Fournitures courantes ou services = Routine supplies or services
HT	Hors taxes = Excluding taxes
RC	Règlement de la consultation = Consultation rules
RGPD	Règlement général sur la protection des données personnelles = General Data Protection Regulation
PEPR	Programmes et équipements prioritaires de recherche = Priority research programmes and equipment
SCTD	Service centralisé de traitement de la dépense = Centralised expenditure processing service
CNRS	Centre national de la recherche scientifique = National Centre for Scientific Research
LPCC	Laboratoire de Physique Corpusculaire de Caen = Caen Particle Physics Laboratory
CPPM	Centre de Physique des Particules de Marseille = Marseille Particle Physics Center
KM3NeT	Kilomètre cube Neutrino Telescope
ORCA	Oscillation Research with Cosmics in the Abyss
ARCA	Astroparticle Research with Cosmics in the Abyss
NEPTUNE	Neutrino Physics with Telescope Underwater
PEHD	Polyéthylène Haute Densité

APPENDICES TO « French CCTP »

Annexe 1	Set of plans « 3.5 liasse module bouée-FR-V3-2019.09.03.pdf »
Annexe 2	English translation of these Special Conditions of Contract

In these Special Conditions of Contract:

- The terms "equipment", "supplies" and "materials" refer interchangeably to the materials to be supplied for each lot;
- The term "Contractor", "holder", "supplier" refers to the company that is awarded one or more lots of the contract.;
- The term "Contract" refers to the agreement concluded between the CNRS and the Holder of each lot.

1 Preamble

The provision of the services defined in this document constitutes a contract with a public institution with an obligation of means and results.

The Contractor undertakes that it is able to perform this contract in strict compliance with the obligations set out in the contract documents, in particular with regard to confidentiality, qualification and insurance clauses.

The Contractor shall be deemed, under its responsibility and regardless of any justifications provided, to have received the legal authorisations to perform and to possess the professional qualifications corresponding to the nature and importance of the service covered by this contract. The Contractor shall be solely liable for any consequences that may arise from the fact that these qualifications do not comply with regulations or are incorrect and, in particular, for the consequences of any termination that the CNRS may rightly decide to implement as a result.

In addition to the documents constituting the consultation file, the Contract Holder is required to comply with the specifications and requirements of the decrees, orders, regulations, standards and texts in force on the date of submission of its tender.

2 Presentation

The national centre for scientific research (hereinafter « CNRS » - Centre National de la Recherche Scientifique) is a public research organisation (a public scientific and technological institution, EPST, under the supervision of the Ministry of Higher Education, Research and Innovation). It produces knowledge and puts this knowledge at the service of society.

Its governance is ensured by a chief executive officer, assisted by deputy chief executives.

With over 33,000 employees, a budget of €3.5 billion and a presence throughout France, the CNRS is active in all fields of knowledge, drawing on more than 1,100 laboratories.

Present in all fields of knowledge

As France's leading multidisciplinary research organisation, the CNRS conducts research in all scientific, technological and societal fields. It covers the entire spectrum of scientific disciplines.

The CNRS is active in all major disciplines, grouped into 10 institutes, and focuses on developing collaborations between specialists from different disciplines, particularly with universities, opening up new fields of research that meet the needs of the economy and society.

Present throughout the country

17 regional delegations ensure direct, local management of laboratories and maintain links with local partners and local authorities.

2.1 General context of the project

The NEPTUNE project, funded by the Normandy Region, aims to continue the construction of underwater infrastructure to establish a KM3NeT ORCA underwater observatory for neutrino research, which will ultimately consist of around 115 detection lines and instrumentation for marine and environmental science. It is located approximately 40 km south of Toulon at a depth of 2,500 m.

2.2 Background to the purchase

Each ORCA detection line, approximately 200 m high, consists of an anchor, 18 optical sensors and a float at the head of the line consisting of 4 syntactic foam cylinders.

The supply concerns the mechanical components that enable the assembly of the syntactic foam cylinders that make up this float.

These Special Technical Specifications describe all of the contractor's technical obligations under the contract. These obligations constitute a performance obligation for the contractor.

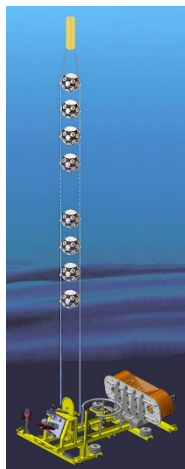


Figure 1: Diagram of a detection line

2.3 Subject matter of the contract

Purchase of mechanical structures of buoy supports for new detection lines for the KM3NeT-ORCA project as part of NEPTUNE funding by the Normandy region.

Quantity : 11 structures (Estimated quantity in relation to the budget allocation)

2.4 Allotment

This contract is a supply contract.

The contract is divided into 08 separate lots. Each lot is the subject of a separate contract.

Lots	Lot names
01	Cable vertical Opto-Electrique (VEOC)
02	Buoy support structure
03	Electronic card BPS (Base Power System)
04	Penetrator VEOC in Base Module
05	Cylindrical container of the Base Module
06	Electronic card CLB (Central Logic Board)
07	TSFP optical Tranceiver
08	Hydrophone

3 Description of expected equipment and general and technical specifications

3.1 Description of the expected equipment

3.1.1 General specifications

All mechanical parts for the buoy to be supplied by the contractor are specified in the set of plans « 3.5 liasse module bouée-FR-V3-2019.09.03.pdf » attached in annexe 1.

Specifically :

- | | |
|--------------------------------|------------------------|
| • Support plate assembly, | Landmark 2 parts list |
| • HDPE block, | Landmark 3 parts list |
| • Guide assembly, | Landmark 5 parts list |
| • Lock washer,Part, | Landmark 9 parts list |
| • Spring support pin, | Landmark 10 parts list |
| • M8*40 titanium FHC screw, | Landmark 11 parts list |
| • M8*25 stainless steel screw, | Landmark 12 parts list |

The quantities in the bill of materials correspond to 1 structure.

The CPPM laboratory in Marseille is responsible for assembling the components of this float.

The CPPM laboratory in Marseille is responsible for providing the following items:

- | | |
|----------------------------|---------------------------|
| • Syntactic foam, | Landmark 1 parts list |
| • Release pin, | Landmark 4 parts list |
| • 2 titanium U-bolts, | Landmark 6 parts list |
| • Stainless steel shackle, | Landmark 7 & 8 parts list |
| • Tevema spring, | Landmark 11 parts list |
| • Protective cap, | Landmark 14 parts list |

3.1.2 Dimensional specifications

All mechanical parts of the buoy must comply with the tolerances and specifications stated in the set of plans attached in annexe 1:

« 3.5 liasse module bouée-FR-V3-2019.09.03.pdf ».

3.1.3 Environment and conditions of use

The terms of use are as follows:

- - Permanent operating pressure : 250 bars,
- - Storage temperature : -10°C / +60°C,
- - Sea water temperature : 13°C,
- - Mechanical stresses : vibrations experienced during transport

The immersion lifespan must be **at least 15 years**.

3.1.4 Packaging for transport and storage

The equipment must be delivered in a box that protects it during transport.

The packaging must protect the equipment from mechanical shocks during transport.

Each box must be accompanied by a sheet detailing the technical characteristics of the equipment in the box.

The holder assumes all responsibility for transport, including insurance.

Transport costs shall be paid by the holder, including any import costs.

4 Delivery times / Terms and conditions of delivery and performance of services

Delivery is at the expense of the holder.

The equipment will be packaged to ensure safe transport.

Delivery will be made in a single phase.

The delivery time must be stated in the tender by the contractor, provided that it does not exceed the maximum time limit.

4.1 Maximum delivery time for all products

Maximum time limit : 04 months

4.2 Delivery terms and premises layout

Deliveries are made on working days from Monday to Friday between 9am and 12pm and between 2pm and 5pm.

Packaging and delivery shall be borne by the contractor.

The contractor is responsible for packaging, packing, loading and stowage operations.

The risks associated with transport to the place of delivery are borne by the contractor.

The exact date of delivery of the services will be agreed upon between the laboratory and the contractor

The services delivered by the contractor or their representative must be accompanied by a delivery note drawn up in duplicate, specifying:

- ✧ The date of dispatch,
- ✧ Tender references,
- ✧ Identification of the contractor,
- ✧ Identification of delivered supplies.

Damage caused by deliveries and installations:

The holder remains liable for any damage of any kind caused by their agents or the carrier to equipment: buildings, land, plantations, installations, etc.....

The CNRS reserves the right to carry out itself or have carried out, on behalf of the holder, the repair of any damage caused.

4.3 CNRS Technical Correspondents

Jérôme PERRONNEL

Laboratoire de Physique Corpusculaire de Caen - LPCC

6 Boulevard Maréchal Juin

F-14050 Caen cedex

France

4.4 KM3NeT Technical Correspondents

Alain COSQUER

Centre de Physique des Particules de Marseille - CPPM

163, avenue de Luminy - Case 902

13288 Marseille cedex 09

France

4.5 Delivery locations / Access

Delivery must be made to the following address:

Centre de Physique des Particules de Marseille - CPPM
Attn : Nick LUMB
163, avenue de Luminy - Case 902
13288 Marseille cedex 09
France

- Access : Articulated lorries are not permitted on the CPPM campus. Only rigid lorries may access the campus (length < 13 metres)..

5 Documentation to be provided by the contractor

Documents must be written in French and/or English.

5.1 Documentation upon delivery

- A certificate of conformity must be provided upon delivery.

5.2 Tender documentation

- A production and delivery schedule
- A quotation detailing the cost of materials and transport

6 Verification operations

Upon delivery, the CNRS carries out the following checks and tests:

- Visual inspection
- Documentation control
- Dimension control

6.1 Terms and conditions for final acceptance of services

Final acceptance shall be declared within a maximum of two weeks after delivery, following the checks described in § 6 and the provision of the documentation listed in § 5.1