



UNITED NATIONS INDUSTRIAL DEVELOPMENT  
ORGANIZATION

TERMS OF REFERENCE FOR PERSONNEL UNDER INDIVIDUAL SERVICE AGREEMENT (ISA)

<b>Title:</b>	Metrological Consultant (MC)
<b>Main Duty Station and Location:</b>	Bogotá, Colombia
<b>Mission/s to:</b>	N/A
<b>Start of Contract (EOD):</b>	10 May 2021
<b>End of Contract (COB):</b>	10 September 2021
<b>Number of Working Days:</b>	12 w/d (WAE)
<b>Project:</b>	180283- Quality Programme for the Chemical Value Chain

ORGANIZATIONAL CONTEXT

The United Nations Industrial Development Organization (UNIDO) is the specialized agency of the United Nations that promotes industrial development for poverty reduction, inclusive globalization and environmental sustainability. The mission of UNIDO, as described in the [Lima Declaration](#) adopted at the fifteenth session of the UNIDO General Conference in 2013, is to promote and accelerate [inclusive and sustainable industrial development](#) (ISID) in Member States. The relevance of ISID as an integrated approach to all three pillars of sustainable development is recognized by the 2030 Agenda for Sustainable Development and the related Sustainable Development Goals (SDGs), which will frame United Nations and country efforts towards sustainable development in the next fifteen years. [UNIDO's mandate is fully recognized in SDG-9](#), which calls to “Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation”. The relevance of ISID, however, applies in greater or lesser extent to all SDGs. Accordingly, the Organization’s programmatic focus is structured in four strategic priorities: [Creating shared prosperity](#); [Advancing economic competitiveness](#); [Safeguarding the environment](#); and [Strengthening knowledge and institutions](#).

Each of these programmatic fields of activity contains a number of individual programmes, which are implemented in a holistic manner to achieve effective outcomes and impacts through UNIDO’s four enabling functions: (i) technical cooperation; (ii) analytical and research functions and policy advisory services; (iii) normative functions and standards and quality-related activities; and (iv) convening and partnerships for knowledge transfer, networking and industrial cooperation. Such core functions are carried out in Departments/Offices in its Headquarters, Regional Offices and Hubs and Country Offices.

## PROJECT CONTEXT

In order to consolidate UNIDO/SECO interventions on trade standards compliance within one tool, adding the benefit of a global component facilitating synergies and enhancing coherence among the interventions, UNIDO and SECO have developed a coherent programmatic approach: the Global Quality and Standards Programme (GQSP). The GQSP supports selected countries to align the demand for and supply of quality services required to prove and verify the quality of products. It will have two components (1) Global Knowledge Management (C1) and (2) Country Projects.

The project “Quality Programme for the Chemical Value Chain” has been developed to be considered under component 2 and its overall objective is to foster Colombia’s integration into the regional and multilateral trading systems, through the strengthening of the National Quality Subsystem (SICAL) within the framework of the priorities of the 10 industrial groups that compose the Chemical Value Chain and the increase and improvement of MSME’s<sup>1</sup> capacities to comply with technical requirements, international quality, private and sustainability standards required for trade facilitation. The project includes three complementary outcomes that are aligned to the Global Quality and Standards Programme (GQSP), to be implemented over a period of four years:

Outcome 1: The sustainability and technical competence of the National Quality Subsystem SICAL are improved in the relevant areas to strategic sectors of the Chemical Value Chain to improve its competitiveness and favorize its access to new markets.

Outcome 2: The capacity of the MSMEs of the Chemical Value Chain to comply with technical regulations, international quality, private and sustainability standards is enhanced.

Outcome 3: The awareness for quality is enhanced for the improvement of quality and competitiveness.

## FUNCTIONAL RESPONSIBILITIES

The results of the consultancy of the Metrological Consultant (MC) will cover activities mainly, but not limited to Outcome 1, in particular those related to support the execution of technical assistance and strengthening initiatives aimed at national institutions such as the market surveillance and control entities of the National Quality Subsystem SICAL and its laboratory infrastructure. Specifically, the MC will provide technical advisory to the Legal Metrology Laboratory of the Superintendence of Industry and Commerce (SIC) to implement new measurement scopes, bringing assistance for its accreditation.

The MC will conduct his/her activities under the supervision of UNIDO’s DTA/DTI/QIS Project Manager, and under the coordination of the Project Management Unit (PMU), led by the National Technical Coordinator (NTC) and the National Quality Specialist (NQS). In addition, the MC should collaborate with other consultants, especially the Management System Consultant (MSC) and the National Consultant for Laboratories (NCL) who will bring guidance to ensure secure, integrated and coherent activities contemplated in the production of other related outputs.

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<sup>1</sup> Micro, small and medium enterprises.

MAIN DUTIES	Concrete/measurable outputs to be achieved	Expected Location	Location
Collaborate in carrying out a diagnostic in the Legal Metrology Laboratory of the Superintendence of Industry and Commerce (SIC) together with the Management System Consultant.	Diagnostic report	Entire duration	<i>In situ</i>
Provide advice to close technical gaps and develop competences (Mainly for the implementation and validation of temperature and relative humidity measurement methods) to the Legal Metrology Laboratory of the Superintendence of Industry and Commerce (SIC).	Detailed monthly progress reports.		<i>In situ</i>
Conduct short trainings to the staff of the Legal Metrology Laboratory of the Superintendence of Industry and Commerce (SIC) focused on calibration, metrology, uncertainty, technical issues, measurement instruments, traceability among others.	Training curricula, presentations, attendancelists, photos.		<i>In situ</i>
Facilitate and Follow-up the execution of working plans with the Legal Metrology Laboratory of the Superintendence of Industry and Commerce (SIC)	Detailed monthly progress reports.		<i>In situ</i>
Provide technical advisory to address technical findings derived from external audits performed in the programme framework	Action plans		<i>In situ</i>
Support the organization and execution of working plans under the guidance of the PMU.	Work plan		<i>In situ</i>
Provide technical assistance for the formulation of technical documents (e.g. guides, standards, articles, reports, concept notes).	Technical documents, acts, aide-memoire drafted and approved		Home based

Provide support in other UNIDO-related activities as deemed required by the PM.	Other implementation activities conducted.		Home based
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The final version of the documents must be organized following the instructions and template provided by the PMU. Finally, the MC will contribute in the review of final reports of documents that will be edited by PMU, taking into consideration the technical inputs developed by other consultants within the framework of this project. This review is an ongoing process throughout the duration of the ISA and will not require extra days.

**REQUIRED COMPETENCIES**

**Core Values**

**WE LIVE AND ACT WITH INTEGRITY:** work honestly, openly and impartially.

**WE SHOW PROFESSIONALISM:** work hard and competently in a committed and responsible manner.

**WE RESPECT DIVERSITY:** work together effectively, respectfully and inclusively, regardless of our differences in culture and perspective.

**Key Competencies**

**WE FOCUS ON PEOPLE:** cooperate to fully reach our potential –and this is true for our colleagues as well as our clients. Emotional intelligence and receptiveness are vital parts of our UNIDO identity.

**WE FOCUS ON RESULTS AND RESPONSIBILITIES:** focus on planning, organizing and managing our work effectively and efficiently. We are responsible and accountable for achieving our results and meeting our performance standards. This accountability does not end with our colleagues and supervisors, but we also owe it to those we serve and who have trusted us to contribute to a better, safer and healthier world.

**WE COMMUNICATE AND EARN TRUST:** communicate effectively with one another and build an environment of trust where we can all excel in our work.

**WE THINK OUTSIDE THE BOX AND INNOVATE:** To stay relevant, we continuously improve, support innovation, share our knowledge and skills, and learn from one another.

**Managerial and Leadership Competencies (as applicable)**

**WE ARE STRATEGIC, DECISIVE, PRINCIPLED AND INSPIRATIONAL:** As managers, we are strategic and fair in driving our team’s performance. As leaders, we are a source of inspiration, stand for norms and standards established in the UN Charter and duty bound to defend these ideals with a principled approach.

**WE ARE INCLUSIVE AND ACCOUNTABLE:** As managers, we are inclusive in our approach and maintain constructive engagement with all our stakeholders. As leaders, we embrace all personnel and stakeholders and are accountable mutually within UNIDO, within the system, to beneficiaries and the public and beyond.

**WE ARE MULTI-DIMENSIONAL AND TRANSFORMATIONAL:** As managers, we go beyond conventional methods to help our organizational units strengthen their own agility and adaptability to change. As leaders in the UN system, we have a vision which is integrated and engaged across the pillars of Peace and Security, Human Rights and Development.

**WE ARE COLLABORATIVE AND CO-CREATIVE:** As managers, we foster a team spirit and create meaningful opportunities to hear the voices of those around us, while realizing that only by working

together can we accomplish our mission. As leaders we see the inter-dependency of imperatives of the UN Charter and personally champion a collaborative inter-agency, multi-stakeholders and cross-thinking approach.

#### MINIMUM ORGANIZATIONAL REQUIREMENTS

**Education:** Advance university degree in Engineering, Chemistry, physics or related (e.g. Chemical engineering, Electronical Engineering, etc.) with extensive experience implementing and validating measurement methods for temperature and relative humidity among others and deep knowledge in ISO/IEC 17025:2017 applied to calibration laboratories. In-depth knowledge of metrology and calibration fundamentals.

#### **Technical and Functional Experience:**

A minimum of two (2) years of professional experience in the areas of quality (e.g. development and implementation of measurement methods, metrology, accreditation, metrological analysis, traceability, uncertainty estimation, measurement instruments commissioning, and related activities) and calibration laboratories advisory and auditing. Demonstrated experience giving training in topics of interest to calibration laboratories. Computer literacy (MS Office, data base management) is required. Solid track record in comparable assignments (technical assistance programme) will be added advantage.

**Languages:** Fluency in written and spoken Spanish and English are required. Fluency and/or working knowledge of another official UN language is an asset.