



**REGIONAL PROJECT  
(RG-M1073)  
April 2007 – April 2010**

**“HARMONIZED REGIONAL QUALITY  
INFRASTRUCTURE FOR IMPROVING MARKET  
ACCESS AND COMPETITIVENESS”**

**Project objective**

The goal of the project is to contribute to economic competitiveness and regional development by facilitating market access through the use of harmonized and traceable legal metrology services. The purpose is to strengthen the existing regional metrology infrastructure while harmonizing the regional Measurement, Standards Testing and Quality infrastructure (MSTQ) towards international recognition.

The project will achieve this through five components, namely (i) Assuring traceability in metrology through regional cooperation; (ii) Development of regional calibration, testing and verification services; (iii) Development of a regional accreditation structure; (iv) Implementation of standards and technical regulations; and (v) Coordination of a regional metrology infrastructure.

**Executing Agency:**

CARICOM Regional Organization for Standards and Quality (CROSQ)

**Funding Agencies:**

CARICOM Regional Organization for Standards and Quality (CROSQ)

Inter American Development Bank (IADB)

Physikalisch-Technische Bundesanstalt (PTB)

Regional Bureaux of Standards





## PREAMBLE

This Project is a regional corporation by the CARICOM Regional Organization for Standards and Quality (CROSQ) and Regional Bureaux of Standards specifically in Trinidad and Tobago, Barbados, Guyana and Jamaica with majority funding being provided by the **Inter-American Development Bank-Multilateral Investment Fund (IDB-MIF)**, and counterpart funding and technical assistance also provided by Physikalisch Technische Bundesanstalt (PTB) and each of the participating countries. The Project will be executed over the period of **forty eight months** and the disbursement of funds will take place over fifty four months. It was officially launched on October 1<sup>st</sup> 2007 at the CARICOM Regional Organization for Standards and Quality (CROSQ), Barbados.

## BENEFITS

These will include: (i) the strengthening of the Regional Quality Infrastructure (RQI) of the Caribbean Community (CARICOM) in order to facilitate the international recognition of the conformity assessment mechanisms of the region; (ii) improved competitiveness, market access, environmental and consumer protection, as a result of applying standards and conformity assessment practices and overcoming technical barriers to trade; (iii) increase in trade as a result of applying standards and conformity assessment practices; (iv) increase in the number and traceability of the measurement of basic physical quantities in the area of metrology; (v) the accreditation of laboratories important to critical economic sectors, that will help to strengthen the technical capabilities of the laboratories in the region; (vi) harmonization of regional practices with international norms, via the application of the CROSQ standards development model, in order to achieve international recognition; (vii) reinforcement of the institutional framework for conformity assessment at the regional level while, at the same time, strengthening the CROSQ Secretariat to serve as the system administrator; and (viii) by virtue of their membership to CROSQ, all 15 CARICOM member states, will benefit from the project through awareness and information sharing activities.





## COMPONENT 1

### 1) ASSURING TRACEABILITY IN METROLOGY THROUGH REGIONAL COOPERATION

For standards to be acceptable internationally, the measuring instruments used to demonstrate compliance have to be accepted as giving accurate measures within the tolerances (accepted error of measurement), as established by acceptable international regulations, and thus be traceable to the primary international standards of measurement; held in trust at the International Bureau of Weights and Measures (BIPM) on behalf of governments (the General Conference of Weights and Measures - CGPM).

CARICOM is a member of the CGPM and has signed the BIPM Mutual Recognition Arrangement (MRA), which obliges member states to ensure that the measuring instruments used in commerce are traceable to the primary measuring instruments of the BIPM. This component generates activities required as a result of the region signing on to the BIPM MRA, such as inter-comparisons which compare measurements between countries, thereby establishing levels of accuracy which qualify the ability to measure.

The objective of this component is to integrate the work of the region in the area of metrology, the science of measurement. The principles and standards which define the process of metrology define the seven acceptable international basic units of measurement as the International Metric System of Measurement (SI), and standardizes the acceptable degrees of error in measurement for measuring tools in respect of various sectors. The region would therefore need technical assistance in the field of metrology, in order to assess the existing levels of measurement competence and to compare them with the local and regional demand for services. The selection of appropriate reference laboratories, which would include those that have metric tools of measurement and have staff trained in using these tools, and the development of National Metrology Institutes (NMIs) who will be responsible for maintaining a formal process for assuring internationally recognized traceability for basic physical and chemical quantities, in accordance with the guidelines of the BIPM MRA.

The output of this component will include Caribbean NMIs effectively cooperating in a regional network towards international recognition; therefore the result is an integrated mechanism for assuring regional traceability.



## Component II:

### 2) DEVELOPMENT OF REGIONAL CALIBRATION, TESTING AND VERIFICATION SERVICES

Measuring instruments that are to be used in trade, need to be tested to ensure that they deliver accurate measure. Such measuring instruments, for example, market scales which deliver in grams and kilograms, have to be first *tested* by the legally appointed weights and measures inspectors, to ensure that these scales are accurately weighing in kilograms and grams (*verification*). Where the scale is found in error, the inspectors then need to adjust the scale to ensure accurate measure by comparing the measuring instruments (*intercomparison*) against the national kilogram/gram measure (*calibration*). Calibration, testing and verification allow the spread of accuracy of measurement throughout the production process (industries and SME's) which allows for the improvement of quality in production and services.

The objective of this component is to establish a regional calibration, testing and verification service offering demand-oriented services. In order to get the reference laboratories prepared for the task of giving traceability to the lower levels which represent the calibration, testing and verification services to industry and society, inter-comparisons are needed to demonstrate that the internationally required accuracy can be attained.

The output of this component will include a regional calibration, testing and verification service structured and responding to the demand of economies in the Caribbean. Therefore the result is the establishment of a regional calibration, testing and verification services, that are traceable to the international organization, the BIPM.

## Component III:

### 3) DEVELOPMENT OF REGIONAL ACCREDITATION STRUCTURE

Accreditation is a formal process used to determine whether a lab is competent to perform certain kinds of measurements and lab tests. The accreditation process takes into account the set criteria that is based on the application of predefined standards. The accrediting process is intended to strengthen and sustain the quality and integrity of the delivery of a service, thus making it worthy of public confidence in the level of quality achieved. Accreditation is the result of independent third party verification and auditing by the accrediting government body or structure.

The regional accreditation structure has to be based on third party verification and reporting, as this will ensure that there is acceptance of testing results between the regional and international partners. It can also assure that products and services can obtain international acceptance thereby achieving higher levels of competitiveness.





The objective of this component is to build trust in the technical competence of the testing and calibration capabilities of the regional conformity assessment bodies. At the end of the process of receiving technical assistance, the selected reference laboratories will demonstrate their competence through accreditation. A pool of trained lead and technical advisors is needed to work for the accreditation body and evaluate and train staff in all the chosen laboratories. A regional information and knowledge management system is needed to capture all the human and technical resources necessary to make regional accreditation viable.

The output of this component will include accreditation regionally structured and operating according to harmonized criteria. Therefore the result is a functioning regional accreditation structure.

### **Component IV:**

#### **4) IMPLEMENTATION OF STANDARDS AND TECHNICAL REGULATIONS**

The application and use of standards is paramount for industrial competitiveness. This component strengthens the impact of national inquiry points as part of the WTO machinery. Signatories to the WTO have the obligation to inform and be informed of developments in WTO member countries which may affect their international trade. WTO countries are encouraged to do this via electronic access points which are established as national inquiry points, and on which information about standards is posted and standards that have already been promulgated are developed. The inquiry point also serves as a center for receiving inquiries from other countries and for answering questions related to technical and non technical barriers to trade. This component therefore encourages the formation of essential regional technical committees made up of representatives from the productive sector as well as the national standards bodies, who can keep abreast of international developments and address key issues in this regard.

The objective of this component is to ensure conformity with international best practices. The integration and embedding of calibration, testing and verification into the existing and required measurement processes within the region will be accomplished through the development of the appropriate Standards and Technical Regulations. A major aspect of this process is the link to the Standards Information to be created by the project MIF ATN/ME-8991-RG Project. The project will develop a database of standards and technical regulations documented that will be used in coordination with the MIF ATN/ME-8991-RG, but focused on the supply side.

The output of this component will include the implementation of standards and technical regulations in accordance with WTO (TBT and SPS) requirements, in order to facilitate trade. Therefore the result is improved market access, environmental and consumer protection.





## Component V:

### 5) COORDINATION OF REGIONAL INFRASTRUCTURE

All of the components mentioned above can best be facilitated by a strong regional coordination mechanism which is capable of maximising the resources available in the region for the benefit of the entire group. Having the management unit with CROSQ contributes to the further increase in institutional learning in this area, which is a benefit in terms of reducing costs and increasing efficiency.

The objective of this component is to strengthen CROSQ in its role as the Regional Management Body for Metrology and Conformity Assessment. The activities financed under this component include: (i) technical assistance to access best practices and lessons learned from other regional projects; define and develop a model<sup>1</sup> for harmonising the region; (ii) establishing guidelines for best practices for harmonising the regional quality infrastructure; (iii) policy dialogue and technical assistance to promote the link between quality infrastructure and competitiveness, environmental and consumer protection; and (iv) training to support the capacity of CROSQ to officially participate at ILAC and IAF.

The output of this component will include the establishment of a management body that coordinates the regional quality infrastructure and supports integration and harmonization in CROSQ's operations. Therefore, the result is a recognized and sustainable regional infrastructure.

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<sup>1</sup> CROSQ can provide the basis for the regional structure of different capacities by providing technical secretariat and logistics, communication, information and linkages available resources and users.

