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AUSTRALIA: Collaboration with India on Clean Fuel Production

Australia's Commonwealth Scientific and Industrial Research Organization (CSIRO) and the Indian Council of Scientific and Industrial Research (CSIR) will launch a A\$6 million (US\$ 5.8 million) project that focuses on improving processes involved in the production of dimethyl ether (DME). DME is a fuel produced from natural gas, coal, biomass, or even directly from carbon dioxide. Both Australia and India are currently unable to meet demand for petroleum products with domestic production alone. DME could help meet demand and consequently reduce both nations' reliance on imported petroleum products.

<http://www.csiro.au/en/Portals/Media/Australia-and-India-to-collaborate-on-clean-fuel-production.aspx>

JAPAN: Reform of R&D Corporation System

The Comprehensive Strategy on Science, Technology, and Innovation (see: <http://www.nsf-tokyo.org/rm13-03.pdf>) announced in June 2013 required that a committee be set up to discuss the establishment of a better system for R&D corporations in Japan. Accordingly, a Review Committee comprising nine members from industry, academia, and government was established. The members convened for the first time on September 24. There are 37 R&D corporations in Japan; they include most of the government-funded research institutions and government-owned funding agencies. All of these R&D corporations and funding agencies were government entities until Administrative Reform was implemented in 2001 with the staff having previously been government employees. The 2001 Reform made these entities R&D corporations, although most of the funds are still being provided by the government and the staff is treated in the same way as government employees. The Committee is in discussion regarding how these R&D corporations should be reorganized. Their discussions will cover the global mobility of researchers, the introduction of an annual salary system (many of the staff are still paid in accordance with a bonus system) and a research administrator system, a review of indirect costs, promotion of high-risk, high-return R&D, cooperation with industrial R&D institutions, and the training of world-class young researchers. The Committee is expected to produce a report in November 2013.

Note: This is a summary translation of an interview with a Cabinet Office staff and a Cabinet Office website article – September 26, 2013

JAPAN: Tidal Current Power Generation

The Ministry of Environment (MOE) will commercialize tidal current power generation technology in 2018, making use of the advantages of stable power generation that is largely



independent of the weather, unlike solar and wind power. MOE has already identified several candidate sites of fast-moving tidal currents within the Japanese EEZ. Research projects in 2014 will focus on the development of durable structures that can convert tidal current energy to electricity efficiently. The next phase, 2015-2016, will concentrate on experiments in the ocean and their environmental effects. In 2017, the practical economics of tidal current generation will be studied; it is believed that there is a potential for generation of 22 million kilowatts. MOE expects to invest as much as Yen 3 billion (\$30 million) to promote this technology from JFY2014 through JFY2018.

Note: [This is a summary translation of Nikkei article-September 13, 2013](#)

JAPAN: JFY2014 S&T Budget Request Summary

The Council for S&T Policy (CSTP) made public Japan's S&T budget request for JFY2014 as in the tables below. The JFY2014 S&T budget request is Yen 4,173.6 billion (\$41.7 billion), an increase of 16.4% from the previous year's budget. The amount requested by the Ministry of Education, Culture, Sports, S&T (MEXT) was Yen 2,644.3 billion (\$26.4 billion), 63.4 % of the total request amount. The ministries and agencies are currently under budget negotiations with the Ministry of Finance, which will last until December. The JFY2014 budget proposal will be determined at the end of December 2013, which will then be discussed at the Diet session from January-March 2014. The JFY2014 budget decision will be made by the end of March 2014.

JFY2014 S&T Budget *Request*

(Unit: Yen Billion)

JFY2013 S&T budget	JFY2014 S&T budget request	Increase (%)
3,586.8	4,173.6	586.8 (16.4%)

JFY2014 S&T Budget *Request* by Ministry & Agency

(Unit: Yen Billion)

Ministry or Agency	JFY2013 S&T budget	JFY2014 S&T Budget Request	Increase/ Decrease (%)
Ministry of Education, Culture, Sports, S&T (MEXT)	2,315.7	2,644.3	14.2
Ministry of Economy, Trade, and Industry (METI)	521.2	678.5	30.2
Ministry of Health, Labor, and Welfare (MHLW)	162.6	187.3	15.2
Ministry of Defense (MOD)	166.9	163.6	-2.0
Ministry of Agriculture, Forests, and Fisheries (MAFF)	93.1	105.6	13.4
Ministry of Environment (MOE)	76.9	80.5	4.7
Reconstruction Agency	59.5	76.8	29.0
Cabinet Secretariat	60.8	69.5	14.2
Ministry of Land, Infrastructure, and Transport (MLIT)	50.6	63.1	24.6
Ministry of Internal Affairs and Communications (MIC)	49.4	57.4	16.1
Cabinet Office (CA)	14.2	25.1	77.0
Ministry of Justice (MOJ)	5.6	7.3	30.9
Ministry of Foreign Affairs (MOFA)	5.9	7.3	23.3
Police Agency (PA)	2.0	5.0	144.3
Ministry of Finance (MOF)	1.3	1.3	1.2
Diet	1.1	1.1	0
TOTAL:	3,586.8	4,173.6	16.4

Note: [This is a summary translation of a Cabinet Office website material – September 13, 2013](#)

JAPAN: Cooperation with DOD

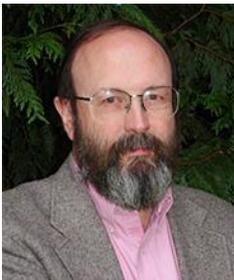
The Ministry of Economy, Trade and Industry (METI) and the US Department of Defense (DOD) have signed a cooperative R&D agreement for developing disaster restoration robots. METI and DOD will jointly develop robots that can remove rubble in an environment where manual labor cannot be used such as the Fukushima No. 1 Nuclear Power Plant that had a meltdown at the time of the 3-11 Tohoku Earthquake in 2011 and subsequent tsunami.

Note: This is a summary translation of a Nikkei article – September 30, 2013

JAPAN: US-Japan Cooperation using Big Data

The Japan Science and Technology Agency (JST) and the US National Science Foundation (NSF) will cooperate in establishing a disaster prevention system using big data. The system will use observation data obtained from temperature, wind speed, precipitation, earthquakes and tsunami, as well as GPS positioning and map information; identify the people who are in need of rescue based on these data; and provide appropriate instruction to the local governments or to individuals via cell phones and car navigation systems. The duration of the US-Japan cooperative research is for three years from JFY2013.

Note: This is a summary translation of a Nikkei article – September 24, 2013



JAPAN: International Prize for Biology

Dr. Joseph Felsenstein, Professor, Department of Genome Sciences, University of Washington, will receive the 29th International Prize for Biology, for his method of carrying out maximum-likelihood estimation of gene phylogenies from DNA sequences, and his contributions to the progress of evolutionary phylogeny and evolutionary biology as a whole. The International Prize for Biology was instituted in 1985 to commemorate the sixty-year reign of Emperor Showa and his longtime devotion to biological research and also to offer tribute to the present Emperor Akihito who has strived over many years to advance the study taxonomy of gobioid fishes.

<http://www.jsps.go.jp/english/e-biol/index.html>

KOREA: Ombudsperson System

The Korea Advanced Institute of Science and Technology (KAIST) established an “ombudsperson” system. Two ombudspersons will investigate allegations pertaining to violations of research ethics in the institute, and advise on correction and/or improvement. The ombudspersons guarantee confidentiality so that anyone can share his/her opinions without fear of retribution. President Kang said that it is crucial to bring the minds of the staff together; even the smallest voices must be heard to present solutions to make everyone at KAIST feel they have a voice.

http://www.kaist.edu/english/01_about/06_news_01.php?req_P=bv&req_BIDX=10&req_BNM=e_d_news&req_VI=4487&req_PC=0&req_CG=&sCATE=&sCHAR=

NEW ZEALAND: World Class Events at Science Teller Festival

Science Teller, the biennial festival celebrating science communication and story-telling kicked off on October 25. Featuring a program of internationally renowned and high profile guests, the

second festival was hosted by the Center for Science Communications at the University of Otago and included three days of inspiring and entertaining events.

<http://www.scoop.co.nz/stories/SC1310/S00048/world-class-events-at-scienceteller-festival.htm>

SINGAPORE: Collaboration with Korea on Biomass-to-Chemicals Research

The Institute of Chemical and Engineering Sciences signed a Memorandum of Understanding with the Korea Institute of Industrial Technology to conduct joint research and collaboration in the field of sustainable chemicals, specifically in biomass-to-chemicals research. The collaboration will enable the researchers from both countries to have joint meetings, symposia, and R&D projects.

<http://www.a-star.edu.sg/Media/News/Press-Releases/ID/1890/Singapore-and-Korea-research-institutes-to-collaborate-on-biomass-to-chemicals-research.aspx>