

# MATHMET

## – The European Centre for Mathematics and Statistics in Metrology –

### Memorandum of Understanding

*Considering* that the NMIs and DIs form the fundamental metrology infrastructure in Europe and considering the importance of mathematical and statistical methods for many areas of metrology that support the work of government, commerce and industry, the enforcement of law, the maintenance of public health, the protection of the environment and the manufacture of quality products,

*Considering* that many applications of mathematics and statistics in metrology comprise key tasks such as uncertainty evaluation, analysis of key comparisons, conformity assessment and decision-making, or determination of fundamental constants, which require an international consensus and harmonization of methods,

*Considering* that modern metrology requires expert knowledge of and further advances in applied mathematics, statistics and related state-of-the-art computational tools, the organisations on behalf of which this Memorandum of Understanding is signed agree on the following:

#### **Section 1. Constitution**

1.1 The organisations on behalf of which this Memorandum of Understanding is signed declare their common intention to take part in the European Centre for Mathematics and Statistics in Metrology (MATHMET), a European network with the objective of enabling collaborative research, building new capabilities, providing services, guidelines and a joint portal for cooperation with third parties as detailed in Section 3 of this Memorandum of Understanding.

1.2 The affairs of MATHMET shall be directed by the MATHMET General Assembly.

1.3 Full Membership in the MATHMET General Assembly is open to National Metrology Institutes (NMIs) and Designated Institutes (DIs) from countries within the European Union (EU) and the European Free Trade Association (EFTA), the European Commission and European countries recognised by the EU and EFTA as accession states.

1.3.1 Only one institute per country can obtain Full Membership. For those states which have more than one institute responsible for maintaining national measurement standards, these institutes should agree which of them will be the MATHMET full member.

1.4 Associate Membership in the MATHMET General Assembly is open to European NMIs, DIs and academic institutions with expertise in mathematical and statistical research.

1.4.1 Other European and international organisations and industrial stakeholders may by invitation also be represented in the MATHMET General Assembly in an observer capacity.

1.5 Institutes and organisations applying for Full Membership and Associate Membership should fulfil minimum criteria established by the MATHMET General Assembly.

1.6 Each Member may nominate up to three experts (Member delegation) to serve on the MATHMET General Assembly.

1.7 The General Assembly shall form its own rules of procedure.

1.8 The MATHMET General Assembly shall attempt to reach decisions by consensus whenever possible.

1.8.1 Each Full Member delegation to the General Assembly is entitled to one vote. Delegations representing the other categories of membership do not have a vote.

1.8.2 A decision requires a quorum of 50% of the Full Members of the MATHMET General Assembly. Decisions may be taken during the General Assembly meetings or by written voting (e-mail).

1.8.3 Decisions on applications for Full Membership must be made unanimously by the MATHMET Full Members. Details can be regulated by additional rules of procedure

1.9 The MATHMET General Assembly shall meet at least annually to review and discuss specific tasks. Extraordinary MATHMET General Assembly meetings may be called by agreement of 50% or more of the Full Members of the General Assembly.

1.10 The MATHMET General Assembly shall elect a Chair, a co-Chair and a Secretary from Member delegation of its Full Members and for a three-year term of office. Re-elections are possible.

1.11 The Chair represents MATHMET in all dealings with external parties, and actively promotes collaboration and communication within MATHMET and with external partners. The Chair may delegate individual tasks to the co-Chair.

1.12 A MATHMET Secretariat shall be established to provide the necessary administrative support. Work of the Secretariat is overseen by the MATHMET Secretary.

#### **Section 2. Finances**

The MATHMET General Assembly may decide on the amount and due date of membership fees, and on other means of financial income. These decisions must be made unanimously.

#### **Section 3. Strategies, Aims and Objectives**

3.1 The aim of MATHMET is to promote best practice in mathematics and statistics for metrology, to increase the impact of mathematics and statistics research by providing a forum for European metrology organizations, industries and standardisation bodies, by stimulating corresponding exchange with academia and NMIs at an international level and by providing a single point of reference for NMIs, industry, EURAMET and its constituent bodies.

3.2 MATHMET shall work with other national, European and international organisations dedicated to research in mathematics and statistics for metrology and shall build on

the links that exist between NMIs, academia and industries. When formal mechanisms are required they shall be established in accordance with Section 1.8.

3.3 In particular, MATHMET will endeavour to provide to related international organizations, such as EURAMET and the Joint Committee for Guides in Metrology (JCGM), a single point of reference for information, collaboration and participation regarding mathematical and statistical research in metrology.

3.4 MATHMET will actively promote best practice in mathematics and statistics for metrology by developing new guideline documents and validated software and by recommending existing relevant scientific work.

3.5 Scientific collaboration between members of MATHMET and third parties will be supported

- a) by providing a joint web-based portal for dissemination of the scientific work of its members,
- b) by carrying out joint research activities of the members on relevant topics, and
- c) by arranging cooperation with industries, academia, regulatory and standardization bodies through joint research activities.

3.6 MATHMET will actively promote knowledge transfer between its members and third parties through dedicated workshop series, publications and secondments.

3.7 Any dedicated publication, recommendation and collaboration is to be agreed between the Full Members in accordance with section 1.8 and should clearly refer to MATHMET.

#### **Section 4. Members Rights and Responsibilities**

4.1 Members commit themselves to the pursuance of the strategies, aims and objectives of MATHMET.

4.2 All members have the right to propose to MATHMET that specific tasks be carried out. Members shall carry out tasks on terms agreed by them.

4.3 All members may seek information and assistance from MATHMET and its individual members on mathematical and statistical problems on terms to be decided between the parties concerned.

4.4 For the attainment of the strategies, aims and objectives of MATHMET, members are encouraged to participate to the extent commensurate with resources and expertise at their disposal.

4.5 Members are encouraged to ensure that necessary resources are made available under their internal procedures.

4.6 Members are encouraged to make available to MATHMET information on current and planned work in areas of interest to MATHMET.

#### **Section 5. Validity of Memorandum of Understanding**

5.1 This Memorandum of Understanding shall come into operation immediately on signature on behalf of at least three member countries, and shall remain open for further participation from within the defined membership categories.

5.2 This Memorandum of Understanding may be amended, concerning non-financial matters, subject to three months' notice of amendments being given to all full members and by agreement of a simple majority of a minimum of 50% of the members participating at a subject meeting of the MATHMET General Assembly.

5.3 Termination of participation in this Memorandum of Understanding shall be notified to the MATHMET Chair in written form no less than three months beforehand.

5.4 This Memorandum of Understanding is concluded for an initial term of three years. It will continue for additional three year periods if at least 50% of the full member countries support its continuation.

5.5 This Memorandum of Understanding does not prevent MATHMET members making independent written agreement between MATHMET members and third parties concerning work in areas of interest to MATHMET.