

**Switzerland-Geneva: Research and development services and related consultancy services**  
**OJ S 226/2018 23/11/2018**  
**Contract award notice**  
**Services**

**Directive 2004/18/EC**

**Section I: Contracting authority**

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**I.1. Name and addresses**

Official name: European Organization for Nuclear Research (CERN)

Postal address: Esplanade des Particules 1

Town: Genève

Postal code: 1211

Country: Switzerland

Contact person: CERN

For the attention of: Christophe Veys

E-mail: [HL-Quaco-procurement@cern.ch](mailto:HL-Quaco-procurement@cern.ch)

**Internet address(es):**

General address of the contracting authority: <http://www.cern.ch/>

Electronic submission of tenders and requests to participate: <https://quaco.web.cern.ch/>

**I.2. Type of the contracting authority**

European institution/agency or international organisation

**I.3. Main activity**

Other: European Organization for Nuclear Research (CERN)

**I.4. Contract award on behalf of other contracting authorities**

The contracting authority is purchasing on behalf of other contracting authorities: yes

Official name: Le Commissariat à l'énergie atomique et aux énergies alternatives (CEA)

Postal address: Centre d'Etudes Nucléaire de Saclay

Town: Saclay

Postal code: 91400

Country: France

Official name: Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas (CIEMAT)

Postal address: Avenida Complutense, 40

Town: Madrid

Postal code: 28040

Country: Spain

Official name: Narodowe Centrum Badań Jądrowych (NCBJ)

Postal address: ul. Andrzeja Sołtana 7

Town: Otwock, Świerk

Postal code: 05-400

Country: Poland

**Section II: Object of the contract**

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**II.1. Description**

### **II.1.1. Title**

Quadrupole Corrector First-of-a-kind for HL-LHC (QUACO Pre-commercial Procurement):  
Phase 3 Development of a First-of-a-kind Magnet and Testing

### **II.1.2. Type of contract and place of performance or delivery**

Services

Service category No 8: Research and development services

Main site or place of performance: R&D-services will be executed at the tenderers premises and delivered to the CERN site.

NUTS code

### **II.1.3. Information about a framework agreement or a dynamic purchasing system (DPS)**

The procurement involves the establishment of a framework agreement

### **II.1.4. Short description of the contract or purchase(s)**

The 2 contractors are awarded Research and Development (R&D) service contracts with the aim to develop each a First-of-a-kind magnet including production testing and its associated tooling based on the results from Phase 1 and the developed Engineering Detailed Design in Phase 2. This award notice refers to the award of contracts in Phase 3 of the PCP.

Background:

To extend its discovery potential, the Large Hadron Collider (LHC) will need a major upgrade in the 2020s to increase its luminosity. The integrated luminosity goal is a ten-fold increase of the nominal design value. As a highly complex and optimized machine, such an upgrade must be carefully studied. The necessary developments will require many years of prototyping, testing and implementing.

The new configuration of the machine, HL LHC, among other things, will be based on a new generation of magnets in the 2 high-luminosity interaction regions, aiming to provide a stronger beam focusing. All of these magnets constitute a significant technical challenge at the edge and beyond the actual state-of-the-art technology. The technical challenges range from materials (i.e. NbTi and Nb<sub>3</sub>Sn superconductor cables with unprecedented current carrying density), process (i.e. 3D printing to precision manufacture magnet subcomponents), design techniques (i.e. extensive use of prototype and testing to retro-fit the design production).

This Pre-Commercial procurement focuses on the realization of R&D services to develop MQYY superconducting quadrupole magnets that will be used in the Q4 Cryoassembly on the HL-LHC project. The MQYY will be part of the Insertion Region (IR) magnets delivering the beams to the CMS and ATLAS experiments.

### **II.1.5. CPV code(s)**

73000000 Research and development services and related consultancy services, 73300000 Design and execution of research and development, 31630000 Magnets

### **II.1.6. Information about the Government Procurement Agreement (GPA)**

The procurement is covered by the Government Procurement Agreement: no

## **II.2. Total value of the contract/lot**

### **II.2.1. Total value of the contract/lot**

## **Section IV: Procedure**

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### **IV.1. Type of procedure**

#### **IV.1.1. Type of procedure**

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Open

## **IV.2. Award criteria**

### **IV.2.1. Award criteria**

The most economically advantageous tender in terms of

1. Merit of the technical plan, the technical solution and top level manufacturing plan. Weighting 170
2. Merit of the technical capacity of the team that will execute the contract. Weighting 60
3. Merit of the time shedule. Weighting 70
4. Commercialisation approach. Weighting 50
5. Price. Weighting 250

### **IV.2.2. Information about electronic auction**

An electronic auction has been used: no

## **IV.3. Administrative information**

### **IV.3.1. File reference number attributed by the contracting authority**

IT-4191/TE/HL-LHC-Phase 3

### **IV.3.2. Previous publication concerning this procedure**

#### **Prior information notice**

Notice number in the OJ S: [2016/S 012-017759](#) of 19.1.2016

#### **Contract notice**

Notice number in the OJ S: [2016/S 107-192143](#) of 4.6.2016

#### **Voluntary ex ante transparency notice**

Notice number in the OJ S: [2016/S 213-389290](#) of 4.11.2016

#### **Other previous publications**

Notice number in the OJ S: [2017/S 139-265060](#) of 8.7.2017

## **Section V: Award of contract**

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Contract No: F-698-Phase 3

### **V.1. Date of conclusion of the contract**

30.10.2018

### **V.2. Information about tenders**

### **V.3. Name and address of the contractor**

Official name: Elytt Energy

Town: Madrid

Postal code: 28020

Country: Spain

### **V.4. Information on value of the contract/lot**

### **V.5. Information about subcontracting**

The contract is likely to be subcontracted: yes

Value or proportion likely to be subcontracted to third parties:

Not known

Contract No: F-696-Phase 3

### **V.1.**

**Date of conclusion of the contract**

30.10.2018

**V.2. Information about tenders****V.3. Name and address of the contractor**

Official name: Sigmaphi

Town: Vannes

Country: France

**V.4. Information on value of the contract/lot****V.5. Information about subcontracting****Section VI: Complementary information**

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**VI.1. Information about European Union funds**

The procurement is related to a project and/or programme financed by European Union funds:  
yes

Identification of the project: Funded by the European Union's Horizon 2020 Research and Innovation Programme under grant agreement No. 689359.

**VI.2. Additional information****VI.3. Procedures for review****VI.3.1. Review body**

Official name: The Arbitration Tribunal of Geneva

Country: Switzerland

**VI.3.2. Review procedure****VI.3.3. Service from which information about the review procedure may be obtained****VI.4. Date of dispatch of this notice**

20.11.2018