

**A Study on the Design of a Legal System for the Technology Assessment
in Advanced Science and Technology Policies:
The Relationship between Environmental Assessment and Uncertainty Assessment**

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This paper reconsiders the necessity to design a legal system for technology assessment in advanced science and technology policy, and presents the problems and possibilities of implementing it in Japan. Specifically, this paper examines nanotechnology as an example from the field of advanced science and technology. In addition, this paper finds a connection with the environmental assessment system, which has already been legalized in Japan, and provides new policy implications for the design of this new legal system, mainly by referring to examples from other countries such as the United States. In the advanced science and technology field, there is an “uncertainty” as to its social benefits versus negative social effects. This calls for the introduction of a technology assessment at an earlier stage. Based on the perspectives of ELSI and RRI, this paper proposes a new concept called “uncertainty assessment.” Furthermore, this paper also considers whether there is a possibility that the new system may be a trigger for future innovation and emphasizes the significance of bringing about a fundamental shift in thinking.