



**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY  
OF THE DEPARTMENT OF COMMERCE  
OF THE UNITED STATES OF AMERICA  
AND  
THE NATIONAL INSTITUTE OF METROLOGY, STANDARDIZATION  
AND INDUSTRIAL QUALITY  
OF THE MINISTRY OF DEVELOPMENT, INDUSTRY AND FOREIGN TRADE  
OF THE FEDERATIVE REPUBLIC OF BRAZIL  
CONCERNING TECHNICAL COOPERATION IN CHEMICAL, PHYSICAL, AND  
ENGINEERING MEASUREMENT SCIENCES AND STANDARDS RELATED  
ACTIVITIES**

**Article I. Purpose and Objectives**

**A.** In order to provide a mechanism for the exchange of scientific and technical knowledge and the augmentation of scientific and technical capabilities, the National Institute of Standards and Technology (NIST) of the Department of Commerce of the United States of America and the National Institute of Metrology, Standardization and Industrial Quality (Inmetro) of the Ministry of Development, Industry and Foreign Trade of the Federative Republic of Brazil, hereinafter referred to as the "Parties", hereby agree to pursue scientific and technical cooperation in chemical, physical, and engineering measurement sciences and standard related activities in accordance with this Memorandum of Understanding (hereinafter referred to as the "Memorandum").

**B.** The purpose of this Memorandum is to provide a framework for the exchange of scientific and technical knowledge and services, and the augmentation of scientific and technical capabilities of Parties with respect to the chemical, physical, and engineering measurement sciences, and standards related activities.

**C.** This Memorandum is subject to and governed by the provisions of the Agreement between the United States of America and the Federative Republic of Brazil Relating to Cooperation in Science and Technology (hereinafter referred to as the "S&T Agreement") signed February 6, 1984, as amended and extended. Except as otherwise indicated, in case of any inconsistency between the provisions of this Memorandum and the provisions of the S&T Agreement, the provisions of the latter shall prevail.

## Article II. Cooperative Activities

A. Forms of cooperative activities under this Memorandum may consist of exchange of technical and administrative information, reference data and materials, calibrations, and standards; exchange visits; cooperative research between scientists of the Parties engaged in research disciplines within the scope of programs of the Parties; technical assistance; and other forms of cooperative activities as are mutually agreed upon.

In cases where traceability to the SI through NIST and the demonstration of the equivalence between standards of Inmetro and NIST are a requirement of a governmental organization, planning of inter-comparisons that are not covered already by the Inter-American Metrology System (SIM) regional comparisons and the International Committee of Weights and Measures (CIPM) Mutual Recognition Arrangement may be considered in accordance with Article III of this MOU.

B. Specific types of mutually agreed cooperation may include, but are not limited to:

1. Research stays by Inmetro scientists and technical staff at NIST, under the NIST Guest Researcher Program.
2. Exchange of experiences and scientists, and cooperative research projects carried out partially in each institution in the following areas:
  - a) Information Technology Research and Standards
  - b) Electrical Metrology with emphasis on the AC Programmable Josephson Voltage Standard or ACPJVS;
  - c) Optical Metrology;
  - d) Mechanical Metrology;
  - e) Acoustic and Sound Metrology;
  - f) Chemical Metrology;
  - g) Thermal Metrology; and
  - h) Materials Metrology
  - i) Standard Reference Data and Certified Reference Materials.
3. Cooperative development of Certified Reference Materials (CRM) for biofuels;
4. Comparisons of primary and national standards;
5. Calibrations of special instruments or standards, in cases where one party has unique capabilities;
6. Participation in seminars, and workshop and training courses in each others' laboratories;

7. Participation in standards related measures and conformity assessment;
8. Exchange of publications;
9. Technical assistance from NIST experts to Inmetro or the Government of Brazil to improve the current national schemes of scientific, industrial and legal metrology, and to develop new metrological activities;
10. Temporary loan of equipment, when available, for the implementation of specific activities; and
11. Other activities as may be agreed.

C. For activities relating to points 3, 4 and 5 of paragraph B of this article, NIST shall consider measurement services from Inmetro and/or its designated organizations, as an exchange for reference materials.

### **Article III. Source of Funding**

Research activities under this Memorandum are subject to and dependent upon availability of appropriated funds, personnel, and resources. Under the Memorandum, in the case of Guest Researchers as provided by Article II(B)(1) above, the receiving Party will pay for facilities, supplies, and other research costs except for those, which are required only to meet a Guest Researcher's special needs. The sending Party will continue to provide normal support for the exchange scientists, including base salary and other benefits. In most cases, any subsistence allowance provided to compensate for the differential costs of living will be provided by the sending Party. However, the receiving Party may choose to provide a portion or all the subsistence allowance if doing otherwise would prevent the exchange from occurring.

### **Article IV. Safety**

The Parties shall ensure that appropriate policies and practices are in place to provide for the safety of their employees, the public, and the environment during the conduct of cooperative activities, which are consistent with applicable national laws and regulations.

### **Article V. Intellectual Property**

Provisions for the protection and allocation of intellectual property created or furnished in the course of cooperative activities under this Memorandum are set forth in Annex I, which constitutes an integral part of this Memorandum.

## **Article VI. Disclaimer**

Information transmitted by one Party to the other Party under this Memorandum shall be accurate to the best knowledge and belief of the transmitting Party, but the transmitting Party does not warrant the suitability of the information transmitted for any particular use of or application by the receiving Party or any third Party.

## **Article VII. Planning and Review of Activities**

**A.** The Parties shall name representatives who, at times mutually established by the Parties, shall plan and review activities under this Memorandum and use their best abilities to resolve disputes, if any.

**B.** The point of contact for implementation of these activities for NIST shall be the Director for International and Academic Affairs, and for Inmetro shall be the Coordinator for International Affairs or another organization unit officially designated in writing.

## **Article VIII. Project Annexes**

Any activity carried out under this Memorandum shall be agreed upon by the Parties in writing. All activities under this Memorandum shall be carried out in accordance with the laws and regulations of the United States and Brazil. Whenever more than the exchange of technical information or exchange visits of individuals is planned to take place, such activity shall be described in a Project Annex to this Memorandum, which shall be set forth as appropriate to the activity, work plan, staffing requirements, cost estimate, funding source, and their undertakings, obligations, or conditions not included in this Memorandum. In case of any inconsistency between the terms of this Memorandum and of a Project Annex, the terms of this Memorandum shall be controlling.

## **Article IX. Export-Controlled Information and Equipment**

The transfer of unclassified export-controlled information or equipment between the Parties shall be in accordance with the relevant laws and regulations of each Party. If either Party deems it necessary, detailed provisions for the prevention of unauthorized transfer or retransfer of such information or equipment shall be incorporated into the provisions of Project Annexes. Such information or equipment shall be marked to identify it as export-controlled, and the Parties shall consult to identify appropriate restrictions or other requirements regarding the transfer of this information or equipment.

**Article X. Entry into Force and Termination**

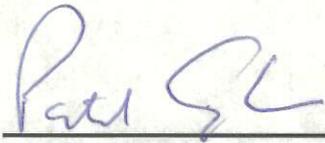
This Memorandum shall enter in force upon signature by the Parties and shall remain in force for five (5) years, unless terminated earlier by either party upon ninety (90) days' written notice to the other Party. This Memorandum may be amended or supplemented by written addenda drafted by the Parties. The termination of this Memorandum shall not affect the validity or duration of projects under this Memorandum that are initiated prior to such termination.

IN WITNESS WHEREOF, the undersigned, being duly authorized by their respective Governments, have signed this Memorandum.

DONE at Washington D.C., in duplicate, on the 20th day of November, 2009, in the English and Portuguese languages, both texts being equally authentic.

For the National Institute of Standards and Technology of the Department of Commerce of the United States of America:

For the National Institute of Metrology, Standardization and Industrial Quality of the Ministry of Development, Industry and Foreign Trade of the Federative Republic of Brazil:



\_\_\_\_\_  
Dr. Patrick D. Gallagher  
Director



\_\_\_\_\_  
Prof. João Atziro Herz da Jornada,  
President

## ANNEX I

### INTELLECTUAL PROPERTY

Pursuant to Article IV of this Memorandum:

The Parties shall ensure adequate and effective protection of intellectual property created or furnished under this Memorandum and relevant implementing arrangements. The Parties agree to notify one another in a timely fashion of any inventions or copyrighted works arising under this Memorandum and to seek protection for such intellectual property in a timely fashion. Rights to such intellectual property shall be allocated as provided in this Annex.

#### I. SCOPE

A. This Annex is applicable to all cooperative activities undertaken pursuant to this Memorandum, except as otherwise specifically agreed by the Parties or their designees.

B. For purposes of this Memorandum, intellectual property shall have the meaning found in Article 2 of the Convention establishing the World Intellectual Property Organization, done at Stockholm, Sweden, July 14, 1967.

C. This Annex addresses the allocation of rights, interests, and royalties between the Parties. Each Party shall ensure that the other Party can obtain the rights to intellectual properties allocated in accordance with the Annex, by obtaining those rights from its own participants through contracts or other legal means, if necessary. This Annex does not otherwise alter or prejudice the allocation between a Party and its nationals, which shall be determined by that Party's laws and practices.

D. Disputes concerning intellectual property arising under this Memorandum should be resolved through discussions between the concerned participating institutions or, if necessary, the Parties or their designees. Upon mutual agreement of the Parties, a dispute shall be submitted to an arbitral tribunal for binding arbitration in accordance with applicable rules of international law. Unless the Parties or their designees agree otherwise in writing, the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL) shall govern.

E. Termination or expiration of this Memorandum shall not affect rights or obligations under this Annex.

#### II. ALLOCATION OF RIGHTS

A. Each Party shall be entitled to a nonexclusive, irrevocable, royalty-free license in all countries to translate, reproduce, and publicly distribute scientific and technical journals, articles, reports, and books directly arising from cooperation under this Memorandum. All publicly distributed copies of a copyrighted work prepared under this provision shall indicate the names of the authors of the work unless an author explicitly declines to be named.

**B.** Rights to all forms of intellectual property, other than those rights described in Section II (A) above, shall be allocated as follows:

1. Visiting researchers, for example scientists visiting primarily in furtherance of their education, shall receive intellectual property rights under the policies of the host institution. In addition, each visiting researcher named as an inventor shall be entitled to share in a portion of any royalties earned by the host institution from the licensing of such intellectual property.

2. (a) For intellectual property created during joint research, for example, when the Parties, participating institutions, or participating technical personnel have agreed in advance on the scope of work, each Party shall be entitled to obtain all rights and interests in its own territory. Rights and interests in third countries will be determined in implementing arrangements. If research is not designated as "joint research" in the relevant implementing arrangement, rights to intellectual property arising from the research will be allocated in accordance with paragraph II B. 1. In addition, each person named as an inventor shall be entitled to share in a portion of any royalties earned either by institution from the licensing of the property.

(b). Notwithstanding paragraph II B.2 (a), if a type of intellectual property is available under the laws of one Party but not the other Party, the Party whose laws provide for this type of protection shall be entitled to all rights and interests worldwide. Persons named as inventors of the property shall nonetheless be entitled to royalties as provided in paragraph II B.2 (a).

### **III. BUSINESS-CONFIDENTIAL INFORMATION**

In the event that information identified in a timely fashion as business-confidential is furnished or created under this Memorandum, each Party and its participants shall protect such information in accordance with applicable laws, regulations, and administrative practices. Information may be identified as "Business-Confidential" if a person having the information may derive an economic benefit from it or may obtain a competitive advantage over those who do not have it, the information is not generally known or publicly available from other sources, and the owner has not previously made the information available without imposing in a timely manner an obligation to keep it confidential.

### **IV. SECURITY OBLIGATIONS**

Both Parties agree that cooperative activities undertaken pursuant to this Memorandum shall normally involve open, public domain information. Should an activity, information or equipment to be shared, or any anticipated result of a cooperative activity, undertaken pursuant to this Memorandum, require protection in the interests of national defense or foreign relations of a party, that Party shall so notify the other prior to undertaking the activity or sharing the information or equipment. The Parties shall consult to identify and agree upon appropriate measures for the protection of the information or equipment.