# Joint Research on Innovation Processes among Industry, Universities and Government

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# [Outline of survey]

This research project tries to understand, from theoretical and empirical perspectives, the main characteristics of innovation processes in Japan and pursue for the scheme for overcoming the weakness. In particular, the special attention is paid to science-based industries such as semiconductor, biotechnology, and pharmaceuticals. This research is conducted as the joint research among industry, universities and government. Specifically, New Energy and Industrial Technology Development Organization (NEDO), National Institute of Science and Technology Policy (NISTEP), Semiconductor Technology Roadmap Committee of Japan (STRJ), Japan Bioindustry Association (JBA), Japan Pharmaceutical Manufacturers Association (JPMA), and Office of Pharmaceutical Industry Research (OPIR) actively participate in this joint research project

## **Expected results**

This project is quite unique in that it is conducted as the collaborative research among social & natural scientists and engineers in industry, universities and government. Hence it is expected to produce lots of original and rich academic research results that could fully satisfy international standards. Moreover, The results of this research project could provide many important implications for revitalizing Japanese National Innovation System that has started to lose its competitiveness. Interim and final results will be sequentially published in research papers or books and presented in international conferences.

#### [References by the principal researcher]

- "Moore's Law, Increasing Complexity, and the Limits of Organization: The Modern Significance of Japanese Chipmakers' DRAM Business," (with N. Hashimoto), RIETI Discussion Paper, 08-E-001, 2008
- Chuma, Hiroyuki, "Determinants of the Shadow Value of Simultaneous Information Sharing in the Japanese
  Machine-tool Manufacturing Industry," Ogura, Seiritsu, Toshiaki Tachibanaki, and David A. Wise, eds., Labor
  Markets and Firm Benefits Policies in Japan and the United States, (National Bureau of Economic Research
  Report), University of Chicago Press, 2003, pp. 81-102
- "Increasing Complexity and Limits of Organization in the Microlithography Industry: Implications for Science-based Industries," Research Policy, Vol. 35, No. 3, April 2006, pp. 394-411

[Term of project] FY2008-2012 Budget allocation]
109,200,000 yen (direct cost)

[Homepage address] <a href="http://www.iir.hit-u.ac.jp/">http://www.iir.hit-u.ac.jp/</a>