President’s Message

Aiming to Further Contribute to the Development of Japanese Society and Industry by Bridging Innovative Technology Seeds

Introduction

I would first like to wish you all a very Happy New Year. The past year was one with increasingly positive news for the industrial sector in Japan. Many companies, particularly those in the manufacturing industry, were able to achieve improvements in their business performance and some recovery was also seen in the employment environment supported partially by the steady trend of the weak yen in the foreign exchange market.

On the other hand, there are still many issues and anxieties about the future in Japanese society. To mention some examples, the rising cost of energy and the problem of energy supplies, global warming and other associated issues, and the problem of the low birth rate and aging of society are unavoidable, urgent, and persistent issues. In addition, the decline of local industries and economies was taken up as a major concern last year, and it turned out to be a year in which movements toward local regeneration aimed at revitalizing Japan’s regional areas became quite active.

Presently, the national and local governments, public institutions, companies, universities, and many others are making efforts in various ways to deal with these present and potential future issues facing Japanese society and industry. Under these circumstances, we at AIST have renewed our determination to further contribute to society and industry by creating innovation as a public research institute through research and development activities, particularly in the field of industrial technology.

Establishment of the Fukushima Renewable Energy Institute in Koriyama

In April 2014, the Fukushima Renewable Energy Institute
Institute, AIST (FREA) was opened in Koriyama, Fukushima Prefecture. In setting up this institute, we have received a great deal of support from many quarters including the Japanese government, Fukushima Prefecture, Koriyama City, and related companies.

FREA is promoting a wide range of technology development necessary for the coming large-scale introduction of renewable energy in Japan. The research conducted at FREA is comprehensive and includes, for example, the development of next-generation photovoltaic modules, highly efficient wind turbine technologies, technologies for the production and utilization of hydrogen carriers, and assessment technologies for the use of geothermal and shallow geothermal energy. In addition, FREA is conducting an experiment to prove feasibility of a renewable energy network comprising energy generation and storage grids. It has also signed a memorandum of understanding on comprehensive research cooperation with the National Renewable Energy Laboratory (NREL), U.S.A., as an international research hub in the field. FREA is also expected to contribute to the invigoration of industry in the Tohoku region and to support reconstruction activities there through joint research, development, and promotion of the commercialization of research results with companies and universities in that region, centering around Fukushima Prefecture.

AIST is determined to make every effort in this regard so that FREA will be the focal point of a succession of future innovations as well as expanding collaborations with businesses, and that it will become known as a representative research hub in Japan in the renewable energy field.

**Bridging function to transfer technology seeds**

AIST is currently formulating a new medium- to long-term plan that will be implemented from April 2015. We will go into the details of the plan after it is finalized, but for now, we would like to say that one of the pillars of the plan is the strengthening of our “bridging” function; that is, the function of refining innovative technology seeds so they can be realized as products and commercialized.

We are engaged in a broad spectrum of research activities from basic research through to product development. Many of these are evaluated to be at the world’s top level. On top of this, over the past several years we have been steadily forming a network with businesses so as to construct and strengthen the foundation for collaborative activities with the industrial sector.

There are strong expectations by Japanese society and industrial sectors that AIST, as an organization that is not only one of the largest technology seed holders in Japan but also has a foundation for collaboration with the industrial sector, will make effective use of these resources and serve as a research institute bridging technology seeds to private businesses in order to achieve the development of products from these seeds and their commercialization.

Our plan to strengthen the bridging function is in line with our mission, “Technology to Society,” and is aimed at supporting industry by creating innovations that will help Japanese businesses to recover their strength and revitalize the economy.

**Fostering human resources (HR) and HR exchanges**

It goes without saying that the key to the bridging of technology seeds and the creation of innovation is human resources. Since its inception, AIST has actively employed and trained distinguished and promising researchers in a wide range of research fields. Last fiscal year, we established and began to administer a research assistant system that provides competent graduate students with opportunities to participate in research work with pay. In addition to these employment opportunities, we will continue to train practical researchers through, for example, a program that allows researchers to actually experience research and development conducted at businesses so as to enhance their understanding of and motivation for the commercialization of their research results.

AIST will also continue to accept researchers and technicians from businesses and other research institutes and promote collaboration on joint research and commercialization. At the same time, we will make full use of our open innovation platform including the Tsukuba Innovation Arena for Nanotechnology (TIA-nano), FREA, and the AIST Tokyo Waterfront bio-IT research base to establish international hubs for collaboration among industry, academia, and government.
Supporting small and medium-sized businesses and venture companies as well as local regeneration

One of the strengths of Japan’s industrial sector is the vitality of its small and medium-sized businesses with their excellent technologies and techniques. Since even before the amendment of the Act on Enhancement of Research and Development Capacity and Efficient Promotion, AIST has been continuously providing support to small and medium-sized businesses in joint research, personnel development, and other areas. Now that the amendment to the Act has come into force, we have, as of last fiscal year, also become able to invest in kind in the form of intellectual property, facilities, equipment, and so on.

Accordingly, we can now provide better and more comprehensive support to small and medium-sized businesses and venture companies that are facing difficulties in commercialization, despite their superior technological capabilities, due to constraints they are facing in terms of research facilities, personnel, or other factors.

As described above, local regeneration is one of the many urgent problems facing present-day Japan.

With our research bases located in seven regions throughout Japan serving as the core, AIST is committed to contributing to the revitalization of local economies by collaborating with local public institutes and universities to solve the problems of local industries and companies.

Conclusion

The two mottos of AIST that I introduced in the President’s Message in the last year’s issue of AIST TODAY, “Green Technologies for a Flourishing and Environmentally Friendly Society” and “Life Technologies for Healthy and Safe Living,” are now well accepted by the members of AIST and are also gradually beginning to be acknowledged by people outside AIST.

AIST must create innovative technology seeds through research and development based on these two mottoes; bridge these seeds to the industrial sector, especially to local businesses, small and medium-sized businesses, and venture companies; and contribute to building a sustainable society.

With a renewed and stronger conviction on this point as the president of AIST, we will continue to work vigorously toward this goal together with all of our members.

We would greatly appreciate your ongoing support and guidance in these endeavors.