

Welcome International Participants!

As this event is mainly for the general public residing in Japan, the official language is Japanese. Non-Japanese speakers will still be able to enjoy firsthand experience and selected international sessions. If you are interested in visiting or exhibiting, please contact us at official website.

ScienceAgora2014 (expectation)

2014.11/8 (sat) ~9 (sun)

Tokyo, JAPAN

<http://www.jst.go.jp/csc/scienceagora/>



 **ScienceAgora**

HIGHLIGHTS of 2013 EVENTS

Official Website

<http://www.jst.go.jp/csc/scienceagora/>

 **サイエンスアゴラ**

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2013 PROGRAMS

Leading-Edge Science

WPI Science LIVE!

World Premier International Research Center Initiative (WPI) aimed for an interactive program creating a bond between researchers and visitors by directly conveying the research contents through short lectures, talk sessions and experiments/demonstrations carried out by the top researchers from across the

world conducting studies at the Center and answering the questions from visitors on site. It would be extremely successful if fascinating state-of-the-art science and researchers' passion led to visitors' interest in science and were conveyed as messages to future scientists.

World Premier International Research Center Initiative (WPI)

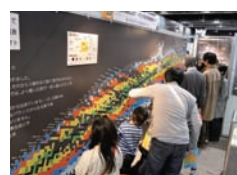


Let's Discover a New Element! – Naming Rights for the First Time in Asia

This is the world's dominant research center for nuclear physics. Since we are researching an invisible world, it was not easy to exhibit such contents. We always try to make the visitors feel familiar to nucleus. Therefore, we aim for a participatory exhibition as far as possible. As one of prime exhibits this time, we

made a nuclear illustration using all over the wall of our booth in which visitors put seals of nucleus. It was hard for us to prepare more than 6,500 seals of nucleus. There were a lot of smile-provoking scenes where parent and child put a seal on it cooperating with each other.

Nishina Center for Accelerator-Based Science, RIKEN



Regional Linkup

Outreach Activities of Nagoya University Aimed at Regional Partnership

Aichi Science Festival is an event of scientific communication linking regional cooperative activities of municipalities and science museums with research information transmission of universities and a unique research outreach activity which is rare in the country. Science Agora introduced a support system for researchers associated with mandatory research

outreach and regional cooperative activities as well as the report of the festival this year. We conducted an exchange of information on the development of techniques and future directions and a useful exchange of opinions on roles, regional contribution and outreach of universities with the people involved in scientific communication.

Research Administration Office of Nagoya University and Aichi Science Festival Office



Social Contribution/understanding

Color Magic! Curious Chemical Experiments!

In our exhibition, "Color Magic! Curious Chemical Experiments!", we carried out safe, easy and delightful chemical experiments such as disappeared pictures using iodine reaction of starch and color magic showing color changes depending on acid or alkali. Around 200 people including parents and children, junior high and high school students, college students who want to be

teachers and primary teachers participated in the experiments. The Chemical Society of Japan (CSJ) is engaged in activities to convey the fun, pleasure and social contribution of chemistry such as holding a chemical experiment show for children, having experiment classes and presenting papers on the results of chemical clubs' studies on a routine basis.

Spread & Exchange Committee, Education & Spread Department of the Chemical Society of Japan



Let's think together about Geological Disposal of High-level Radioactive Waste (HLW)

NUMO displayed an exhibition trailer for introducing our project, one of important social issues. We provided information on concept and safe management by using mock-ups and panels. At the hands-on experiment, the participants showed interests saying, "I see..." when they observed water-absorbed bentonite, of which material would be used for engineered barrier system,

prevented water flow. We were impressed with our visitors' attitudes trying to understand in a scientific manner, such as by not jumping into conclusion without being informed or by learning on safety and risk simultaneously. Science Agora gave us a chance to think about future direction of NUMO's public communication.

NUMO - Nuclear Waste Management Organization of Japan



2013 PROGRAMS

School Activities

Running of Miniature Bullet Trains

In the mechanics course of Kasukabe Technical High School in Saitama Prefecture, the third-grade students have manufactured miniature bullet trains which run on five-inch rails giving people a ride in the past three years in the class of project study aimed at the level of commercially available product. They are focusing on lots of things when manufacturing such as shiny body, safety

Mechanics course of Kasukabe Technical High School in Saitama Prefecture

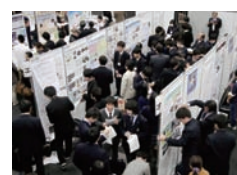
and regenerative control of the motor. The school students laid and removed tracks and controlled the traffic all by themselves and introduced the processes of study and manufacturing. Many people took a ride on the trains with delight and the school students found a rewarding sense of satisfaction for improved their skills.



Advanced Science Research Presentations by School Students 2013

Around 250 elementary, junior high and high school students conducting scientific research presented posters showing their research results. About 650 people including general attendees participated in this program. The contents presented spanned the entirety of the sciences, with some groups presenting results achieved by school science teams while other students

presenting individual research undertaken at university laboratories and their homes. Opinions were exchanged not only among participating school students and educators (science school advisors and university staff), but were also proactively exchanged with general attendees, making this a particularly stimulating program for the school students.



Extending network of those who hold common grounds of science -connecting science festivals all over Japan-

In our booth, we presented the report, concept and main character of 5th Tokyo International Science Festival (TISF) as well as other science festivals and science cafes throughout Japan. Furthermore, at the communication space for exhibitors, we held the kick-off meeting to make a network of hosts of science festivals

and events so that we shared the ideas, results and problems each participant had had. We showed lots of data on TISF, and are confident that we created novel "Agora" for science communication by grass-roots and regional alliances via our session and booth with fruitful contents from whole Japan.

Executive Committee of the 5th Tokyo International Science Festival



Look and Listen! Chemical Picture Book Readers Come Along! Part IV

Under the theme of lights and colors, we repeated the cycle of scientific work, observation, interactive science communication, demonstration/experiment and reading/talk on books again and again such as demonstration of lights through polarizer, diffraction grating and LED. We enjoyed every minute of the smooth and omnibus 90-minute science

program together with curious visitors. We were greatly impressed by the cheers from the audience. The know-how accumulated by exhibition in Science Agora has been fed back to research members' daily activities and further developed. The wave of active exchange between exhibitors has also been expanded.

Japanese Society of Science Books for Children



Symposium: Let's Discuss and Think about Adverse Drug Reaction

When adverse drug reaction is reported by mass media, patients and their family members feel nervous and some discontinues treatment. Therefore, we prepared a booklet, "Adverse Drug Reaction – Let us keep the information within us", and held a symposium to unveil it in Science

Agora. Although it was the first time for us to participate Science Agora, we were glad that many people joined and we had an excellent time to discuss about the drug education learning adverse drug reaction together.

Life Bio Plaza 21



2013 PROGRAMS

Co-hosted events

A place to change science to technology, National Institute of Advanced Industrial Science and Technology (AIST)

AIST Tokyo Waterfront introduced research results and enlightened people about science through exhibitions of the research results, hands-on events and lectures. A therapeutic robot, Paro, and a humanoid robot, Choromete-2, attracted the attention of visitors. In hands-on

events, Hankomeijin (stamp master), Micro-mobility and Noboreon gained popularity. More than 1,500 visitors had contact with exhibitors during the event of Science Agora.

AIST Tokyo Waterfront



TOSANGIKEN experience tour - the world of manufacturing -

About 160 visitors joined the TOSANGIKEN experience tour in two days. We had opened several laboratories and facilities, which we use in everyday activities. In the plastic molding process room, visitors received injection-molded blocks as souvenirs, and were surprised by a rumble of thunder in the high-voltage evaluation room. Many visitors - must have

visited TIRI for the first time – seemed to have enjoyed our tour very much. We were pleased with the results that 97% of visitors answered that "we want to participate in this tour again". While contacting with other research institutes and universities, we would like to live up Science Agora further more in the event which enjoys science.

Tokyo Metropolitan Industrial Technology Research Institute



International comparison about a sense of the value of money

We presented a panel discussion regarding the relationship between money and happiness in cooperation with international students, researchers and science communicators. About 50 people from Asia including Japan and Europe participated in this discussion to exchange various opinions across

borders. We tried to have an interactive dialogue by asking questions and opinions from the audience as a place for science communication activities. The social science contents have been highly evaluated. We will adopt this vision as a topic of future activities.

Tokyo Academic Park (Tokyo International Exchange Center (TIEC), The National Institute of Advanced Industrial Science and Technology (AIST), and National Museum of Emerging Science and Innovation)



Symposium – Science to be learned in a high school –

This symposium was held as a kickoff event to start discussing in a cross-sectoral manner with relevant organizations and groups including Science Council of Japan toward solving the issues of secondary school education. We discussed the possibility and contents of compulsory common science course in a high school

from various angles toward the next revision of educational guidelines aiming to further improve scientific capability required as a world leader in science and technology and satisfy science which is attractive and essential to even high school students not going to universities of science and technology.

Host: Science Council of Japan. Co-hosts: Japan Science and Technology Agency, Japan Society for Science Education, Japanese Association for Science Communication, Astronomical Society of Japan and Japan Society of Earth Science Education.



Our year 2030

Lectures and sessions of young and female researchers were presented with the primary objective of deepening youth's interest in science and technology. Researchers' speeches enjoy great popularity and there are comments saying, "It was helpful to my prospective course." and "I would like to enjoy conducting a research like the

lecturers." After the session, a time was set to directly exchange between youth and researchers regarding daily studies and prospective courses. The Cabinet Office continues to promote human resource development of the younger generation playing a role in innovation of science and technology for the next generation.

Cabinet Office



 **ScienceAgora**



HIGHLIGHTS of 2013 EVENTS
Tokyo, JAPAN

Science Agora is an open place of encounter where science serves as a catalyst.
 *The Greek word "agora" means "place of encounter" or "meeting."

HISTORY

Science has now become inseparable closely related with our daily lives. The fact that many scientific issues affect our whole of society requires the participation and engagement of diverse stakeholders—and the public—besides expert groups in the scientific community. Thus, to ensure a better tomorrow of ours, we should take one more step forward: to be willing to be more informed of, and to think together about, what science brings us and the relationship between science and ourselves.

Science communication has been a key concept in the evolving links between science and society. People who are involved in this function, known as science communicators, might be teachers at schools who impart knowledge to students, as well as mediators or interpreters who involve people in finding out the values and meanings of specific scientific outcomes, sometimes giving feedback to scientists and policymakers who drive research activities.

Since its inception in 2006, Science Agora has been offering a place for such science communication activities, the number of its participants being increasing every year. The most recent Science Agora 2013 invited 232 programs offered by 212 organizing parties, and had roughly 2,700 exhibitors served for more than 5,800 visitors during the 2-day event. Science Agora welcomes unique proposals from any geographic areas; in reality, some very ambitious ones inspire other exhibitors and presenters to apply practices in their own context. In this way, Science Agora functions as "hub" to evolve the network, and create expand the definition of science communicators.



POLITICAL BACKGROUND

Science Agora started in 2006 based on Japan's Science and Technology Basic Plan. The Third Plan (effective in FY2006-2010) includes a chapter entitled "Science and Technology to Be Supported by Society and the Public," in which promotion of science communication is described using expressions such as "Improving the Public Awareness of Science and Technology." The subsequent Fourth Plan (FY2011-2015) which was developed after the experience of the Great East Japan Earthquake makes a further step forward in this effort; namely, to encourage involvement and collaboration with the public in national science and technology policy-making and communication activities.

BASIC PRINCIPLES

(1) Moving from Conveying to Creating
 Besides communication aimed at conveying wonder and insight of science, we continue to expand our communication aimed to be at creating our society together.

(2) Promoting interaction and development activities
 Science Agora should also be "trade show" for diverse science communication activities. At Science Agora, we expect that new linkups will develop from interactions, and that the development will stimulate science communication in every region across Japan.

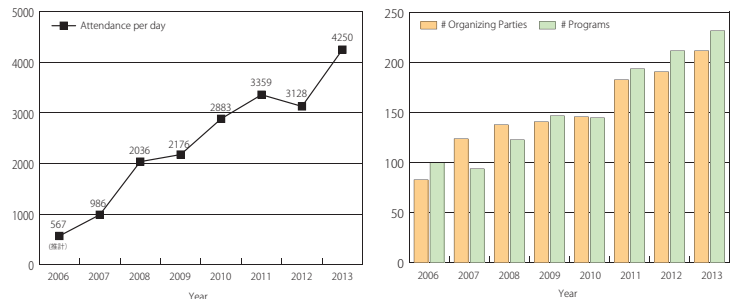
Based on the Fourth Plan, Japan Science and Technology Agency established the Center for Science Communication in 2012 to more deeply seek what is truly helpful science communication for the public and how to promote the activation of self-sustaining nationwide activities. Science Agora 2012 focused on the following two points as its principles:



EVENT STATISTICS

Science Agora enjoys steady growth. It has been contributing to expansion of networks among practitioners of nationwide excellence, and thus offers a myriad of communication opportunities for everyone at all ages.

#	Year	Date	Place	Attendance	# Programs	# Parties
1	2006	Sat-Mon, Nov. 25-27	Tokyo	1700 (estimated)	100	83
2	2007	Fri-Sun, Nov. 23-25	Tokyo	2959	94	124
3	2008	Sat-Mon, Nov. 22-24	Tokyo	6109	123	138
4	2009	Sat-Tue, Oct. 31-Nov. 3	Tokyo	8705	147	141
5	2010	Fri-Sun, Nov. 19-21	Tokyo	5934	145	146
6	2011	Fri-Sun, Nov. 18-20	Tokyo	7057	194	183
7	2012	Sat-Sun, Nov. 10-11	Tokyo	6255	212	191
8	2013	Sat-Sun, Nov. 9-10	Tokyo	8500	232	210

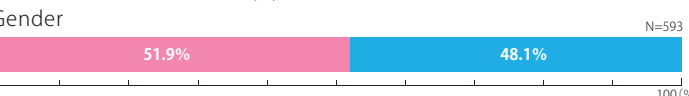


Everyone enjoyed communication, irrespective of their roles as exhibitors or visitors.

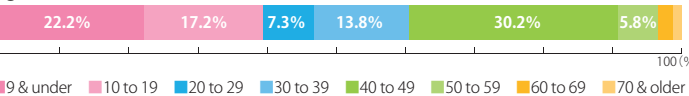
2013 FACTS

Who visited?

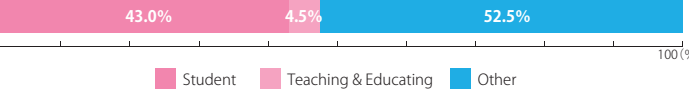
©Both children and adults enjoyed the visit.



Age

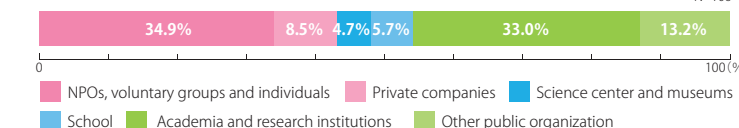


Occupation

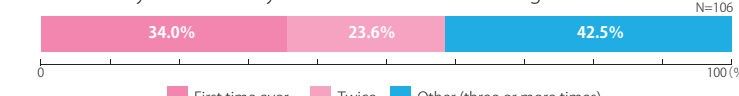


Who exhibited?

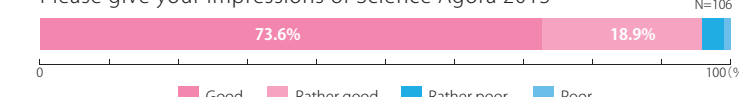
©A broad spectrum of sectors joined together



How many times have you exhibited at Science Agora?



Please give your impressions of Science Agora 2013

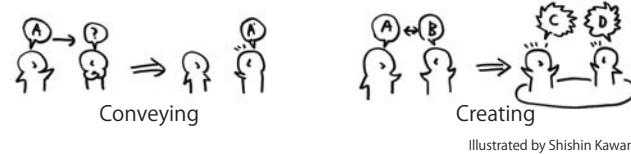


Exhibition Platform

More than 200 programs on site had identical methodologies. Larger institutions were able to exhibit at interactive booths, and individual volunteers were able to collaborate with each other to host symposia. Subjects also spanned from STEM education for lower-age children to cutting-edge science and technology developed by both academia and industry. All the programs were required, however, to be communicative, as face-to-face discussion. This is the core value at Science Agora.

Exhibition Platform	Count
Booths	93
Posters	28
Hands-on Programs	25
Symposia & Talks	25
Workshops & Cafés	49
Demonstrations	6
Total	232

Science Agora provided venues for conveying and creating knowledge such as symposiums in which brilliant presenters took the rostrums to explore new communications of science and technology and workshops to discuss various issues on science and technology.



SEVEN CONCECUTIVE WORK SHOPS

In order to provide venues for productive and various dialogues, the following seven workshops such as future sessions and graphic facilitations were held at Innovation Hall of National Museum of Emerging Science and Innovation: Host: Center for Science Communication, Japan Science and Technology Agency

- WS1** **WS2**
Creating communication: "Highest questions" session (WS1)
Creating communication: "My questions" session (WS2)
 Creating communications were implemented through future sessions (venues for creating cooperative actions through dialogue by putting aside differences such as between company/public/NPO sectors, those between departments in an organization and those between specialized fields in order to solve complicated issues where there is no apparent solution) for specialists (WS1) and citizens (WS2).

- WS5**
Science stand – face-to-face meeting with science -
 What is interesting about scientific research? What results are expected? What can we do for scientific development? We provided an opportunity for a discussion with researchers and citizens.
- WS6**
Middle media as a first-aid box of information
 We discussed issues found in the past two symposiums held to consider frictions between science and society caused by the accident of Fukushima Daiichi Nuclear Power Station and future prospects.
- WS7**
Looking into science – normal world where you cannot see -
 We made the people aware of the worlds where scientists see and where we (participants) usually see using a tool specialized for seeing to find the limit and diversity of such worlds.

- WS3**
Questions for post-3-11 science communications
 What can/should science communications do? The Great East Japan Earthquake raised us the importance of science communications. After the Earthquake, we discussed how we should see science communications.
- WS4**
Science Agora in the future (exhibitors only)
 The 8th Science Agora was held in 2013. We clarified issues on Science Agora with a view to continuous holding and considered the role that Science Agora should play from a long-term perspective.

SYMPOSIA

"New conveying style of science and technology" symposium
 After four presenters who are able to convey delightful, simple and attractive science and technology made presentations making the most of what they have, we discussed a new conveying style of science and technology. We talked about a

lot of topics in a short time and the visitors and the viewers of "Niconico live" on the Internet, "Christmas lecture", "microscope" using a smartphone and TED style which takes the world by storm.

Science and technology for all Japanese: making a new value across areas

In "science and technology for all Japanese" project, a report which systematically summarizes basic concepts of science technology that Japanese should share as a literacy of science and technology was prepared in 2008 (<http://www.jst.go.jp/csc/material/s4a.html>). In this session, we reflected on "science and technology for all Japanese" project, presented topics of the development of the results and held a panel discussion under the theme of a new value necessary for innovation.

SUMMARY SESSION

The summary session was held on the final day, reports on zones and workshops and an overall discussion spanning the entirety of Science Agora were undertaken. A panel discussion was held under the theme of "Results of Science Agora 2013" and

"What Science Agora should be in the future." The presenters pointed out issues and made comments and proposals from diversified viewpoints and the discussion led to future activities.

ZONE COMMENTARY

At Science Agora, since we expect that new linkups will develop from our interactions and that these developments will stimulate science communication in every region across Japan, we implemented venue zoning. There were many proposals for ways to categorize these zones: by researchers, media, schools, science museums, volunteers, visitors, government administration, companies, and so on. However, at this Science Agora, three Special Zones were established: a Leading-Edge Science Zone, a Regional Linkup Zone, and a Student Presentation/Educator Interaction Zone. In addition to facilitating interaction both within zones and among various zones, we expect this to further facilitate independent interactions even after the end of the conference.

- Venue Zoning**
- Social Zone: Demonstrations for children also to enjoy, presentations and discussions in meeting rooms, and a diversity of other programs.
 - (Special) Leading-Edge science Zone: Booths operated by research institutions, and opportunities to see researchers in person.
 - (Special) Regional Linkup Zone: Presentations by science centers and Social groups serving as hubs for regional linkups, as well as universities and research institutions eager for linkups.
 - (Special) Student Presentation /Educator Interaction Zone: Student presentations, with participating schools eager for science education linkups.

PROMOTION POINT

Based on Basic Principles (P3), Science Agora 2013 focused n the following two functions:

- ① **Function as "Trade Show"**
 For people who are interested in science communication activities but cannot communicate well, those operating in the region but cannot produce the expected results and those seeking a way to collaborate with local events, Science Agora gathered various model cases in active format as an exhibition of science communication activities to solve such issues and introduced advanced efforts.
- ② **Function as "Hub"**
 Science Agora is not only a 2-day event but also has a function as a hub which connects participants' daily activities. Science Agora has focused on the development of new techniques such as networking to enhance daily activities and efforts to evolve activities in collaboration with different areas so that Science Agora can function as a place to connect exhibitors.

