

develop user requirements. Questionnaire for requirements of ministries and related agencies. The expert consultation and the FGI implementation were conducted with a total of seven people including five major R&D staff and two R&D research leaders. A total of 90 questionnaires were collected as valid results and analyzed.

○ **R&D Life Cycle Survey**

The Ministry of Education, the Ministry of Culture, Sports and Tourism, the Ministry of the Future Creation Sciences, which is in charge of national R&D, KISTI, KEIT, KOCCA, NIPA, and NIA, which are responsible for R&D.

○ **Research and analysis of R&D management system**

Research on the R&D system is conducted through research on the performance management system, second on the overseas R&D survey and management system survey analysis, and third on the domestic R&D management system. The actual status of overseas R&D management system was analyzed by analyzing 'NTIS, Europe (IST-World), Japan (JST) and China (ISTIC)'.

○ **Study on national R&D process copyright service management model**

Study the copyright service model for how to systematically manage national research reports. Provide legal distribution and research utilization enhancement services based on identification system (UCI identifier). Developing protection technologies to prevent economic losses and intellectual property disputes arising from the outflow of research reports and intermediate products that occur when conducting national R&D tasks.

○ **Study on copyright innovation service model based on R&D workflow**

Design workflow-based copyright management model by analyzing R&D workflow managed by task management professional organization and NTIS. And to derive a model that can revitalize the use of transactions for the copyright license and element technology for national research reports.

○ **Technology development for copyright information search service**

Developed a technology that enables search engines to find copyright information such as footnotes and references in a national research report (PDF/A file). Develop a technique to paraphrase the words in a PDF/A file.

○ **Development of automatic citation index technology**

Automatically develops techniques to attach and manage citation indexes of research reports.