

Guide 7: EUROMET Consultation on Facilities

This document describes consultation on facilities within EUROMET, which is one out of four types of collaborative efforts taking place in EUROMET. The document lists recommendations for National Metrology Institutes engaged in consultation on facilities.

The version 01.0 of Guide no 7 corresponds to the original version of December 1998. The version 01.1 takes into account the changes due to the new EUROMET names adopted at the EUROMET General Assembly in May 2001.

1 Introduction

One of the major characteristics of the international community of National Metrology Institutes (NMIs) is the mutual openness of the NMIs to share knowledge and experience and to help and assist each other in further developments. By that the NMIs contribute in an efficient and effective way to the continuous improvement of the world system of measurement standards and international traceability. So, at the heart of EUROMET is the policy that each member, on an equal partner basis, will cooperate with other members and makes its knowledge available to other EUROMET members. This has led to a particular type of EUROMET projects *Consultation on Facilities*.

Although limited in number, this type of collaboration has been of paramount importance for the smaller NMIs in building up their facilities.

An NMI could request another NMI to provide Consultation on Facilities when:

- a) the NMI requesting consultation needs to verify a new project, a research programme, a new laboratory or measurement infrastructure realisation and asks for the opinion of experts;
- b) the NMI requesting consultation wishes to have its staff trained;
- c) the NMI requesting consultation wishes to share an expensive primary standard or calibration facilities at the other NMI. In this case the consultation on facilities may be followed by a traceability agreement, especially when the one NMI chooses only to maintain a secondary national standard, calibration of which is traceable to the shared primary standard held in the other NMI. Recommendations related with a traceability agreement are given in EUROMET Guide n° 6.

EUROMET Consultation on Facilities projects are closely connected with and provide continuous input and support to EU programmes for less favoured EU-member countries and for countries in Central and Eastern Europe.

The consultation process by an NMI in order to become acquainted with new facilities is in general not charged by the NMI which is to be consulted as long as the consultation is limited to one or only a few days. However, taking into account current financial constraints every NMI is confronted with, it is not unreasonable to demand some financial contribution for advice and consultation which consumes many hours of work.

In some cases the consultation delivers advantages for both parties concerned, so they may decide to share the costs.

2 Objective and Scope

The objective of EUROMET is to create, in the most effective and efficient way possible a European metrology system that facilitates trade, industry and society to develop and to improve continuously, meanwhile recognising the typical strategic needs of the individual participating countries and different regions within Europe.

This document gives guidance and points to be considered in developing international co-operation with respect to the development and new realisation of standards and calibration facilities.

Remarks:

- a. Within living memory it is seen as a necessary task for national authorities in an organized society to define, establish and maintain the national metrological infrastructure. This means that in general finally the governments decide on and pay for the national standards and calibration facilities. So, in the text of this document both the terms government as NMI, as the executing body, are used.

- b. When we talk about the user or customer of a shared facility, in generally, we mean not NMIs but industry, calibration and other customer laboratories, etc.

3 Considerations

3.1 Reasons for establishing NMIs

For several reasons, most of the individual countries have established, and will continue to support, their own National Metrology Institute. The rationale behind this may be different from country to country but in general will comprise such elements like:

- desire to have a firm basis for legal metrology;
- to have a custodian of the national standards creating the necessary long term stable environment for the development, maintenance and improvement of standards (primary, secondary or other reference standards) to have one central source of metrological know-how, where maximum benefit can be derived from the synergetic effects of the different disciplines present in the metrological field;
- to have a know-how centre in support of technological research and development in the country;
- the necessity to have a national reference centre, which is easy accessible by the national industry, trade, laboratories, government, society in general (needs in the fields of health care, environment, safety);
- to support quality of industrial production and promote international trade;
- to avoid costly long and international travelling with standards and instruments by many users, which might increase the chance of instability and drift of their standards and instruments as well as facing difficulties with customs in some countries;
- to avoid long waiting times before calibrations can be executed;
- to promote education and training in metrology within the country; and
- to raise awareness of best metrology practice and its relevance to competitiveness and product quality.

3.2 Costs

The maintenance and development of an NMI is seen in all countries as one of the indispensable national infrastructures needed in an organised society serving and supporting all parties in society, ranging from science and technology, trade and industry (large, medium, small businesses) to fair trade, health, safety, environmental and consumer protection.

The costs of development, realisation and maintenance of a NMI generally are borne by the government. The consultation on facilities may enable the sharing of the costs of basic or long term research activities which are fundamental to the realisation of any primary standard.

The costs of the use of the facilities for calibrations and special services are generally to be paid by the customers.

3.3 Legal aspects

Since national governments are responsible for the efficient functioning of their own society they must have control over their metrological infrastructure. The organisation of the national metrology infrastructure and of the NMI is often defined by law. Moreover, also within the EU it is often expected and required that governments are able to organise their own internal affairs, like market surveillance, accreditation, certification and testing infrastructure, appointment of Notified Bodies, etc. In order to do so the governments need to have control over a national metrology infrastructure.

3.4 Cost/benefit ratio

International co-operation and consultation on a facility may arise when the costs of the original and initial realisation of such a facility become extremely high.

Depending on the strategic importance attached by a government to a facility and to the expertise connected to it (which itself depends on national interest) one may still decide to realise ones own original national facility or to

seek possibilities for making use of and gaining access to the expertise and facilities owned by another foreign NMI.

4 Recommendations

- 4.1 NMIs should be fully open without charging a fee for short term consultation visits by another, foreign sister-organisation. Short term visits for consultations are fully within the spirit and scope of EUROMET. Such a visit may not need to be registered as a EUROMET project.
- 4.2 NMIs should be fully open for consultation visits of longer duration, but may have to charge a fee for the extra burden such a visit gives, unless also the NMI which is visited derives some advantage from the visit (to be negotiated by parties concerned).

This type of consultation should be registered as a EUROMET project.

- 4.3 In the case of long-term consultation or access to expertise owned by one of the NMIs, the offering parties will sign a contract, including rights, obligations, financing fees, accessibility, continuity, complaints, etc. Such a co-operation is registered as a EUROMET project.
- 4.4 If an NMI decides not to develop its own facility in an original way but instead chooses to make use of the expertise and competence of a foreign sister-organisation, it is desirable to draw up a contract between the two NMIs in order to guarantee the quality and continuity of the advice and assistance. This contract should/may also include a financial arrangement to reflect the cost of providing assistance by one NMI to another one. If the contract is to be ended by one of the contracting partners, this should be announced well in advance, e.g. at least 18 months in advance, in order to leave sufficient time for the other partner to find an alternative solution or to solve financial and staff consequences. Such a co-operation is registered as a EUROMET project.
- 4.5 In the case that joint facilities are established by two or more NMIs or traceability is requested from an NMI to another NMI, this should be noted in reporting relevant international comparisons, in order to allow a correct evaluation of results.
- 4.6 In order to avoid unnecessary duplication of facilities it is desirable that NMIs considering the establishment of costly, new or expanded facilities announce their intention to do so to the EUROMET members well in advance so that others may be encouraged to join the proposed arrangement.

