

JFY2011 Awardees

Yen 15-20 million (\$135,000-180,000)/year for up to 3 years

Project	PI	Synopsis
Scientific Sources of Innovations and Economic Impacts of Science	Sadao NAGAOKA Professor Institute of Innovation Research, Hitotsubashi University	<p>To develop the Science of STI Policy, it is crucial to identify scientific sources of innovation and its economic impacts.</p> <p>This project systematically conducts research on innovators in the fields of pharmaceuticals and bio- medicines in order to build an objective database for understanding the mechanisms of developing innovations derived from science. Based on the database, it assesses to what extent knowledge flows of science are created by public information on research papers and patents, researches methods of enhancing flows, and evaluates economic impacts of science-based innovations. To increase the contribution of science to the development of innovations, the project presents a policy proposal based on the objective database and analytical methods instrumental in policy planning.</p>
Methodology Development for Visualization and Quantification of Social Expectation to Science and Technology	Masatoshi TAMAMURA Associate Prof. Faculty of Policy Management, Keio University	<p>In Japan facing diverse social issues on a deep level, it is required to resolve various social issues by effectively investing limited societal resources and by increasing social productivity. Toward that end, it is important to generate synergies between “technological innovation” and “social innovation.”</p> <p>This project develops methods of visualizing and quantifying “societal expectations” toward science technology—a method of graphically representing societal expectations that the public has for science technology resolving social issues and a quantification process for evaluating the changes science and technology brings to society and the benefits that such changes bring to their beneficiaries. It aims to intensify synergies between science technology and society using the information obtained from the results of the work as a common base.</p>
Integrating Joint Fact-finding into Policy-making Processes	Masahiro MATSUURA Specially-appointed Associate Prof. Graduate School of Public Policy, the University of Tokyo	<p>In the policy formation process, building consensus by coordinating different interests is becoming increasingly complicated because of interest conflicts among stakeholders who present scientific evidence that serves their particular purposes.</p> <p>This project studies the “joint fact verification” methodology, which can be used by stakeholders and experts to collaboratively identify scientific evidence likely convince the vast majority of stakeholders. Specifically, it conducts demonstration experiments on energy policies, food safety policies and ocean space projects and works toward the social implementation of the methodology to put science-based policy formation into practice.</p>
Development of Methods for Impact Assessment of Electric Power	Taro AKIYAMA Professor/Director, Center for Economic Growth Strategy, Yokohama National University	<p>Since the Great East Japan Earthquake, given the power conditions and the related technological innovations such as smart grid and fuel cells, innovations in the power market have been drawing attention.</p> <p>This project conjectures, in quantitative terms, the influence of a next-generation electrical power system whose market/system were carefully chosen based on suitability along with an appropriate electrical power market, projects a joint fuel cell R&D network and, based on these projections, evaluates public R&D outlays towards fuel cells. It establishes an innovation evaluation framework</p>

Innovation and R&D Network Evaluation		needed for the selection of infrastructure (including markets and systems) and develops a method for evaluating the effectiveness of public investment in R&D on the R&D network in order to contribute to the formulation of STI policies in relation to innovations in the electric power sector.
Scientometrics Conducive to Management of Funding Programs	Masashi SHIRABE Associate Prof.]Graduate School of Science and Engineering, Tokyo Institute of Technology	<p>This project aims to further facilitate the use of scientific evidence to contribute to the management of funding projects and important tool in influencing STI policies.</p> <p>The project identifies and resolves research issues through practical activities such as preliminary surveys and dialogue with practitioners for the purpose of building a platform on which practitioners and researchers can collaborate with one another. As a tangible result of these activities, the project develops an evaluation index designed to be used by the practitioners as they engage in managing funding programs and a method for graphically representing scientific activities. And, through regular workshops and sharing analytical experiences, the project's works toward creating a space that is conducive to collaboration between practitioners and researchers.</p>
Study of Innovation Strategies Conducive to Creating Future Industries	Eiichi YAMAGUCHI Professor, Graduate School of Policy and Management, Doshisha University	<p>This project aims to rectify the situation where we face delays in resolving various issues in industrial society because of not noticing that innovation-oriented industries have already shifted away from closed "big enterprises" to more open "networks of innovators." To that end, the project develops a tool called the "intelligence map" of Japan to graphically represent, analyze, and evaluate organic connections between, among other things, science, technologies, people, and institutions essential to fostering innovation.</p> <p>Furthermore, it makes this innovation generating tool open to the public through collaborative institutions. At the same time, the project researches educational systems and certification programs for the use of "Innovation sommeliers," experts who serve as a bridge between science (the creation of knowledge) and innovation (the creation of value) with the hope of contributing to the development of human resources necessary to achieve innovation.</p>

JFY2011 Feasibility Study Several Million Yen for up to 5 months

Project	PI
Inquire the needs among people who are potentially engaged in science and technology	Kei KANO Assistant Professor, Science Communication Group, Institute for Integrated Cell Material Sciences (iCeMS)
Macroeconomic Assessment Methods in Conjunction with STI Policies	Makoto NIREI Associate Prof., Institute of Innovation Research, Hitotsubashi University