

Science and Technology in Society (STS) forum 13th Annual Meeting
Kyoto, Japan, October 4, 2016

STATEMENT

1. The 13th Annual Meeting of the Science and Technology in Society forum took place from October 2 to 4, with the participation of nearly 1,200 global leaders in science and technology, policy-making, business, and media from nearly 100 countries, regions, and international organizations.

2. In 2015, the world adopted three major agreements: the Sendai Framework for Disaster Risk Reduction, the UN Sustainable Development Goals (SDGs) to promote a balanced growth that leaves no one behind; and the Paris accords to limit the emissions of greenhouse gases. In that context, our STS meetings here in Kyoto and the events that we organize elsewhere in the world, must focus on ensuring that the good intentions in these agreements are implemented.

Energy, the Environment and Resources

3. For the targets set by the 2015 Paris Agreement to be met, all countries must strive to create sustainable socioeconomic systems while balancing energy needs and care for the environment. More emphasis needs to be placed on finding scientific and technological solutions to achieve a low-carbon society. While new and renewable energies will be an essential part of the solution, nuclear energy as a low-carbon energy source should also remain an important option under the conditions of safety, security and non-proliferation.

Life Sciences and Global Health

4. The rapid transformation of the life sciences opens very promising avenues of therapeutic treatment. But these technologies also raise some ethical concerns especially with potential impacts on germline or hereditary changes. Further progress in personalized and preemptive medicine should be encouraged, with due attention given to safety and ethical issues.

5. The rapid development of diagnostics, vaccines, and therapeutics to combat emerging infectious diseases presents scientific, manufacturing, and regulatory challenges. Novel approaches are needed for developing a response to the emergence of antibiotic resistant strains of bacteria that will bring back lethal diseases of the past, and which threaten literally millions of people worldwide. A new international system is required to improve regional and international collaboration led by the WHO.

ICT and Smart Cities

6. As it connects the world, ICT is also drastically changing economic activity and our lives, and thus a global-level consensus is needed on universal ICT rules for improved security and privacy. Personalized hand-held devices and access to the “cloud” are making possible innovative new services that can serve the needs of populations in developing countries, especially including women. The “Internet of Things” and use of “Big Data,” as well as the emergence of “AI” and “robotics,” will create new opportunities for society, but they raise challenges in our understanding of the social benefits and disruptions that machines

bring. More active use of ICT in urban planning and management would make human habitats in the new smart cities more livable, humane, disaster-resilient, and energy-efficient.

7. Increasingly, we need to reflect on the relationships between people and the virtual world of ICT. We must think about how ICT will impact on social solidarity and the sense of responsible citizenship that we assume are the pillars for creating an inclusive and sustainable society, a society concerned with the future of employment and retirement, as well as inequality and poverty, and intergenerational connections and equity.

Population and Food

8. Beyond energy, we must provide more food for a growing global population, who will also demand more balanced diets. Producing food under changing climate conditions will require mobilization of science and technology to better manage the available land and water sustainably, while we deploy the best science, including GMOs, to develop new plant varieties with greater drought and salt tolerance and shorter growing seasons.

Science, Technology and Education

9. Scientists should give the public correct information on all topics from climate change to GMOs, so that they can better understand the issues and compare benefits and risks, and support innovative and potentially useful applications of science and technology.

10. STEM education should be emphasized and high-quality science programs developed to interest and inform the public about the role of science and technology in society, and how it helps with sustainability. Emphasis on fostering younger generations and empowering women in all societies would bring forth their talent and would also help enhance sustainable development.

Cooperation in Science and Technology

11. Nurturing Science, Technology and Innovation (STI) requires collaboration between academia and business in addition to the central role of government in funding basic research and providing the regulatory framework within which the private sector brings forth new products, services and business models.

12. International cooperation between the scientific communities of the various countries is essential. Collaborative efforts through open innovation should be continued while at the same time, issues related to intellectual property and technology transfer are addressed.

13. This year, the STS forum held workshops in major cities Brussels, Delhi, Bangkok, and Nairobi. We have also established an “STS forum Young Leaders Program” involving more than 100 active young leaders. We will build on and expand the network we have established to further address the opportunities and challenges facing humanity.

14. We look forward to meeting here again next year. We agreed to hold the 14th Annual Meeting of the STS forum in Kyoto from Sunday, October 1 to Tuesday, October 3, 2017.