AAAS from the inside

Commentary by Sabine Herlitschka

The American Association for the Advancement of Science (AAAS) is the world's largest general scientific society and also publishes its own magazine, Science. AAAS and its magazine report to nearly 140,000 individual and institutional subscribers, including 272 affiliated organizations in more than 130 countries. It is estimated that a total of 10 million individuals benefit from AAAS.

AAAS seeks to "advance science and innovation throughout the world for the benefit of all people." To fulfill this mission, the AAAS Board of Directors has set the following (broad) goals with the intent to:

- Foster communication among scientists, engineers and the public,
- Enhance international cooperation in science and its applications,
- Promote the responsible conduct and use of science and technology,
- Foster education in science and technology for everyone,
- Enhance the science and technology workforce and infrastructure,
- Increase public understanding of and appreciation for science and technology,
- Strengthen support for the science and technology enterprise

To accommodate these goals, four primary program areas have been defined in order to better fulfill the AAAS mission, including:

- Science and Policy
- International Programs
- Education and Human Resources
- Project 2061

The Directorate for Science and Policy Programs (SPP) serves society and the government and research communities through various activities. SPP addresses several objectives of the AAAS. These objectives include furthering the work of scientists, improving the effectiveness of science in the promotion of human welfare and fostering scientific freedom and responsibility.

Four units, that operate at the intersection of science and engineering with federal and state governments, comprise the Directorate's Science and Engineering Policy and Practice Group (PPG). PPG is concerned with the aspects of science and technology policy that directly affect the research environment and the practices of scientists and engineers. It is similarly concerned with the ways in which science and engineering expertise and knowledge are represented in public policy issues. These four units include:

- Fellowship Programs that offer opportunities for scientists and engineers to help shape science and technology policy in Washington, DC, in the context of a one-year term for participants.
- The R&D Budget and Policy Program analyzes research and development funding trends in the federal budget and hosts the annual AAAS “Science and Technology Policy Colloquium” each spring.
- The Center for Science, Technology, and Congress conducts briefings for congressional staff, publishes Science & Technology in Congress for every month Congress is in session, and sponsors regional meetings on the impacts of federal R&D funding.
- The Research Competitiveness Program assists universities and other R&D institutions in enhancing their research capabilities.

The Directorate's three other groups are distinguished by the broader societal dimensions of their activities that transcend the role of governments. The Science and Human Rights Program has been a pioneer in the application of scientific methods and techniques to the promotion of human rights worldwide; it is a leader in defending the rights of scientists, engineers, and health professionals throughout the world who have experienced persecution or infringements of academic freedom. Through its Dialogue on Science, Ethics, and Religion, the Directorate develops workshops and provides training seminars, organizes forums and conferences, and sponsors multidisciplinary research and study projects to foster meaningful communication between the scientific and religious communities.

The Scientific Freedom, Responsibility and Law Program works to uphold high ethical standards for science and engineering. It is designed to monitor ethical, legal, and social issues related to science and technology and to improve the relationship between science and law.

The International Program(s) seeks to achieve the Association's goals through enhanced cooperation between scientists and engineers in the U.S. and those of other countries. The activities of the international Office (INT) at AAAS are designed to strengthen the role of scientists and engineers in developing countries and to increase the contribution of science and technology (S&T) to the solution of regional and global problems. For example, AAAS administers a small grants program to encourage more women to participate in international scientific collaboration. Products of these collaborative efforts include strengthened relationships with the scientific communities of other countries, and progress in resolving issues of international concern.

INT has been active in numerous regional activities in Africa, Europe, Central Asia, Latin America, the Caribbean and the Pacific Rim. Additionally, the Science for Sustainable Development initiative examines global science-based issues pertaining to population, consumption, development and environment, while the Consortium of Affiliates for International Programs (CAIP) is a network of scientific societies and academies that have active international programs. INT also participates alongside the AAAS Directorate for Science and Policy Programs in the Science, Engineering, and Diplomacy Fellowship Program.

Recent international AAAS news:

- The 2003 Round One Winners of the Women's International Science Collaboration (WISC) travel grant program have been announced.
- The 3rd APEC Youth Science Festival, originally scheduled for July 29-August 4, 2003 in Beijing, China has been postponed until next year. The purpose of the conference is to increase interest in science and technology among youths of the Asia-Pacific region, to promote science and technology exchanges and interactions, including science education among young students and science teachers and to raise public awareness of science and technology.
- The Canon National Parks Science Scholars Program is pleased to announce its 2003 competition. The program is a collaboration between Canon U.S.A., Inc., AAAS and the U.S. National Park Service. Thanks to a generous commitment by Canon U.S.A., Inc., the program will be awarding eight US $78,000 scholarships to Ph.D. students throughout the United States to conduct research critical to conserving the nation

Education and Human Resources has set-up more than 50 programs devoted to promotion of science, technology, engineering and mathematics education. Activities focus on reaching out to schools, teachers and librarians, children, families and communities. There are also initiatives geared towards higher education research, resources and policy in the context of education research, science for the general public, career and workforce development.

Project 2061 is a long-term initiative designed in 1985 to help advance American awareness and literacy in science, mathematics and technology. Its work has earned the project a reputation as the "single most visible attempt at science education reform in American history" (Organization of Economic Cooperation and Development, 1996). As journalist Julia Steiny recently described it in the Providence Journal, "Project 2061 is the ultimate science project."

With its 1989 landmark publication, Science for All Americans, Project 2061 set out recommendations for what all students should know and be able to do in science, mathematics and technology by the time they graduate from high school. Science for All Americans laid the groundwork for the nationwide science standards movement of the 1990s. Benchmarks for Science Literacy, published in 1993, translated the science literacy goals in Science for All Americans into learning goals or benchmarks for grades K–12. Many of today's state and national standards documents have drawn their content from Benchmarks.

With nearly 200,000 copies of Science for All Americans and more than 100,000 copies of Benchmarks sold, Project 2061 has "changed the national climate for science education reform" (SRI International, 1996). These AAAS publications are the foundation for Project 2061's ongoing efforts to reform curriculum, instruction and assessment. With recent publications such as the Atlas of Science Literacy and Designs for Science Literacy, Project 2061 continues to influence the direction of science education reform.

Whether evaluating textbooks and assessments or creating conceptual strand maps for educators, Project 2061 staff use their wide-ranging expertise as teachers, researchers and scientists to help make science literacy a reality for all students. Through groundbreaking research and innovative books, CD-ROMs and professional development workshops, Project 2061 is changing the way educators and members of the public think about the priorities and purposes of science, mathematics and technology education.

This article is based on the information provided on the AAAS web-page.

For Further Information:

American Association for the Advancement of Science (http://www.aaas.org)

Sabine Herlitschka *is Deputy Director of the Vienna-based BIT (http://www.bit.ac.at) – Bureau for International Research and Technology Cooperation in Austria. She spent 5 weeks with the International Office at AAAS and has been working on the development of joint initiatives involving AAAS and Austrian organizations.*
She can be contacted at herlitschka@bit.ac.at.

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