Digitalization has a transformative impact on innovation in firms and industry, where new business models are disrupting traditional industries. Ubiquitous IT infrastructure enables sharing goods services such as Uber and Airbnb, big data analytics and AI technologies are used for condition based maintenance (CBM), by which industrial machinery producers such as GE can provide new value to their customers, and an advancement of automated driving technology may change the landscape of mobility related goods and services industry completely.

As the relative value of information (or “big data”) to physical products increases, and servitization of manufacturing industry progresses, the style of innovation becomes to be adaptive and flexible in changing environments. This calls for changes of the role of universities and PRIs (Public Research Institutions) in the innovation system. Such science sector does not provide only scientific findings as public goods, but also should play more active role in innovation ecosystem formation, by providing the field of rapid and interactive experimentation for industry.

This workshop puts together academia and industry people on review about recent scientific works on measuring digitalization of innovation, focusing on AI/IoT technologies, to facilitate discussion on the new style of public privation cooperation in innovation. The workshop will be build upon the research project on science based innovation under the Michelin fellowship of FFJ/EHESS, with the cooperation of “digital and open innovation” project of OECD.

**PROGRAM**

9:00 a.m.-9:10 a.m. Opening Remarks, by Christian Sautter (Vice-president of the FFJ)

9:10 a.m.-9:20 a.m. Introduction of themes of the workshop, by Motohashi Kazuyuki (University of Tokyo, EHESS/2017 CEAFJP Michelin Fellow)

9:20 a.m.-10:00 a.m. Dominique Guellec and Caroline Paunov (OECD)
Title: “Innovation policies at the digital age”

10:00 a.m.-10:40 a.m. Motohashi Kazuyuki (University of Tokyo)
Title: “Measuring Science Based Innovation and Innovation Policy Implications”

10:40 a.m.-10:50 a.m. Coffee break

10:50 a.m.-11:30 a.m. Yasushi Hara (GRIPS, EHESS/2018 CEAFJP Michelin Fellow)
Title: “From Science To Innovation: Under the analysis of Digital STI Policy Making Simulators (SPIAS and SPIAS-e)”

11:30 a.m.-12:00 p.m. Wrap-up discussions, facilitated by Kazuyuki Motohashi

Guide for presentation: 30 minutes for the presenter, 10 minutes for general discussion including the floor.
**Christian Sautter (FFJ)**

Christian Sautter co-founded the Centre de recherches sur le Japon (formally known as the Groupe de recherches sur le Japon) at the EHESS in 1973 and is Vice-President of the FFJ since 2009. He served as Minister for Economics, Finance, and Industry from 1999 to 2000, and Deputy Mayor of Paris between 2008-2014.

**Dominique Guellec**

"Innovation policies at the digital age"

The digital transformation has changed the way economies work and innovation is organised. The OECD project ‘Digital and Open Innovation’ investigates whether and, if so, how digital transformation changes the rationales for innovation policy as well as the most appropriate instruments to foster vibrant innovation ecosystems. This presentation is based on the OECD project on digital and open innovation, reviewing changing business models and new forms of innovation across sectors and different actors, including SMEs, start-ups and research institutions. It also analyses new forms of collaboration for innovation at local, national and global levels.

**Dominique Guellec** is Head of the Science and Technology Policy (STP) Division of the Organisation for Economic Co-operation and Development (OECD). This division covers notably: innovation policies, science policies, biotechnology and nanotechnology issues, national innovation studies, digital innovation, the STI Outlook, the Innovation Policy Platform, and the Space Forum. Mr. Guellec joined the OECD in 1995 and has worked on statistics, economic and policy analysis of science, innovation and growth.

**Kazuyuki Motohashi (University of Tokyo)**

"Measuring Science Based Innovation and Innovation Policy Implications"

Resume: This presentation is based on the database, linking scientific paper database (Science) and patent information (Technology) in Japan and the United States. The database allows us to look at co-occurrence of science and technology, which cannot be captured by traditional science linkage indicator such as NPL citation by patent. It is found that more scientific knowledge is used for industrial innovation over 10 years both in Japan and the United States. We also covers a topics of science based innovation in AI/IoT field to see detail interactions between public research institutions and private firms.

**Kazuyuki Motohashi** is Professor, Department of Technology Management for Innovation, and Director, Innovation Policy Research Institute, Graduate School of Engineering, University of Tokyo, and EHESS-2017 CEAFJP Michelin Senior Fellow.
"From Science To Innovation: The analysis of Digital STI Policy Making Simulators (SPIAS and SPIAS-e)"

Resume: What is the role of scientist, inventor, and entrepreneur during R&D Process from the fundamental scientific discoveries to marketization? Currently SciREX team develops and operates SPIAS, SciREX Policymaking Intelligent Assistance System, to analyze knowledge flow from science to innovation. In parallel, our economic simulation model called SPIAS-e (SPIAS-economic system) analyzes the impact of policy options of IoT.

**Yasushi Hara** is working as specialist at Science for RE-designing Science, Technology and Innovation Policy Center, National Graduate Institute for Policy Studies (GRIPS) and 2018 Michelin/CEAFJP Junior Fellow.