Reorganization of Communications Research Laboratory to the Independent Administrative Institution

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As a part of the governmental administrative reform, the Communications Research Laboratory (CRL) was reestablished as the Independent Administrative Institution (IAI) in April 1, 2001. About 60 national research laboratories were restructured to the about 30 independent administrative institutions, simultaneously.

The definition of IAI is the independent legal status outside the government normal organizational framework and designed to improve the efficiency and the quality of service of certain segments of the executing activity and to ensure the transparency of such activities, according to the "General Law of Independent Administrative Institution" established in July 1999.

The IAI-CRL is defined by the "IAI-CRL Law" established in December 1999. The relationship between superintendent in charge ministry, which is the Ministry of Public Management, Home Affairs, Posts and Telecommunications in the case of CRL, and the IAI is as follows: The minister assigns the president and auditors of IAI-CRL, and gives the mid-term goal. The IAI-CRL makes the mid-term plan corresponding to the mid-term goal. After the minister approves the mid-term plan, the IAI-CRL would have a freedom how to conduct the research. However, the result will be evaluated by the evaluation committee of the ministry.

The core-competence of CRL is to promote advanced R&D on a basis of comprehensive research of radio wave to optical wave. The role of CRL is assigned in the mid-term goal as follows:

- Security of safety of life and improvement of its quality
- Economic social development
- Contribution to the global community especially in Asian areas
- Development of the human society harmonizing with nature

The mid-term goal defined a period for five years from FY 2001 to FY 2005 and assigned the priority R&D fields as follows:

- R&D of next-generation info-communications systems
  - With the aim of enhancing communication in a "human society" and between "human and machine," and to achieve a "communication society" revolution about people, R&D of telecommunications and broadcast technologies to create new forms of communication that even the elderly and physically challenged will find easy to use.

- R&D of wireless communications systems
  - R&D of technology for conducting wireless communication systems to achieve seamless connectivity between a wide range of networks from terrestrial wired and wireless communication networks to space communication networks, and to integrate the various systems in a complementary manner.
- R&D of technology for electromagnetic-wave-based measurements, standards, and application
  - R&D of technology to measure the efforts of fluctuations in the global and space environments using electromagnetic waves: technology for utilizing obtained environmental data throughout the world; and technology for establishing space-time standards.
- Basic and advanced research of info-communications.

  - Basic research in technology based on new scientific principles, and to achieve innovative developments in info-communications technology that cannot be achieved by incremental growth of existing technologies.

It is also required to execute definitely the routine services including the standard frequency distribution, and to strengthen the technology transfer to the private sectors. Especially for standards frequency distribution, we operate a Very Low Frequency (40 KHz) radio station and disseminate standard time. This radio wave is used to over 2 million radio control watches like this in Japan.

There are 6 key words of a change of independent administrative institution. They are:

- Flexibility of a review of a research organization
- Flexibility of expenditure of a budget
- Expansion of number of non-regular and/or outside researchers
- Study contract
- Study consignee
- Exchanges of expenses in a collaborative study

Taking into account these keywords of change, we proposed two research environments as a solution. First, we expect to have an open platform function for national R&D promotion. We call it as a “Greater CRL” which is a scheme for promoting cooperation with industry and university. Second, we put "a domain program" and "a dynamic project" as a research scheme. A domain program is the study promotion scheme to conduct research as a domain. This has a long-term research characteristic. A dynamic project is the study promotion scheme to promote a specific R&D project in dynamic. It has a limited period research characteristic.

Concerning the scale of CRL, a budget of FY 2001 is about 26.1 Billion Yen (214 Million US Dollars). On the other hand, number of the regular staff is 427 currently including about 310 research staff. About 5% of the research staff has foreign nationality. In order to get the fruitful results corresponding to the increased budget sufficiently, the number of research staff is not sufficient, so we have a policy to accept many research fellows and visiting researchers outside from CRL.

CRL has 10 facilities nationwide in Japan, Headquarters in Tokyo, and major research centers including the Kashima Space Research Center, Yokosuka Radio Communications Research Center, Keihanna Human Info-Communication Research Center, and Kansai Advanced Research Center. Kashima Space Research Center is located in Kashima, Ibaraki prefecture, and a space communication related

research is conducted. Yokosuka Radio Communications Research Center is located in Yokosuka, and R&D for the next generation radio communication system, especially mobile communication system is conducted. Keihanna Human Info-Communication Research Center is located in Kyoto, and R&D on human communication is conducted. Kansai Advanced Research Center is located in near Kobe, and basic researches are conducted.

As a research institute in the future, it is the most important to create an attractive research environment that excellent researchers come from the world.

Photo: CRL's New Building of Headquarters.