

## SCIENCE AND TECHNOLOGY PROGRAM - JAPAN

(Core Research for Evolutionary Science and Technology) and PRESTO (Precursory Research for Embryonic Science and Technology) Programmes, a very generous STA-supported post-doctoral fellowship programme, a modern, Western-styled (in the sense of how it is managed) basic science research complex in Wako-shi (RIKEN = Institute of Physical and Chemical Research), another such one in Tsukuba, another in Okazaki, in Harima Science City, at Keihanna Science Park, etc.

The Japanese government now operates according to a 5-year S&T Basic Plan (first approved by the Cabinet 02 July, 1996). S&T spending reached 17 trillion yen in this Plan, or 3.4 trillion yen (i.e., US \$3.8 billion) per year. The 5-year Plan is designed to provide the S&T policy for the country for the decade (so the second Plan under preparation right now probably won't differ markedly from the first). The current Plan will wrap up on 31 March, 2001.

There is a section of the Plan entitled: "Expansion of R&D Investment by the Government" where it is indicated that the government is strongly recommended to work fast to double Japan's R&D investments so as to raise the level to that of major Western countries by the early part of the present century. Currently, the S&T Policy Bureau of STA is now planning to lay out concrete measures that should be taken for the next five years as the second phase of the Basic Plan, starting from fiscal year 2001, beginning April 1. Part of the goal Japan had for this plan was to achieve a level of Post-Doctoral Fellows that reached 10,000 by the end of the current Plan. That goal has long since been surpassed. Another goal still remains to be achieved and that one is the establishment of a ratio of technicians to researchers in universities and other types of public sector labs of 1 technician for every principal investigator (PI).

### 3. S&T Organizational Reform

At present there are tremendous changes under way in the government structures supporting research in Japan. Beginning with the first day of business after the New Year holidays in 2001, Monbusho, the education ministry having responsibility for national universities (there are about 100 of these) will merge with the Science and Technology Agency (STA). The new Ministry's tentative name is The Ministry of Education and Science. This merger was decided last year and it has been worked on vigorously for more than a year by staffers. Some personnel exchanges have already taken place on a trial basis. The merger is highly sensitive and potentially inflammatory because of the fundamental cultural divide existing between the two groups. Monbusho, alongside of the Ministry of Foreign Affairs (Gaimusho) represents the oldest ministry dating back to the Meiji era. It is staffed by officials who care deeply about form and process and who tend to express resistance to change. By contrast, STA institutionally is only about 35 years old and staff-wise is weighted heavily in favour of scientifically-trained personnel. They are rather more receptive to listen to the opinions of researchers and to be sympathetic to the needs of the scientist. These differences are reflected in the policies and programmes of the two different units. How this merger will affect these diverse sets of groups will be an event watched with intense fascination by the International S&T community as well as by the Japanese interested parties.

In addition to Monbusho and STA, the Ministry of International Trade and Industry supports considerable scientific activity, particularly through the Agency of Industrial Science and Technology (AIST). AIST seeks to promote technology development by identifying and