The Importance of Physics to Society

A statement adopted by IUPAP, March 1999

Physics - the study of matter, energy and their interactions - is an international enterprise, which plays a key role in the future progress of humankind. The support of physics education and research in all countries is important because:

1. Physics is an exciting intellectual adventure that inspires young people and expands the frontiers of our knowledge about Nature.
2. Physics generates fundamental knowledge needed for the future technological advances that will continue to drive the economic engines of the world.
3. Physics contributes to the technological infrastructure and provides trained personnel needed to take advantage of scientific advances and discoveries.
4. Physics is an important element in the education of chemists, engineers and computer scientists, as well as practitioners of the other physical and biomedical sciences.
5. Physics extends and enhances our understanding of other disciplines, such as the earth, agricultural, chemical, biological, and environmental sciences, plus astrophysics and cosmology - subjects of substantial importance to all peoples of the world.
6. Physics improves our quality of life by providing the basic understanding necessary for developing new instrumentation and techniques for medical applications, such as computer tomography, magnetic resonance imaging, positron emission tomography, ultrasonic imaging, and laser surgery.

In summary, for all these reasons, physics is an essential part of the educational system and of an advanced society. We therefore urge all governments to seek advice from physicists and other scientists on matters of science policy, and to be supportive of the science of Physics. This support can take many forms such as:

- National programs to improve physics teaching at all levels of the educational system.
- Building and maintaining strong departments in universities (and other academic institutions) with opportunities for grants to support research.
- Scholarships and fellowships for both undergraduate and graduate students studying physics.
- Adequate funding for national laboratories and the formation of new ones as appropriate.
- Funding and facilitating international activities and collaborations.

Convert web pages and HTML files to PDF in your applications with the Pdfcrowd HTML to PDF API | Printed with Pdfcrowd.com