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The National Science Foundation's Tokyo Regional Office periodically reports on developments in Japan that are related to the Foundation's mission. It also provides occasional reports on developments in other East Asian countries.

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To respond to frequent inquiries on "Funding Agencies in Japan," this report was prepared by Kazuko Shinohara of NSF Tokyo Regional Office. She can be reached at kshinoha@nsf.gov

Funding Agencies in Japan

The phrase of "funding agency" is rather new in Japan. The organizations that are involved in implementing competitive R&D funding have been called, "quasi-governmental or subsidiary organizations," under ministries/agencies before 2003. Whereas the status of them became "independent administrative organizations" as of 2003 or thereafter, their financial resources still come from the ministries/agencies and it is the ministries/agencies that set up competitive R&D programs.

The present structure of the funding mechanism is shown in Chart 1 below.

Chart 1

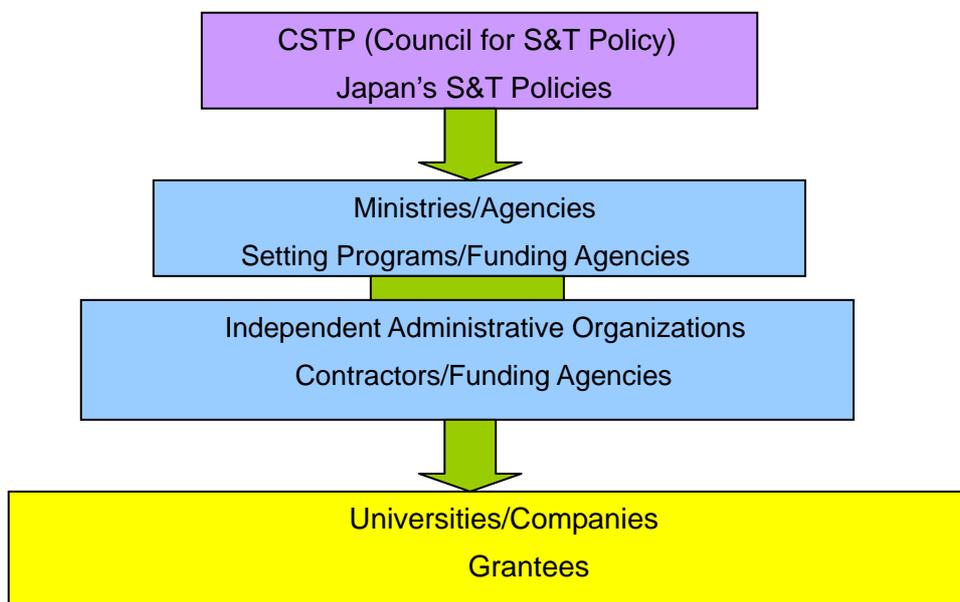


Chart 1 shows the flow from the government S&T policy making to the provision of government R&D funds to grantees. CSTP establishes Japan's science and technology policies. To make the policies concrete, the ministries and agencies design programs. The programs are then rated by the CSTP (<http://www.nsftokyo.org/rm05-05.html>), and the ministries and agencies obtain budgets from the Ministry of Finance (MOF) (<http://www.nsftokyo.org/rm06-01.html>). Some of the grants are provided to the grantees directly by the ministries/agencies themselves, and some are provided by the organizations under the ministries and agencies. Table 1 below shows the organizations that are involved in competitive R&D funding under each ministry/agency and the programs implemented by the ministries/agencies and/or the organizations under them, together with the budgets, as of JFY2005.

Table 1

Ministry/ Agency	Implementing Organization	Program (as of JFY2005)	Budget (JFY2005) (Yen Million)
CAO	CAO	Research on Evaluation Technologies	123

(Cabinet Office)		of Foods' Effects on Health	
	CAO	Promotion of Industry–University–Government Research in Okinawa	401
CAO Total			524
MIC (Ministry of Internal Affairs and communications)	NICT (Nat'l Inst. for Communication Technologies)	Funding Program Promoting for Key Technology Research	10,300
	MIC	Strategic IT R&D Promotion	3,181
	NICT	Advanced Technology R&D Grant	640
	Fire Agency	Fire Disaster S&T R&D	370
	NICT	Basic Research Promotion in IT fields	206
MIC Total			14,696
MEXT (Ministry of Education, Culture, Sports, S&T)	MEXT & JSPS (Japan Society for the Promotion of Science)	Grants-in-Aid for Scientific Research	188,000
	JST (Japan S&T Agency)	Basic Research Programs	47,595
	CAO & MEXT & JST	Coordination Funds for Promoting S&T	39,500
	MEXT	21st Century COE Program	38,171
	MEXT & JST	Innovative Nuclear R&D Program	12,145
	JST	Project to Develop Innovative Seeds	9,674
	MEXT & JST	Promotion of Key Technology R&D (Nanotechnology-related interdisciplinary areas, Life Science that meets societal needs, next-generation IT)	7,874
	JST	S&T Incubation Program in Advanced Regions	4,980
	JST	Collaboration of Regional Entities for the Advancement of Technological Excellence (CREATE)	4,675

	JST	Development of Systems and Technology for Advanced Measurement and Analysis	4,000
	JST	Research Program on Development of Innovative Technology	1,890
	MEXT	Open Competition for the Development of Innovative Technology	1,318
	MEXT	Earth Observation System	1,017
	MEXT	University-oriented Venture Companies	25
MEXT Total			360,864
MHLW (Ministry of Health, Labor and Welfare)	MHLW	Health and Labor Science Research Grant	38,187
	NIBI (Nat'l Inst. of Biomedical Innovation)	Basic Research in Health, Welfare and Medical Fields	2,224
MHLW Total			40,411
MAFF (Ministry of Agriculture, Forests and Fisheries)	NARO (Nat'l Agriculture and Bio-oriented Research Organization)	Promotion of Basic Research Activity for Innovative Bio-science	4,455
	MAFF	Research Project for Utilizing Advanced Technologies in Agriculture, Forestry and Fisheries	3,846
	NARO (Nat'l Agriculture and Bio-oriented Research Organization)	R&D Program for New Bio-Industry Initiatives	2,670
	MAFF	Support for Private Sector in the Fields of Agriculture, Forestry, Fisheries and Foods	1,433
MAFF Total			12,403
METI (Ministry of Economy, Trade and Industry)	METI	Local Area Revitalization by Industry-University-Government Cooperation	13,720

	NEDO (New Energy & Industrial Development Organization)	Industrial Technology R&D projects	6,164
	JOGMEC (Japan Oil, Gas, and Metals National Corporation)	Development and Use of Oil and Natural Gas	4,659
	NEDO	University-oriented Business Creation	3,162
	METI	Innovative and Viable Nuclear Energy Technology Development Project	2,183
METI Total			29,888
MLIT (Ministry of Land, Infrastructure, & Transportation)	JRTT (Japan Railway Construction, Transportation Technology Agency)	Basic Research in Transportation Field	444
	MLIT	Construction Technology R&D	350
MLIT Total			794
MOE (Ministry of Environment)	MOE & AiRiES (Association of International Research Initiatives for Environmental Studies)	Global Environment Research	3,015
	MOE	Technology Development for Preventing Global Warming	2,676
	MOE	Research on Processing Waste	1,150
	MOE	Environmental Technology Development Project	815
MOE Total			7,656
GRAND TOTAL			467,236

When a ministry/agency and an independent administrative organization under the ministry are jointly involved in one program, the typical mechanism is that the ministry/agency designs the programs and directly manages about half of the budget. They provide the other half to an organization under it so that the organization works as

a contractor and takes care of all the administrative work incurred from the solicitation, reviewing, and transferring of funds to the grantees, in consultation with the ministry/agency.

For example, the MEXT's program named "Grants-in-Aid for Scientific Research" in Table 1, has several categories of funds by the nature of the categories. A few examples of the categories are "Specially promoted research," "Scientific research in priority areas," and "Exploratory research." The applicants can choose the project themes under these categories. Of them, MEXT directly manages (A) half of the funds and leaves (B) another half to JSPS. Of the programs directly managed by MEXT, (A-a) a few of them are managed solely by MEXT from the announcement through money transfer to the grantees. (A-b) For the rest of the programs of those directly managed by MEXT, the procedure from the announcement through decision making of the grants is taken care of by JSPS, and the money transfer to the grantees is made by MEXT. (B) For the other half of the funds transferred to JSPS, JSPS takes care of all the procedures from the program announcement through money transfer to the grantees. The "Grants-in-Aid for Scientific Research" is given to basic research in all disciplines, including human literature and science and engineering, and represents 40 percent of the total competitive R&D funds in Japan and five percent of the Japanese Government's S&T-related funds.

In case of "Coordination Funds for Promoting R&D," the policy themes are decided by CSTP and MEXT receives funds to implement the programs. A few examples of the policy themes for JFY2006 are "Advancement of the national power by strengthening research infrastructure," "Vitalization of economy by securing/strengthening international competitiveness," and "Establishment of secure and safe society." Applicants can decide their projects under these policy themes. MEXT directly manages (A) half of the budget and provides (B) the other half to JST as a commission fee (it is like a grant but called commission fee) to implement the program. As for the projects commissioned to JST, MEXT solicits programs by announcement, and JST receives proposals. JST, in consultation with MEXT at all stages, selects reviewers, sends proposals to the reviewers, selects grantees, and transfer money to the grantees. In addition, JST takes care of any administrative job incurred from the review through transferring funds to the grantees even for (A) the projects directly managed by MEXT.

Thus, ministries/agencies together with the independent administrative organizations

under them (shown in blue in Chart 1) work as funding agencies in Japan.

A new trend in Japan, associated with “Funding Agencies,” is the establishment of “Program Officer System.” In 2001, the CSTP encouraged all the funding agencies to introduce “Program Officer System” to bring better management to the competitive R&D funds. Being aware of the increasing importance of the competitive R&D funding system in the future, CSTP made a detailed investigation on the system by sending their staff and their contractors to major funding agencies, including NSF, NIH, Research Councils UK, to learn their systems. Up until recently, for most of the competitive funds, the administrators at the ministries/agencies and the organizations under them have totally managed their programs, including selection of reviewers. However, since the PO system began to be introduced, the funding agencies began, although gradually and not fully attained as of now, to delegate the selection of reviewers to Program Officers. To respond to the CSTP’s recommendation, JSPS established their own unique program officer system (see <http://www.nsftokyo.org/rm04-07.html>) in 2003, and JST has been holding “Program Officer System seminars” that are open to all the funding agencies in Japan, to explore Program Officer Systems that meet the Japanese environment. The large number of participants to the seminars epitomizes the funding agencies’ enthusiasm to establish or improve the system. As of this date of writing, the number of POs in Japan is about 400 and most of them are part timers.

The budget for competitive funds was projected to double in five years from 2001-2005, and ended to increase from Yen 297 billion (\$2.5 billion) to Yen 467 (\$4 billion) (150 percent increase), which was still a large increase. Under the circumstances that the national universities became independent in 2004 and the budgets from the government to them are being decreased by one percent every year, the role of competitive R&D funds are becoming more important and vital for the universities than before. The Third S&T Basic Plan (see <http://www.nsftokyo.org/rm06-02.pdf>) that has recently been released mentions the importance of improving the competitive funding system and encourages the funding agencies to establish or improve the Program Officer System.

This report could not have been completed without e-mail and phone interviews to Dr. Hiroshi Takahashi, Program Officer, Department of Planning and Coordination, Office of Basic Research, JST, who is also an organizer of their Program Officer System seminars, and phone interviews to Mr. Kazuhisa Okamoto, Director, Grants-in-Aid for Scientific Research Division, JSPS.