Science and Technology in Society (STS) *forum*

10th Annual Meeting

October 8, 2013, Kyoto, Japan

STATEMENT

1. The 10th Annual Meeting of the Science and Technology in Society *forum* took place from October 6 to 8, with the participation of about 1,100 global leaders in science and technology, policy, business and media from approximately 100 countries, regions and international organizations who met to reflect on how to expand the "lights" and control the "shadows" of science and technology, and to discuss the two major themes of innovation and sustainability.

2. Any future energy supply should include a wide range of options that adhere to the best standards of safety and environmental and social compatibility. Different countries may choose different paths to an energy-secure and sustainable future. In light of the Fukushima accident, global discussion on the use of nuclear power and the crucial importance of operational safety has become more active. Over the long term, continued burning of fossil fuels will exact an unacceptable environmental cost. We will need different energy sources, and nuclear power will remain an important option. Intensive enhancement of nuclear security and non-proliferation are also vital.

3. In the area of global health problems, research into genomic and regenerative medicine has developed very rapidly. iPS cells are providing a potentially breakthrough technology for cures, and research into personalized and preemptive medicine should also be accelerated. Promoting brain medical science research is important for improving quality of life, especially among aging populations. There is more need than ever for a new international system to improve collaboration among industry, academia, the public sector and WHO.

4. While ICT is having a major impact on economic activity, medicine, education and business, international cooperation is needed to create global rules for ICT, including cybersecurity and privacy measures.

5. Nanotechnology and new materials are playing a vitally important role in various fields including economic growth, healthcare and urban living. These are key technologies for innovation and new fields of application.

6. We need to strengthen our capacity to defend against and cope with disasters through science, research, monitoring and early warning systems, infrastructure modifications and land-use planning in keeping with hazard maps.

7. Collaboration among academia, industry and government is essential for society to ensure a sustainable global community. This collaboration, involving the public and the private, including international activities, should be promoted and be inclusive. Innovation and entrepreneurship are important in advanced and developing countries, especially with support for the empowerment of women. We expect academies of science, engineering and medicine, as well as universities, to play an important role in this collaboration. One role of Chief Technology Officers is to serve as a bridge between science, technology and business.

8. In light of the global development of corporate business and academic research activities, intellectual property systems should be improved as a basic international infrastructure. International harmonization should be accelerated to stimulate innovation and economic development.

9. Science and technology diplomacy enhances relations across national boundaries. Supporting education, research and local entrepreneurship is essential for capacity-building in developing countries. Funding agencies should finance international science collaboration programs promoting multilateral arrangements, especially on global issues. We welcome the science and technology ministers' Round Table and the peer meetings held by the presidents of universities, science and engineering academies, research institutes or funding agencies at the STS *forum* as complementary to official science and technology diplomacy.

10. The adjunct session on Regional Action on Climate Change (RACC5) reviewed best practices in promoting adaptation to regional climate change: for example, how coastal cities and regions are preparing for sea level rise. Knowledge Action Networks are proving to be an effective tool in local adaptation.

11. To solve the serious problems of humankind, science and technology alone will not be sufficient without an increase in trust and significant changes in individual and social behavior. Therefore, education programs should involve sustainability concepts throughout the educational system, and exchanges between scientists and society should be broadened and improved so that the public can make informed decisions, provided that the risks and benefits of science and technology are clearly explained. In addition, the importance of science and engineering education should be highlighted and high-quality science programs should be developed to interest and inform the public about science. The arts, humanities, social sciences and social innovations have an important role to play in this area.

12. More than half the world's population is already living in cities, and urbanization is growing rapidly, which raises a variety of challenges and opportunities. We must promote more livable and humane urban environments with efficient, sustainable "smart cities" using science and technology and urban planning, supporting the evolution of the cities, peoples, values and culture.

13. The oceans and seas are a major and essential part of the earth's environment, with significant impacts on climate and food, and are being affected by human activity. Neither policymakers nor the public know enough about the oceans. Both research and dissemination for awareness need to be greatly reinforced.

14. The world's population continues to expand and the earth is finite. We need to think of humanity's condition, not just in twenty or thirty years' time, but over a longer-term perspective. In this respect, the environment, energy, food and water are critical sustainability issues. Living in harmony with nature is of the utmost importance for humankind and we will therefore continue to focus on sustainability.

15. The STS forum welcomes the statement of Japanese Prime Minister Shinzo Abe, speaking at the opening plenary session, announcing a Japanese government initiative, the Global Energy and Environment Innovation Forum (GEEIF), to be held for the first time next year in Tokyo immediately following the STS *forum*.

16. The STS *forum*, marking its 10th anniversary this year, has evolved from a mere conference into a movement for global leaders. We will build on the network we have established to further address the problems facing humanity and seek solutions. We look forward to meeting here again to contribute to building a better future for humankind. We agreed to hold the 11th Annual Meeting of the STS *forum* in Kyoto from Sunday, October 5 to Tuesday, October 7, 2014. We commit to activities to pave the way for future generations.