#### IMPLEMETING ARRANGEMENT

#### Between

## THE EUROPEAN COMMISSION

#### And

# THE NATIONAL SCIENCE FOUNDATION of the UNITED STATES

For

Cooperative Activities in the Area of Environment Research, in particular Climate Change; Marine Science and Technology; Seismic Risk and Hazards Reduction; Arctic Research; and Environmental Biology Research

According to the terms of the Agreement for Scientific and Technological Cooperation between the European Community and the Government of the United States of America, entered into force on 14 October 1998 for an initial period of five years, hereinafter referred to as the «Agreement», an Implementing Arrangement to cover cooperative activities in the study of the environment, in particular of climate change, marine science and technology, seismic risk and hazards reduction, Arctic processess, and environmental biology is hereby established between the European Commission (EC) and the National Science Foundation (NSF) of the United States (hereinafter referred to as the « sides »).

The purpose of this Implementing Arrangement is to advance cooperation in environment research, especially to study and to improve understanding of climate change, marine science and technology, seismic risk and hazards reduction, Arctic processes, and environmental biology. It is intended to achieve this purpose through encouragement, development and facilitation of observational and research programs and through analysis and exchange of collected data and scientific results.

Activities are expected to be conducted on the basis of mutual benefit based on an overall balance of advantages, reciprocal opportunities to engage in cooperative activities, and equitable and fair treatment. This Implementing Arrangement is not intended to create obligations binding under international law.

# 1. Areas of cooperative activities

Cooperative activities may be undertaken in the study of climate change, marine science and technology, seismic risk and hazards reduction, Arctic processes, and environmental biology as set out in the European Community's Thematic Programme Environment and Sustainable Development and as set out in NSF Programs in Geosciences, Arctic Sciences, Engineering, and Biological Sciences, in particular:

#### Climate research

• Carbon cycle, including terrestrial aspects;

- Forecasting (needs and limits) and observation;
- Comparison of modeling results and observation; validation;
- Impacts assessments (water, land resources); and
- North Atlantic variability.

## *Marine Science and Technology*

- Ocean observing systems;
- Marine biodiversity;
- Ocean drilling;
- Coastal engineering;
- Continental margin research;
- Global ocean ecosystem dynamics;
- Harmful algal blooms; and
- Endocrine disruptors.

# Seismic Risk and Hazards Reduction

- Hazards assessment;
- Seismology; and
- Earthquake Engineering (including Geotechnical Aspects).

#### Arctic Research

- Exchanges between the Arctic and North Atlantic; and
- Environmental observatories (e.g. Summit, Greenland).

## Environmental Biology

- Ecological observatories; and
- Long-term ecological research.

In developing cooperation in these areas (including the setting-up of relevant infrastructure), the sides intend to emphasize efficient use of new electronic communication and information technologies and systems and new e-science capabilities.

## 2. Forms of cooperative activities

The following forms of cooperative activities are envisaged:

- 3.2 Exchange of information regarding scientific and technological objectives, plans and program announcements and calls for proposals of the sides as they relate to the study of climate change, marine science and technology, seismic risk and hazards reduction, Arctic processes, and environmental biology.
- 2.2. Activities to promote, within the respective research communities, the opportunities provided by this Implementing Arrangement; e.g. through NSF Program Announcements and the European Commission's calls for proposals;

- 2.3 Joint support of collaborative research, observational and related programs; coordinated support of complementary research, observational and related programs; supplemental support to existing grants, contracts and agreements; and funding of other related cooperative activities for mutual benefit and added value;
- 2.4 Joint organization of scientific seminars, conferences, symposia, and workshops;

## 3. Coordination and Oversight

3.1 A Steering Group should be established to stimulate and coordinate co-operative activities under this Implementing Arrangement. The Steering Group may consist of two representatives from each side. Each side may designate additional participants in Steering Group meetings. The Steering Group may be co-chaired by the Assistant Director for Geosciences of the NSF and by the Director of the Environment Research Programme of the Research Directorate-General of the European Commission, or their respective designees.

## 3.2 The Steering Group may:

- 3.2.1 Exchange information on programs, practices, laws, and regulations relevant to cooperation under this Implementing Arrangement;
- 3.2.2 Identify objectives and develop implementation plans for cooperative activities for each upcoming year;
- 3.2.3 Review and evaluate completed activities;
- 3.2.4 Decide on additional areas of cooperative activities; and
- 3.2.5 Issue an annual progress report on the cooperation activities.
- 3.3 It is intended that the Steering Group meet at least once a year, alternately in the European Community and in the United States of America; the hosting side providing organization and staffing.

## 4. Funding

- 4.1 Cooperative activities under this Implementing Arrangement will be subject to the availability of appropriated funds and to the applicable laws and regulations, policies and programs of each side, and to the terms of the Agreement.
- 4.2 Each side will bear the costs of its participation (e.g., for travel and accommodation) in meetings of the Steering Group. However, other costs directly associated with meetings of the Steering Group will be born by the side hosting the meeting.

## 5. Duration

Activities under this Implementing Arrangement may commence upon signature by both sides and may continue for the period of the Agreement, as signed or as extended, unless

terminated by either side upon ninety days written notice. This Implementing Arrangement may be amended or extended by written decision of both sides.

Done in duplicate in the English language at the National Science Foundation in Arlington, on the 18<sup>th</sup> day of October 2001.

For the European Commission

Director, Environment and Sustainable Development

For the National Science Foundation Of the United States

Coordinator for Environmental Research and Education