

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

TERMS OF REFERENCE (TOR)

Design and implementation of e-learning about Colombian Quality Infrastructure to be hosted and administered by the Colombian Ministry of Trade, Industry and Tourism in its Chamilo platform

11-03-2022

1 Background Information

The United Nations Industrial Development Organization (UNIDO) is the specialized agency of the United Nations that promotes Inclusive and Sustainable Industrial Development (ISID) for poverty reduction, inclusive globalization and environmental sustainability. The mandate of UNIDO is to promote and accelerate inclusive and sustainable industrial development in developing countries and economies in transition. UNIDO's vision is a world where economic development is sustainable and economic progress is equitable.

One of the projects implemented by UNIDO is the Quality Programme for the Chemical Value Chain-GQSP Colombia, which is the country project in Colombia of the Global Quality and Standards Programme (GQSP) funded by the Secretary of State for Economic Affairs of the Swiss Confederation (SECO), the Ministry of Commerce, Industry and Tourism of Colombia and Colombia Productiva.

The main objective of the project is to promote the integration of Colombia in the regional and multilateral trade systems, through the strengthening of the National Quality Subsystem within the framework of the priorities of ten (10) industrial groups that integrate the chemical value chain, and also to increase and improve the capacities of SMEs to meet technical requirements, international quality standards, private and sustainability standards, necessary for trade facilitation.

Within this project interventions, specifically under outcome 3 of the GQSP Colombia logical framework, it is foreseen the generation and fostering of a quality culture through a better understanding among several stakeholders of the benefits of applied quality and better knowledge about the Colombian Quality Infrastructure. To this extent, detailed contents distributed in at least 5 learning modules are being developed by key actors of the National Quality Subsystem (SICAL) under the guidance of the Regulation Directorate of the Colombian Ministry of Commerce, Industry and Tourism (MinCIT) in order to introduce basic concepts of the Colombian quality infrastructure and provide knowledge about the structure, the organization, the functions and the main public goods and services of SICAL.

UNIDO Project SAP ID 180283

Terms of Reference may be modified prior to the closing date of the tender provided that the changes are published and all potential bidders that acknowledged their interest to participate in the bidding were notified. Bidders are therefore encouraged to submit their questions at the very latest one week prior to the closing date of the tender.

To learn more about UNIDO go to www.unido.org, to learn more about the project Quality Programme for the Chemical Value Chain- GQSP Colombia visit https://gqspcolombia.org/.

2 Background Information Relevant to the Required Services

The National Quality Subsystem is the name of the Colombian Quality Infrastructure System which is a combination of initiatives, institutions, organizations, activities and people comprising the organizations (public and private) together with the policies, relevant legal and regulatory framework, and practices needed to support and enhance the quality, safety and environmental soundness of goods, services and processes. It relies on activities such as metrology, standardization, accreditation, conformity assessment, regulation and market surveillance, among others, to establish a quality-based environment whose primal objective is to ease the competitiveness and the general access to markets of goods and services in the application of the TBT¹ and SPS² agreements of the WTO.

In Colombia, the National Quality Subsystem is organized through the Decree 1468/2020, in which the Regulation Directorate of the Ministry of Trade, Industry and Tourism plays an active role in several functions of the Quality Infrastructure. Moreover, The Ministry of Trade, Industry and Tourism (MinComercio) is responsible for the technical secretary of the Intersectoral Quality Commission (IQC), which is the body in charge of coordinating the actions of public and private entities within the guidelines of the National Quality Subsystem (SICAL). In addition, the IQC coordinated by MinComercio is one of the main technical committees of the National System of competitiveness and Innovation, in which frame, the SICAL activities contribute to the proper development of the national drivers to boost economic development.

In an effort to spread the knowledge of the SICAL concepts, organization, benefits and public goods across the regions, the Regulation Directorate of MinComercio aims for the development of an elearning tool to make good use of the information technologies, reaching all the country's regions with a training initiative. This is also aligned with some recommendations of CONPES 3957 – National Laboratory policy, focused on awareness and training strategies on quality public goods.

3 Scope of Required Services

The general objective of the required service is to develop and implement e-learning on MinComercio's Chamilo platform: http://escuelavirtual.mincit.gov.co/. This training will be focused on Colombia's National Quality Subsystem – SICAL: https://sical.gov.co.

Specific objectives:

1. Develop a proposal of instructional design based on the contents provided by MinComercio, ensuring the proper use of multimedia material, interactive resources, images, language, terms, support material, contents and external references according to the expected learning objectives and the e-learning structure.

¹ Technical Barriers to Trade

² Sanitary and Phytosanitary Measures

2. Develop and implement the training in the learning management system (Chamilo) http://escuelavirtual.mincit.gov.co/ based on the contents which will be organized in modules and will include features such as ludic activities, interactive activities, assessments and multimedia resources.

Level of interactivity: Intermediate

3.1 Scope of supply

- (a) The course on Colombia's National Quality Subsystem will be designed based on the contents developed by the Regulation Directorate with the support of a group of institutional experts of the SICAL entities and the support of the GQSP Colombia led by UNIDO. It is expected to have a structure comprising a maximum of 5 to 6 modules with 16 to 24 hours of cumulate training (training time, not including the time users spend reviewing external/optional sources or materials). It is expected that the total time of the course, including the time of optional/external sources study, will be 40 hours.
- (b) The platform's customization should consider the guidelines of the SICAL image manual and the website's design: https://sical.gov.co.
- (c) The training must be developed in MinComercio's Chamilo platform http://aula.mincit.gov.co/, which is hosted in MinComercio Server. The server characteristics are:

Chamilo runs inside the Ministry server and can be installed indifferently on Windows, Linux, Mac OS X and UNIX servers. However, we recommend using a Linux server for better performance, access, and scalability. It runs with:

Apache 2.2+

MySQL or MariaDB

PHP 7.2, 7.3 or 7.4

For the design and virtualization of the course, the contractor will receive content from MinComercio and GQSP Colombia. Based on them, the contractor will produce the instructional model under the application of pedagogical principles that ensure meaningful learning.

- (d) The course will have modules that will be subdivided into sub-modules. The length of each module will vary depending on the information and activities included³.
- (e) The sessions must use different multimedia tools, such as videos, photographs, infographics, animations of elements and/or characters, simulators, games, interactive resources and any other resource that motivates the student and facilitates the learning process. All images and resources used must be in line with copyright guidelines.
- (f) The structure of the course must consider the controlled navigation of the student, without the student being able to skip the modules although it must allow the return to previous ones. Likewise,

³ Annex II: module's approximate length and structure

it will also implement evaluation strategies that allow visualizing the course's progress and the satisfaction evaluation.

- (g) Each module will include a quiz at the end. Once finished the course, students will take a final test that evaluates the content of all modules.
- (h) The virtual course must provide the option of a self-enrollment system and automatically generate the certificates of completion of the course for those users who have registered and approved the course. The design of the registration form will be in charge of the contractor, according to the information provided by MinComercio and UNIDO.
- (i) The contractor must design the format of the certificates of completion of the course, presenting at least three templates, which must be approved by MinComercio and UNIDO.
- (k) The content must be tested in a testing environment provided by the contractor. Once the final product is approved by UNIDO and MinComercio, through the Regulation Directorate and the Office of Information Systems, it must be transferred to MinComercio Learning Management System, ensuring its correct operation.
- (I) Officials from the Regulation Directorate of MinComercio should also be trained on the management and administration of the portal.
- (m) The contractor must design a technical manual and user manual that contains all the information necessary for the administration of the portal, monitoring and maintenance, like:
 - Creation, modification and elimination of users, including users who have not been active for a certain time.
 - Creation and modification of notifications and messages to users
 - Activation, closure of modules and generation of certificates.
 - Creation, modification and elimination of contents, activities, sessions, schedules, etc.
 - Generation and visualization of certificate reports/student reports (individual, by region, by groups etc.)

Note: The e-learning must follow the Colombian digital policy, following the government policy available at: https://gobiernodigital.mintic.gov.co/portal/Politica-de-Gobierno-Digital/

4 Deliverables and Time Schedule

The estimated time frame for activities to be delivered is April 2022 – June 2022.

In accordance with the description of section "Scope of supply", the bid must consider the following activities and deliverables (to be carried out after the signing and legalizing the contract).

1. Develop a proposal of instructional design based on the contents provided by MinComercio, ensuring the proper use of multimedia material, interactive resources, images, language,

terms, support material, contents and external references according to the expected learning objectives and the future e-learning structure.

Main activities	Expected results	Time of Development
Produce the instructional model of the virtual learning contents to ensure meaningful learning.	 Instructional model of the content. Content will be shared with the contractor as each module is developed. *Annex II: module's approximate length and structure 	4 weeks

2. Develop and implement the training in the learning management system (Chamilo) http://escuelavirtual.mincit.gov.co/ based on the contents which will be organized in modules and will include features such as ludic activities, interactive activities, assessments and multimedia resources.. It is expected to have a structure comprising a maximum of 5 to 6 modules.

Main activities	Expected results	Expected duration
Course's analysis and design: Based on the content, the contractor must review and understand the academic objectives of the course to present at least two graphic proposals aligned to the guidelines of SICAL image manual and the website's design: https://sical.gov.co . • After the first meeting, the contractor must present a work plan that specifies the activities to be carried out, follow-up meetings and deliverables. • The contractor will hold virtual or on-site meetings with MinComercio, UNIDO and SICAL experts to clarify concerns regarding the technical component of the course.	 At least two design proposals. Work schedule that includes activities, follow-up meetings and deliverables Meeting minutes 	4 weeks

 Virtualization of the contents (Module 1) in accordance with the design proposal and the approved instructional model, the contractor will proceed to carry out the pilot to include contents in the testing environment, integrate the learning resources included in the proposal, and present the first module for UNIDO/MinComercio review and approval. Important: In each delivery, the contractor must send to MinComercio the source programs and the respective documentation to be updated in the Team Foundation Server -TFS. 	Development and testing: document/report that presents the results of the "testing environment" test and the transferring to the LMS. The "testing environment" must be verified by MinComercio and the developer team. Minutes of the verification sessions must be attached. Important: It is necessary to perform "load" and "stress" tests to verify the server's performance.	2 weeks
Transfer module 1 to the Learning Management System Transfer the approved content to MinComercio LMS http://aula.mincit.gov.co/	Design: document that presents the learning course's "Look and feel" aligned with SICAL's image manual and web page. Production: inventory of all the components/ applications installed on the modules.	
Virtualization of the contents (Module 2) in accordance with the design proposal and the approved instructional model, the contractor will proceed to carry out the pilot to include contents in the testing environment, integrate the learning resources included in the proposal, and present the first module for UNIDO/MinComercio review and approval. Important: In each delivery, the contractor must send to MinComercio the source programs and the respective documentation to be updated in the Team Foundation Server -TFS.	Development and testing: document/report that presents the results of the "testing environment" test and the transferring to the LMS. The "testing environment" must be verified by MinComercio and the developer team. Minutes of the verification sessions must be attached. Important: It is necessary to perform "load" and "stress" tests to verify the server's performance. Design: document that presents the learning course's "Look and feel" aligned with SICAL's image manual and web page.	2 weeks

Transfer module 2 to the Learning Management System Transfer the approved content to MinComercio LMS http://aula.mincit.gov.co/	Production: inventory of all the components/ applications installed on the modules.	
 Virtualization of the contents (Module 3) in accordance with the design proposal and the approved instructional model, the contractor will proceed to carry out the pilot to include contents in the testing environment, integrate the learning resources included in the proposal, and present the first module for UNIDO/MinComercio review and approval. Important: In each delivery, the contractor must send to MinComercio the source programs and the respective documentation to be updated in the Team Foundation Server -TFS. 	Development and testing: document/report that presents the results of the "testing environment" test and the transferring to the LMS. The "testing environment" must be verified by MinComercio and the developer team. Minutes of the verification sessions must be attached. Important: It is necessary to perform "load" and "stress" tests to verify the server's performance. Design: document that presents the	2 weeks
Transfer module 3 to the Learning Management System Transfer the approved content to MinComercio LMS http://aula.mincit.gov.co/	learning course's "Look and feel" aligned with SICAL's image manual and Production: inventory of all the components/ applications installed on the modules.	
 Virtualization of the contents (Module 4) in accordance with the design proposal and the approved instructional model, the contractor will proceed to carry out the pilot to include contents in the testing environment, integrate the learning resources included in the proposal, and present the first module for UNIDO/MinComercio review and approval. Important: In each delivery, the contractor must send to MinComercio the source programs and the respective documentation to be updated in the Team Foundation Server -TFS. 	Development and testing: document/report that presents the results of the "testing environment" test and the transferring to the LMS. The "testing environment" must be verified by MinComercio and the developer team. Minutes of the verification sessions must be attached. Important: It is necessary to perform "load" and "stress" tests to verify the server's performance.	

Transfer module 4 to the Learning Management System Transfer the approved content to MinComercio LMS http://aula.mincit.gov.co/	Design: document that presents the learning course's "Look and feel" aligned with SICAL's image manual and Production: inventory of all the components/ applications installed on the modules.	2 weeks
Virtualization of the contents (Module 5) in accordance with the design proposal and the approved instructional model, the contractor will proceed to carry out the pilot to include contents in the testing environment, integrate the learning resources included in the proposal, and present the first module for UNIDO/MinComercio review and approval. Important: In each delivery, the contractor must send to MinComercio the source programs and the respective documentation to be updated in the Team Foundation Server -TFS.	Development and testing: document/report that presents the results of the "testing environment" test and the transferring to the LMS. The "testing environment" must be verified by MinComercio and the developer team. Minutes of the verification sessions must be attached. Important: It is necessary to perform "load" and "stress" tests to verify the server's performance.	2 weeks
Transfer module 5 to the Learning Management System Transfer the approved content to MinComercio LMS http://aula.mincit.gov.co/	Design: document that presents the learning course's "Look and feel" aligned with SICAL's image manual and Production: inventory of all the components/ applications installed on the modules. Handover supports: user guides, access key, diagnostic, installation and configuration manuals (components, modules, plugins, and any other element included on the tool), support and update protocols	
Virtualization of the contents (Module 6) – If needed • in accordance with the design proposal and the approved instructional model, the contractor will proceed to carry out the pilot to include	Development and testing: document/report that presents the results of the "testing environment" test and the transferring to the LMS.	

contents in the testing environment, integrate the learning resources included in the proposal, and present the first module for UNIDO/MinComercio review and approval.	The "testing environment" must be verified by MinComercio and the developer team. Minutes of the verification sessions must be attached.	
Important: In each delivery, the contractor must send to MinComercio the source programs and the respective documentation to be updated in the Team Foundation Server -TFS.	Important: It is necessary to perform "load" and "stress" tests to verify the server's performance.	2 weeks
Team Foundation Server 113.	Design : document that presents the learning course's "Look and feel" aligned with SICAL's image manual and	
Transfer module 6 to the Learning Management System - If needed Transfer the approved content to MinComercio LMS	Production: inventory of all the components/ applications installed on the modules.	
http://aula.mincit.gov.co/	Handover supports: user guides, access key, diagnostic, installation and configuration manuals (components, modules, plugins, and any other element included on the tool), support and update protocols	
The contractor must schedule and carry out training for two technical experts.	Meeting minutes, attendance lists and academic material or presentation used to carry out the trainings	At least 4 hours
Technical support to ensure the correct operation of the course.	Report with the support activities provided in relation to the course administration and content. (If needed)	At least 16 weeks (after the completion of the activities listed above)

The contractor must deliver a report that includes functional and non-functional tests carried out in its results. UNIDO and MinComercio will also carry out user tests to identify possible errors.

5. Contract duration and warranty time

The total duration or maximum execution time of the contract is 16 weeks, not including the technical post-production support or warranty period.

<u>Warranty time</u>: once the contract is completed, the contractor must offer 4 months-warranty time. (After the 16 weeks of technical support mentioned above)

6. Work team: The bidder must present the work team assigned to the project, attaching their resumes with supports to prove through their experience, the relevance of the profile and functions in charge, within the framework of the project to be developed. The minimum profiles required for the project are:

Role	Description
Professional in systems engineering or related	Systems engineer or related professions, Moodle/Chamilo developer, with knowledge and demonstrable experience of at least 5 years in the design and implementation of virtual learning portals in Moodle.
Structuring and graphic designer	Professional with a minimum of 2 years of general experience and at least 1 year of demonstrable specific experience in design, graphic and multimedia development of virtual training solutions (LO ⁴).
Instructional designer	Professional in pedagogy, literature or similar with at least 2 years of experience in content analysis and gathering, instructional design and generation of learning models through virtual means. He/she will be in charge of designing the instructional model for e-learning training, ensuring its quality at the level of writing, spelling and style correction.

Within the work team, a role as project manager should be considered, who will be in charge of managing the work schedule and project deliverables, as well as permanent communication with MinComercio and UNIDO.

Resumés of the team members must be submitted, indicating functions and the role each would play.

6 Language Requirements

Personnel assigned to workshops, meetings, requirements gathering stages, among others interactions with the participating technical teams should be fluent in Spanish.

Reports and documents related to the deliverables should be prepared in English and Spanish.

7 Location

For foreign bidders without a registered office in Colombia, in addition to the mentioned required experience (in section 9 Qualification Requirements), must consider the Colombian time zone and the official Spanish language to carry out workshops and interactions with the participating technical teams.

8 Deliverables and Payment Terms

The timeline and payment terms based on the deliverables, as well as documents requested for each payment to be processed, are presented in the following table

Main activities	Expected results/Documents required for payment to be processed	Payments
	Purchase order signed	
First payment / Workplan	Work plan (approved by UNIDO)	20%
	• Invoice (20%)	

⁴ LO: Learning objects

Second Payment: Produce the instructional model of the virtual learning contents to ensure meaningful learning.	 Instructional model of the virtual learning contents. Invoice (20%) 	20%
Third Payment: Course's analysis and design Virtualization of the contents (Module 1) Transfer module 1 to the Learning Management System	 At least two design proposals. Work schedule that includes activities, follow-up meetings and deliverables Meeting minutes Reports mentioned in section 4 Deliverables and Time Schedule 	
Virtualization of the contents (Module 2) Transfer module 2 to the Learning Management System	Reports mentioned in section 4 Deliverables and Time Schedule	
Virtualization of the contents (Module 3) Transfer module 3 to the Learning Management System	Reports mentioned in section 4 Deliverables and Time Schedule	
Virtualization of the contents (Module 4) Transfer module 4 to the Learning Management System	Reports mentioned in section 4 Deliverables and Time Schedule	50%
Virtualization of the contents (Module 5) Transfer module 5 to the Learning Management System	Reports mentioned in section 4 Deliverables and Time Schedule	
Virtualization of the contents (Module 6) – <u>If needed</u> Transfer module 6 to the Learning Management System - <u>If needed</u>	 Reports mentioned in section 4 <i>Deliverables and Time Schedule</i> Invoice (50%) 	
Fourth/Final Payment: The bidder must schedule and carry out training for two technical experts. Technical support to ensure the correct operation of the course.	 Meeting minutes, attendance lists and academic material or presentation used to carry out the trainings Final Invoice Report with the support activities provided in relation to the course administration and content. (If needed) 	10%

Payments will be payable within 30 days upon receipt and acceptance of deliverable and invoice (electronic version) indicating the contract number and instalment requested.

9 Qualification Requirements

Following are qualification requirements for the bidder's technical offer to be considered:

Qualification requirements:

- Corporate registration: The bidder should provide a certified copy of their Certificate of Incorporation or other documents setting forth the legal basis of the company and therefore proving a legal capacity to enter into a contract.⁵
- Language: The proposal must be submitted in Spanish and English language.

Commitment to ethical principles: When submitting the offer to UNIDO through UNIDO Procurement Portal, the bidder should commit to following:

- i) company pursues a zero tolerance towards fraud and corruption;
- ii) company confirms that not of its managers/administrators /owners has been convicted of any crime
- iii) company confirms absence of conflict of interest of its employees, managers / administrators or owners in relation to this tender;
- iv) company confirms that it is not and has not been suspended /barred from doing business with any UN or other public organization.
- **Experience:** The bidder must be a national or foreign legally constituted company, with a minimum of four (3) years of existence, on the date of submission of the proposal.

The bidder must prove at least 2 years of specific experience in the design and development of virtual learning portals and courses and content virtualization (e-learning). The foregoing, through the corporate registration certificate and certifications of the executed contracts, in accordance with the following conditions:

- i. Provide at least three (2) certifications issued by clients (public, private or mixed sector), with which they have developed projects related to the object of this invitation.
- ii. Each certification must provide at least the following information: bidder Name or company, name or company name of the bidder, object of the contract, date of commencement or subscription of the act of initiation and / or term of execution of the contract (indicate the term in months), description of the activities carried out.

In the event that the certification does not contain all the required information, it may be supplemented with the contract.

iii. The bidder may present the relationship of their projects in a table with some access links to the evidence, where the virtual portal implemented is shown.

⁵ For Colombian companies: Commercial Registration and current legal representation (no more than 30 days) and RUT.

Failure by the bidder to meet mandatory qualification requirements will exclude the bidder from further consideration in the procurement process.

10 Evaluation criteria

The bidder should meet following evaluation criteria:

Technical criteria:

Technical evaluation criteria	Description
Technical proposal	The bidder should submit a technical proposal in compliance with the Terms of Reference, as well as detailed descriptions of sub-activities indicating resources and time designated for each required item, and detailed Gantt chart. Information about Guarantee and/or post-production support should be also provided.
Characteristics of the multimedia content to be developed	The bidder should include the description of the multimedia resource pool for the design and development of the virtual course ⁶ . The bidder should include in its bid samples of the type of multimedia resources proposed based on examples from other projects through links or attaching the information to evaluate the Compliance with an intermediate interactive level.
Experience of personnel assigned	The bidder should evidence the relevant experience and academic qualifications and/or technical competence of key staff assigned by providing CVs of all personnel assigned to the works under the scope of this ToR as well as the role and functions in the framework of the TOR object.

Commercial criteria:

Bidders should note that only technically compliant offers/proposals should be further considered for commercial evaluation.

The financial offer should contain all costs to perform the required services specified in these Terms of Reference. The financial offer must include a value for each activity to be developed (Main Activities described in section 4) from which a final value will result that includes all the expenses incurred to meet and carry out all the activities necessary for the presentation of the final deliverables.

The bidder should submit a financial offer in EUR currency, Colombian bidders can submit its offer in Colombian Pesos. Bidders must have a bank account in the currency in which they provide their financial offer.

Offers received in a different currency than the one indicated will be converted to EUR currency at the United Nations Rate of exchange prevailing on the date of the bid closing, and the resulting currency price will be used for price comparison and in the contract.

UNIDO General Terms and Conditions of Contract (Annex A)

When submitting the offer to UNIDO through UNIDO Procurement Portal, the bidder should confirm the acceptance of UNIDO General Terms and Conditions of Contract

The contract shall be awarded to the qualified bidder whose Technical Proposal has been found substantively responsive and whose Commercial Proposal is the lowest cost to UNIDO.

ANNEX Financial Proposal Format

FINANCIAL PROPOSAL FORMAT

- A. This form is a standardized document which the bidder must submit to UNIDO in connection with this contract for services.
- B. In addition to the cost breakdown on this form, the bidder, in good faith, should submit with this form any additional data, supporting schedules and substantiation which are reasonably necessary for the conduct of an appropriate review of the proposed contract costs. Failure to furnish the information requested on this form may render his proposal non-responsive.
- C. If a cost is included in a particular item, do not duplicate the cost or any portion thereof in another item on the form.
- D. Unless otherwise advised, all costs on the form should be stated in <u>Euros</u>.
- E. Grand Total and Sub-totals

State the total of all costs you propose in order to accomplish the contract.

BREAKDOWN OF THE OFFERRED PRICE

Activity XX	Note	TOTAL EUR\$
Activity XX	Note	

Activity XX	Note	
Other Costs (Specify cost per each item)	Note	
GRAND TOTAL		