



## Science & Technology News from Japan, July 2014

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### 1. Swiss Related News

#### SLF/WSL Has Research Cooperation Agreement on Disaster Prevention

(The S&T Office Tokyo, July 02, 2014)

The Institute for Snow and Avalanche Research (SLF) of the Swiss Federal Institute for Forest, Snow and Landscape (WSL) signed a comprehensive research cooperation agreement with Japan's National Research Institute for Earth Science and Disaster Prevention (NIED) earlier this month. While the two institutions have been collaborating on individual research topics, the new agreement will enable enhanced cooperation including sharing of data and facilities and joint research projects in the field on a broader range of topics. It is also expected to enhance researcher and information exchange between the two. SLF and NIED have a good record of joint research on individual topics; one example is a project to enhance the snow accumulation (physical structure) model developed by SLF to forecast avalanches to accommodate Japan's wet snow. Another is a joint research on snowstorms at NIED's Shinjo Cryospheric Environment Laboratory.



#### Business Innovation Forum 2014

(The Science & Technology Office Tokyo, July 09, 2014)

In collaboration with the Swiss Business Hub Japan, the Science & Technology Office Tokyo organized the first Business Innovation Forum, taking place at Roppongi Academyhills, during the visit of Federal Councillor Johann N. Schneider-Ammann and an economic delegation. After the opening speeches by Federal Councillor Schneider-Ammann and State Minister Kazuyoshi Akaba from the Ministry of Economy, Trade and Industry (METI), IMD's president, Prof. Turpin, mapped out the fields of innovation, diversity, globalization and their relation to competitiveness. The first stream of talks with Dr. Harayama (Executive Member, CSTI, Cabinet Office), Mr. Steinlin (President, CTI) and Prof. Sone (Executive Vice President, NIMS) addressed the topic of fostering innovation by creating the right framework conditions. Stream two touched on the initiatives of the private sector in Switzerland and Japan. Mr. Hess (President, Swissmem), Dr. Mori (CEO, DMG Mori Seiki), Mr. Küng (CEO, Switzerland Global Enterprise) and Mr. Collardi (CEO, Bank Julius Bär Group) discussed the industry's point of view on fostering innovation. The highlight of the forum may have been the panel discussion moderated by Prof. Turpin where the previous topics were touched on again and further elaborated. The forum was closed by the two main organizers, Dr. Roger Zbinden (Head, Swiss Business Hub Japan) and Dr. Matthias Frey (Head, Science & Technology Office Tokyo) of the Embassy of Switzerland in Japan. About 350 participants from industry and academia, from Switzerland and Japan were highly satisfied with the event.

The program can be viewed here: <http://forum2014.stofficetokyo.ch>



## FC Johann N. Schneider-Ammann at Tohoku University

(The Science & Technology Office Tokyo, July 10, 2014)

During the visit of Federal Counsellor Johann N. Schneider-Ammann and an official and economic delegation in Japan, the delegation also stopped at the Tohoku University where they were greeted by the president, Prof. Susumu Satomi. After the official greetings and introduction to the university, the Swiss delegation was received by Prof. Motoko Kotani, Director of the WPI-AIMR project. Prof. Kotani gave an impressive presentation on the research project that she headed and answered many questions the delegation had. The visit was concluded with a lab-tour and discussions with research professors. On the way back to Tokyo, the delegation stopped in Fukushima City to have a meeting with the Governor.



## CTI President Visits NIMS, Gives Presentation at Industry-Academia Workshop

(The S&T Office Tokyo, July 11, 2014)

The Swiss Committee for Technology and Innovation (CTI) President Walter Steinlin extended his official stay in Japan, where he visited as a member of the delegation of FC J. Schneider-Ammann, for one full day to meet with his counterparts and potential partners. During the morning, Mr. Steinlin visited the National Institute for Materials Science (NIMS) to meet with Executive Vice President, Dr. Sone. He also received lab tours to see advancements in energy related research at NIMS, namely research on thermoelectric materials, dye-sensitized solar cells and superconducting wires. In the afternoon, Mr. Steinlin gave a presentation at the "Academia-Industry Collaboration: Current Situation and Future Plans in a Globalized World" workshop. His co-speakers were Dr. Michiharu Nakamura, President of the Japan Science and Technology Agency (JST), Prof. Dr. Yoshinao Mishima, President of Tokyo Institute of Technology, and Dr. Anders Karlsson, Vice President responsible for Global Academic Relations at Elsevier.



## ETH Zurich & ZHAW-Team: Runner-up at Int. Contest in Sendai

(ETH Zurich Press Release, July 21, 2014)

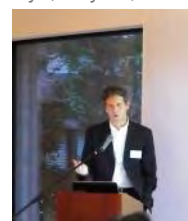
The 5<sup>th</sup> International Contest of Applications in Nano-Micro Technologies (iCAN) was held at Tohoku University along with the local Science Day. The Swiss team (M. F. Lagadec from ETH Zürich; A. Lagadec, C. Roth and D. Strässler from ZHAW Zürich and Winterthur) presented "Dēta no Takkyūbin" (Data Delivery Service) – a universal post-disaster monitoring system using sensor node deployment and data collection in inaccessible areas by means of quadcopters as well as short-range communication between sensor nodes and an airborne platform. More than 7'000 visitors joined the final ceremony where from the 23 teams coming from 10 countries, the Swiss team was awarded the second prize for their project!



## Swiss Studies in Japan, Japanese Studies in Switzerland

(The Science & Technology Office Tokyo, July 22, 2014)

A special evening of lectures on Swiss studies in Japan and Japanese studies in Switzerland was held at the Swiss Embassy. The event attracted many Japanese academics in the field and served well as a precursor to the "Japan and Switzerland seen from the outside – historical and social scientific analysis" workshop to be held in Zurich in September to commemorate the 150th year anniversary of diplomatic relations between the two countries. Prof. Dr. David Chiavacci, Mercator Professor in Social Science of Japan at the University of Zurich, Institute of East Asian Studies, gave a concise overview of the history of Japanese studies and how Japan's image had transformed and where it stands today.



## AISTS to Aid Tsukuba University's Sports Academy for Tokyo 2020

(The S&T Office Tokyo, July 26, 2014)

The Académie Internationale des Sciences et Techniques du Sport (AISTS), founded by the International Olympic Committee (IOC), Swiss universities and institutions of higher education, signed an agreement to work together with Tsukuba University's newly established Tsukuba International Academy for Sport Studies (TIAS) in delivering education for the Tokyo Olympic Games in 2020. TIAS will offer a master degree course on sports management and open courses for Japanese as well as international students. Classes, all of which are to be taught in English, will be based on AISTS' education modules. AISTS professors and sport industry professionals will be invited to give lectures, while TIAS students will have the opportunity to do internships in Japan and abroad. Prior to the launch of a full course in 2015, a short-term program of six educational modules, AISTS SEMOS<sup>TM</sup>, will be offered in October later this year.



## Prof. Graetzel Gives Special Lecture in Tokyo

(The Science & Technology Office Tokyo, July 28, 2014)

Prof. Dr. Michael Graetzel, whose name regularly appears on the short list of those predicted to win the Nobel Prize, gave a special lecture to at the University of Tokyo. The approximately 90 students studying advanced material engineering were informed of the most recent developments in the research of dye-sensitized solar cells and related technologies. The Swiss Federal Institute of Technology, Lausanne (EPFL) professor also gave up-to-date examples on the application side by industry partners around the world.



## 2. Science and Technology Policy in Japan

### Japan's public universities to double as venture capitalists

(Nikkei Asian Review, July 01, 2014)

With the government's blessing, several of Japan's national universities plan to launch venture capital companies that will financially support the creation of businesses based on their own technologies.

### Abe eyes fresh initiatives to fight Japan's population decline

(Nikkei Asian Review, July 08, 2014)

Japanese Prime Minister Shinzo Abe vows to halt the rapid population erosion in rural areas by unleashing a new set of initiatives designed to revive local economies.

### Japanese companies set targets for adding women managers

(Nikkei Asian Review, July 14, 2014)

In response to Prime Minister Shinzo Abe's call to expand the ranks of women in managerial positions, major Japanese companies are setting specific targets.

### Japan will offer 2 million yen subsidy for fuel cell vehicles

(Nikkei Asian Review, July 19, 2014)

Japanese Prime Minister Shinzo Abe revealed plans Friday to provide at least 2 million yen (\$19,558) in subsidies for every purchase of a fuel cell vehicle.

### Govt to fund start-up CEOs

(The Japan News, July 30, 2014)

The government plans to start a system this fiscal year under which it will provide living costs of ¥6.5 million per year, for up to two years, for people who quit their companies and start a new business.

## 3. Education

### Kyoto U. chooses insider as president

(The Japan News, July 06, 2014)

Kyoto University has chosen faculty member Prof. Juichi Yamagiwa, one of Japan's most famous specialist in gorilla research, as its next president, despite having advertised the post internationally.

### Toyota hopes to attract female talent through new scholarship

(Nikkei Asian Review, July 10, 2014)

Toyota Motor will collaborate with its subsidiaries to create a scholarship fund for women in science and technology, aiming to bring more talent into the group.

### Japan competitiveness getting regulated away

(Nikkei Asian Review, July 15, 2014)

Regulations can sap competitiveness and morale even when written with the best of intentions. Japan's education system suffers because of outdated rules that discourage the introduction of easy-to-understand electronic textbooks.

### More university students prefer repeating senior year over working

(The Japan News, July 21, 2014)

A total of 102,810 students did not graduate from colleges and universities nationwide this spring, with many choosing to repeat a year because they had decided to decline job offers they were reluctant to take, according to a Yomiuri Shimbun survey.

## 4. Life Science / Health Care

### Scientist creates 'invincible' strain of H1N1 flu

(The Japan Times, July 04, 2014)

A Japanese scientist working in the United States said Wednesday he has engineered a virulent new strain of the swine flu virus that could spread unchecked because it defeats the human immune system.

### NEC to help China's diabetics take charge of their health

(Nikkei Asian Review, July 05, 2014)

NEC is combining its sensing and big-data technologies to give the growing ranks of Chinese with diabetes the tools to keep on top of their conditions.

### Japanese scientists find aging cure for flowers

(The Japan Times, July 05, 2014)

Scientists say they have found a way to slow down the aging process in flowers by up to a half, meaning bouquets could remain fresh for much longer.

### Tokyo firm to launch DNA testing service for cancer, other conditions

(The Japan Times, July 09, 2014)

Mobile video game provider DeNA Co. said Wednesday it will launch a DNA testing service in mid-August in partnership with a unit at a leading research laboratory.

**A matter of taste? Kyoto University to explore the science of Japanese food** (Nikkei Asian Review, July 16, 2014)  
Kyoto University will study the science behind the fascination with Japanese food from August. It will work with food maker Meiji and two well-established Japanese restaurants, Kyoto's Kikunoi and Kinobu, on the project.

**Japan IT firms, drugmakers to join in genetic cancer research** (Nikkei Asian Review, July 21, 2014)  
Around 10 information technology companies and drugmakers in Japan will work together to create a system that tailors cancer treatments to individual patients.

**Japan aims to cut metabolic syndrome by 25%** (The Japan Times, July 22, 2014)  
The government on Tuesday adopted a health and medical strategy to reduce the number of people suffering from metabolic syndrome by 25 percent from the fiscal 2008 level by fiscal 2020.

**Of all animals, elephants have best sense of smell, Japanese team says** (The Japan Times, July 22, 2014)  
Elephants possess a sense of smell that is likely the strongest ever identified in a single species, according to a study by Japanese scientists.

**Schizophrenia risk genes identified** (The Japan News, July 22, 2014)  
An international team of researchers has succeeded in identifying 108 locations in the human genome associated with the risk of developing schizophrenia, according to an article posted on the online edition of the British scientific journal Nature on Tuesday.

**Biopesticide ladybug developed** (The Japan News, July 22, 2014)  
An agricultural research center in western Japan has developed and commercialized a ladybug as a biopesticide.

**Gifu University banking iPS cells created from wisdom teeth** (Nikkei Asian Review, July 22, 2014)  
A team at Japan's Gifu University has begun storing induced pluripotent stem cells created from the dental pulp cells in extracted wisdom teeth.

**Microwaves stanch wounds with pinpoint accuracy** (Nikkei Asian Review, July 26, 2014)  
Precision pump company Nikkiso has developed a device that uses microwaves to stop bleeding with minimal effect on surrounding tissue.

**Panasonic sprouts vegetables in Singapore** (Nikkei Asian Review, July 31, 2014)  
Panasonic, the Japanese electronics giant, has announced its entry into high tech indoor farming in land-strapped Singapore.

**Japanese men's life expectancy tops 80 for 1st time** (Nikkei Asian Review, July 31, 2014)  
The average life expectancy of Japanese men rose to 80.21 years in 2013, exceeding 80 for the first time, while Japanese women retained the world's longest life expectancy for two straight years, at 86.61, welfare ministry data showed Thursday.

## 5. Nano and Micro Technology / Material Science

**New materials mend their own wear, tear and damage** (Nikkei Asian Review, July 22, 2014)  
Scratches that disappear as if by magic, cracks that seal up on their own and knives that sharpen themselves. These are just some of the ways "self-healing" materials are making life easier and products last longer.

**In 3-D chip race, Toshiba, Samsung vie for 48-layer threshold** (Nikkei Asian Review, July 31, 2014)  
In the global semiconductor industry, the next battleground will be three-dimensional memory chips.

## 6. Information & Communications Technology

**Japan will make carriers remove SIM shackles from smartphones** (Nikkei Asian Review, July 01, 2014)  
The Japanese communications ministry indicated Monday that it will require mobile providers next fiscal year to allow their smartphones to be transferred to different carriers, aiming to break the monopoly held by the biggest companies.

**Japan universities plan supercomputers for 2016** (Nikkei Asian Review, July 02, 2014)  
Japanese universities plan to have the country's fastest supercomputers one after another in 2016. The machines will provide businesses with computational services needed to handle so-called "big-data" innovations.



### **Sony e-paper notepad for college melds best of analog, digital**

(Nikkei Asian Review, July 04, 2014)

Sony is putting the "e" in college education with a product based on e-paper for study and exams.

### **Sharp to spend big on LCD panels for tablets, smartphones**

(Nikkei Asian Review, July 09, 2014)

Sharp is stepping up production of liquid crystal display panels for tablet computers to bolster earnings in the LCD business by shifting more resources toward the lucrative smaller models now in high demand.

### **Seiko Instruments to let smartphone designers buy chips online**

(Nikkei Asian Review, July 15, 2014)

Seiko Instruments, or SII, will offer a selection of its general-purpose semiconductor devices online, aiming to cultivate a new customer base among the growing ranks of Chinese and Taiwanese companies developing inexpensive smartphones based around common processors.

### **Fujitsu to exit chip production**

(The Japan News, July 18, 2014)

Fujitsu Ltd. will sell two domestic semiconductor factories to foreign firms, as the Japanese electronics maker plans to pull out of chip production and concentrate on design and development, it was learned on Friday.

### **Fujitsu's exit to end an era for Japanese chip industry**

(Nikkei Asian Review, July 19, 2014)

Fujitsu's decision to withdraw from chip making may write the final chapter in a yearlong reshaping of the Japanese semiconductor industry, but opportunities remain for players willing to form partnerships and focus on their strengths.

### **Japan electronics makers turn to digital signage to recover TV losses**

(Nikkei Asian Review, July 25, 2014)

Japanese electronics makers have been stepping up their digital signage business efforts in recent years to supplement earnings lost from TV operations.

## **7. Software / Mobile Services & Applications**

### **Japanese smartphone comics heading to other Asian markets**

(Nikkei Asian Review, July 01, 2014)

NHN PlayArt, which delivers comics to smartphone users through its Comico platform, plans to expand the free service to other Asian countries.

### **Japanese startups making it rain with venture capitalists**

(Nikkei Asian Review, July 04, 2014)

Half a dozen or so Japanese startups have landed at least 1 billion yen (\$9.72 million) in venture capital since the beginning of the year as they strive to expand business. Smartphone game developer gumi is the latest on the list.

### **Japan's Kadokawa launching tweet-and-read service**

(Nikkei Asian Review, July 11, 2014)

Publisher Kadokawa has rolled out a Twitter-based "social reading" service to try and boost drooping book sales.

### **Budget phones challenge the majors**

(The Japan Times, July 15, 2014)

Smartphones may be convenient, but there's one thing about them that bugs many people: their costly monthly data plans.

### **Line applies to TSE for IPO that could see value exceed ¥1 trillion**

(The Japan Times, July 16, 2014)

Line Corp., operator of Japan's most popular mobile messaging service, has submitted an application for an initial public offering to the Tokyo Stock Exchange, sources said.

### **Rail staff can access 27 languages/Keikyu using new app for foreign visitors**

(The Japan Times, July 17, 2014)

Keikyu Corp., a major private railway serving the Tokyo area, began trial operations Wednesday for a service in which staff members use tablet computers to translate information for customers in 27 languages.

### **Sony sows tech far and wide to replace card swipes with a wave**

(Nikkei Asian Review, July 18, 2014)

Sony is aggressively expanding the possibilities for its FeliCa contactless communications protocol, already the standard in Japan for e-money smart cards.

### **Chat app provider Line files to list on US stock market**

(Nikkei Asian Review, July 19, 2014)

Instant-messaging app provider Line has submitted an application to the U.S. Securities and Exchange Commission to go public in the American stock market.

### **Smartphone game makers seek profits elsewhere**

(The Japan News, July 20, 2014)

Three major creators of smartphone games—DeNA Co., Gree Inc. and Mixi Inc.—are rapidly diversifying their operations, as their revenue from games has peaked and they seek to escape their dependence on that market.

### **NTT pivoting to cloud computing overseas**

(Nikkei Asian Review, July 23, 2014)

Nippon Telegraph and Telephone is working to make cloud computing the core of its information technology business outside Japan, selling of a subsidiary handling equipment sales while building up data center infrastructure and personnel.

### **Yamaha releases app that 'translates' engine sounds**

(The Japan Times, July 26, 2014)

First came the dog-interpretation gadget, Bowlingual. Now a Japanese company is offering humans a way to understand another nonhuman species: engines.

### **Gree to step up investment in non-game businesses**

(Nikkei Asian Review, July 28, 2014)

Gree plans to spend 10 billion yen (\$97 million) during the current fiscal year ending June 2015 to branch out into fields outside its mainline game business.

### **Chat app Line to offer cut-rate shipping at virtual mall**

(Nikkei Asian Review, July 30, 2014)

Line is teaming up with leading e-commerce company Felissimo to offer standardized shipping rates across Japan at the messaging app provider's e-commerce website.

## **8. Energy / Environment**

### **'Nuclear-free summer' could hit western Japan harder**

(Nikkei Asian Review, July 01, 2014)

With Japan marking its first summer in five decades without nuclear power, the country's western half could prove more challenging to light up than in past years as a national energy conservation drive kicks off Tuesday.

### **Largest LED veggie factory built in quake-hit city**

(The Japan Times, July 04, 2014)

The world's largest vegetable factory to make use of light-emitting diodes has been built in one of the cities damaged by the 2011 Great East Japan Earthquake and tsunami, the factory's operator said.

### **Kyushu Electric to get go-ahead for nuclear restart**

(Nikkei Asian Review, July 05, 2014)

Kyushu Electric Power is expected to soon pass a milestone in its journey to restarting the Sendai nuclear plant in Kagoshima Prefecture.

### **Aichi researchers track deer in bid to reduce crop damage**

(The Japan Times, July 05, 2014)

The Aichi Prefectural Government is using GPS to track wild deer and research new ways to keep them from damaging crops in mountainous areas.

### **Toshiba to win ¥500 billion reactor order in Bulgaria**

(The Japan News, July 05, 2014)

Toshiba Corp. will likely receive an order worth about ¥500 billion for the construction of a nuclear reactor at a power plant in Bulgaria, The Yomiuri Shimbun has learned.

### **Electricity gold rush heralds end for monopolies**

(The Japan Times, July 08, 2014)

Watami Co., a restaurant chain known best as a hangout for salarymen, is getting into the business of selling power — and it isn't alone.

### **TEPCO urged to alter water-damming bid**

(The Japan News, July 09, 2014)

The Nuclear Regulation Authority (NRA) has instructed Tokyo Electric Power Co. to drastically reexamine its attempt to freeze contaminated water in a tunnel for piping at the Fukushima No. 1 nuclear power plant to stem its flow.

### **TEPCO: 90 out of 1,550 freezing ducts built so far**

(The Japan News, July 10, 2014)

Tokyo Electric Power Co. unveiled on Tuesday the construction site of the ice wall at the crippled Fukushima No. 1 nuclear power plant for the first time since work began last month.

### **Japan's airlines hope to power planes using biofuels by 2020**

(The Japan Times, July 11, 2014)

An association of Japanese airlines and other entities announced an initiative on Wednesday aimed at enabling the use of biofuels to power passenger jets by 2020, in an attempt to reduce carbon emissions.

### **Unmanned vessel to explore Arctic**

(The Japan News, July 12, 2014)

The government will launch a project to develop an autonomous underwater vehicle capable of collecting oceanographic data on ice distribution in the Arctic Ocean, The Yomiuri Shimbun learned Friday.

### **Japan gets its first commercial hydrogen station for vehicles**

(The Japan Times, July 15, 2014)

A ceremony was held Monday for completion of the first hydrogen filling station in Japan.

### **‘Smart cities’ seek to save energy**

(The Japan News, July 15, 2014)

“Smart cities”—urban areas that cut energy consumption via improved energy efficiency—are popping up all over the country.

### **A new battery utilizing a redox between oxide and peroxide**

(The University of Tokyo, July 15, 2014)

Professor Noritaka Mizuno at Department of Applied Chemistry, Graduate School of Engineering, the University of Tokyo and his research group collaborating with Nippon Shokubai Co., Ltd. have developed a new rechargeable battery system operating on a redox reaction between oxide and peroxide in cathode.

### **Abe says he will see to nuclear plant restart in southwestern Japan**

(Nikkei Asian Review, July 19, 2014)

Prime Minister Shinzo Abe has told business leaders in southwestern Japan that his government will see to it that a nuclear plant in the region is restarted "by some means or other," sources familiar with the matter said Saturday.

### **Ocean currents, tides rise as new renewable energy candidates**

(Nikkei Asian Review, July 19, 2014)

Using the flow of currents and the rise and fall of the tide to turn their propeller-like blades, ocean-based power plants are garnering considerable attention as the next green energy source.

### **Sensationalism of Science: Is Japan’s Fuji in a “Critical State” for an Eruption?**

(Wired.com, July 22, 2014)

Sometimes, it's the sales pitch that gets you rather than the actual car. That seems to be the case with the latest rash of media coverage over the “critical state” at Japan’s Fuji.

### **Orix plans to build as many as 15 geothermal plants in Japan**

(The Japan Times, July 23, 2014)

Orix Corp. plans to build as many as 15 geothermal power stations in Japan over the next five years.

### **Trade restrictions likely for vanishing Japanese eel**

(The Japan News, July 24, 2014)

The Japanese eel, one of the country’s most beloved foods, is facing a crisis.

### **Government to build large storage battery facility in Osaka**

(The Japan News, July 24, 2014)

In fiscal 2015 the government will construct one of the world’s biggest testing facilities in Osaka for large storage batteries, which are vital to the stable supply of electricity from solar and other renewable energy sources.

### **Fukushima monkeys show possible effects of radiation, study suggests**

(The Japan Times, July 25, 2014)

Monkeys near the stricken Fukushima nuclear power plant have lower blood cell counts than cousins living farther away, possibly because of radiation exposure, a study said Thursday. But some commentators criticized the research method.

### **Japan eager to join Mexico shale gas development**

(The Japan News, July 27, 2014)

The government plans to join shale gas development in Mexico, aiming to start imports of the cheap natural gas in the mid-2020s, The Yomiuri Shimbun has learned.

### **Gov’t drops plan to purchase land for Fukushima nuclear soil storage**

(Nikkei Asian Review, July 28, 2014)

Cabinet ministers conveyed to Fukushima officials on Monday that the central government has dropped its plan to purchase a large land area for facilities to store contaminated soil from radiation cleanup activities within Fukushima Prefecture.

### **Scientists racing to develop microbial fuel cells**

(Nikkei Asian Review, July 29, 2014)

Scientists around the world are rushing to translate microbial fuel cell technology into practical applications.

### **Japan's Nuclear Roadmap To Economic Destruction**

(Forbes.com, July 29, 2014)

Japan better get used to generating all of its electricity from fossil fuel, and to having a permanent trade deficit, now that the country’s new nuclear regulatory agency is throwing its weight around to impress the public with a *tough-on-nuclear* stance.

### **Hokkaido Electric applies for electricity markup**

(Nikkei Asian Review, July 31, 2014)

Hokkaido Electric Power Co. applied Thursday for raising electricity bills for households by around 17 percent this fall, as increasing fuel costs to make up for halted nuclear reactors have weighed on its business.

## 9. Space Development

### Govt plans to land probe on the moon

(The Japan News, July 16, 2014)

To investigate the possibility of finding resources on the moon, the government intends to start a full-fledged project to land an unmanned probe on the surface, sources said.

### Myanmar airline to buy six jets from Mitsubishi Aircraft

(The Japan Times, July 17, 2014)

Mitsubishi Aircraft Corp., developing Japan's first passenger jet, has won an order worth \$281 million in list prices from Air Mandalay Ltd. in Myanmar.

### Construction of world's largest telescope to begin in October

(Nikkei Asian Review, July 29, 2014)

Construction of the Thirty Meter Telescope, the world's largest, will begin in Hawaii in October as local authorities have approved a land lease for the project, Japan's National Astronomical Observatory said Tuesday.

### JAXA, U.S. firm to cooperate on Dream Chaser spacecraft

(The Japan News, July 29, 2014)

Sierra Nevada Corp. (SNC), based in Nevada, announced last week that it had signed a memorandum of understanding with the Japanese Aerospace Exploration Agency (JAXA).

### HondaJet prepares for take-off with aviation venture

(The Japan Times, July 31, 2014)

It was just over half a century ago that Honda Motor Co.'s founder, Soichiro Honda, made public his aspiration to eventually enter the aviation business. That dream is about to take off.

### Micro-satellites "Hodoyoshi-3 & 4" start capturing Earth images

(The University of Tokyo, July 31, 2014)

Two micro-satellites "Hodoyoshi-3 & 4" developed by the University of Tokyo under the FIRST program of Cabinet Office of Japan were launched at local Yasny time June 20, 1:11 (June 20, 4:11 am Japanese Standard Time) by the Dnepr Launch Vehicle at Yasny Launch Base in Russia.

## 10. Engineering / Robotics / Automotive

### Consortium sets sights on robots that do household chores

(Nikkei Asian Review, July 02, 2014)

A group of 300 Japanese businesses will work to develop 100 kinds of robots that can assist in daily chores and other tasks by 2020.

### Parties to discuss funding for early Shinkansen openings

(The Japan News, July 12, 2014)

A ruling party project team for promoting construction of new Shinkansen lines has decided to call on the government to open routes currently under construction three to five years ahead of schedule.

### Cheap hydrogen key to spreading fuel cell revolution

(Nikkei Asian Review, July 12, 2014)

Automakers, infrastructure builders and government all see hydrogen-powered fuel cell vehicles as the answer to Japan's perpetual energy problem, with the technology enabling readily available hydrogen to replace imported oil. Yet the biggest challenge to their popularization lies in creating infrastructure for supplying hydrogen at affordable prices.

### Cyberdyne's HAL suits give lift to mobility-challenged

(The Japan Times, July 14, 2014)

Robotics engineer Yoshiyuki Sankai, 56, has been driven by his passion for innovative technology for about half a century.

### Robots can solve labor woes: Son

(The Japan Times, July 16, 2014)

Employing all-purpose robots endowed with artificial intelligence as a workforce in the manufacturing industry is the solution to staving off any impending labor shortage in Japan, SoftBank CEO Masayoshi Son said Tuesday.

### Reactor restart a plus for economy, but new rate hikes loom

(Nikkei Asian Review, July 18, 2014)

Restarting idle nuclear reactors can provide a welcome tailwind for the Japanese economy by reducing demand for imported fossil fuels and alleviating the need for higher electric rates, economists say.

### Japan gives homegrown electric sports car the green light

(Nikkei Asian Review, July 21, 2014)

GLM, a Kyoto-based developer of electric vehicles, has received government safety certification for its sports car, the Tommy Kaira ZZ, enabling it to launch Japanese production and European exports this year.



### **Japan's vision for hydrogen cars lacks oomph**

(Nikkei Asian Review, July 22, 2014)

The Japanese government's road map for pushing the country's auto industry toward the hydrogen age lacks the powerful vision needed to fire up public interest in making that crucial shift.

### **Japan Wants 2020 Robot Olympics Alongside Human Olympics**

(IEEE Spectrum, July 22, 2014)

"In 2020 I would like to gather all of the world's robots and aim to hold an Olympics where they compete in technical skills," said Japanese Prime Minister Shinzo Abe last week.

### **Svelte new humanoid robot easily clad as anime character**

(Nikkei Asian Review, July 23, 2014)

Robot company Speecys has developed a small humanoid robot that is slender and lightweight, and moves smoothly and quietly.

### **Japanese government to make fuel-cell cars the official vehicle for all ministries**

(The Japan Times, July 26, 2014)

The Abe administration has instructed all ministries and other offices to introduce fuel-cell cars as official vehicles, Chief Cabinet Secretary Yoshihide Suga said Friday.

## **11. Nuclear Development**

### **US nuclear regulator close to approving new GE Hitachi reactor**

(Nikkei Asian Review, July 07, 2014)

The U.S. Nuclear Regulatory Commission looks poised to approve a new nuclear reactor developed by a joint venture between Hitachi and General Electric.

### **Mitsubishi Heavy to help French next-gen nuclear project**

(Nikkei Asian Review, July 08, 2014)

Mitsubishi Heavy Industries is expected to participate in France's efforts to develop a next-generation nuclear reactor, Bernard Bigot, chairman of the country's nuclear energy agency, said Monday.

### **Japan nuclear plant clears safety hurdle toward restarting**

(Nikkei Asian Review, July 16, 2014)

Regulators said Wednesday a nuclear plant in southwestern Japan cleared an initial safety hurdle, in what is seen as a major step for it to become the first nuclear facility to restart among the country's 48 offline commercial reactors since the 2011 Fukushima nuclear crisis.

### **Japan needs more efficient reactor safety checks**

(Nikkei Asian Review, July 17, 2014)

While Japan's Nuclear Regulation Authority must leave nothing to chance in ensuring the safety of reactors, surely it can do a faster job of assessing them.

### **Layered systems fortify Sendai N-plant**

(The Japan News, July 18, 2014)

Just over one year after the Nuclear Regulation Authority introduced new security standards last July, the Nos. 1 and 2 nuclear reactors at Kyushu Electric Power Co.'s Sendai nuclear power plant effectively passed the NRA's safety screening on Wednesday. How was reactor safety enhanced in light of the stricter standards?

### **Govt steps up final N-waste disposal site selection work**

(The Japan News, July 22, 2014)

The selection process for the final disposal site for radioactive waste from nuclear power plants has moved into a full-fledged phase at last. Top officials at the Nuclear Waste Management Organization of Japan (NUMO), charged with the selection and construction of the final disposal facilities, were replaced last month by the government in view of the planned restart of nuclear power plant operations.

## **12. Physics**

### **Gravitational wave detection lab unveiled**

(The Japan News, July 06, 2014)

A huge tunnel dug deep underground as part of a project in Hida, Gifu Prefecture, to directly detect gravitational waves for the first time has been revealed to the media by the University of Tokyo's Institute for Cosmic Ray Research.

### **A hotspot of highest-energy cosmic rays**

(The University of Tokyo, July 08, 2014)

The Telescope Array (TA) group showed an indication of a 40-degree-diameter hot spot emitting an excessive number of cosmic rays above the energy of  $5.7 \times 10^{19}$  electron volts in the northern sky.

### **5 Japanese students win awards in Physics Olympiad**

(Mainichi Japan, July 21, 2014)

Four Japanese high school students have won silver medals and another a bronze at this year's International Physics Olympiad in Kazakhstan, the education ministry said Sunday.

### 13. Intellectual Property Rights / Technology Transfer / Alliances

#### **Sony embarks on big shake-up to get back on feet**

(Nikkei Asian Review, July 02, 2014)

Sony sold its personal computer operations and spun off its TV arm Tuesday in a long-awaited overhaul that epitomizes the company's diminished fortunes.

#### **Panasonic to farm out system chip production to Intel**

(Nikkei Asian Review, July 08, 2014)

Panasonic will outsource production of system chips to Intel, accelerating its shift away from consumer electronics.

#### **Canon allies with Google, SAP against patent trolls**

(Nikkei Asian Review, July 10, 2014)

Canon, Google, SAP and three U.S. startups have joined forces in a patent-licensing network to defend against rent-seeking infringement lawsuits.

#### **KDDI teaming up with top firms to nurture startups**

(Nikkei Asian Review, July 12, 2014)

Communications giant KDDI and 13 other Japanese companies are joining forces in startup incubation, aiming to provide promising businesses with specialized know-how and various resources.

#### **Japan's KDDI, Sumitomo set out to develop Myanmar's wireless frontier**

(Nikkei Asian Review, July 17, 2014)

Major wireless carrier KDDI and trading house Sumitomo Corp. have established a joint venture to enter Myanmar's nascent mobile service market.

#### **Japan, Brazil to collaborate in tapping hard-to-reach offshore oil**

(Nikkei Asian Review, July 20, 2014)

The Japanese government is set to help Brazil with a large, deep-sea oil development project, sources told The Nikkei on Saturday. The assistance is to involve the provision of shipbuilding technologies that are vital for tapping the fuel.

#### **A\*STAR collaboration spawns advanced semiconductor project**

(Nikkei Asian Review, July 23, 2014)

Through its Institute of Microelectronics, Singapore's Agency for Science, Technology and Research (A\*STAR) and ten top technology companies, including Japan's Panasonic and Nikon, launched a joint semiconductor research project on Wednesday.

#### **Panasonic, Hokuriku Electric to help cut power use in Mexico**

(Nikkei Asian Review, July 25, 2014)

Japan's Hokuriku Electric and Panasonic will launch an energy-saving initiative in Mexico, leveraging a bilateral arrangement that enables Japan to earn CO<sub>2</sub> emission credits in exchange for providing environmental technology.

#### **Panasonic, Tesla agree to partnership for US car battery plant**

(Nikkei Asian Review, July 29, 2014)

Panasonic has reached a basic agreement with Tesla Motors to participate in the Gigafactory, the huge battery plant that the American electric vehicle manufacturer plans to build in the U.S.

### 14. General Interest

#### **Cereal makers gear up to fuel granola boom**

(The Japan Times, July 04, 2014)

Food manufacturers are beginning to wake up to the growing nationwide popularity of granola and stepping up production of the oat-based cereal to push it as a new staple for Japanese breakfast tables.

#### **New space museum opens in Tokyo on Tuesday**

(The Japan News, July 08, 2014)

A new space museum, TeNQ, opens Tuesday at the Tokyo Dome City commercial complex in Bunkyo Ward, Tokyo.

#### **Cool Japan academies to open across Asia**

(The Japan Times, July 10, 2014)

Leading publisher Kadokawa Corp. has announced plans to open a slew of academies across East and Southeast Asia, starting with Taiwan and Singapore, each pushing knowledge of the core design skills at the heart of Japanese pop culture.

#### **Cyberattacks on government surge in Japan**

(Nikkei Asian Review, July 11, 2014)

Government was hit far more frequently by cyberattacks last fiscal year than the year before, a Japanese information security panel reported Thursday.

#### **Public asked to help build moving giant Gundam**

(The Japan Times, July 12, 2014)

The life-sized Gundam figurine in Tokyo's Odaiba district is an impressive sight as it towers a full 18 meters above its visitors and has grown into a popular tourist attraction since it was erected in 2009.

### **43% of women want wives to be at home**

(The Japan News, July 14, 2014)

About 40 percent of people in their 20s to 40s prefer husbands to work outside while their wives manage their homes as full-time homemakers, a recent survey has found.

### **New line to halve travel time between Haneda, downtown Tokyo**

(Nikkei Asian Review, July 15, 2014)

East Japan Railway plans to build by the mid-2020s a new line linking Haneda Airport and downtown Tokyo that would slash travel time to roughly 20 minutes, helping to make it a more convenient Asian hub for travelers.

### **60% of top Keidanren firms set targets for women execs**

(The Japan News, July 16, 2014)

Sixty percent of leading companies belonging to the Japan Business Federation (Keidanren) have set numerical targets for promoting female workers to managerial posts.

### **Mitsubishi Estate to tap Otemachi for new hot spring facility**

(The Japan Times, July 17, 2014)

Tourists and local residents in the Otemachi business district will soon be able to enjoy a natural hot spring bath in the heart of Tokyo, after real-estate giant Mitsubishi Estate Co. confirmed Tuesday it had successfully tapped a hot spring source and would proceed with plans to build a bathing facility.

### **Talking dolls seen as salve for elderly isolation**

(The Japan Times, July 17, 2014)

Talking dolls are gaining popularity among elderly people who live alone and may help stave off mental decline.

### **Fujifilm conjures comeback with old-school cameras**

(Nikkei Asian Review, July 17, 2014)

Fujifilm Holdings is known as a photo film powerhouse turned health care equipment manufacturer that saw demand for photo films disappear with the emergence of digital photography.

### **Japan, China neck and neck in Asian popularity contest**

(Nikkei Asian Review, July 18, 2014)

The rivalry between China and Japan is heating up. Recent confrontations in the East China Sea have only complicated the countries' long-standing economic competition, in which growing portions of the region's population see China, not Japan, as the leading economic power. And now there is new evidence of an emerging Sino-Japanese contest for the hearts and minds of Asians.

### **TV shows to get foreign-language subtitles by 2020**

(The Japan News, July 22, 2014)

The Internal Affairs and Communications Ministry will develop a system to show Japanese TV programs with subtitles in foreign languages, including English and Chinese, to provide a more comfortable viewing experience for foreign visitors, according to sources.

### **Low license fees help Japan cartoon characters find fame abroad**

(Nikkei Asian Review, July 24, 2014)

Japanese companies that own rights to "anime" cartoon characters are working to popularize the franchises overseas by lowering or even waiving royalties.

### **Japanese high school students shine at Intl Science Olympiads**

(The Japan News, July 25, 2014)

Japanese high school students racked up a number of medals at this year's International Science Olympiads (ISO), a group of worldwide competitions in such scientific disciplines as math, biology and geography. This year, Japanese students brought home 10 medals—five gold medals, four silver and one bronze—in the ISO's mathematical and biological divisions. Other categories include physics and chemistry.

### **'Cool Japan' to provide solutions for global problems: Minister**

(The Japan News, July 25, 2014)

It has been about 10 years since the buzzword "Cool Japan" became popular in Japan.

### **Japan removes work disincentive by raising wage floor**

(Nikkei Asian Review, July 30, 2014)

The Japanese government moved Tuesday to give the least-paid workers their second-biggest raise in the past 20 years.

### **Blood type 'plays no role' in personality**

(The Japan News, July 31, 2014)

A belief widely held in Japan that blood type is linked to personality has no scientific basis, according to a recent statistical analysis conducted by a Kyushu University lecturer.

## Calls

### > **IMD Executive MBA Program**

For the IMD **EMBA** program there are now two Master stage sessions per year: one graduating in June and one in November. The new session launched will kick-off in April 2014 and will run in addition to the current November session. For further information: <http://www.imd.org/executive-mba/#/home/>

### > **Master of Advanced Studies in Intercultural Communications**

The Master of Advanced Studies in Intercultural Communication (MIC) is a part-time post-graduate program for professionals engaged in managing operational or strategic situations in a multicultural context and in managing multicultural human resources.

For further information: <http://www.mic.usi.ch>

Deadline: As class size is limited, candidates are advised to apply as early as possible and at least two months before the beginning of the Master's program.

### > **Matsumae International Foundation Research Fellowship Program for 2015**

Matsumae International Foundation (MIF) offers a research fellowship program in 2015. Fields of study such as **natural science, engineering and medicine** are given first priority. Applicants indicate the period of Fellowship with the length of stay needed for the Research Project between 3 months to 6 months, and the commencing month and ending month between April 2015 and March 2016. For more details please consult the MIF website: <http://www.mars.dti.ne.jp/mif/>

Deadline for submitting application document: **August 31, 2014**

### > **EPFL International Institute for the Management of Logistics "Creating Supply Chain Excellence"**

The study program "Global Supply Chain Management" has been designed to provide all participants with the know-how, the competence and confidence necessary for the planning and implementation of logistical and supply chain projects at the strategic as well as the operational levels. The participants will develop a broad logistical culture based on technical, economical and managerial knowledge enabling project evaluation to be made by adding considerations from an entrepreneurial point of view.

**Program 2015 is now available.** <http://iml.epfl.ch>

## Upcoming Science and Technology Related Events in Japan

### > **150 Years Anniversary: Switzerland-Japan Friendship Year 2014**

The year 2014 will mark a milestone in the friendly relations between Switzerland and Japan which will celebrate the establishment of diplomatic relations 150 years ago.

<http://www.eda.admin.ch/anniversary2014>

>> More events on the Science and Technology Office Tokyo homepage:

<http://www.stofficetokyo.ch/events/upcoming-events/>

## Background Reports

### > **Selection:**

- WPI – The World Premier International Research Center Initiative
- Induced Pluripotent Stem (iPS) Cells
- Japan SERI Policy Update

### > **Further Background reports:**

- <http://www.stofficetokyo.ch/japan-news/reports/>

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