

El presente anuncio en el sitio web de TED: <http://ted.europa.eu/udl?uri=TED:NOTICE:202138-2018:TEXT:ES:HTML>

**Francia-París: Superordenador
2018/S 090-202138**

Anuncio de licitación

Suministros

Directiva 2014/24/UE

Apartado I: Poder adjudicador

I.1) **Nombre y direcciones**

Grand équipement national de calcul intensif (GENCI)
6bis rue Auguste Vitu
Paris
75015
Francia

Persona de contacto: Mrs. Laura Preud'homme

Teléfono: +33 612780719

Correo electrónico: achat@genci.fr

Código NUTS: FR101

Direcciones de internet:

Dirección principal: www.genci.fr

I.1) **Nombre y direcciones**

Barcelona Supercomputing Center (BSC)
6bis rue Auguste Vitu
Paris
75015
Francia

Correo electrónico: achat@genci.fr

Código NUTS: FR101

Direcciones de internet:

Dirección principal: <https://www.bsc.es/>

I.1) **Nombre y direcciones**

Forschungszentrum Jülich, Jülich Supercomputing Centre
6bis rue Auguste Vitu
Paris
75015
Francia

Correo electrónico: achat@genci.fr

Código NUTS: FR101

Direcciones de internet:

Dirección principal: http://www.fz-juelich.de/ias/jsc/EN/Home/home_node.html

I.1) **Nombre y direcciones**

Cineca

6bis rue Auguste Vitu

Paris

75015

Francia

Correo electrónico: achat@genci.fr

Código NUTS: FR101

Direcciones de internet:

Dirección principal: <https://www.cineca.it/>

I.2) **Información sobre contratación conjunta**

El contrato se refiere a una contratación conjunta

En caso de contratación conjunta que implique la participación de diferentes países, será de aplicación la legislación nacional en materia de contratación pública de:

French procurement law.

I.3) **Comunicación**

Acceso restringido a los pliegos de la contratación. Puede obtenerse más información en: <https://ppi4hpc.eu>

Puede obtenerse más información en la dirección mencionada arriba

Las ofertas o solicitudes de participación deben enviarse a la dirección mencionada arriba

I.4) **Tipo de poder adjudicador**

Organismo de Derecho público

I.5) **Principal actividad**

Otra actividad: Research

Apartado II: Objeto

II.1) **Ámbito de la contratación**

II.1.1) **Denominación:**

Public procurement of innovative solutions (PPI) to buy innovative high-performance IT equipment for European supercomputing centres

Número de referencia: PPI4HPC

II.1.2) **Código CPV principal**

30211100

II.1.3) **Tipo de contrato**

Suministros

II.1.4) **Breve descripción:**

This Contract Notice invites interested economic operators to submit tenders to a PPI procurement that addresses the following challenge: providing high-performance IT equipment for European supercomputing centres.

The procurement involves 4 public procurers (BSC, JUELICH, CINECA and GENCI) located in 4 different countries (Spain, Germany, Italy and France) working together in a joint procurement. The purpose of the procurement is for each public procurer to purchase an innovative high-performance supercomputer and/or an innovative high-performance storage system that will be integrated in their computing centre. These systems are expected to be deployed in the time frame 2019-2021.

Additional information under this section and the Contract Notice in its entirety are available on the PPI4HPC website at the following address: <https://ppi4hpc.eu>

II.1.5) **Valor total estimado**

Valor IVA excluido: 73 000 000.00 EUR

II.1.6) **Información relativa a los lotes**

El contrato está dividido en lotes: sí
Pueden presentarse ofertas para todos los lotes

II.2) **Descripción**

II.2.1) **Denominación:**

Storage and computing infrastructure for high-performance data analytics
Lote nº: 1

II.2.2) **Código(s) CPV adicional(es)**

30211300

II.2.3) **Lugar de ejecución**

Código NUTS: ES
Emplazamiento o lugar de ejecución principal:
Barcelona Supercomputing Center, Carrer de Jordi Girona, 29-31, 08034 Barcelona, Spain.

II.2.4) **Descripción del contrato:**

In this lot, BSC will acquire storage and computing infrastructure for high-performance data analytics to be installed during the second half of 2019. The BSC HPDA infrastructure will combine compute nodes with innovative storage technologies like NVRAM in conjunction with storage technologies already in place at BSC, such as normal hard drives and tape infrastructure, configured in a tiered storage solution to store hundreds of petabytes of scientific data.

For the storage part, an innovative tiered storage solution scalable to hundreds of petabytes is expected. It will feed and provide data to the different BSC HPC and HPDA resources now and in the years to come during the pre-exascale period.

For the compute part, a high-performance data analytics infrastructure will be acquired to complement installed BSC HPC production clusters. They will pre- or post-process simulation data with new big data or analytics paradigms and algorithms.

Innovative solutions for massive data storage and tiering are expected for this lot.

Additional information under this section and the Contract Notice in its entirety are available on the PPI4HPC website at the following address: <https://ppi4hpc.eu>

II.2.5) **Criterios de adjudicación**

El precio no es el único criterio de adjudicación, y todos los criterios figuran únicamente en los pliegos de la contratación

II.2.6) **Valor estimado**

Valor IVA excluido: 1 350 000.00 EUR

II.2.7) **Duración del contrato, acuerdo marco o sistema dinámico de adquisición**

Duración en meses: 36
Este contrato podrá ser renovado: no

II.2.9) **Información sobre la limitación del número de candidatos a los que se invitará**

Número mínimo previsto: 3
Número máximo: 6
Criterios objetivos aplicables a la selección del número limitado de candidatos:

1) economic and financial standing of the candidate assessed with regard to the factor by which the candidate's average annual revenue in 2016 and 2017 exceeds the budget of the lot as indicated in the Contract Notice (20%);

2) technical and professional ability of the candidate assessed with regard to the following subcriteria (80%):
— the quality of the principal deliveries or services performed by the candidate assessed with regard to the number of references for storage systems with a capacity of at least 10 PB installed since June 2017 (40%),
— the measures used by the candidate to ensure the quality of and means for R and D assessed with regard to the number of references to R and D projects (title, short summary and staff profile) since 2015, in which the candidate was involved with personnel executing R and D services (20%),
— the educational and professional qualifications of the candidate assessed with regard to the number of experts the candidate has among their staff covering the following roles as well with respect to the coverage of all roles by different persons (20%):
— systems architect;
— systems engineer;
— data centre infrastructure specialist;
— application / benchmarking specialist;
— project manager.

II.2.10) **Información sobre las variantes**

Se aceptarán variantes: no

II.2.11) **Información sobre las opciones**

Opciones: no

II.2.12) **Información sobre catálogos electrónicos**

II.2.13) **Información sobre fondos de la Unión Europea**

El contrato se refiere a un proyecto o programa financiado con fondos de la Unión Europea: sí
Identificación del proyecto: Grant agreement No 754271 – PPI4HPC

II.2.14) **Información adicional**

Additional information under this section and the Contract Notice in its entirety are available on the PPI4HPC website at the following address: <https://ppi4hpc.eu>

II.2) **Descripción**

II.2.1) **Denominación:**

Acquisition, delivery, installation and maintenance of a supercomputer with innovative support for data-intensive applications
Lote nº: 2

II.2.2) **Código(s) CPV adicional(es)**

30200000

II.2.3) **Lugar de ejecución**

Código NUTS: DE

Emplazamiento o lugar de ejecución principal:

Forschungszentrum Jülich GmbH, Wilhelm-Johnen-Straße, Jülich Supercomputing Centre, 52428 Jülich, Germany.

II.2.4) **Descripción del contrato:**

The goal of the lot is to procure a high-performance computing resource that is planned to be installed at Jülich Supercomputing Centre's (JSC) supercomputing facility by the end of 2020. The system will replace

the currently operated JURECA cluster and must be able to execute the diverse workloads of this system with significantly higher performance and energy efficiency. In addition, the system shall have architectural features specifically targeted at data-intensive science. In particular, JSC expects the system to integrate dense memory technologies into its memory hierarchy and to expose this memory to applications through novel APIs. The system is expected to be connected to the central storage subsystem in the JSC facility with high bandwidth. In addition to the dense memory integration, JSC expects innovative hardware and software solutions offering high energy efficiency as well as improved facility integration (e.g. improved power monitoring and control) and application performance monitoring capabilities.

Additional information under this section and the Contract Notice in its entirety are available on the PPI4HPC website at the following address: <https://ppi4hpc.eu>

II.2.5) **Criterios de adjudicación**

El precio no es el único criterio de adjudicación, y todos los criterios figuran únicamente en los pliegos de la contratación

II.2.6) **Valor estimado**

Valor IVA excluido: 24 200 000.00 EUR

II.2.7) **Duración del contrato, acuerdo marco o sistema dinámico de adquisición**

Duración en meses: 72

Este contrato podrá ser renovado: no

II.2.9) **Información sobre la limitación del número de candidatos a los que se invitará**

Número mínimo previsto: 3

Criterios objetivos aplicables a la selección del número limitado de candidatos:

1) economic and financial standing of the candidate assessed with regard to the factor by which the candidate's average annual revenue in 2016 and 2017 exceeds the budget of the lot as indicated in the Contract Notice (30%);

2) technical and professional ability of the candidate assessed with regard to the following subcriteria (70%):

— the quality of the principal deliveries performed by the candidate assessed with regard to the number of references for systems listed in any of the Top500 lists published since June 2017 (30%),

— the measures used by the candidate to ensure the quality of and means for R and D assessed with regard to the number of references to R and D projects (title, short summary and staff profile) since 2015, in which the candidate was involved with personnel executing R and D services (15%),

— the educational and professional qualifications of the candidate assessed with regard to the number of experts the candidate has among their staff covering the following roles as well with respect to the coverage of all roles by different persons (25%):

— systems architect,

— systems engineer,

— data centre infrastructure specialist,

— application / benchmarking specialist,

— project manager.

The candidates who score at least 31% will qualify and be invited to participate in the dialogue.

II.2.10) **Información sobre las variantes**

Se aceptarán variantes: no

II.2.11) **Información sobre las opciones**

Opciones: sí

Descripción de las opciones:

The contract will enter into force from its notification to the awarded economic operator and will last five (5) years, with the option to extend the duration by another year. The option to extend the five (5) year contract by another year needs to be taken into account in the financial offer (Proposal Statement). No changes to the original contract will be made for the optional year. JUELICH will inform the contractor at least one (1) month before the termination of the five (5) year contract whether the option will be chosen.

II.2.12) **Información sobre catálogos electrónicos**

II.2.13) **Información sobre fondos de la Unión Europea**

El contrato se refiere a un proyecto o programa financiado con fondos de la Unión Europea: sí
Identificación del proyecto: Grant agreement No 754271 – PPI4HPC

II.2.14) **Información adicional**

Additional information under this section and the Contract Notice in its entirety are available on the PPI4HPC website at the following address: <https://ppi4hpc.eu>

II.2) **Descripción**

II.2.1) **Denominación:**

Evolution of the Tier-0 system towards exascale architectures
Lote nº: 3

II.2.2) **Código(s) CPV adicional(es)**

30211100

II.2.3) **Lugar de ejecución**

Código NUTS: IT
Emplazamiento o lugar de ejecución principal:
CINECA, Via Magnanelli, 6/3, 40033 Casalecchio di Reno BO, Italia.

II.2.4) **Descripción del contrato:**

The goal of the lot is to procure a new supercomputing system that will replace the throughput partition of MARCONI installed in CINECA's data centre. With the deployment of the new system, scheduled for the second half of 2019, CINECA aims to achieve a computing power of the order of tens of PFlops featuring a node architecture that maximizes the performance throughput per energy unit. The new system will support CINECA's commitment to providing leading-edge innovative computing resources to European research as a PRACE Tier-0 hosting member. The procured resource integrated in the MARCONI infrastructure will represent a new step towards the architectural convergence of high-performance computing and high-performance data analytics (data-centric architecture) and will be able to run computing and data intensive workloads, which is particularly relevant for solutions with a high energy efficiency. In this regard, the system will benefit from innovative hardware and software solutions that aim to reduce power consumption, improve power management and enhance I/O performance, helping to make supercomputing sustainable towards exascale for a broad range of scientific applications.

Additional information under this section and the Contract Notice in its entirety are available on the PPI4HPC website at the following address: <https://ppi4hpc.eu>

II.2.5) **Criterios de adjudicación**

El precio no es el único criterio de adjudicación, y todos los criterios figuran únicamente en los pliegos de la contratación

II.2.6) **Valor estimado**

Valor IVA excluido: 25 000 000.00 EUR

II.2.7) **Duración del contrato, acuerdo marco o sistema dinámico de adquisición**

Duración en meses: 48

Este contrato podrá ser renovado: no

II.2.9) **Información sobre la limitación del número de candidatos a los que se invitará**

Número mínimo previsto: 3

Número máximo: 10

Criterios objetivos aplicables a la selección del número limitado de candidatos:

1) economic and financial standing of the candidate assessed with regard to the factor by which the candidate's average annual revenue in 2016 and 2017 exceeds the budget of the lot as indicated in the Contract Notice (50%);

2) technical and professional ability of the candidate assessed with regard to the following subcriteria (50%):

— the quality of the principal deliveries performed by the candidate assessed with regard to the number of references for systems listed in any of the Top500 lists published since June 2017 (30%),

— the measures used by the candidate to ensure the quality of and means for R and D assessed with regard to the number of references to R and D projects (title, short summary and staff profile) since 2015, in which the candidate was involved with personnel executing R and D services (10%),

— The educational and professional qualifications of the candidate assessed with regard to the number of experts the candidate has among their staff covering the following roles as well with respect to the coverage of all roles by different persons (10%):

— systems architect;

— systems engineer;

— data centre infrastructure specialist;

— application / benchmarking specialist;

— project manager.

In the event that 2 or more candidates obtain the same score for tenth place, they will be qualified and be invited to participate in the dialogue.

II.2.10) **Información sobre las variantes**

Se aceptarán variantes: no

II.2.11) **Información sobre las opciones**

Opciones: no

II.2.12) **Información sobre catálogos electrónicos**

II.2.13) **Información sobre fondos de la Unión Europea**

El contrato se refiere a un proyecto o programa financiado con fondos de la Unión Europea: sí

Identificación del proyecto: Grant agreement No 754271 – PPI4HPC

II.2.14) **Información adicional**

Additional information under this section and the Contract Notice in its entirety are available on the PPI4HPC website at the following address: <https://ppi4hpc.eu>

II.2) **Descripción**

II.2.1) **Denominación:**

Framework Agreement for the acquisition, delivery, installation, maintenance and decommissioning of a high-performance and energy-efficient computing system towards the convergence of HPC, HPDA and AI

Lote nº: 4

II.2.2) **Código(s) CPV adicional(es)**

30211100

II.2.3) **Lugar de ejecución**

Código NUTS: FR104

Emplazamiento o lugar de ejecución principal:

CEA DAM Île-de-France, TGCC (Très grand centre de calcul du CEA), chemin Grand Rué, 91680 Bruyères-le-Châtel, France.

II.2.4) **Descripción del contrato:**

The goal of the lot is to increase, during the second half of 2019, the computing power installed in the TGCC (Très grand centre de calcul du CEA, located near Paris) and make it available to French and European researchers. Targeting several tens of Petaflops, the new HPC resource will be seamlessly integrated into the system installed in early 2018 in the same location. The new system will provide a balanced architecture for scientific applications, including very high IO bandwidth connection to the storage system of the TGCC. In order to fulfil such requirements and to achieve a high-energy efficiency together with an excellent performance / TCO ratio towards exascale systems, GENCI expects innovative solutions both in terms of hardware (processors, interconnection network...) and in terms of software (novel programming models...) as well as strong support from the provider, particularly during early operation of the new system including a contribution to application porting and optimization.

Additional information under this section and the Contract Notice in its entirety are available on the PPI4HPC website at the following address: <https://ppi4hpc.eu>

II.2.5) **Criterios de adjudicación**

El precio no es el único criterio de adjudicación, y todos los criterios figuran únicamente en los pliegos de la contratación

II.2.6) **Valor estimado**

Valor IVA excluido: 32 000 000.00 EUR

II.2.7) **Duración del contrato, acuerdo marco o sistema dinámico de adquisición**

Duración en meses: 108

Este contrato podrá ser renovado: no

II.2.9) **Información sobre la limitación del número de candidatos a los que se invitará**

Número mínimo previsto: 3

Número máximo: 5

Criterios objetivos aplicables a la selección del número limitado de candidatos:

1) economic and financial standing of the candidate assessed with regard to the factor by which the candidate's average annual revenue in 2016 and 2017 exceeds the budget of the lot as indicated in the Contract Notice (20%);

2) technical and professional ability of the candidate assessed with regard to the following subcriteria (80%):

— the quality of the principal deliveries performed by the candidate assessed with regard to the number of references for systems listed in any of the Top500 lists published since June 2017 (25%),

— the measures used by the candidate to ensure the quality of and means for R and D assessed with regard to the number of references to R and D projects (title, short summary and staff profile) since 2015, in which the candidate was involved with personnel executing R and D services (25%),

— the educational and professional qualifications of the candidate assessed with regard to the number of experts the candidate has among their staff covering the following roles as well with respect to the coverage of all roles by different persons (5%):

— systems architect;

— systems engineer;

— data centre infrastructure specialist;
— application / benchmarking specialist;
— project manager;
— the qualification and availability of the staff, including supervisory staff, of the candidate assessed with regard to the number of persons dedicated to support for this kind of innovative system, with expertise high enough to support such a system and with the capacity to be on site in less than 24 hours (25%).
The candidates who score at least 60% will qualify and be invited to participate in the dialogue.

II.2.10) **Información sobre las variantes**

Se aceptarán variantes: no

II.2.11) **Información sobre las opciones**

Opciones: no

II.2.12) **Información sobre catálogos electrónicos**

II.2.13) **Información sobre fondos de la Unión Europea**

El contrato se refiere a un proyecto o programa financiado con fondos de la Unión Europea: sí
Identificación del proyecto: Grant agreement No 754271 – PPI4HPC

II.2.14) **Información adicional**

Additional information under this section and the Contract Notice in its entirety are available on the PPI4HPC website at the following address: <https://ppi4hpc.eu>

Apartado III: Información de carácter jurídico, económico, financiero y técnico

III.1) **Condiciones de participación**

III.1.1) **Habilitación para ejercer la actividad profesional, incluidos los requisitos relativos a la inscripción en un registro profesional o mercantil**

Lista y breve descripción de las condiciones:

1) The application letter DC1 or equivalent.

The application letter DC1 is available on the PPI4HPC website: <https://ppi4hpc.eu>

2) The application declaration DC2 or equivalent.

The application declaration DC2 is available on the PPI4HPC website: <https://ppi4hpc.eu>

III.1.2) **Situación económica y financiera**

Lista y breve descripción de los criterios de selección:

3) A statement concerning the global turnover of the candidate and the turnover of the activity sector being the object of the procurement procedure, concerning the last three available financial exercises according to the date of creation of the company or the beginning of activity of the economic operator.

4) Appropriate statements from banks or insurance companies providing evidence of insurance against relevant occupational risks.

5) Balance sheets or extracts from the balance sheets, for the last 3 years, for the economic operators for whom the drawing up of balance sheets is mandatory under the law.

III.1.3) **Capacidad técnica y profesional**

Lista y breve descripción de los criterios de selección:

6) A list of the principal deliveries or services performed by the candidate during the last 3 years, showing the amount, date, location and public or private recipient. The deliveries and services are evidenced by certificates from the recipient or by a declaration of the economic operator.

7) A statement indicating the annual average staff of the candidate and the importance of the supervisory staff over the last 3 years.

8) A statement of the educational and professional qualifications of the candidate or of the management staff, and in particular, those responsible for the provision of the services or the conduct of work which have the same nature as the purpose of the procurement procedure.

9) A description of the tools, equipment and technical equipment available to the candidate for the performance of the public contracts.

10) A description of the technical equipment as well as the measures used by the candidate to ensure the quality of and means for R and D.

11) Professional qualification certificates drawn up by independent bodies.

12) Certificates drawn up by official quality control institutes or departments authorized to certify the conformity of supplies by references to certain technical specifications.

III.1.5) Información sobre contratos reservados

III.2) Condiciones relativas al contrato

III.2.2) Condiciones de ejecución del contrato:

III.2.3) Información sobre el personal encargado de la ejecución del contrato

Apartado IV: Procedimiento

IV.1) Descripción

IV.1.1) Tipo de procedimiento

Diálogo competitivo

IV.1.3) Información sobre un acuerdo marco o un sistema dinámico de adquisición

IV.1.4) Información sobre la reducción del número de soluciones u ofertas durante la negociación o el diálogo

Aplicación del procedimiento en fases sucesivas con el fin de reducir gradualmente el número de soluciones que se examinarán o de ofertas que se negociarán

IV.1.6) Información sobre la subasta electrónica

IV.1.8) Información acerca del Acuerdo sobre Contratación Pública

El contrato está cubierto por el Acuerdo sobre Contratación Pública: sí

IV.2) Información administrativa

IV.2.1) Publicación anterior referente al presente procedimiento

Número de anuncio en el DO S: [2017/S 126-256030](#)

IV.2.2) Plazo para la recepción de ofertas o solicitudes de participación

Fecha: 09/07/2018

Hora local: 12:00

IV.2.3) Fecha estimada de envío a los candidatos seleccionados de las invitaciones a licitar o a participar

Fecha: 20/08/2018

IV.2.4) Lenguas en que pueden presentarse las ofertas o las solicitudes de participación:

Inglés

IV.2.6) Plazo mínimo durante el cual el licitador estará obligado a mantener su oferta

Duración en meses: 6 (a partir de la fecha declarada de recepción de ofertas)

IV.2.7) Condiciones para la apertura de las plicas

Apartado VI: Información complementaria

VI.1) Información sobre la periodicidad

Se trata de contratos periódicos: no

VI.2) Información sobre flujos de trabajo electrónicos

VI.3) **Información adicional:**

Participation in the open market consultation (open dialogue event, one-to-one meetings) that was held as part of the preparation for this procurement is not a prerequisite for submitting a tender. For more information about the open market consultation Q and A, see <https://ppi4hpc.eu/call-for-tender/questions-and-answers>

The requests to participate for each lot must be submitted in English for all 4 lots.

The candidates can:

— send their request to participate by a registered letter with acknowledgment of receipt to the following address:

GENCI, To Ms. Laura Preud'homme, 6bis rue Auguste Vitu, 75015 Paris, France

— personally deliver their request to participate with confirmation of receipt Monday to Friday from 9:00 to 12:00 and from 14:00 to 17:00 to the same address.

For each lot, each request to participate must be submitted as one original hard copy as well as on a USB key.

The documents of the request to participate contained on the flash drive must be identical to the original hard copy. In case of contradiction, the original hard copy will prevail over the elements contained on a flash drive.

The request to participate of the candidate must be submitted in an envelope carrying the stamp of the candidate and the remark "Public procurement of innovative solutions (PPI) to buy innovative solutions of high-performance IT equipment for European supercomputing centres — lot n° X — Do not open.

Additional information regarding Section I.3) Communication: access to the procurement documents is restricted pursuant to Article 41, II-3° and 5° of decree n° 2016-360 dated 25.3.2016.

More information:

See:

— the project website (see <https://ppi4hpc.eu>),

— PPIs on the Europa website (<http://ec.europa.eu/digital-agenda/en/innovation-procurement>) or contact: achat@genci.fr

Management of the Q and As: all questions concerning the application phase must be addressed to achat@genci.fr and at the latest 14 calendar days before the deadline for submission of requests to participate.

The answers will be published on the PPI4HPC website (<https://ppi4hpc.eu>) no later than 6 days before the deadline for receipt of the requests to participate.

There is no restriction on the number of lots that can be awarded to the same candidate.

VI.4) **Procedimientos de recurso**

VI.4.1) **Órgano competente para los procedimientos de recurso**

Tribunal de grande instance de Paris

parvis du Tribunal de Paris

Paris

75017

Francia

Teléfono: +33 144325151

VI.4.2) **Órgano competente para los procedimientos de mediación**

VI.4.3) **Procedimiento de recurso**

VI.4.4) **Servicio del cual se puede obtener información sobre el procedimiento de recurso**

Tribunal de grande instance de Paris

parvis du Tribunal de Paris

Paris

75017

Francia

Teléfono: +33 144325151

VI.5) **Fecha de envío del presente anuncio:**
09/05/2018