



INFORMATION and COMMUNICATION TECHNOLOGY SERVICE

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Special Tender Specifications for the supply of technical assistance service provider for the maintenance of structured cabling systems for the European University Institute.



YEAR 2022

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TITLE I

GENERAL INFORMATION ON THE CONTRACT

Article 1 Presentation of the European University Institute

The European University Institute (EUI) offers post-graduate and post-doctorate courses in the social sciences only. Founded by the [Convention](#) of 19/04/1972 (Law no. 920 of [23/12/1972](#) published in the Official Journal no. 19 of [23/01/1973](#)) ratified by the Member States of the European Community in order to provide advanced academic training for PhD researchers and to promote research at the highest levels. The Convention includes the "Protocol on the Privileges and Immunities".

The EUI Community has approximately 1,300 members. Researchers, teachers, and administrative staff are selected mainly from among citizens of the Member States, but not exclusively.

The registered office is at the Badia Fiesolana in Via dei Roccettini in San Domenico-Fiesole (FI).

For more information please visit the official website at www.eui.eu.

Article 2 Definitions

"Contracting Authority", "Institute" and "Client" shall mean the European University Institute (EUI), which will be awarding the contract for the supply of services that are the object of these Special Tender Specifications (STS) to the successful Company.

"Company" shall mean the Company that is awarded the contract through the tender procedure, for the supply of services that are the object of these STS.

"Competitor", "Candidate" and "Tenderer" shall mean any company that submits an Offer through the tender procedure.

"Service in Charge of the tender procedure" shall mean the EUI's Information and Communication Technology Service (ICT Service).

"Tenderer" shall mean any company that makes a tender.

"Total service availability" means a service level indicator that measures the percentage of time for which the service has been available overall, i.e. not affected only by blocking failures in the reporting period; this percentage is therefore inclusive of downtime for any scheduled maintenance.

"Blocking failure" means a malfunction that makes a service or its main component totally inaccessible or unusable.

"Non-blocking failure" means a malfunction that renders inaccessible or unusable secondary components of a service or degrades the performance of its main components.

"Line rate" means the speed of data transmission over a telecommunications circuit or network.

"Major change": expansion that significantly alters the capacity and functionality of the service.

"Minor change": expansion that does not significantly alter the capacity and functionality of the service

"n.b.d.": acronym for next business day.

"RJ45": Registered Jack type 45, indicates a physical interface used for the attestation of electrical cables in pairs of crossed conductors.

"Workstation alias Postazione di Lavoro /PdL" : It is the point of connection of the end users to the network and is composed of several sockets. Both telephone devices (faxes, telephones, etc.) and computer equipment (PCs, printers, etc.) can be connected to the same socket. Each workplace will be made from at least two RJ45 sockets.

"Horizontal wiring": it is the one that from the "user socket" of the workplace (PDL) reaches the sub-divider or floor divider (SR). It is called "horizontal wiring" because, in a multi-storey building, it normally connects all users of a floor, although it can serve users located on several floors.

The "vertical wiring", or "building backbone", connects (again in the star topology) the different branches of horizontal wiring, connecting the sub-divider or floor divider (SR) to the general divider (RG) of the building.

"Sub-divider" or "Floor divider" (SR): It is the cabinet in which all the connections to the Sockets of the PdL of the respective plane or zone converge.

"General divider" (RG): It is the network connection cabinet with the outside of the building (public telephone network and / or RG of another building). It can also act as an SR for the respective plan or zone.

"Dorsals": They are the set of connections between dividers, SR-SR or RG-SR. Generally guaranteed by mono-modal or multi-modal fiber optic cables depending on the distances and needs.

"Ethernet cable": outwardly it is long wire covered with a plastic sheath. Inside the plastic sheath, between various protective and shielding layers is 4-pair braided copper responsible for data transmission.

"UTP" (Unshielded Twisted Pair): Identifies an unshielded cable commonly used for connection in ethernet networks.

The "STP": (Shielded Twisted Pair) is the same as the UTP cable, but each of the 4 pairs is then wrapped in a conductive material that serves to shield electromagnetic waves. The 4 pairs externally are wrapped in conductive material.

"SLA" (Service Level Agreement): minimum level of service expected for the type of service covered by this tender relevant for the Institute.

Article 3 Object of the contract

The Institute is launching this tender procedure in order to enter into a “ Framework Service Contract” with a company that will be awarded the tender. The object of the contract is the supply of technical assistance service provider for the maintenance of structured cabling systems for the European University Institute.

The Company is called upon to provide the services covered by this procedure at its own risk and with its own independent organization, in compliance with the provisions of these Technical Specifications with the relative attachments, the Letter of Invitation, the Service Contract and the documentation presented by the Company during the tender

Article 4 Contract Information

The Framework Service Contract concluded at the end of this procedure will be based on the “**Draft of Service Contract**”. It will be supplemented by this STS and its annexes, by the Invitation Letter and by the Offer presented by the company during the tender and of all the attached documentation.

Any comment and/or request for clarification as to the meaning and/or interpretation of the Framework Service Contract must be clearly formulated, explaining the motive for the query, and submitted before the deadline given in the “**Letter of Invitation**” (**Article 3 “Submission of tenders”**) and in compliance with the procedures indicated in the "Letter of invitation" (Article 9 "Contacts"). Should the Institute not receive any query or request for clarification within the deadline, the content of the Framework Service Contract shall be implicitly considered fully accepted.

Article 5 Duration of the contract

60 (sixty) consecutive months from the date of signature of the parties, starting from the date of the last signature on the Service Contract (signature of the Secretary General), except for the terms laid out in the termination clauses (see **Article II.14** in the **Framework Service Contract**).

If, at the end of the natural term provided for in the contract, the Contracting Authority has not yet awarded the service for the following period, the Company will be obliged to continue it for a period not exceeding 6 (six) months, under the same contractual conditions in force on the expiry date.

Article 6 Estimated value of the contract

The maximum presumed amount of the tender is € 90.000 (ninety thousand/00), excluding VAT, for the 5 (five) years of the overall duration of the contract.

The amount indicated was determined considering the costs incurred in the period 2017-2021 for services of a similar nature already subscribed in the past by the Institute.

This estimate is to be considered valid only for the purpose of establishing the presumed maximum value of the tender, no rights can be derived from this estimate. For this reason, the successful tenderers cannot claim beyond the payment of the service provided at the agreed prices and conditions.

The amount of the tender includes all those services envisaged in this STS and in the documentation submitted by the Company in its tender, including any improvements the Company's Offer may have proposed, as well as any other direct or indirect cost that may be incurred in the satisfactory provision of said services.

Article 7 Premises where the services will be carried out

The IUE campus is divided into about fifteen buildings located on the slopes on the border between the Municipality of Florence and that of Fiesole. The main office, Badia Fiesolana, is located in the hamlet of San Domenico in the Municipality of Fiesole. Below, the list of other buildings:

Institutional sites

Works may (partially) be performed off-site but only in mutual agreement. In case of force majeure, such as the recent COVID-pandemic, works may be required to be performed off-site under the conditions as laid out in these tender specifications.

- Badia Fiesolana, Via dei Roccettini, 9 - 50014 San Domenico di Fiesole (FI)
- Villa Sanfelice, Via dei Roccettini, 5 - 50014 San Domenico di Fiesole (FI)
- Villa Paola, Via dei Roccettini, 5 - 50014 San Domenico di Fiesole (FI)
- Palazzo Buontalenti, Via Cavour, 156 - 50129 Firenze (FI)
- Villa Malafrasca, Via Boccaccio, 151 - 50133 Firenze (FI)
- Convento di San Domenico, Via delle Fontanelle, 19 - 50014 San Domenico di Fiesole (FI)
- Villa la Fonte, Via delle Fontanelle, 10 - 50014 San Domenico di Fiesole (FI)
- Complesso Villa Schifanoia – Casale – Villino - Cappella, Via Boccaccio, 115/121 - 50133 Firenze (FI)
- Villa Raimondi, Via Boccaccio, 111 - 50133 Firenze (FI)
- Villa il Poggiolo, Piazza Edison, 11 - 50133 Firenze (FI)
- Complesso di Villa Salviati – Manica e Castello (sede IUE) - Ipogeo (sede Archivi Storici Unione Europea), Via Bolognese, 156 – 50133 Firenze (FI)
- Appartamenti Ponte alla Badia, Via Faentina 386 - 50133 Firenze (FI)
- Appartamenti Pian Del Mugnone, Via Faentina 94/B - 50014 Fiesole (FI)

A graphical representation of the campus distribution is available online at the following link:

[Distribuzione delle Sedi dell'Istituto Universitario Europeo \(Google Maps\)](#)

The service will be addressed to all the aforementioned offices of the Institute as well as to any future locations that may be established during the validity of the contract.

TITLE II

GENERAL CHARACTERISTICS OF THE SERVICE

Article 8 General description of required services

The Supplier must obligatorily guarantee the provision of on-site technical assistance services to ensure the proper functioning of the passive COMPONENTS of the LAN network:

1. On-site technical assistance services for maintenance, horizontal copper wiring, vertical fiber optic cabling,
2. On-site technical assistance services for expansion interventions, horizontal copper wiring, of vertical fiber optic cabling.

The aforementioned services will be provided in the manner described below and, where applicable, complete with the activities of procurement, installation, activation, maintenance and testing of the resources necessary for the provision of the services themselves.

Article 9 Technical properties of the cabling systems

The campus of the Institute is made up of buildings of different types: the structured cabling systems that make up the Institute's network are very varied, differing by year of installation, by type (category), distribution and by the nature of the services that are provided through them.

Given the historical and architectural nature of buildings, structured cabling systems often do not respect the subdivision of horizontal / flat wiring, the sockets of the workplaces (PdL) of an area or room do not belong to the same Sub-divider or floor divider (SR), but sometimes to different SRs, in some cases the type of cable is also different, based on the seniority of the plant and the expansion interventions that have followed over the years.

The types of ethernet cable used in the Structured Cabling systems of the Institute can be Unshielded Twisted Pair (UTP) or Shielded Twisted Pair (STP) and of the following categories Cat-5e, Cat-6, Cat-6a, Cat-7 depending on the case and use.

Even the vertical or backbone wiring that connects the different branches of horizontal wiring by connecting the sub-divider or floor divider (SR) to the General Divider (RG) of the building consists of fiber optic cables of various types and with different types of termination according to distances, use and year of installation. The types of fiber optic cable used in the Structured Cabling systems of the Institute can be multi-modal 62.5/125 OM1, 50/125 OM2, OM3 and OM4 or mono-modal 9/125 OS1 and OS2 terminated with the following MRTJ, SC, LC connectors.

Article 10 Features of On-Site Technical Support Services for Maintenance

The Institute requires the provision of on-site technical assistance for the maintenance of the structured cabling systems that make up the LAN network of the EUI campus better detailed in Article 9 of these technical specifications.

In this context, the competitor must be able to intervene to repair the single component affected by a fault, copper or fiber optic cable/connector by operating in the rooms that host the floor allocators (SR), the general allocators (RG) of the buildings or inside the data centers on the Institute's campus.

Below are by way of example the activities that may be involved in the execution of a maintenance intervention:

- Disassembly, assembly, connection, testing, and certification of UTP data cables, PDL user sockets, RJ45 adapter and patch panels in Cat. 5e, 6, 6a and 7;
- Disassembly, assembly, connection, testing and certification of mono-modal fiber optic cables 9/125 OS1-2 and multi-modal 62.5/125 OM1 and 50/125 OM2-4 of optical enclosures complete with compasses of any type including the execution of reflectometric tests for optical fibers.

The service in question is carried out at the request of the Institute and must be provided at the offices of the same within the working day following receipt of the request, or according to the request of the contracting authority on a specific schedule. The communication of the request for intervention can be made by e-mail or telephone at the discretion of the contracting station, the supplier must make available to the Institute a single point of contact both for e-mail and telephone communications, and at the end of each intervention an intervention report will be drawn up which must be countersigned by the manager delegated by the Director of the Institute's IT Service.

Nothing will be due regarding the right of call or the time of transfer to the Institute.

With regard to the intervention report, it must necessarily describe the transmission (category) and mechanical characteristics of the passive components of the wiring.

The cable labelling methodology must bear a clear indication of the data rack pertaining to the wiring on both sides / terminations of the same so as to allow the unique identification of all the components of the wiring.

The competitor must send a digital copy (pdf) of the certification by e-mail to the contact person of the ICT service of the Institute within five (5) working days from the completion of the intervention.

Article 11 Features of On-Site Technical Support Services for Expansion

The Institute requires the provision of on-site technical assistance for expansion of the structured cabling systems that make up the LAN network of the EUI campus.

In this context, the competitor will be able to propose the most suitable solutions for the development of the Institute's campus network. It will have to collaborate with the other maintainers of the special plants of the contracting station. The supply of copper and fiber optic cables and their passage and drafting is not part of this supply contract, as it is entrusted to the maintenance of the institute's electrical and special systems.

The competitor must instead verify the correct usability of the structured cabling systems that make up the LAN network of the IUE campus, after having terminated them on optical or copper panels by means of the certification of the same.

The competitor must be able to intervene to certify and certify the copper or fiber optic cable or cables involved in the expansion of the Institute's network, operating in the premises that host the floor allocators (SR), the general allocators (RG) of the buildings or inside the data centers on the Institute's campus.

Please note that the supplier is not required to provide or lay copper or fiber optic cables, as this service will be provided by the maintainer of the electrical and special systems of the Institute but is called to verify the installation in a workmanlike manner by the same and the quality in terms of materials used.

Below are by way of example the activities that may be involved in the execution of an expansion of the structured wiring systems:

- Mounting, connection, testing and certification of UTP data cables, PDL user sockets, RJ45 adapter and patch panels in Cat. 6a and 7;
- Assembly, connection, testing and certification of mono-modal fiber optic cables 9/125 OS2 and multi-modal 50/125 OM4 of optical enclosures complete with compasses of any type including the execution of reflectometric tests for optical fibers;

The service in question is carried out at the request of the Institute and must be provided at the offices of the same, after estimating the amount and issuing the offer involved within the tenth (10) working day following receipt of the request or based on the request of the contracting station on a specific schedule. The communication of the request for intervention can be made by e-mail or telephone at the discretion of the contracting station, the supplier must make available to the Institute a single point of contact both for e-mail and telephone communications, and at the end of each intervention an intervention report will be drawn up which must be countersigned by the manager delegated by the Director of the Institute's IT Service.

Nothing will be due regarding the right of call or the time of transfer to the Institute and the activities of inspection and drafting of the offer.

The cable labelling methodology must bear a clear indication of the data rack pertaining to the wiring on both sides / terminations of the same so as to allow the unique identification of all the components of the wiring.

The competitor must send a digital copy (pdf) of the certification by e-mail to the contact person of the ICT service of the Institute within five (5) working days from the completion of the intervention.

Article 12 Testing and certification

In order to ensure the maintenance of the performance over time of the structured cabling systems that make up the LAN network of the EUI campus, at the end of all the interventions, whether these are on-site

technical assistance for maintenance or expansion, the testing and certification of fiber optic and copper cables must be performed.

Fiber optic certifications: to guarantee the perfect termination and quality of the fiber optic cables installation, instrumental testing of each individual fiber must be performed, releasing the digital copy to the Institute. The documentation must detail these measurements so that they can be uniquely traced back to each individual fiber installed.

Certification and testing of UTP cables:

For each link of the structured cabling system made, the following parameters must be measured:

Length: Determined using the time it takes a transmitted signal to go back to the end of the cable; it is crucial to know the nominal cable propagation speed (NVP), which varies according to the model and/or manufacturer.

Wiremap :Pin-to-pin verification of connections and cable continuity. Short circuit problems, open circuits or incorrect connections are easily identifiable from the result.

Signal loss / Attenuation: Measurement of the signal lost in the link. The value found is compared with the limit values related to the measurement frequency

NEXT Measurement of the amount of electromagnetically induced transmitted signals on adjacent pairs, carried out at the beginning of the cable.

ACR (calculated) Calculated as the difference between NEXT and attenuation, it indicates the amount of signal readable at the end of the connection.

FEXT Torque noise index measured at the end of the cable (where the transmission ends). It depends on the length of the link.

ELFEXT (calculated) Normalized FEXT value: The dependence of FEXT on the link length is eliminated.

Return loss : Ratio of transmitted power to reflected power. Indicates the amount of signal reflected back to the source due to a mismatch in the cable impedance.

Delay skew : Differences in the time taken by pairs to transmit a signal, measured as the difference between the "fastest" and the "slowest" pair.

PSNEXT Measurement of the cumulative NEXT effect of three pairs on the fourth.

PSELFEXT Measurement of the cumulative ELFEXT effect of three pairs on the fourth.

AACR-F attenuation/alien (exogenous) telediaphony ratio, difference, in dB, between the loss of alien telephony of a disturbing pair of one transmission channel and the loss of insertion of a disturbed pair of another channel

ACR-F attenuation/telephony ratio, difference, in dB, between the loss of telephony of a disturbing pair of a transmission channel and the loss of insertion of a disturbed pair of the same channel

AFEXT loss of alien (exogenous) telephony, signal separation between a disturbing pair of one transmission channel and a disturbed pair of another channel, measured at the far end

ANEXT loss of alien (exogenous) para-diaphony, signal separation between a disturbing pair of one transmissive channel and a disturbed pair of another channel, measured at the near end

PSAACR-F sum of powers of the attenuation/alien (exogenous) tele-diaphony ratio, difference, in dB, between the sum of powers of the loss of alien para-diaphony between several disturbing pairs of one or more transmission channels and the loss of insertion from a disturbed pair of another channel

PSACR-F sum of powers of the attenuation/tele-diaphony ratio, difference, in dB, between the sum of powers of the loss of telephony between several disturbing pairs of one or more transmission channels and the loss of insertion from a disturbed pair of the same channel

PSAFEXT sum of powers of alien (exogenous) telephony loss, sum of signal isolation powers between several disturbing pairs of one or more transmission channels and a disturbed pair of another channel, measured at the far end

PSANEXT sum of powers of the loss of alien (exogenous) para-diaphony, sum of powers of the signal separation between several disturbing pairs of one or more transmission channels and a disturbed pair of another channel, measured at the near end

The measurements must be carried out with a special certifying instrument, suitable for certification in class conforming to the cable in question, with the aim of:

- verify the correct installation of the cables and the correct execution of the connections
- certify the conformity of the wiring system made,

For each individual point of the system identifiable with the nomenclature defined in these Technical Specifications and must be issued, to the Customer, the digital copy of the measurements and their respective measured values.

Certification and testing of fiber optic routes

The testing of the routes must be carried out in accordance with the provisions of the ITU-T G.650.1 and ITU-T G.650.2 standards for mono-modal optical fibers and ITU-T G.651.1 for multi-modal fibers (50/125).

It is required that all optical measurements be performed at the wavelength of 1550 nm for mono-modal optical fibers (9/125) and at 850 nm for multi-modal ones (50/125). In particular, for each section the measurements of:

- Average total attenuation of trunk line;
- Optical length of the stroke;
- Diagram of the retro-diffused power by OTDR;
- Fiber optic Chromatic dispersion (CD);
- Fiber optic Modal dispersion (FMD)

The attenuation must be calculated by the reflectometric method (OTDR) which involves the use of 2 compatible launch coils of a length greater than or equal to 1000 m, and which must be inserted respectively upstream and downstream of the undersized section. The use of coils will not be necessary for multimodal routes.

The algebraic half-sum of the bidirectional losses detected by the OTDR between the points upstream and downstream of the reflection peaks of the trace constitutes the section attenuation of the undersized fiber.

The measurement of the optical length must be performed with the technique of backscattering, setting the refractive index of the fiber in measure. The progressive optical lengths of the joints and/or intermediate sections are thus measured. The optical length of the terminal-to-terminal section shall also be measured.

All measurements must be recorded by indicating, for the purpose of processing, the length of the launch strap used. The measurement shall be carried out unilaterally on each optical fibre.

The measurement of the diagram of the retro-diffuse power by OTDR shall be performed to verify and record that the attenuation of the fibre is evenly distributed and that there are no concentrated attenuation points greater than 0.1 dB in the size. The presence of anomalies higher than the value indicated above, if it is not proven that they were already present in the testing measures carried out at the factory at the time of characterization of the cable, will give rise to further investigations.

Upon execution of the Test, Table 2 or a facsimile proposed by the Supplier must be completed, indicating ALL the information/measurements specified therein.

TEST REPORT						
ID Trunk:			Lenght of the fiber trunk (km):			
Starting point A:			Ending point B:			
Fibre Type			Signal Loss/ Attenuation average (dB)			
Fiber	Measure A->B (dB@ 850 /1550 nm)	Measure B->A (dB@ 850 / 1550 nm)	Total CD	Total PMD	Number of connectors	Number of fusion joints
Fiber 1						
Fiber 2						

In particular, the Supplier must communicate, at the time of testing and for each section of fiber, the following technical information:

- The average total attenuation of the route measured as specified above (dB);
- The total distance attenuation measured in each direction for each fiber (dB);
- The optical length of the route (km);
- The number of joints present and the type of realization (casting or mechanical);
- Termination points in the two terminal sites, as better specified below;
- Total fiber optic chromatic dispersion ($\frac{ps}{nm}$) tested at 1550 nm in the case of mono-modal Fibers, or tested at 850/1300 nm per le multimodal fibre;
- Total Fiber optic Modal dispersion (ps) tested at 1550 nm in the case of mono-modal Fibers, or tested at 850/1300 nm per le multimodal fibre.

The test report shall be accompanied by the diagram resulting from the reflectometric measurement of the section carried out in both directions, for each fibre supplied. The reflectometric diagram must be provided in both .pdf and source format (standard format for OTDR). On the print and in the source file of the reflectometric diagram must be highlighted, in an unambiguous way, the end of the launch coils upstream and downstream of the measurement and the position of all the joints, fusion and mechanical, present along the route.

The Supplier will be required to indicate the measurement methodology used in accordance with the aforementioned standards.

Finally, the Company must provide the software for the correct reading of the output source files of the measuring instruments.

Furthermore, the measured values must be less than the values detailed in the Table 2 (Reference Values) detailed here below

Fiber Optic – Reference values

The Table 2 details the reference value related to the fiber optic trunk quality, these values must include the any junction, connectors or pigtails included in the fiber trunk.

fiber characteristic	wavelength	Reference Value
Single-mode OS1 and OS2	Specific attenuation at 1550nm	≤ 0.27 dB/km
Multimode OM3,OM4,OM5	Specific attenuation at 850nm	≤ 2.8 dB/km
Multimode OM3,OM4,OM5	Specific attenuation at 1330nm	≤ 1.0 dB/km

Tabella 1 – Reference Values F.O.

Test Report and Acceptance Limits

If in the Test Report, issued by the supplier, there are discrepancies in the values reported therein with respect to the values of the physical and transmission parameters declared by the supplier during the Technical Offer, the Institute may consider the outcome of the negative test. In particular, the physical and transmission parameters on the basis of which the outcome of the test will be evaluated will be:

- The type of fiber;
- The total average attenuation of trunk;
- The optical length;
- The attenuation trend in the reflectometric diagram;
- The number of fusion joints and connectors;
- The total CD;
- The total PMD.

The acceptance thresholds with which the values reported in the Test Report will be compared will be the values of the same parameters declared during the Technical Offer.

The result of the test will be considered negative even if it is incomplete.

In particular, it must be complete with the following information and documentation:

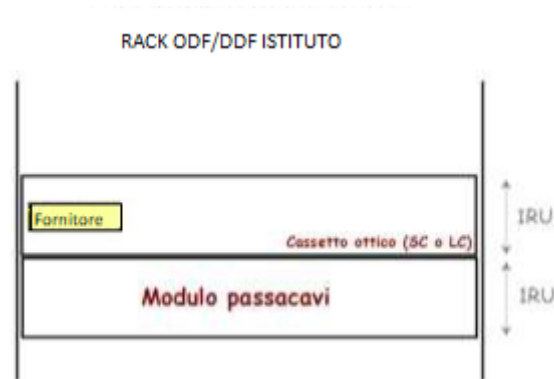
- Route identification;
- Delivery points;
- Attachments with the outcome of the reflectometric measurements and CDs in pdf and source format, as specified above;
- Report of delivery of the optical termination braces, countersigned by the contact person of the headquarters, in which the type, length and connectors of the braces supplied are specified.

Methods of delivery of fiber optic connections

The company is required to release the switched off fiber optic connections inside a 19" ODF/DDF rack provided by the Institute. The release must take place after installation, with the supply of an optical enclosure with the following characteristics:

- A footprint of 1RU;
- The standard of the connectors can be LC duplex SM, SC duplex SM or SC simplex SM.

At the same time as the optical enclosure, the Company will be required to install a cable tray (1RU). The assembly must take place in the RU next (direction below) to that used for the optical enclosure. The Company will have to identify its installed optical enclosure of the Institute's ODF/DDF rack by affixing an adhesive label indicating the name (see Figure 8).



After the release, the Company will be required to label the door of the optical enclosure on which the attestation of the connection took place. The label must be affixed to the enclosure door and must show the details of the origin and destination of the connection issued in order to uniquely identify each individual fiber of the cable in question.

Article 13 Reference standards for structured cabling systems

As for the structured cabling part, the system must be built in compliance with national (Telecom Italia, P.T.), international and proprietary rules and standards both as regards materials and equipment and as regards installation and safety.

The following reference standards must therefore be respected:

- EIA/TIA 568A - 568B: Definition and classification of structured wiring and components.
- EIA/TIA 569: Installation rules and procedures.
- EIA/TIA 606: Rules for the administration of wiring systems.
- EIA/TIA TSB67: Testing of wiring systems.
- ISO/IEC 11801: Rules for structured cabling, issued internationally (ISO Committee).
- EN 50173: Definition and classification of structured wiring and components, issued at European level by CENELEC.
- EN 50174-1/-2/-3: Installation rules and procedures, issued at European level by CENELEC.
- ITU-T G.650.1 and ITU-T G.650.2: for the testing of mono-modal optical fibers and ITU-T G.651.1 for multi-modal optical fibers (50/125).

Article 14 On-site technical support service

The Supplier must indicate the times of use of the contact point (Contact Center) for the on-site technical assistance service for the maintenance of horizontal copper wiring and / or vertical fiber optic wiring and the related contacts.

Article 15 Customer Care and Contact Center for the Institute's Operations Manager

The Supplier must make available to the Institute's Operations Manager a Contact Center service with assigned operator through the following minimum communication channels for access to Customer Care:

- Telephone number (at the cost of a local call or Italian national mobile) to receive calls (Contact Center);
- E-mail address.

The minimum services that the Supplier must guarantee are:

- Taking charge of requests;
- Support to the compilation of Orders related to the on-site technical assistance service for expansion interventions;
- Provision of information relating to invoicing;
- Resolution of administrative problems.

Responses to requests for information must be communicated by telephone and e-mail to the Contract Manager appointed by the Director of the Institute's IT Service.

Article 16 Service Contract Contact Person

In order to ensure maximum effectiveness in the interaction between the Customer and the Supplier, with reference to all the phases of the provision of the services referred to in this procedure, the Supplier must make available a "Referent for the contract".

Before entering into the contract, the Supplier must indicate this resource by name, also providing telephone number and e-mail address.

The Referent for the contract will cover the role of Program Manager for all the activities envisaged for the correct and timely provision of the services requested by the Contracting Station, during the entire duration of the contract.

This Referent must therefore have total visibility of all the services requested by the Customer, the progress of the activities, any critical issues, etc. It will also be the reference point for unsolved or urgent problems of the Customer; you will receive written notification in order to facilitate the solution.

In the event of a report of an unresolved problem, the Contract Referent must give a written response to the report that the Contracting Authority has made at the latest within 5 (five) working days of receipt of the report; the response shall indicate the actions taken to resolve pending problems and the relevant deadlines.

Article 17 Service Level Agreement (SLA)

In light of the vital importance that the proper functioning of the Structured Cabling network of the Institute, adequate levels of service are required, in terms of coverage and speed of intervention.

Following the report by the Institute to the contact center for all the services covered by these special specifications, coverage in H8x5 mode is required.

Each requirement required in terms of SLA and Penalties is to be understood as relating to the individual service and not to the availability of the location.

The following are the minimum service levels required.

Minimum requirements for fixed telephony and data service:

Coverage	Timing	Breakdown		Change request
		UTP	Optic Fiber	
H8x5	Taking charge	n.b.d	n.b.d	n.b.d.

TITLE III

OBLIGATIONS AND RESPONSIBILITIES IN THE EXECUTION OF SERVICES

Article 18 Obligations and charges to be borne by the Company

The Company shall assume all the obligations and charges related to the service covered by this procedure in compliance with all the regulations in force on safety, hygiene and safety in the workplace. The company is also bound to comply with the provisions of the Service Contract provided by the Institute, in the specifications (Annex I), in its offer (Annex II) and in the letter of invitation.

The Company will be directly liable for any damage caused to persons and / or things and to the Contracting Station itself, remaining at its complete and exclusive expense any compensation.

The Company will hold the Contracting Authority relieved and indemnified from any damage and criminal and civil liability procured against third parties and / or things, directly and indirectly, also due to partial effect or reflection of the services entrusted to it.

The Contracting Authority assumes no responsibility in the event that the Company has used, in the execution of the services covered by this contract, devices or technical or other solutions that violate patent, author's and in general the rights of others.

If legal action is brought against the Contracting Authority by third parties who claim rights to the acquired assets, the Company will bear the costs of defense against any action for infringement in Italy or abroad of patents (for invention, industrial models and trademarks), including the costs for damages to third parties, judicial and those incurred for the defense in court. In this case, the Contracting Authority will promptly inform the Company in writing of the aforementioned judicial initiatives.

For all its employees, representatives, collaborators, the Company undertakes to respect and ensure compliance with the Data Protection policy as indicated in the decision of the President n.10 of 18 February 2019, which can be consulted on the following page: <https://www.eui.eu/About/DataProtection>

The company will hold the contracting authority relieved and indemnified from any damage and criminal and civil liability caused to third parties and / or things, directly and indirectly, also due to partial effect or reflection of the services entrusted.

Article 19 Security provisions

In order to guarantee safety in the workplace, the Company is obliged to strictly comply with the provisions of current legislation on the protection of the health and safety of workers.

All activities related to the services covered by this TOS must be carried out in order and with the necessary precautions, so as to prevent any damage or injury to workers and third parties and not to cause any damage to floors, furnishings, doors and jambs, masonry and painting, etc.

Furthermore, the Company remains responsible for the provision of Personal Protective Equipment (PPE) necessary for the safe performance of the work.

For any further details on the subject, please refer to the rules set out in the "Service Contract", in particular in Article I.11.

Article 20 Insurance policy

The Company, with regard to the obligations assumed with the presentation of its offer, expressly relieves the Contracting Authority from any and all liability in the event of accidents or damages possibly suffered by persons, things, means and values of both the Institute, the Company, and third parties and occurred depending on the activity carried out in the execution of its services.

In order to participate in this tender, each Competitor must demonstrate that he has stipulated, with a primary insurance company, one or more policies that ensure the civil liability of the Company, also due to the fact of its employees or collaborators or subcontractors, towards the Contracting Station, towards other third parties (RCT). The guarantee ceiling must be adjusted to the activity covered by this contract, including all necessary, ancillary and complementary operations and activities, none excluded or excluded, and may not in any case be less than € 1,000,000.00 per claim, per person and per thing.

Each Competitor is required to present a copy of the aforementioned policies at the time of the offer in support of the administrative documentation.

For any further details on the matter, please refer to the rules set out in the "Service Contract", in particular in Article II.3 Liability.rds employees or collaborators (RCO).

Article 21 Sanctions and penalty mechanism

Unless otherwise sanctioned by regulations, the EUI, in order to protect the rules contained in this CSA, reserves the right to apply, in addition to the extraordinary expenses to be incurred to ensure the regularity and functionality of its activity, the penalties provided for in this Article.

The application of the sanction is governed by Article I.10 of the Draft Service Contract.

The penalties that the Contracting Authority reserves the right to apply are those indicated below. We take this opportunity to point out that the list of non-compliances below is not to be considered exhaustive and the Institute reserves the right to object to any other behavior that may alter and / or interrupt the regular provision of services.

- In case of non-compliance with the SLAs relating to the fixed telephone service, without justified reason and except for reasons of force majeure or attributable to the Contracting Station, repeated for more than 3 (three) times a month a penalty of € 500.00 per event will be applied to the Company; if the non-compliance with the SLAs should extend beyond 3 (three) months, the Institute reserves the right to terminate the Contract and request compensation for the damage caused;
- In case of non-compliance with the SLAs relating to the internet access service, without justified reason and except in cases of force majeure or attributable to the Contracting Station, repeated for more than 3 (three) times a month, a penalty of € 250.00 per event will be applied to the Company; if the non-compliance with the SLAs should extend beyond 3 (three) months, the Institute reserves the right to terminate the Contract and request compensation for the damage caused;
- For any case of violation of privacy or non-compliance with official secrecy on facts and circumstances of which the personnel in charge has become aware in the performance of their duties, a penalty of € 1,000.00 will be applied;
- In case of non-compliance with the SLAs relating to the Customer Care service, except in cases of force majeure, the Company will be subject to the payment of a penalty of € 200 for every 1 (one) hours of non-provision of the service; if the non-compliance occurs for more than 15 (fifteen) calendar days, the Institute will apply a penalty of € 1,000 for every 1 (one) hours of non-provision of the service and if the non-compliance should last more than 1 (one) months, the Institute reserves the right to terminate the Contract and request compensation for the damage caused;
- For failure to appoint the Referent of the Contract, the Institute will apply a penalty of € 1,000.

The aforementioned penalties will be communicated by issuing debit notes and discounted by reducing the agreed consideration at the time of payment of the same.

In cases where the fees payable to the contractor are not sufficient to cover the amount of the penalties applied to the same for any reason, as well as that of the damages caused by the same to the Contracting Station, for any reason, the Contracting Station itself will recover on the final security deposit.

The request and / or payment of penalties does not in any case exempt the Company from the fulfillment of the obligation for which it has defaulted.

Any force majeure that delays the performance of the activities regulated by this CT must be notified by the Company by registered letter with return receipt, anticipated by e-mail to the head of the service at the Institute, and proven under penalty of forfeiture of any right to invoke them, to the IT Service (ICT Service) of the European University Institute, P.zza Edison, 11 – 50133 Florence (FI).

If a number of penalties greater than 3 (three) are applied during a semester, the Contracting Authority reserves the right to terminate the Contract by forfeiting the final security deposit.

In this case, the Institute may take any legal action provided for by law.

The Customer reserves the right to terminate the contract without the application of any penalty in the event that the non-compliance with the SLAs is repeated for at least 3 (three) times in 90 (ninety) consecutive calendar days.

TITLE IV

EXCLUSION, SELECTION AND AWARD CRITERIA

Article 22 Exclusion criteria

Tenderers must not be in one of the exclusion situations listed below:

- a) Are Bankrupt or being wound up, are having their affairs administered by the courts, have entered into an arrangement with creditors, have suspended business activities, are the subject of proceedings concerning those matters, or are in any analogous situation arising from a similar procedure provided for in national legislation or regulations.
- b) Have been convicted of an offence concerning their grave professional conduct by a final judgment of a competent judicial authority or administrative decision or decisions of international organisations.
- c) Are not in compliance with the obligations relating to the payment of social security contributions or the payment of taxes in accordance with the legal provisions of the country in which they are established or with those of Italy being the country of establishment of the Institute or those of the country where the contract is to be performed. This breach needs to have been established by a judgement or administrative decision having final and binding effect in accordance with the legal provisions of the country in which the economic operator is established or of those of Italy being the country of establishment of the Institute;
- d) Have been the subject of a final judgment for fraud, corruption, involvement in a criminal organisation, money laundering, terrorist-related offences, child labour or other forms of trafficking in human beings or any other illegal activity, where such illegal activity is detrimental to the Institute's financial interests;
- e) Have been in serious breach of a contract financed by the Institute or have been the subject of an offense of serious irregularity established by a final judgment of a competent judicial authority or administrative decision;

- f) Are subject to an administrative penalty for being guilty for grave professional misconduct, or for having made substantial errors or committed irregularities or fraud, or have been declared to be in breach of their obligations under contracts covered by the Institute's budget (Article 41 of the EU's Public Procurement Regulation (President's Decision No. 19/2018 of 16th May 2018).
- g) Are in a situation of conflict of interest in relation to this contract; a conflict of interest may arise in particular as the result of economic interests, political or national affinities, family relationships or relationships inherent in private life or any other type of shared interest, including conflicting professional interests; quotas or occurred in the last 5 (five) years.

Documents proving eligibility according to the above exclusion criteria

The Contracting Authority will accept, as sufficient proof that the entrant is not in one of the situations described above, the submission of a signed declaration of honour, as indicated in the model in Annex II-B.

The Institute reserves the right to verify this information and to require you to provide supporting documents before signing the contract.

Article 23 Selection Criteria

To participate in the tender, Tenderers must be in possession of every one of the below-outlined requisites. Tenderers in default of any single requirement will be excluded from the tender.

General requisites

- a) Enrolment in the CCIAA (Chamber of Commerce, Industry, Arts and Crafts, Agriculture), or in an equivalent registry in the country where the company is established, showing that it practices business activities in the field that is the object of this tender procedure, or at least a field that is compatible with it;
- b) The tenderer self-certifies that he has no convictions or pending judgments related to the mafia.
- c) Declaration that the Tenderer has taken note of all general, particular and local circumstances, barring none, and of any other element which may directly or indirectly influence the implementation of the service or the drawing up of the tender; and therefore, that the tender submitted is profitable, and that the company undertakes to hold said tender valid and binding for **one-hundred-and-eighty (180) days**, starting from the deadline for submission of the tender;
- d) Declaration of being in compliance with the rules for the emergence from the shadow economy (Piani Individuali di Emersione)
- e) Declaration of being in compliance with all obligations relating to the payment of social security and insurance contributions in favour of its employees, in full observance of existing legislation; and that it applies the employment conditions envisaged in the sector's national collective labour agreement;
- f) Declaration of being in compliance with the labour regulations governing the right to work of persons with disabilities and of being in compliance with the current environmental laws and regulations;
- g) Attestation of having carried out the inspection referred to in point 10 of the Letter of Invitation

- h) Have an operational headquarters within 60 km from the headquarters of the Istituto della Badia Fiesolana or, alternatively, to undertake to establish it, in the event of an award, within thirty days of the announcement of the award.

General Technical, Economic and Financial Capacity Requirements

- i) One (1) bank reference issued by prime banks, or financial companies included in the registers of authorized brokers, issued after the date of the Invitation to tender and the publication of these STS, proving that the Company has always met its obligations punctually and regularly, and that the Company possesses the economic and financial capacity to perform the services that are the object of this tender. The EUI may accept only one bank reference if duly justified by the tenderer;
- j) Certificates for the following insurance policies, valid for the entire duration of the Framework Service Contract, and complying with the ceilings as follows:
- Civil Liability insurance: with a ceiling of at least **€ 1 million**
 - Civil Liability Insurance for Service Provider: with a ceiling of at least **€ 1million**
- k) Self-certification of having achieved in the last three financial years (**2019-2020-2021**) a global annual turnover net of VAT of not less than **€ 108,000.00 (one hundred and eight thousand/00)**;
- l) Among the services carried out in the last three financial years (**2019-2020-2021**) must include at least 1 contract regularly executed or in the process of execution, for an amount, net of VAT, not less than **€ 54.000,00 (fifty-four thousand/00)** for the three-year period considered globally and having the same characteristics as that covered by the procedure;
- m) List of the main services similar to the one subject to tender, performed in the last three financial years (**2019-2020-2021**) with the description of the object, the respective amount, the dates and the public or private recipients and the express declaration of regular execution of the same. Attached to the declaration, the certificates issued and endorsed by the administrations of the contracting authorities where the services were carried out must also be provided.

The Institute reserves the right to carry out sample checks to ascertain the truthfulness of tenderers' declarations.

Article 24 Awarding Criteria

Only those Tenderers that meet all the requirements listed in **Article 23** and are compliant with exclusion criteria listed in **Article 22** shall be eligible for the next stage of the procedure, the technical and qualitative evaluation.

The Framework Service Contract shall be awarded according to the principle of the “ **Lowest Price tender**”, based on the evaluation that will be carried at the unquestionable discretion of the competent Institute's internal committee entrusted with this task (Evaluation Committee),

In evaluating the economic aspects of the service offered, the Evaluation Commission must use the scores set out in the table below, bearing in mind that the maximum score available for the P price is 100 points.

$$P = (P1+P2+P3+P4+P5+P6+P7+P8) = 100$$

	SERVICE DESCRIPTION	POINTS
P1	Hourly cost for technical assistance service for the maintenance of passive lan network components: assembly, connection, testing and certification of utp data cables, user sockets, connectors and permutators (patch panels) in CAT 5e, 6 and 7; of single-mode fiber optic cables 9/125 OS1-2 and multimode 62.5/125 and 50/125 OM 2-3-4, optical enclosures complete with compasses of any type; including the execution of reflectometric tests for optical fibers to be carried out at the Institute's premises, (right of call included)	90
	DESCRIPTION OF THE PRODUCT SUPPLIED (MARK-UP COMPARED TO THE SUPPLY PRICE)	POINTS
P2	% mark-up relative to: UTP Panel Cat. 6A 24 preloaded ports	2
P3	% charging relative to: Removable optical enclosure from 1 rack unit, complete with accessories (compasses, pigtailed and more) for 12 single-mode duplex LC ports 9/125 OS2	2
P4	% mark-up relative to: OS2 single-mode fiber optic patch cord 9/125 LC LC 3 length 2 mt	2
P5	% mark-up relative to: OM4 multi-modal fiber optic patch cord 50/125 LC LC length 2 mt	2
P6	% mark-up relative to: parch cord UTP cat 6a length 3 mt	2

The procedure adopted for the calculation of P1 will be to make the proportion between the best bid (lowest price) and that formulated by each company, assigning the 90 points available for the evaluation of the price "weighed" according to the coefficient thus obtained.

The assignment of the score will take place according to the following formula:

$$P1 = 90 \times \frac{\text{Minimum price}}{\text{Price Offered}}$$

P1 = score assigned to the evaluation of the economic offer, relating to the hourly cost per technical assistance service (On-Site) for the maintenance of passive lan network components.

The procedure adopted instead for the calculation of the parameters P2, P3, P4, P5 and P6 will be to make the proportion between the best offer (lower mark-up, compared to the supply price) and that formulated by each company, assigning the 2 points available "weighed" according to the coefficient thus obtained.

The assignment of the score will take place according to the following formula:

$$P_i = 2 \times \frac{\text{(Mark up \%) minimum}}{\text{(Mark up \%) offered}}$$

Pi (with the varying between 2 and 6) = score assigned to the evaluation of the economic offer, relating to the mark-up with respect to the supply price of the products listed in the table.

The competitor is invited to take as the supply price of the listed products the one shown in the reference price list table, and on the basis of the same propose the mark-up / supply price. The table shows the price of the products in question by way of example and in order to verify the expected mark-up / supply price.

Qt	Description of the product supplied	reference price
1	CAT UTP Panel 6A 24 preloaded ports	€ 285,00
1	Removable optical enclosure from 1 rack unit, complete with accessories (compasses, pigtails and more) for 12 single-mode duplex LC ports 9/125 OS2	€ 212,00
1	OS2 single-mode fiber optic patch cord 9/125 LC LC length 2 mt	€ 20,20
1	OM4 multi-modal fiber optic patch cord 50/125 LC LC length 2 mt	€ 17,70
1	parch cord UTP cat 6a length 3 mt	€ 6,50

Article 25 Site Inspection

Under penalty of exclusion from the tender, interested companies are required to carry out an inspection visit to view the Institute's premises subject to the services requested in these STS, in the person of their Legal Representative or a person with a proxy conferred by said legal representative.

Initials of the Legal Representative for acceptance

In accordance with the principle of fair and equal treatment and information, this inspection may only be carried out on the day of **11/07/ 2022** with an appointment fixed for 10.00am (CET) at Badia Fiesolana, Via dei Roccettini, 9 - 50014 San Domenico (FI). For the reasons mentioned above, no other visit will be allowed after this date and time. Any changes to the date that may become necessary will be promptly posted on the Institute's website at: <https://www.eui.eu/About/Tendershttps://www.eui.eu/About/Tenders>

To this end, interested companies are invited to send the Information and Communication Technologies Service, using the email address : ICTS.Tender1-22@EUI.eu , by Noon (CET) on the **04/07/2022**, the form "Request for Inspection" (Annex II - G) duly filled out and signed by the legal representative together with a copy of his/her valid identity document, or any delegation thereof in favour of third parties. The paper version of the "Request for Inspection" (Annex II-G) must be delivered by the representative of the competing company to the person in charge of the Institute who will accompany him/her on the day of the inspection.

Title V - FINAL PROVISIONS

Article 26 General information

All aspects of the procurement procedure shall be performed in compliance with the Institute's internal regulations, and especially in accordance with High Council's Decision No.6/2015 laying down the EUI's regulatory and financial provisions, and with the President's Decision No.16/2018 on Public Procurement, all of which are available on the EUI's website: <https://www.eui.eu/About/Tenders>

Participation in this procurement procedure implies full acceptance of the above-mentioned regulations.

The rules governing the future relationship between the Contracting Authority and the Contractor that is awarded the FWC, including payment terms, processing of personal data, dispute settlement methods, both in the tender procedure and in the implementation and performance of the FWC, are all contained in the Draft Framework Service Contract provided by the Institute and included in the tender documents.

Article 27 Person responsible for the contract

The Contracting Authority appoints the Director of the European University Institute's ICT Service as the Responsible Officer for the present procurement procedure.

The Responsible Officer shall be in charge of all exchanges and communications with the Company that is awarded with the Contract, on all issues relating to the performance of the services in question, and shall be responsible for ensuring that all contractual obligations are observed, enacting coercive provisions and applying penalties whenever necessary.

Article 28 Requisites to be awarded the contract

The successful tenderer, on a date fixed by the Contracting Authority for the purposes of the final award, must submit:

1. a copy of a Non-Disclosure Agreement for all employees (see **Annex II-G**_Declaration of confidentiality_NDA);

2. a copy of any certifications held to demonstrate possession of all the requisites declared during the tender.
3. Copy of the Insurance Policy to cover risks as required in Article 20 of these Specifications.
4. A copy of the full criminal record of the legal representative of the Company

Please note that should the successful tenderer not promptly fulfil the requisites outlined above, fails to present all documentation requested, provides no evidence of the requisites self-declared during the tendering procedure, or upon testing is found not to be in compliance with the declarations submitted in the tender, the Institute reserves the right to declare the Contract null and void and to award it to the following bidder in the list, or even to call for a new tender, with any costs incurred by the Contracting Authority to be borne by the Contractor in breach. In these circumstances, the Company declared forfeited shall lose its provisional deposit and shall also be liable for the penalties envisaged by the regulations in force.

In the event of a positive outcome of the above-mentioned checks, the award shall become effective in favour of the successful tenderer which will be formally invited to sign the Contract.

Article 29 Final Provisions and Annexes

This Annex (Special Tender Specifications) consist of 29 Articles, and 27 Pages.

The tender documents are composed of the Service Contract provided by the Institute, the Invitation Letter, this Special Tender Specifications – Annex I and the following 7 Annexes (from Annex II-A to Annex-G):

Annexes:

- Annex II-A - Checklist
- Annex II-B - Declaration on Honour
- Annex II-C - Declaration of Confidentiality_NDA
- Annex II-D - Economic Offer Form
- Annex II-E - EUI Emergency Plan
- Annex II-F - Vacation Days 2022
- Annex II-G - Inspection request

Signature of Legal Representative

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Company's Stamp

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