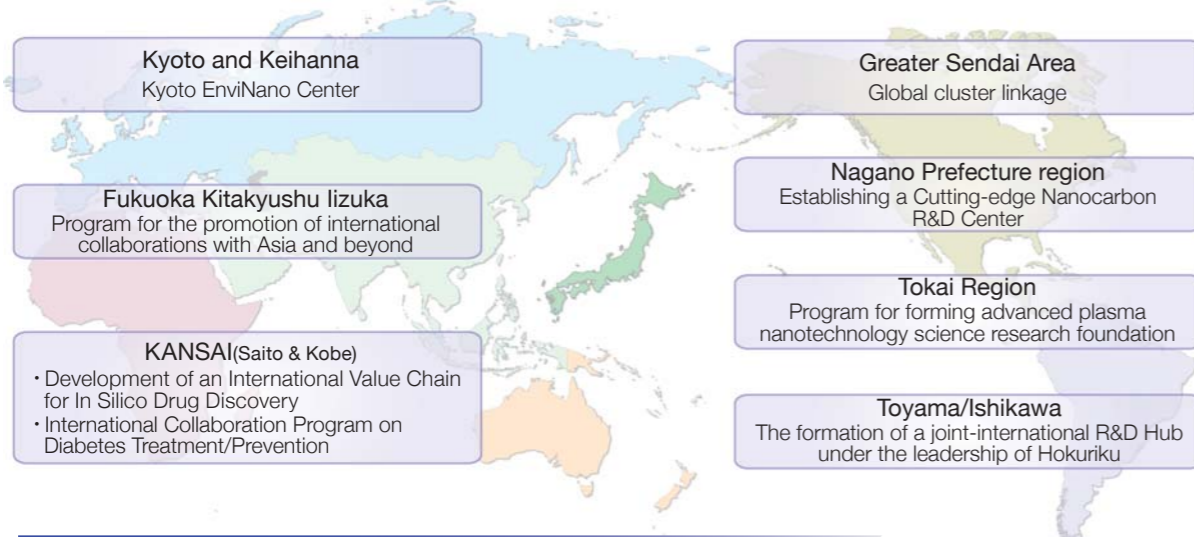


●Knowledge Cluster Initiative

Global Expansion

In the second stage of the Knowledge Cluster Initiative, the "Expansion Program," which aims to encourage strategic collaboration with other regions both in Japan and overseas, has been implemented in order to enhance the competitiveness of the clusters.

"Expansion Programs" being implemented in FY 2009



List of international collaboration projects in each region

Hokkaido Area(with Sapporo as the core)
Collaborative researches with universities in Malaysia, Indonesia, and Korea are being conducted regarding the development of fucoxanthin-containing ingredients, use of oligosaccharide synthetase, and functional assessment of sphingosine. Also, they are advancing collaboration with major bio clusters including the Food Valley in the Netherlands and Bologna Cluster in Italy.

Greater Sendai Area
Intelligent networks with universities and local governments in Finland have been established. These networks enable them to obtain examples of advanced cluster creation and collected/analyzed data regarding mental healthcare and prevention of depression. Through these efforts, they are promoting the sophistication and internationalization of the regional Cluster in Sendai.

Toyama/Ishikawa
They are conducting international collaborative R&D on a magnetoencephalograph (MEG) for measuring brain function and a high-speed atomic force microscope (AFM) for visualizing protein molecules and DNA. Toyama has also been established as the international R&D hub for the integration of Eastern and Western medicine. By utilizing the region's function and integrating these advanced diagnostic technologies with traditional medical care (i.e., traditional Chinese medicine), they are advancing international collaborative R&D for developing a new medical treatment model (an integrated medical model of Eastern and Western medicine) for preventing aging of the brain and blood vessels.

Nagano Prefecture region
With the Institute of Carbon Science and Technology, Shinshu University as the core, they are conducting collaborative researches with foreign research organizations in Italy and Korea, inviting and interacting with various foreign researchers, and conducting advanced researches on nanocarbon using state-of-the-art analysis/evaluation equipment. Also, they are engaged in advanced information exchanges and in the establishment of international networks by visiting and surveying researchers and hosting international conferences/lectures.

Hamamatsu
Utilizing the "Regional Industry Tie-up Program" offered by the Japan External Trade Organization, they are promoting inter-business collaboration with optical equipment manufacturers in Jena, Germany and through collaboration between universities.

Tokai Region
To establish the world's hub of research and education in plasma nanotechnology in the Tokai region, they are promoting R&D of ultrahigh-speed and ultrahigh-density plasma processing technology based on plasma nanotechnology at Nagoya University, etc. Also, they are establishing collaborative relationships with advanced research organizations that conduct plasma-related researches in Korea, the USA, Germany, France, and Switzerland for collaborative researches as well as for dispatch/invitation of research fellows.

Kyoto and Keihanna
They are actively promoting exchanges with foreign research organizations and administrative organs in the USA, China, and Egypt. International cooperation agreements have been concluded in order to enhance global expansion such as technology transfer of research achievements. Besides these, they are effectively promoting the environmental nanotechnology industry in the region in collaboration with Kyoto Industrial Eco Promotion Organization.

KANSAI(Saito & Kobe)
In collaboration with the Medicin Valley and Singapore, they are advancing researches on relations between ethnic difference and diabetes onset and developing preventive/diagnostic methods. Also, in collaboration with the University of Cambridge in the UK and the Alsace bio cluster in France, they are aiming to establish an international value chain by enhancing the development of pharmaceutical candidate compounds by in-silico drug discovery.

Fukuoka Kitakyushu Iizuka
They have established networks with organizations such as association of semiconductor industry in the Silicon Sea Belt region (SSB region). Utilizing these networks actively, they are strengthening international collaboration, such as international collaborative R&D with research organizations in the SSB region, the USA, and Europe.

Examples of International Collaboration in Each Region

Fukuoka Kitakyushu Iizuka (Fukuoka Cluster for Advanced System LSI Technology development)

•Background

Within East Asia, the Silicon Sea Belt consumes over 70% of the world's semiconductors, and further growth is expected. This Sea Belt spans Fukuoka (Kyushu), Gyeonggi (South Korea), Beijing, Shanghai, Hsinchu (Taiwan), Hong Kong, Singapore, Bangalore (India), etc. Through the "Silicon Sea Belt Fukuoka Project" launched by the Fukuoka (Kyushu) region, they are aiming to establish a world-leading hub for the development of system LSI technology that will produce especially higher added value in the semiconductor industry, which serves as a base for our information-oriented society.

•Efforts and achievements

They established networks with the Semiconductor Industries Association and other organizations in the "Silicon Sea Belt." By utilizing these networks actively, they conducted collaborative development projects and held business meetings with research organizations in the belt, aiming to strengthen international collaboration among each region. Specifically, the research achievements have been widely expanded through collaborative researches with organizations such as universities in Taiwan and Shanghai as well as business groups in Bangladesh. Through hosting international conferences including the Silicon Sea Belt Summit in Fukuoka 2009 and the International Workshop on Microelectronics Assembling and Packaging (MAP2008) and holding the technology exchange meeting during the mission of Taiwan economic Interchange, they have enhanced productive international hub networks and business interactions in Asia.

