IMPLEMENTING ARRANGEMENT

between the

European Commission

and the

United States Environmental Protection Agency

to

Promote Cooperation on Environmental Research and Ecoinformatics

Pursuant to Article 5 (b) of the Agreement for Scientific and Technological Cooperation between the European Community and the Government of the United States of America[1] (hereinafter referred to as the "Agreement"), an Implementing Arrangement to promote cooperation in the fields of environmental research and ecoinformatics is hereby established between the European Commission (EC) and the United States Environmental Protection Agency (US EPA) (hereinafter referred to as the "Sides").

The purpose of this Implementing Arrangement is to advance cooperation in environmental research and ecoinformatics between the Sides, complementing the cooperation established through other Implementing Arrangements under the Agreement or through other relevant agreements. This Implementing Arrangement is concluded as a legally non-binding instrument which, therefore, is not intended to create rights and obligations binding under international law.

[1] Entered into force on 14 October 1998 for an initial period of five years and renewed for a period of 5 years, effective as from 4 October 2004. OJ L 284 of 22.10.98 p.37 and OJ L 335 of 11.11.2004 p. 7

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1. AREAS OF COOPERATIVE ACTIVITIES

Cooperative activities may be undertaken in the field of environment consistent with the priorities and research programs managed by both Sides, including but not limited to the European Community's Framework Programme for research, technological development and demonstration activities, and US EPA's Strategic Plan and research strategies. Cooperation may proceed on any technical topic deemed to be of mutual interest to both Sides, including but not limited to the following research areas:

Ecoinformatics and information systems: Cooperation may focus on linking environment, environmental management and ecology with informatics and information and communication technologies to improve interoperability. Research topics may include information systems, ontology issues, terminology standardization, web mining, semantic web, and indicator issues. Information and communication technologies include a wide variety of collaborative and interactive tools (e.g., portals, data grids, web services) and associated data-sharing formats and exchange formats that better integrate data and tools for improved system connectivity. A common environmental thesaurus is to be developed.

Environmental and sustainability indicators: Cooperation may focus on exchange of information on indicators of environmental quality and sustainable development and on research activities to improve existing indicators or develop new ones. This may include development of composite indicators for presenting information in complex issues and supporting more informed decision-making. Cooperation also may focus on forecasting future changes in indicators and models and tools for analyzing linkages among indicators. Cooperation should take into account relevant international work done by other organizations, such as the United Nations (UN) and the Organisation for Economic Co-operation and Development (OECD).

Formal analysis of uncertainty in environmental models: Cooperation may focus on reviewing, developing and implementing analytical and descriptive methods for managing uncertainty within and across models (including uncertainties associated with model framing and selection, and decision-making). Cooperation also may focus on developing and implementing conceptual frameworks of analysis, including formal and informal methods, enabling an extended peer community to participate fully in the framing, choice and evaluation of models and policy options.

Decision support tools: Cooperation may focus on the development and common use of integrated environmental modeling frameworks or standards for enhanced model connectivity or expert systems. Expanded linkages with the European Cooperation in the Field of Scientific and Technical Research (COST) are also to be explored. Additionally, search techniques such as data mining are to be used to analyze the growing variety of environmental and health data sources.

Environment and health: Cooperation to better understand environment-health linkages, improved methods for tracking chronic disease, and characterizing exposures and environmental hazards are necessary in addition to traditional epidemiological studies using population cohorts. Use of these techniques would advance knowledge of long-term health impacts (such as cardiopulmonary disease, cancer, and developmental problems) from air pollution or endocrine-disrupting chemicals. Advancing environment and health sciences also can rely on new approaches such as the Global Earth Observation System of Systems

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(GEOSS) process. Cooperation may include computational methods development and determining the impact of endocrine disruptors on humans and wildlife.

Sustainable chemistry and materials: Cooperation in this area may include the development, assessment and implementation of computer-based methods for assessing the environmental distribution and fate of chemicals and products and their effects on human health and the environment. Efforts also may include developing models for integrated chemical risk assessment and data formats and supporting the efficient exchange of information across regulatory programs and information systems. In order to promote alternatives to animal testing, cooperation also may focus on developments in computational chemistry.

Nanotechnology uses and impacts: Cooperation may include research and other related initiatives on applications of nanotechnology-based products to prevent and reverse environmental damage, improve environmental conditions, and enhance environmental monitoring capabilities (such as soil remediation, water purification, desalination, improved catalysts, and high-sensitivity chemical sensors). Research on using nanotechnology to reduce the environmental impacts of industrial processes and producing nanomaterials with minimal environmental impact is to be encouraged. Cooperation may extend to exchange of information on nanosciences, nanotechnologies and converging technologies with potential impact on the environment. In particular, potential impacts of manufactured nanoparticles and nanostructured materials and products on human health and the environment (such as toxicology, fate, transport and transformation, bioavailability, life cycle assessment, and exposures of human and other species in natural ecosystems) may also be considered.

Environmental technologies: Cooperation may focus on systemic analysis and methodologies for technology assessment (life cycle analysis, eco-innovation, and eco-efficiency), environmental technologies verification systems, innovative measures to support or finance eco-innovation and new ideas on raising awareness among consumers. It also may address new techniques, methodologies and incentive schemes to improve the environmental performance of various economic sectors and promote commercialization of environmental technologies. It may include environmental monitoring technologies, including remote sensing, environmental models and assessment technologies such as those being organized under the Global Earth Observation System of Systems (GEOSS) process, and nanotechnology-based sensors, sensorweb and adaptive systems.

Emissions from transport and air quality management: Cooperation in this area may focus on the field of advanced fuels and innovative vehicle concepts and on the field of air quality where emphasis may be given to the development and application of air-quality management tools such as economic analysis, modeling, optimization, emission inventories, and monitoring in support of emission abatement strategies.

2. FORMS OF COOPERATIVE ACTIVITIES

Cooperative activities may include but are not limited to:

a) direct collaboration between consortia and researchers funded by the two Sides;

b) exchange of information among researchers and program managers;

c) joint sponsorship of conferences, workshops or meetings; and

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d) coordinated calls for proposals and mutual participation in peer reviews.

3. COORDINATION AND OVERSIGHT

A Steering Group representing the Sides is to be established to stimulate and coordinate cooperative activities under this Implementing Arrangement, consisting of a limited and to the extent possible equal number of official representatives of each Side. The Steering Group is to be coordinated for US EPA by the Office of Research and Development, the Office of Environmental Information, and the Office of International Affairs. For the European Commission, the Steering Group will be coordinated by the Research Directorate General.

Each Side also may designate additional participants to attend Steering Group meetings according to the topics of the agenda.

The Steering Group is to be responsible for the following tasks:

a) Updating areas of cooperative activities, identifying objectives, and developing implementation plans for each year;

b) Reviewing and evaluating completed activities;

c) Developing or identifying a collaborative web-based portal;

d) Reporting periodically on cooperative activities; and

e) Exchanging information on programs, practices, laws and regulations relevant to cooperation under this Implementing Arrangement.

The Steering Group is expected to ensure coordination and exchange of information with other bilateral relevant initiatives with a view to increase synergies and avoid overlap.

The Steering Group is expected to encourage the broadest possible participation in the work of this Implementing Arrangement from entities within the EC and US EPA as well as from relevant external agencies, experts and organizations. The Steering Group is expected to work on the basis of consensus and convene officially at least once a year or as mutually determined by the Sides. These discussions may take place in the European Community or in the United States of America or by electronic means, with the hosting side providing organization and staffing support.

4. FUNDING

Cooperative activities under this Implementing Arrangement are subject to the availability of appropriated funds, to the applicable laws and regulations, policies and programs of each Side, and to the terms of the Agreement.

All costs resulting from cooperation under this Implementing Arrangement are to be borne by the Side that incurs them, including participation in meetings of the Steering Group unless otherwise mutually determined by the Sides.

ED_005661_00000079-00004

5. TREATMENT OF INTELLECTUAL PROPERTY

The provisions of Article 9 of the Agreement are to apply.

6. EFFECTIVE DATE, DURATION, DISCONTINUATION, MODIFICATION AND INTERPRETATION

Activities under this Implementing Arrangement may commence upon signature by both Sides.

They may continue for the period of the Agreement, unless participation is discontinued by either Side, for which the discontinuing Side is expected to provide 90 days' written notice to the other Side. Extending the duration of the Agreement also extends this Implementing Arrangement for the same period.

This Implementing Arrangement also may be amended in writing by the two Sides, consistent with the Agreement.

All questions or disputes related to the interpretation or implementation of this Implementing Arrangement are to be settled by consultation.

Signed in duplicate in the English language in Washington, D.C. on the 31st day of JANUARY, 2007, and in Brussels on the 9TH day of FEBRUARY 2007.

For the European Commission

Director-General for Research

For the United States Environmental Protection Agency

Administrator

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