STS forum Newsletter

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The 12th Annual Meeting of STS *forum*

October 4, 5 and 6, 2015

Kyoto International Conference Center

Meetings & Workshops

JUNE 11, 2015 --- ASEAN-Japan Workshop for Innovation, Science & Technology Cooperation in Malaysia was held in Kuala Lumpur, Malaysia

Following the first successful workshop in Singapore in May last year, it was the second occasion to promote ASEAN-Japan cooperation on innovation, science and technology. "The ASEAN has been making efforts to enhance its economic competitiveness by sustaining economic growth and strengthening regional integration as well as expanding and deepening economic interdependence outside the region (which culminated in) making ASEAN as the Japan's second largest trade partner," wrote Prof. Zakri Abdul Hamid, Science Advisor to the Prime Minister of Malaysia, who co-hosted the event with Japan External Trade Organization (JETRO) and Malaysian Industry-Government Group for High Technology (MIGHT).



Science and Technology in Society forum







Dr. Michiharu Nakamura, President, JST

Opened with the welcoming remarks by Datuk Dr. Mohd Yusoff Sulaiman, President and Chief Executive Officer of MIGHT, the workshop consisted of two sessions.

The total of 88 participants, from Japan and all the ASEAN countries (except for Brunei, Viet Nam, and Laos) were divided into nine tables and discussed enthusiastically topics including a new focal point of empowering youth and women in science, technology and innovation.

MAY 22, 2015 --- Special Presentation for Ambassadors in Tokyo was held

At the auditorium of the Foreign Ministry of Japan, some 80 ambassadors and representatives of foreign embassies in Tokyo were updated on the 12th Annual Meeting of STS *forum*.

One of the noteworthy topics of the STS *forum* this year is that there will be four more Concurrent Sessions, 28 in total, in accordance with requests by many people who want to have more occasions where they can freely discuss matters on an equal Footing.

A launch of a new side event called "Dialogue between Future Leaders and Nobel Laureates" was another topic covered at the presentation. Some 100 promising leaders from research-related organizations around the world are expected to join the STS *forum* this year. On October 3, the eve of STS *forum*, they are invited to have a talk with Nobel Laureates in a friendly atmosphere at ICC Kyoto.





Science and Technology in Society forum

Meetings & Workshops

JULY 11, 2015 --- Workshop in Milano "Innovation and Sustainability in Food, Water and Environment"

Concurrently with the Japan Day during the Expo Milano 2015, STS forum held a workshop in Italy for the first time. Thanks to the original proposal by Dr. Fiorenzo Marco Galli, Director-General of National Museum of Science and Technology Leonardo da Vinci, with the full support of JETRO, the workshop attracted an audience of nearly 200 despite the scorching hot weather on Saturday.



Chairman Omi and H.E.Mrs. Letizia Brichetto Moratti, former Mayor of Milano, former Minister of Education



Mr.Yoshimasa Hayashi, Minister of Agriculture, Forestry and Fisheries, Japan



Mr.Hiroyuki Ishige,Chariman, JETRO

Science and Technology in Society forum

Meetings & Workshops



Dr. Fiorenzo Marco Galli, Director-General, National Museum of Science and Technology Leonardo da Vinci

Along the lines of the core theme of the Expo, "Feeding the Planet, Energy for Life", the workshop was devoted to food, water and the environment. With Mr. Yoshimasa Hayashi, Minister of Agriculture, Forestry and Fisheries of Japan, as a keynote speaker, the symposium was great success with business and industry leaders from both Japan and Italy. Amongst them were: H.E. Mrs. Letizia Brichetto Arnaboldi Moratti, former Mayor of Milano, former Minister of Education; Mr. Giorgio Squinzi, President of CONFINDUSTRIA (Confederarazione Generale dell'Industria Italiana); and Mrs. Diana Bracco, General Commissioner for the Italy Pavilion, Expo Milano 2015.



Science and Technology in Society forum

Updates from Chairman Omi

Chairman Omi visited more than 26 cities in four and a half months, from March to early July 2015, in order to meet leading figures in Asia, Europe and America. Here is a couple of major events that he participated.

May 28, 2015: The 4th **Global Research Council (GRC)** took place in Tokyo, Japan, and Chairman Omi delivered a speech. He mentioned the Funding Agencies Presidents' Meeting at the STS *forum* annual meeting. The STS *forum* has hosted the meeting since 2010 and provided a valuable opportunity for funding agencies to come in contact with leaders from various fields. "Interaction with other participants can help develop new ideas and inspiration in order to deepen their activities," he urged to the audience.

Prior to Chairman Omi's speech, Prof. Dr. Peter Strohschneider, President of German Research Foundation (DFG) mentioned STS *forum* in his speech; "We should emphasize to the policy-makers that education, research, science and technology can really become the third pillar for governmental international relations, the first being diplomacy, second, economic relations. The STS *forum* had introduced the notion of 'science diplomacy' from its very first meeting, back in September 2004, when this word did not exist. We feel honored that this idea has become such a strong notion, and that it is now also part of the strong recommendation of this GRC."

June 4, 2015: Chairman Omi was invited to the **Future Earth Governing Council Meeting** in Laxenburg, Austria. In his presentation, Chairman Omi said, "Knowledge is important for supporting changes toward achieving sustainability, but we need to go far beyond the level of knowledge-based policy. Together with Future Earth, I believe that the STS *forum* can contribute toward this goal."



Message from Regular Participant

Prof. Yoshihide Hayashizaki has participated in the STS forum annual meetings every year since its inauguration in 2004 and has become an irreplaceable advisor and supporter of the forum. Prof. Hayashizaki kindly contributed his personal comments on STS forum on short notice.



Prof. Yoshihide Hayashizaki

Program Director, Preventive Medicine and Diagnosis Innovation Program, Research Cluster for Innovation RIKEN

I am much honored to have been invited to the STS *forum* over many consecutive years. STS *forum* is a very significant and valuable international conference, where the top of various fields such as: scientists, engineers, politicians, administrators, and company presidents from all over the world get together. These participants can share information regarding how technology influences society from their own perspective.

I have had several occasions to broaden my view and expertise in my lifetime so far. From my experiences through working at a hospital as a doctor, I saw and learned many different aspects of our society through my patients. I have also gained extensive knowledge in many different fields of science at RIKEN, which is the largest institution in Japan which covers all of natural science field. STS forum has given me the chance to broaden my point of view regarding human social activities.

I am fortunate to be able to attend this unique type of conference called "concurrent session" and workshop. Participants are allowed to speak freely, therefore, facilitating idea generation and stimulating the thinking activity each other. On several different occasions, I have been asked to speak on subjects which are not part of my specialty. Before speaking on these matters, I research them diligently and thereby gain valuable knowledge. STS *forum* provides me with many precious opportunities to enrich myself. Recently I was invited to a couple of interesting workshops—STS *forum* ASEAN workshop and Milano workshop. I am very pleased that these workshops served as the impetus to providing the opportunity for discussion with participants after these meetings. We could have many meaningful communications for a variety of purposes, including information gathering for policy making and references for corporation management policies. In this manner, STS *forum* is working as a hub in which positive circle of knowledge-creating. I sincerely hope for the continued success and further development of this conference.

Who's Who?

--- Profiles of Council members

STS forum is led by 81 Council Members from 28 countries and regions. For those who are not familiar with them, we take great pleasure in introducing Members.



Prof. Rita R. Colwell

Professor, Center for Bioinformatics and Computational Biology University of Maryland and Johns Hopkins University U.S.A

Distinguished Prof., U. of Maryland at College Park & Johns Hopkins University

Bloomberg School of Public Health; Sr. Advisor & Chairman Emeritus, Canon U.S. Life Sciences; Chairman & President, CosmosID, Inc. Dr. Colwell served as 11th Director of the National Science Foundation, and Co-chair, Comm. On Sci., National Science and Technology Council. Dr. Colwell is a member of the United States National Academy of Sciences, Royal Swedish Academy of Sciences, Stockholm, Royal Society of Canada, Royal Irish Academy of Science; American Academy of Arts and Sciences, and American Philosophical Society. Dr. Colwell is the recipient of the Stockholm Water Prize, bestowed by the King of Sweden; the National Medal of Science, awarded by the President of the United States, and the Order of the Rising Sun, Gold and Silver Star, bestowed by the Emperor of Japan. B.S., Bacteriology; M.S., Genetics, Purdue U.; Ph.D., Oceanography, U. of Washington.

Prof. Hiroyuki Yoshikawa

Special Counselor to the President Japan Science and Technology Agency (JST) Japan



Professor Hiroyuki Yoshikawa is now Special Counselor to the President, Japan Science and Technology Agency where he is leading to design national research programmes for realising the sustainable prosperity in society by integrating sciences, natural, medical, technological, social and literal. Through his recent positions: President of University of Tokyo, President of Open University, President of National Institute of Advanced Industrial Science and Technology, Director General of Center for Research and Development strategy Japan Science and Technology Agency, he developed a method of integration of different disciplines for sustainability research. His academic subject is General Design Theory, which is common through different engineering disciplines. He was President of ICSU, 1999~2003, and worked for its reformation.

Special Breakfast meeting

As reported in the special issue of Newsletter, STS forum co-organized **a breakfast meeting** for Japanese Prime Minister Shinzo Abe and eminent American leaders at U.S. National Academy of Sciences on April 30, 2015. Here is a gist of remarks of each speaker at the meeting (in order of appearance).

With **Ms. Asako Omi**, Secretary General of STS *forum* as well as a member of the Japanese House of Representatives as moderator, the meeting started with remarks from **Dr. Ralph Cicerone**, President of the U.S. National Academy of Sciences, who co-hosted the meeting.

Dr. Cicerone drew the guests' attention to the painting in the room which depicts the creation



of NAS by U.S. President Abraham Lincoln during the Civil War 152 years ago. "Today, science, technology, and medicine are needed to advance every nation and it is truly a global endeavor," he said. Transnational and interdisciplinary collaboration is essential to address complex problems facing the world, added Dr. Cicerone. As an example of important ongoing partnerships with the U.S. and Japan, Dr. Cicerone referred to STS *forum* and said, "Most of the Americans in this room have participated in at least one or two meetings in Kyoto. We have seen first-hand progress that occurs from bringing together leaders of government, business, and academia to frankly discuss difficult issues." Amongst other fruitful and enduring bilateral collaborations, he also mentioned the Radiation Effects Research Foundation. "These kinds of collaborations are critical, not just for advancing science, but for addressing our mutual interest in creating a better world," he said.

Mr. Koji Omi, Founder and Chairman of STS *forum*, and the initiator of this remarkable breakfast meeting, reminded those present that while Japan and the U.S. have had a close relationships in the areas of security and the economy, "Our two countries are leaders in science, technology, and innovation and can enhance our relationship in many other important areas," he said.

The boardroom, where this breakfast meeting was held, is actually the same room where the first preparatory meeting of STS *forum* took place 13 years ago in January 2002. "I hope that this (breakfast) meeting will be the first step to a deeper exchange in science and technology between the two countries and that cooperation will be further enhanced as a result," Mr. Omi said.

Dr. John Holdren, Assistant to the President for Science and Technology and Director of the White House Office of Science and Technology Policy, offered a brief explanation about the ministerial-level bilateral science and technology cooperation agreements in operation between the United States and six countries including Japan. He said that protecting investments and international cooperation in basic research is one of the top science and technology priorities of the Obama administration.



"These investments are the seed corn from which applied advances will grow to benefit our societies," he said. Research and cooperation in biomedicine, public health, energy, agriculture, climate change, and space are other priorities.

Dr. Holdren expressed his high appreciation of Japanese Prime Minister Shinzo Abe's presence and said, "It signifies the importance of cooperation in science, technology, and innovation as a key element of the US-Japan relationship."



Mr. Shinzo Abe, Prime Minister of Japan, expressed his gratitude to have such an extraordinary opportunity to meet the eminent leaders of the American science and technology community, thanks to Mr. Omi who has been devoting his life to "the sound development of science and technology for all humankind," he said. Mr. Abe also referred to Ms. Asako Omi, who, as a Member of Parliament, is involved in elaborating the 5th Basic Plan and following in her father's footsteps.

"As leaders in science and technology," he said, "Japan and the United States should play a significant role in developing and providing appropriate solutions (to the current complicated

challenges in science and technology on society)."

Mr. Abe acknowledged the STS *forum* as a venue to provide "invaluable opportunity to collect wisdom from internationally respected intellectuals," and said it was an honor to be appointed as the Honorary Chairman of STS *forum* last October. As a regular participant, Mr. Abe said that his intimate involvement with the forum "reflects my conviction that innovation is key to promote growth and tackle difficult challenges."

Dr. Rush Holt, Chief Executive of American Association for the Advancement of Science (AAAS), explained briefly about his world's largest general science membership organization. "We are very interested in international collaboration not just on the practice of science but look at the role of science in international diplomacy, and how important science has been in advancing these things," Dr. Holt said. In addition to numerous cooperative works with Japanese counterparts, Dr. Holt mentioned his personal experience with Japanese scientists for the last 45 years since he first visited Japan. "In my scientific work, I have very much benefited from and enjoyed my collaboration with Japanese scientists," he said.

Professor Jerome Friedman, Professor Emeritus of Massachusetts Institute of Technology and a Nobel Laureate, spoke of his genuine appreciation of Japanese contributions to science and technology. "Japan has carried out outstanding basic research in all fields," said Prof. Friedman. "Japan has also evolved outstanding instruments for science such as accelerators which many Americans have utilized for their research," he added. Another big contribution of Japan to the world is, he said, STS *forum*. "The STS *forum* has so many important things to do today and in the future as a gift from the Japanese people to the world," he said. **Dr. Francis Collins**, Director of the United States National Institutes of Health, noted meaningful and sustained international collaborations involving Japan such as the Human Genome Project and the HapMap Project. Additionally, Dr. Collins acknowledged the importance of training partnerships between NIH and Japan over the years. Currently there are nearly 300 Japanese post-doctoral fellows on the NIH campus. He talked about his own experience with a Japanese fellow who contributed a great deal to his lab in the discovery of an entirely new genetic disease called Alagille syndrome.

Dr. Collins mentioned a newly formed Agency for Medical Research and Development (AMED) in Japan as noteworthy. "We all look forward to even greater collaborations in areas such as stem cells and the Brain Initiative, which clearly is a very big challenge to understand how all the circuits in the brain do what they do," he said.

At the end, Dr. Collins referred to a quote of Louis Pasteur; "Science knows no country, because knowledge belongs to humanity. It is the torch which illuminates the world." Then, speaking directly to Prime Minister Abe, "I'm glad that our countries together hold up that torch and it can shine as bright as it can in this time where science has such potential, and the needs of the world are so great," he said.

Mr. Charles Holliday, Chairman of Royal Dutch Shell, shared some news announced only the previous month that, as a measure to alleviate climate change, his company will eliminate all routine flaring of gas by 2030. Also, a new cooking stove, which can cut fuel use by one-half and smoke by 90%, is currently under development with cooperation from the UN. "We must work together with organizations like STS *forum* to put this to use around the world," Mr. Holliday said.

As being the chair of the National Academy of Engineering as well, Mr. Holliday applauded Prime Minister Abe for his leadership with new transportation systems in Japan, particularly the hydrogen model. "We at the National Academy of Engineering and at Shell wish you the very best in this leadership," he said.

Dr. Ernest Moniz, Secretary of Energy, expressed his thanks to Prime Minister Abe for not only his support for science and technology collaboration, but his visit to the U.S. to "deepen the friendship between our countries in all domains," he said. During his speech, Dr. Moniz reaffirmed that, regardless of budgetary constraints, "we must always keep pushing at the edge (of research and development of science and technology)." He introduced an anecdote when he was in the government of President Clinton. At the graduation speech at MIT, President Clinton mentioned a neutrino discovery at Kamioka in Japan, with American engagement. "We will have the next generation of neutrino physics while we look into Japan as the forefront of things like the International Linear Collider which would be a marvelous facility for science," said Dr. Moniz. "We're pushing on the frontiers, pushing across boundaries, and we can only do it with international collaboration," he ended.

Dr. France Cordova, Director of the National Science Foundation. After mentioning some examples of robust collaborations with the U.S. and Japan, such as the Atacama Large Millimeter Array (ALMA) and earthquake research, Dr. Cordova expressed appreciation for Prime Minister Abe's commitment to increase the number of women in Japan's management ranks. "We have supported several workshops to build networks and exchange best practices among US and Japanese women in science," said Dr. Cordova, "Thank you for your leadership in this area."

Professor Rita Colwell, Professor of the University of Maryland and Johns Hopkins University, introduced herself as a member of the Presidents' Council of the University of Tokyo, and a board member of the Okinawa Institute of Science and Technology (OIST) among other prominent positions. (The OIST is a unique university in Japan whose initial advocate was Mr. Koji Omi.) Prof. Colwell complimented the Prime Minister on his recognition of the importance of bringing women into management positions and professorship. "(Japan's efforts is) an important demonstration for all countries of the world, for science, engineering and technology. Globally everyone will benefit," she said.

Mr. Ellis Rubinstein, President and Chief Executive Officer, New York Academy of Sciences, endorsed the comment made by Mr. Holliday that they were honored that Prime Minister Abe has been a great supporter of STS *forum*. "I am proud to have been at every single one of the STS *forum* events, and have seen how powerful it is as an agent for bringing us together around the grand challenges," Mr. Rubinstein said.

Mr. Rubinstein also stressed that the future of the science and technology endeavors is in the hands of young people and referred to The Global STEM Alliance launched last year. He also endorsed the importance of the women's involvement in science. "We are doing a website (to get more women involved in science) which is also a big global alliance," he said. He also mentioned the Japanese government's "generosity in supporting Africa," which he witnessed in the Millennium Villages Project.

Mrs. Deborah Wince-Smith, President and Chief Executive Officer of the Council on Competitiveness. She introduced her proposals for US-Japan bilateral collaboration such as "forming a joint development effort to go to the field of beyond exo-scale supercomputing," she says.

After all the comments, **Prime Minister Abe** was invited for his closing remarks and he reaffirmed his full awareness that "science and technology holds the future for Japan and the entire world." In order to tackle current issues such as energy problems and the declining birthrate and aging population in Japan, "We need to make sure that the best and brightest of the young generation choose careers in science and technology," he continued. Specifically, he added, "As mentioned by Dr. Cordova and Dr. Colwell, we need more



women in Japan going into leading positions in the science and technology fields."

Prime Minister Abe also reiterated his expectations for further cooperation between Japan and the United States along the lines of the revised defense cooperation guidelines and a new security framework. "From that perspective," says he, "it was extremely meaningful for me to have this opportunity to listen directly to your views this morning."

At the end, he said he looked forward to seeing all again at the STS forum this October.

Every year, a special buffet dinner will be held, co-hosted by Kyoto Prefectural Government and Kyoto City Government, at a historical site on the second night of the annual meeting. This year, we have the honor of dining at the UNESCO World Heritage site Nijo Castle which was built in 1603 by Tokugawa Ieyasu, the founder of Tokugawa Shogunate.

The reception starts at 18:30 on Monday, October 5, 2015.



Nijo Castle

COURTESY OF NORIO OKAMOTO

Last year, the special buffet dinner was held at Kenninji, the oldest Zen temple built in 1202. One of the highlights was classical Japanese dance performance. You can get a flavor of what it was like from the snapshots below.





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