

STS forum  
As of 10/30/2007

# **Science and Technology in Society (STS) *forum*** **Fourth Annual Meeting**

**Science and Technology in Society (STS) *forum*:**  
**“Harmony with Nature” and “Innovation”**

**PROGRAM**

**FINAL**

October 7-9, 2007, Kyoto  
Kyoto International Conference Center (ICC Kyoto)

## October 7, 2007, Sunday

08:30 – 19:30     **Registration**

[Venue: **Kyoto International Conference Center (ICC Kyoto)**]

Registration will begin from 08:30 am.

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10:30 – 11:30     **100** **Opening Plenary Session:**

**“Lights and Shadows of Science and Technology”**

[Venue: **Main Hall**]

The STS *forum* is opening its Fourth Annual Meeting and its Second General Assembly since its establishment as a Non-Profit Organization last year.

How can we ensure that our wisdom is efficiently used so that science and technology are optimally deployed for the benefit of humankind while guarding against the worst risks?

**Chair:** **Omi**, Koji, Member of the House of Representatives; Founder and Chairman, STS *forum*, JP

**Speakers:**

- **Fukuda**, Yasuo, Prime Minister of Japan, JP
  - **McGraw III**, Harold W., Chairman, Business Roundtable; Chairman, President and Chief Executive Officer, The McGraw-Hill Companies, Inc. US
  - **Mangena**, Mosibudi, Minister of Science and Technology, ZA
  - **Nakamura**, Kunio, Vice Chairman, Nippon Keidanren (Japan Business Federation); Chairman of the Board, Matsushita Electric Industrial Co., Ltd, JP
  - **Schavan**, Annette, Federal Minister of Education and Research, DE
  - **Wan**, Gang, Minister of Science and Technology, CN
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11:45 – 13:00     **Light Meal Buffet**

[Venue: **Sakura Room**]

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13:20 – 14:30     **101** **Plenary Session: “Energy Solutions for the Sustainable Environment”**

[Venue: **Main Hall**]

- A number of recent reports have said there is a need for a very substantial increase in investment in energy technologies. How can this be achieved and what are the priorities for energy R & D?

- What other measures are required to stimulate uptake and development of new energy technologies?

- How can we build an effective partnership between public and private sectors to deliver sustainable energy solutions?

- In what areas is it necessary to increase international co-operation in energy R & D? What are the priorities and how can this be achieved?

- In what ways do the needs of developed and developing countries differ? What mechanisms can be used to increase technology transfer and increase capacity to develop local energy solutions?

**Chair:** **King**, David, Chief Scientific Advisor and Head of the Office of Science, Department for Innovation, Universities and Skills, United Kingdom Government, UK

**Speakers:**

- **Chu**, Steven, Director, Lawrence Berkeley National Laboratory, US
- **Helal**, Hany M., Minister of Higher Education and Scientific Research, EG
- **Holliday, Jr.**, Charles O., Chairman and Chief Executive Officer, DuPont (E.I. du Pont de Nemours and Company); Chairman, Council on Competitiveness, US
- **Lauvergeon**, Anne, Chief Executive Officer, AREVA, FR

- **Tanaka**, Nobuo, Executive Director, International Energy Agency (IEA), JP
  - **van der Eijk**, Johan M., Group Chief Technology Officer, Royal Dutch Shell plc, NL
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**14:30 – 15:45**    **102 Plenary Session: “Setting the Tone”**

[Venue: **Main Hall**]

This session aims at giving the tonality to the seven tracks of themes which will be dealt with throughout the two days. Most current thinking on these various themes, as well as original viewpoints, as well as expectations on the outcome from the concurrent sessions will be heard in this session.

**Chair: Bréchnac**, Catherine, President, French National Center for Scientific Research (CNRS), FR

**Speakers:**

[Track A] **Hockfield**, Susan, President, Massachusetts Institute of Technology (MIT), US

[Track B] **Zerhouni**, Elias A., Director, U.S. National Institutes of Health (NIH), US

[Track C] **Baujard**, Olivier, Chief Technology Officer, Alcatel-Lucent, FR

[Track D] **Lee**, Yuan T., President Emeritus, Distinguished Research Fellow, Institute of Atomic and Molecular Sciences, Academia Sinica, Chinese Taipei

[Track E] **Wiesel**, Torsten N., Secretary General, Human Frontier Science Program Organization (HFSP), US

[Track F] **Ernst**, Richard R., Professor Emeritus, Laboratory of Physical Chemistry, Swiss Federal Institute of Technology (ETH) Zurich, CH

[Track G] **Thumann**, Jürgen R., President, Federation of German Industries (BDI), DE

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**15:45 – 16:30**    **Coffee Break**

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**16:30 – 18:30**    **First Series of Concurrent Sessions**

**103-A1** “Harmony with Nature – Energy”

[Venue: **Room B-2**]

How to secure clean, safe and stable energy sources in order to meet growing demand worldwide; what new technologies, new alternatives are there?

**Chair: Feneuille**, Serge, Chairman, High Council for Science and Technology, FR

**Speakers:**

- **Chambert-Loir**, Jacques, Chief Representative for North-East Asia, Total, FR

- **Foss**, Michelle M., Chief Energy Economist and Head, Center for Energy Economics, Bureau of Economic Geology, Jackson School of Geosciences, The University of Texas at Austin, US

- **Ikeda**, Kaname, Director General Nominee of the ITER Organization, ITER, International Team, JP

- **Jiang**, Mianheng, Vice President, Chinese Academy of Sciences, CN

- **MacNaughton**, Joan, Senior Vice President, Power and Environmental Policies, Alstom Power Systems, UK

- **Mochizuki**, Harufumi, Director-General, Agency for Natural Resources and Energy, JP

- **Ong**, Soon Hock, President, Malaysia Invention and Design Society, MY

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**103-B1 “Biomedical Discovery and Development in the Genome Era”**

[Venue: Room C-1]

Progress in human genome analysis will enable many new developments in medical and therapeutical areas. What do we have to gain from this progress? Are there any risks involved in these new developments?

**Chair:** **Tan**, Chris Y.H., Chairman/CEO, Calidris Therapeutics Inc., San Francisco, Vancouver, Tokyo, CA

**Speakers:**

- **Chetsanga**, Christopher J., President, Zimbabwe Academy of Sciences (ZAS), ZW
- **Harris**, Timothy, Director, Advanced Technology, SAIC-NCI-Frederick, US
- **Hayashizaki**, Yoshihide, Project Director and Chief Scientist, Genome Exploration Research Group, Genomic Sciences Center, RIKEN, JP
- **McConnell**, David J., Co-Vice Chairman, EAGLES (European Action on Global Life Sciences), European Federation of Biotechnology, IE
- **Trust**, Trevor J., Vice President Infection Discovery, AstraZeneca Pharmaceuticals LP, CA

**103-C1 “New Frontiers of Science and Technology – Nanotechnology”**

[Venue: Room J]

Is Nanotechnology technological revolution or evolution? What personal and environmental health and welfare risks are posed by Nanotech that are categorically different from those already posed by the chemical and biomedical industry? Are there societal or national security risks posed by Nanotech that are unique to this discipline? What seminal conceptual, scientific or engineering innovations have resulted from Nanotech so far? Where are the likely economic impacts of Nanotech in the next 5 years, 10 years, the next generation?

**Chair:** **Moskovits**, Martin, Chief Technology Officer, API Nanotronics Corporation, CA

**Speakers:**

- **Kaiserswerth**, Matthias, Director, IBM Zurich Research Laboratory, DE
- **Kishi**, Teruo, President, National Institute for Materials Science, JP
- **Kitazawa**, Koichi, President, Japan Science and Technology Agency (JST), JP
- **Oliver**, Raymond, Director, Science & Innovation, Cenamps, UK
- **Sallin**, Aymeric, Founder and Managing Director, NanoDimension AG, CH

**103-D1 “Science Literacy for All”**

[Venue: Room K]

To increase science literacy is a goal that is shared worldwide. To achieve this goal, however, requires that we overcome several important challenges. What concrete steps can we take to make careers in science more attractive to the next generations, particularly to young women? What measures can be taken to enhance science education at all levels, and to all constituents of society at large? How can nations collaborate in the effort to create an enhanced science culture worldwide?

**Chair:** **Fortier**, Suzanne, President, Natural Science and Engineering Research Council of Canada (NSERC), CA

**Speakers:**

- **Arima**, Akito, Chairman, Japan Science Foundation, JP
- **Bartz**, Carol A., Executive Chairman, Autodesk Inc., US
- **Benmokhtar Benabdellah**, Rachid, President, Al Akhawayn University, MA
- **Massingue**, Venâncio S., Minister of Science and Technology, MZ
- **Osterwalder**, Konrad, Rector, United Nations University, CH

**103-E1 “Establishing International Collaboration in Science and Technology”** [Venue: Room B-1]

As science research projects become expensive to fund and more complex, international collaboration becomes key to many projects. In addition, the spread of science and technology is becoming ever more critical to our global future, being required for every nation to deal effectively with its energy, food, health, and environmental problems and to provide for sustainable livelihoods. How we might get more synergies from our current system is an important question for this session.

**Chair:** **Alberts**, Bruce M., Professor, Department of Biochemistry and Biophysics, University of California, San Francisco (UCSF), US

**Speakers:**

- **Anand**, Rakesh, Director, R&D Genetics, AstraZeneca Pharmaceuticals, UK
- **Huettl**, Reinhard F., Scientific Executive Director, GeoForschungsZentrum Potsdam, DE
- **Komiyama**, Hiroshi, President, The University of Tokyo, JP
- **Rubinstein**, Ellis, President and Chief Executive Officer, The New York Academy of Sciences, US
- **Watkins**, Alfred, Science and Technology Program Coordinator, World Bank, US

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**103-F1** “Engaging Policy Makers in Scientific and Technological Issues” [Venue: Room I]

In line with the STS *forum's* theme on sustainable progress and development, this concurrent session seeks to address how scientists and policy makers can be engaged at the discussion table to tackle global climate change. The discussions can be taken to two levels. At the international level, how do we mobilise resources in seeking more complete scientific information for charting the way forward? At the national level, how should international treaty be translated into national agenda that is actively implemented?

**Chair:** **Lim**, Chuan Poh, Chairman, A\*STAR (Agency for Science, Technology and Research), SG

**Speakers:**

- **Busquin**, Philippe, Chairman, Scientific and Technology Options Assessment (STOA), Member of the European Parliament, BE
- **Hara**, George, Group Chairman and Chief Executive Officer, DEFTA Partners; Ambassador to the UN Economic and Social Council, JP
- **Hošek**, Chaviva, President and Chief Executive Officer, Canadian Institute for Advanced Research (CIFAR), CA
- **Huber**, Bernd, President, Ludwig-Maximilians-University of Munich, DE

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**103-G1** “Science and Innovation” [Venue: Room C-2]

Innovation cannot occur without R & D, but there is the view that the relevant research is applied research. While applied research is an important component, the past has shown that the most revolutionary innovations have been based on a foundation of strong basic research. The major innovations of the future will also require basic research, but industry finds this type of research too risky. Its results are not guaranteed, and any possible applications take a very long time. It is left to government to support basic research, but many political leaders also want assured results and applications.

**Chair:** **Friedman**, Jerome I., Institute Professor and Professor of Physics Emeritus, Physics Department, Massachusetts Institute of Technology (MIT), US

**Speakers:**

- **Bettermann**, Peter, Speaker of the Board, Freudenberg & Co. KG, DE
- **Luty**, Tadeusz, Rector, Wroclaw University of Technology, PL
- **Markides**, Karin E., President, Chalmers University of Technology, SE
- **Noyori**, Ryoji, President, RIKEN, JP
- **Peccei**, Roberto D., Vice Chancellor for Research, University of California, Los Angeles (UCLA), US
- **Vitarana**, Tissa, Minister of Science and Technology, LK

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18:30 – 19:30 **104** Cocktails

[Venue: **Event Hall**]

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19:30 – 21:00 **105** Official Dinner followed by Nightcap

[Venue: **Event Hall**]

**Introducer:** Tsukamoto, Hiroshi, Former President, Japan External Trade Organization (JETRO), JP

**Speakers:**

- **Cicerone**, Ralph J., President, National Academy of Sciences (NAS), US
  - **Tokai**, Kisaburo, Minister of Education, Culture, Sports, Science and Technology, JP
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## October 8, 2007, Monday

07:15 – 18:00     **Registration**

[Venue: **Kyoto International Conference Center (ICC Kyoto)**]

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08:30 – 09:30     **200** **Plenary Session: “Dialogue between Political Leaders and Scientists”**

[Venue: **Main Hall**]

A productive dialog between political leaders and scientists might begin by addressing three questions: How should we strike the balance between global cooperation and competition? What should be the balance between public resources for basic research and for applied research and innovation? How should we establish a wise balance of resources to match the disparate goals of the participants in the scientific enterprise – students, researchers, governments, and companies?

**Chair:** **Vest**, Charles M., President, National Academy of Engineering (NAE), US

**Speakers:**

- **Amari**, Akira, Minister of Economy, Trade and Industry, JP
  - **Harbour**, Malcolm, Member of the European Parliament for the West Midlands, UK
  - **Krieger**, Eduardo M., Former President, Brazilian Academy of Sciences, BR
  - **Moratti**, Letizia B.A., Mayor of Milano, IT
  - **Suh**, Nam Pyo, President, Korea Advanced Institute of Science and Technology (KAIST), US
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09:30 – 10:00     **Coffee Break**

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10:00 – 12:00     **Second Series of Concurrent Sessions**

**201-A2** **“Harmony with Nature – Climate Change”**

[Venue: **Room B-2**]

Climate change is now considered to be caused by 20th century’s human activities unprecedentedly developed by modern technology. To what extent can science elucidate the mechanism of climate change? What are the risks involved? Can technology mitigate the progress of climate change and how?

**Chair:** **Morishima**, Akio, Chair of the Board of Directors, Japan Climate Policy Center (JCPC), JP

**Speakers:**

- **Batterham**, Robin J., President, Australian Academy of Technological Sciences and Engineering (ATSE), AU
- **Guinot**, François, President, National Academy of Technologies of France (NATF), FR
- **Mattila**, Markku K., President, Academy of Finland, FI
- **McBean**, Gordon A., Chair of Board and Executive Chief Officer, Canadian Foundation for Climate and Atmospheric Sciences, CA
- **Nobre**, Carlos A., Researcher, National Institute for Space Research (INPE), BR
- **Rowland**, F. Sherwood, Donald Bren Research Professor of Chemistry and Earth System Science, School of Physical Sciences, University of California, Irvine (UCI), US

**Table Rapporteurs:**

- **Kennel**, Charles F., Professor, Scripps Institution of Oceanography, University of California, San Diego (UCSD), US
- **Moore**, C. Bradley, Vice President, Research Department, Northwestern University, US
- **van Eijndhoven**, Josée, Professor in Sustainability Management, Dutch Research Institute For Transitions (DRIFT), Erasmus University Rotterdam, NL

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**201-B2 “Bioethics: Stem Cell Controversy”**

[Venue: Room K]

Stem cell research and its applications are subject to large controversies. What are the latest findings? What should be the line to be drawn in its applications? Where do governments stand on the regulatory side? What are the views of moral and religious leaders?

**Chair: Desmarescaux**, Philippe, Chairman, Scientific Foundation of Lyon, FR

**Speakers:**

- **Atkinson**, George, Former Science and Technology Adviser to Secretary of State, University of Arizona, US
- **Caulfield**, Timothy, Canada Research Chair in Health Law and Policy, Health Law Institute, University of Alberta, CA
- **Finneran**, Kevin, Editor-in-Chief, Issues in Sciences and Technology, U.S. National Academy of Sciences (NAS), US
- **Imura**, Hiroo, President, Foundation for Biomedical Research and Innovation (FBRI), JP
- **Yamanaka**, Shinya, Professor, Institute for Frontier Medical Sciences, Kyoto University, JP

**Table Rapporteur:**

- **Marshak**, Daniel R., Vice President and Chief Scientific Officer, PerkinElmer Incorporated, US

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**201-C2 “New Frontiers of Science and Technology – ICT”**

[Venue: Room J]

What are the latest developments in ICT, from the hardware viewpoint, from the software viewpoint? What are the new business opportunities deriving from them?

**Chair: Fayyad**, Usama, Chief Data Officer and Executive Vice President, Research and Strategic Data Solutions, Yahoo! Incorporated, US

**Speakers:**

- **Bjerring**, Andrew K., President and Chief Executive Officer, CANARIE Inc., CA
- **Chu**, Paul C.-W., President, Hong Kong University of Science and Technology, US
- **Huang**, Frank C.J., Chairman, Powerchip Semiconductor Corporation, Chinese Taipei
- **Iga**, Kenichi, Professor Emeritus, Tokyo Institute of Technology, JP
- **Jain**, J.K., President, Jain TV Group, IN
- **Kim**, Young Kyun, Senior Vice President, Global Standards & Research, Samsung Electronics, Co. Ltd., US

**Table Rapporteurs:**

- **Adly**, Noha, Director of the Information and Communication Technology Department and International School of Information Science (ISIS), Library of Alexandria, EG
- **Saracco**, Roberto, R & D Chief Technology Officer, Telecom Italia Lab, Telecom Italia SpA, IT

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**201-D2 “Collaboration between Universities / Research Institutes / Industries”** [Venue: Room B-1]

It is generally realized that science and humanities at high academic standards form an essential basis of modern societies and human life as we know it in the 21<sup>st</sup> century. Collaboration between universities, non university research institutes and industry is extremely important for profound innovation processes in highly industrialized nations. During the past decades a number of processes and instruments have been explored and introduced to foster such cooperation – ranging from direct bilateral or multilateral research contracts for industrial R&D demand, networks of excellence in key technologies to incubators for young enterprises. Here we will explore and validate such processes, discuss best practice examples, and sketch the chances as well as possible risks of such efforts: Key themes will be: 1. Collaboration *and* competition, 2. rapid transfer of



science based knowledge, 3. most efficient ways to initiate innovation, 4. how to maintain a good balance between far sighted education, technology driven research and basic science with a long breath?

**Chair:** Hertel, Ingolf V., Director, Max Born Institute for Nonlinear Optics and Short Pulse Spectroscopy, DE

**Speakers:**

- **Hayashi**, Yoshimasa, Member of the House of Councillors, JP
- **Irandoust**, Said, President, Asian Institute of Technology (AIT), SE
- **Kutzler**, Kurt R., President, Berlin University of Technology (TUB), DE
- **Macmillan**, William D., Vice-Chancellor, University of East Anglia (UEA), UK
- **Sahin**, Kenan E., CEO and Founder, TIAX LLC, US
- **Shirai**, Katsuhiko, President, Waseda University, JP

**Table Rapporteurs:**

- **Chi**, Youngsuk, Vice Chairman, Elsevier, US
- **Mařík**, Vladimír, Head, Department of Cybernetics, Faculty of Electrical Engineering, Czech Technical University in Prague (CTU), CZ
- **Matangkasombut**, Pornchai, President, Mahidol University, TH

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**201-E2** “Science and Technology for/in Developing Countries”

[Venue: Room C-1]

Science, Technology and Innovation (STI) are key to a nation’s capacity for economic development, to reduce poverty, improve health care, eradicate disease, and achieve sustainability. Important issues are: How to use STI to meet local needs? How can STI be embedded in government policies? How can governance be improved? What are the best models for NS and SS partnerships? What measures can be taken to reduce the brain drain? Are there achievable, stretch goals for advanced nation financial commitments?

**Chair:** Carty, Arthur J., National Science Advisor to the Government of Canada, Industry Canada, CA

**Speakers:**

- **Berkley**, Seth F., President and CEO, International AIDS Vaccine Initiative (IAVI), US
- **Haseltine**, William A., President, William A. Haseltine Foundation for Medical Sciences and the Arts; Chairman and Chief Executive Officer, Haseltine Associates, Ltd., US
- **Murenzi**, Romain, Minister of Science, Technology and Scientific Research, RW
- **Phissamay**, Bountiem, Minister to the Prime Minister’s Office, Chairman, Science, Technology and Environment Agency (STEA), LA
- **Rubinstein**, Joanna, Chief of Staff to Jeffrey D. Sachs, Director of Strategic Programs and Director of the Center for Global Health and Economic Development (CGHED), The Earth Institute at Columbia University, SE
- **Saeed**, Abdelrahman, Ministry of Science and Technology, SD

**Table Rapporteurs:**

- **Enssani**, Elahe, Professor, Chair of Civil Engineering, San Francisco State University, US
- **Matsui**, Yasuo, Ambassador for Science and Technology Cooperation, Ministry of Foreign Affairs (MOFA), JP

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**201-F2** “Interface and Dialogue between Humanities and Natural Sciences”

[Venue: Room I]

“The World Knowledge Dialogue”, which was initiated last September by Prof. Waldvogel, is designed to happen once every two years. At the STS *forum*, it has been decided that this year, we would hold a session between two meetings of the World Knowledge Dialogue in order to further promote this dialogue and to advance it in order to carry over the results to the next Swiss forum. The dialogue between humanities and natural sciences, as important as it is by itself, hold a special meaning when put in a specific context. The

role played, for instance, by former Vice President Al Gore in educating the general public on climate change issues through his lectures series and movie, is a good example. This session will particularly focus on those good practices whereby humanities and hard sciences can complement each other in serving specific objectives in specific areas such as sustainability, or education, etc.

The complementarity between the two cultures can be instrumental in many ways and in raising awareness in some areas or to appeal to the non-scientific part of the world.

**Chair:** **Waldvogel**, Francis A., Director of the Executive Board, World Knowledge Dialogue Foundation, CH

**Speakers:**

- **Bassi**, Davide, Rector, University of Trento, IT
- **Bosredon**, Bernard, President, Paris Sorbonne Nouvelle University, Paris III, FR
- **Desai**, Vishakha N., President, Asia Society, IN
- **Hill**, Richard S., Chairman of the Board and Chief Executive Officer, Novellus Systems Incorporated, US
- **Minami**, Masago, Senior Writer, Yomiuri Shimbun, JP

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**201-G2** “Measures to Accelerate Innovation”

[Venue: **Room C-2**]

What are the pre-conditions for a society to produce and accelerate innovation? Can policy measures be taken to accelerate innovation by governments?

**Chair:** **Kurokawa**, Kiyoshi, Science Advisor to the Cabinet; Professor, National Graduate Institute for Policy Studies, JP

**Speakers:**

- **Cronin**, Martin, Chief Executive, Forfás, IE
- **Eriksson**, Per, Director General, VINNOVA (Swedish Agency for Innovation Systems), SE
- **Hane**, Gerald J., Managing Director, Q-Paradigm, US
- **Hasse Ferreira**, Joel, Member of the European Parliament, PT
- **Pontin**, Jason, Editor-in-Chief and Publisher, Technology Review, UK

**Table Rapporteurs:**

- **Skellern**, David, Chief Executive Officer, National ICT Australia Limited (NICTA), AU
- **Soboll**, Horst J., Chairman, European Research Advisory Board (EURAB), DE

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**12:00 – 13:45** **202** Working lunch: “Innovation”

[Venue: **Annex Hall**]

Innovation is an extremely broad subject. In this session gathering top representatives from private-sector industrial companies, we will look at innovation mainly from the perspective of manufacturing industries.

What are the conditions for businesses to ensure an innovative spirit throughout their organizations? How do those innovative ideas actually translate into value creation? What can we learn from the best practices of the world's major innovators?

**Chair:** **Wince-Smith**, Deborah L., President, Council on Competitiveness, US

**Speakers:**

- **Cho**, Fujio, Chairman, Toyota Motor Corporation, JP
- **Little**, Mark M., Senior Vice President and Director, GE Global Research, General Electric Company, US

**14:00 – 16:00 Third Series of Concurrent Sessions**

**203-A3 “Harmony with Nature – Water”**

[Venue: **Room J**]

What is happening here? Why do people say we are running out of water? (Where does water come from? What is happening to the hydrological cycle? What are the implications of temperature changes?)  
Why do we need more and more water? What do we use it for? (Breakdown of use; food and agriculture impact; municipal and drinking water; water dilemmas)  
Why is it so difficult to implement solutions? How do we get out of this? (Financing and politics of water solutions)

**Chair: Catley-Carlson**, Margaret, Chairperson, Steering Committee, Global Water Partnership/UN SecGen Water Advisory Board, CA

**Speakers:**

- **Moody**, James B., General Manager, International Development, CSIRO, AU
- **Rijsberman**, Frank R., Director, Water and Climate Adaptation Initiatives, Google, NL
- **Szöllösi-Nagy**, András, Deputy Assistant Director-General, Natural Sciences Sector, UNESCO, HU
- **Tundisi**, José G., Honorary President, International Institute of Ecology, BR

**Table Rapporteur:**

- **Yap**, Kheng Guan, Director, 3p Network, Public Utilities Board (PUB), SG

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**203-B3 “New Opportunities opened by GMOs”**

[Venue: **Room K**]

What are the latest findings in the area of genetically modified crops? How can their safety be ensured? What are the opportunities for the developing countries facing large needs for food procurement?

**Chair: Fedoroff**, Nina V., Science and Technology Adviser to the Secretary of State, U.S. Department of State; Evan Pugh Professor of Biology and Willaman Professor of Life Sciences, The Huck Institute of the Life Sciences, Pennsylvania State University, US

**Speakers:**

- **Beachy**, Roger N., President, Donald Danforth Plant Science Center, US
- **Fischhoff**, David, Vice President, Technology Strategy and Development, Monsanto Company, US
- **Fyrwald**, J. Erik, Group Vice President, DuPont Agriculture & Nutrition, US
- **Madkour**, Magdy A., Head of Biotechnology, Arid Lands Agricultural Research Institute (ALARI), Ain Shams University, EG
- **Moloney**, Maurice M., Founder and Chief Scientific Officer, SemBioSys Genetics Inc., IE
- **Van Montagu**, Marc, Founder and Chairman, Institute of Plant Biotechnology for Developing Countries (IPBO), Ghent University, BE

**Table Rapporteurs:**

- **Ei-Beltagy**, Adel, Chair, Global Forum on Agricultural Research (GFAR), EG
- **Schaal**, Barbara A., Spencer T. Ohlin Professor of Biology, Department of Biology, Washington University, US

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**203-C3 “How Computational Capabilities are Changing Science and Research”** [Venue: **Room C-2**]

The fast enhancement of large computational capabilities in the past years made unforeseen progress in all domains of science and research possible, be it biomedical or earth sciences, through simulations and others. What were they? What are the future computational capability developments that can be expected, and what new domains will they open?

**Chair:** Anzai, Yuichiro, President, Keio University, JP

**Speakers:**

- **Bolsens**, Ivo, Chief Technology Officer and Vice President, Xilinx, Incorporated, BE
- **Crouse**, William E., Worldwide Health Director, Microsoft Corporation, US
- **Havlíček**, Václav, Rector, Czech Technical University in Prague (CTU), CZ
- **Markram**, Henry, Professor, Swiss Federal Institute of Technology, Lausanne (EPFL), IL
- **Sprekels**, Jürgen, Director, Weierstrass Institute for Applied Analysis and Stochastics in Forschungsverbund Berlin e.V., DE
- **Yamada**, Keiji, General Manager, C&C Innovation Research Laboratories, NEC Corporation, JP

**Table Rapporteur:**

- **Bishop**, Robert R., Founder and Chairman, BBWORLD Consulting Services Sarl, AU

**203-D3** “Brain Drain and Brain Gain”

[Venue: Room B-2]

Brain drain for some countries is brain gain for others. What are the conditions to attract science and research talents and retain them?

**Chair:** Kumar, Ashok, Chair, Parliamentary Office of Science and Technology (POST), Houses of Parliament, UK

**Speakers:**

- **Bhumiratana**, Sadkarindr, President, National Science and Technology Development Agency (NSTDA), TH
- **Campbell**, Donald W., Senior Strategy Advisor, Davis LLP, CA
- **Kinnear**, Judith F., Vice-Chancellor, Massey University, NZ
- **Schütte**, Georg B., Secretary General, Alexander von Humboldt Foundation, DE

**203-E3** “International Harmonization of Intellectual Property Rights”

[Venue: Room I]

Appropriate protection of intellectual property rights is key to enhance value creation-oriented research and development, hence to the development of new applications of discoveries. However, countries have their own approach to this issue, and it is now time to start serious harmonization among major countries.

**Chair:** Roach, Allan, Director, World Intellectual Property Organization (WIPO), Japan Office, AU

**Speakers:**

- **Akimoto**, Hiroshi, Managing Director, Member of the Board, Takeda Pharmaceutical Company Limited, JP
- **Rader**, Randall R., Circuit Judge, U.S. Court of Appeals for the Federal Circuit, US
- **Stein**, Christian A., Chief Executive Officer, Ascenion GmbH, DE
- **Sweeney**, Tom, Co-founder and Managing Director, Garage technology Ventures, CA

**Table Rapporteur:**

- **Sandman**, Jeffrey, Chief Executive Officer, Hyde Park Communications, US

**203-F3** “Critical Science and Technology Agendas for the Media”

[Venue: Room C-1]

Every week sees the media report advances in science and technology, responding to the public interest. But

the media also need to be critically minded about these activities. Where are the problems in the practices of science and its stakeholders? What are the societal and cultural values that may be challenged by foreseeable science and technologies? This session brings journalists, editors and other STS *forum* attendees together to address these questions.

**Chair:** Campbell, Philip, Editor-in-Chief, Nature, UK

**Speakers:**

- **Apsell**, Paula S., Senior Executive Producer, Director WGBH Science Unit, WGBH NOVA SERIES, US
- **Bly**, Adam, Founder and Editor-in-Chief, Seed Magazine, CA
- **Cerrell**, Joe, Director, Global Health Advocacy, Bill & Melinda Gates Foundation, US
- **Coyaud**, Sylvie, Science Reporter, Il Sole 24 Ore, FR
- **Fujisawa**, Hidetoshi, Executive Controller General, NHK Japan Broadcasting Corporation, JP
- **Ghosh**, Pallab K., Science Correspondent, BBC News; President, World Federation of Science Journalists, UK
- **Standage**, Tom, Business Editor, The Economist, UK

**Table Rapporteur:**

- **Bergman**, Catherine, Journalist, CA

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**203-G3** “Innovation and Business”

[Venue: Room B-1]

This session will debate on good practices and challenges in turning technical progress into revenues and flourishing businesses.

**Chair:** Clark, Megan E., Vice President Technology, BHP Billiton Ltd, AU

**Speakers:**

- **Feczko**, Joseph M., Senior Vice President and Chief Medical Officer, Pfizer Inc, US
- **Gregory**, Mike, Head of Division, Institute for Manufacturing, University of Cambridge, UK
- **Hirata**, Ikuo, Editorial Page Editor, The Nihon Keizai Shimbun, JP
- **Jourquin**, Christian F., CEO, Solvay S.A., BE
- **Nicholson**, Peter J., President and Chief Executive Officer, Council of Canadian Academies, CA
- **Patel**, Ketan, CEO, Greater Pacific Capital, UK

**Table Rapporteur:**

- **Derian**, Paul-Joel, Group Vice President, Research & Development, Rhodia, FR

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**16:00 – 16:30**     **Coffee Break**

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**16:30 – 17:30**     **Plenary Session in Parallel**

**204A** “Global Solutions for Infectious Diseases”

[Venue: Annex Hall]

Infectious diseases, both latent and short-term, present a major threat to global health. They affect populations both in the North and the South, so preventive measures and global pandemic preparedness are key to limit their damage. What are the most recent discoveries from research in those areas? What are the most efficient and cost-effective ways to make vaccines available to the largest possible number of people? What are other complementary measures, including public health education and basic knowledge dispatch, which could be applied? What are the lessons to be drawn from successful experiences?

**Chair:** McKinnell, Jr., Henry A., Former Chairman & CEO, Pfizer Inc; Chairman, Academic Alliance

Foundation, US

**Speakers:**

- **Feinberg**, Mark B., Vice President, Policy, Public Health and Medical Affairs, Merck Vaccine Division, US
- **Herrling**, Paul L., Head of Corporate Research, Novartis International AG, CH
- **Makgoba**, Malegapuru W., Vice-Chancellor, University of KwaZulu-Natal, ZA
- **Masuzoe**, Yoichi, Minister of Health, Labour and Welfare, JP
- **Muchena**, Olivia N, Minister of Science and Technology Development, ZW
- **Nakatani**, Hiroki, Assistant Director-General, HIV/AIDS, Tuberculosis and Malaria, World Health Organization (WHO), JP

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**204B** “The Role of Universities in the 21<sup>st</sup> Century”

[Venue: **Main Hall**]

In the knowledge economy what are the new challenges faced by universities particularly in the areas of cross disciplinary research and technology transfer? Should universities be working in closer collaboration with Industry?

**Chair:** **Sykes**, Richard, Rector, Imperial College London, UK

**Speakers:**

- **Fox**, Marye Anne, Chancellor, University of California, San Diego (UCSD), US
- **Seweryński**, Michał, Minister of Science and Higher Education, PL
- **Shih**, Choon Fong, President, National University of Singapore, SG
- **Wintermantel**, Margret, President, German Rectors' Conference, DE
- **Yuthavong**, Yongyuth, Minister of Science and Technology, TH

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17:30 – **Transfer by bus to Chion-in Temple (about 30 minutes)**

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18:00 – 20:00 **205** **Special Buffet**

[Venue: **Chion-in**]

Hosted by the Kyoto Support Committee for the STS *forum*

**With Traditional Entertainment**

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19:00 – 20:30 **Transfer by bus from Chion-in Temple to major Kyoto hotels**

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to be conducted at the G8 summit and other international fora; (2) S&T are essential for the effective socio-economic advancement of the developing countries, thus more international S&T collaboration between developed and developing countries in the form of joint research is extremely important. The STS forum proposes the G8 countries that they discuss at their 2008 Summit meeting how to best mobilize a part of official development assistance (ODA) for this purpose.

**Chair:** **Yoshikawa**, Hiroyuki, President, National Institute of Advanced Industrial Science and Technology (AIST), JP

**Speakers:**

- **Carty**, Arthur J., National Science Advisor to the Government of Canada, Industry Canada, Government of Canada, CA
- **Friedman**, Jerome I., Institute Professor and Professor of Physics Emeritus, Physics Department, Massachusetts Institute of Technology (MIT), US
- **Omi**, Koji, Member of the House of Representatives; Founder and Chairman, STS *forum*, JP
- **Taha**, Elzubeir B., Minister of Interior, SD

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12:00 – 13:00    **303** Farewell Buffet Lunch

[Venue: **Swan Room**]

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