# University-industry collaboration to tackle new challenges

The beginning of large-scale, university-industry-government collaboration projects for recovery from the earthquake and tsunami damage

## Tohoku innovative materials technology initiatives for reconstruction

Tohoku University, which is a world leader in materials science, serves as a center of a broad range of cooperative activities between universities and businesses in the Tohoku region. With this cooperation, the University will aim to bridge the creation of innovative technologies and commercialization in three main areas: ultra-low friction technology, ultra-low loss magnetic core materials, and high efficiency rare elements extraction.



#### Improving Competitiveness of Automobile Industry Auto Manufacturers TOYOTA, Central Motor Co., LTD, etc. Dustasse Meeding Commercialization Were Products Undustries Technology Institute, Myseg Profectural Covernment Myseg Profectural Covern

Conceptual diagram

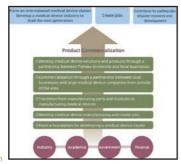
University-Industry Collaboration

## Knowledge-based medical device cluster in Miyagi prefecture area

The Council for Founding the Center for Knowledge-based Medical Device Cluster/Miyagi Prefecture Area was established by five institutions: Miyagi Prefecture, Tohoku University, Tohoku Economic Federation, The 77 Bank, and the Intelligent Cosmos Research Institute. The council aims to create new medical devices by introducing intellectual property, human resources, and funding into advanced electronics, precision machinery, IT industries, etc., in the region. It also works towards an establishment of a global industrial area as part of the Miyagi Prefecture Disaster Recovery Plan.

#### Next-generation automobiles in Miyagi prefecture area

Expectations are spreading that next-generation automobiles will be a key factor for recovery and restoration from damage caused by the Great East Japan Earthquake. In this project we are aiming to establish sets up a center for research and development of next-generation automobiles, taking advantage of world-class cutting-edge innovation and technology that Tohoku University and other research institutions in this area have. whereas, we are, while enhancing the technical abilities of local automobile-related businesses to vigorously promote recovery from the earthquake and tsunami damage with hoping that Miyagi prefecture and other parts of the Tohoku region could sustain the development as a great automobile industrial cluster area.





Concluding the memorandum of understanding with Aizuwakamatsu City

#### Opening of satellite schools for Regional Innovation Producer School

Conceptual diagra

Satellite schools for Regional Innovation Producer School will be opened at Hanamaki City, lwate Prefecture, and Aizuwakamatsu City, Fukushima Prefecture. The School was established at the Katahira Campus of Tohoku University as the principal school for developing human resources for business management, business leaders who can create and manage innovative businesses that promote and accelerate industrial and economic development, create new job opportunities, and promote recovery from earthquake and tsunami disaster damage in the region in FY2012. The School concluded a memorandum of understanding with Hanamaki City on April 12, 2013, and Aizuwakamatsu City on April 26, 2013. It is expected that a lot of human resources for management who can make innovations across the Tohoku region will grow and job opportunities will be created.

#### University-industry collaboration events

#### "Tohoku University Innovation Fair 2013"

Tohoku University Innovation Fair 2013 was held at the Sendai International Center on January 17, 2013 to match cutting-edge innovative research at the University with the commercial needs of society. At this event, the University presented its approaches to the recovery from the earthquake disaster in a special exhibition, and set up more than 70 booths for exhibition, including demonstrations of "Next-generation Mobile System" and "Robotics for Extreme and Uncertain Environments". About 1,000 people visited the fair.





#### "Tohoku University Lab Tour"

On February 19 and 22, 2013, Tohoku University and The 77 Bank held a Tohoku University Lab Tour as a joint project. In the event, local business people visited laboratories of the University in order to increase the technical abilities of local businesses and help develop young engineers. Instructors from the University presented state-of-the-art technology and unique research related to the automobile industry to visitors from manufacturing industries, while the visitors made a tour around research facilities and equipment. This tour was the first university-industry collaboration project that Tohoku University concluded with a financial institution.

### TOPICS Professor Kuriyagawa, School of Engineering, Tohoku University, was honored with Minister of State Award for Science and Technology Policy.

Professor Tsunemoto Kuriyagawa, School of Engineering, was honored with the 10th Minister of State Academia Partnership Award for Science and Technology Policy as a part of a Commendation for Contributions to University-Industry-Government Collaboration for remarkable individuals or groups recognized to have made great contributions to university-industrygovernment collaboration efforts that have produced significant results. The title of research on which the professor was honored with the Award is "Development of Nano-Precision Machining and Molding Method for Aspherical Glass Lens," which was based on the results of the consortium headed by Professor Kuriyagawa, and reflected current industrial needs.

> Picture of Award presentation ceremony (courtesy of Cabinet Office, Government of Japan)

