

# **Criteria and Process for Long Term Strategic Planning of the Metrological System in México - The case of Physical Metrology**

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## **Abstract**

The metrological system of a country is a rather complex structure, since it involves a National Metrology Institute, a number of metrology, calibration and testing laboratories, certification bodies, verification units and other intermediate organizations. Some of these organizations are public and many other private. Some are planned and evaluated according to public benefit and social return, and others according to economic profit and driven by the market forces. Some are designed to serve a specific industrial or social sector and others to offer services and technical assistance to the open market.

Besides the organization status, there are their core metrological competences and measuring capabilities, that constitute their metrological 'reason of existence'. These metrological capabilities have a number of dimensions that have to be carefully defined to ensure the success of the organization. Among these characteristics are the quantities to be measured with its ranges and best uncertainties. Also it is necessary to define the scope of services to be offered, this goes from measuring, calibration and testing services, to training, consultancy or research and development projects.

In a national metrology system every organization constitutes a linkage of the chain or a node of the network, and the whole structure must be sufficient, coherent and consistent to provide the right support to industry, commerce, services and society in general. Achieving such a system is not a simple task since it involves the work of many independent organizations, with different status and driving forces. However, it is believed that some general strategic planning is feasible in collaborative work, if some very general criteria, valid for every organization in the system, are defined and accepted by most.

In Mexico the national metrology system is quite young; CENAM, the National Metrology Institute, is only 12 years old in 2006 and, since its inauguration, the number of metrology laboratories has increased about ten times. This means the system is stronger now and more complex, but it is still incomplete. The experience of the last decade has shown some successes, among them that of CENAM itself and a number of secondary laboratories, but has shown also that some other laboratories have been designed and opened without success. This has prevented also other investors to open new laboratories in areas in which there is, apparently, clear need for metrological services.

Now, the new administration 2006-2012 provides an opportunity to develop an improved process of plan and executing the construction of the system. As a pilot experience, it will be carried out in the fields covered by the physics metrology area of CENAM and their associated stakeholders.