Support Survey on the Guideline Development for the Research on Breakthrough by Dynamic Approach in Sewage High Technology		
Year of Research	2012	Establishment of energy and resource recycling

(Purpose)

The Ministry of Land, Infrastructure, Transport and Tourism is conducting "Breakthrough by Dynamic Approach in Sewage High Technology Project" (B-DASH Project) in order to accelerate research and development into and the implementation of new technologies in order to achieve sharp reductions in the emission of greenhouse effect gases and in construction costs for sewage treatment systems as well as to support the overseas expansion of water businesses.

In this project, information relating to technical overviews, considerations when introducing the technology, planning, design, operation and maintenance and other areas was collected from two validation research projects that were used in the Breakthrough by Dynamic Approach in Sewage High Technology project. In addition, the data obtained by the research contractor for the Research on Breakthrough by Dynamic Approach in Sewage High Technology project was collected, and an overview of the technologies and benefits of their introduction were compiled for use as basic data in the development of guidelines. Review sessions were held by experts, and the information was sorted by consulting experts and gaining their opinion.

(Results)

(1) Outline of the technologies evaluated

The following validation research projects were evaluated.

[1] Validation of an energy management system which uses an extremely efficient solid-liquid separation technology

Implementation site: Nakahama Sewage Treatment Plant in Osaka City

[2] Validation of renewable energy production / breakthrough technologies

Implementation site: Higashi-Nada Treatment Plant in Kobe City

(2) Details of the survey

The main areas that were surveyed are as follows.

[1] Confirmation of information necessary for evaluating verification research

The overall purpose, intention and scope are listed as general information so that the two sets of guidelines have the same contents and are treated in the same way.

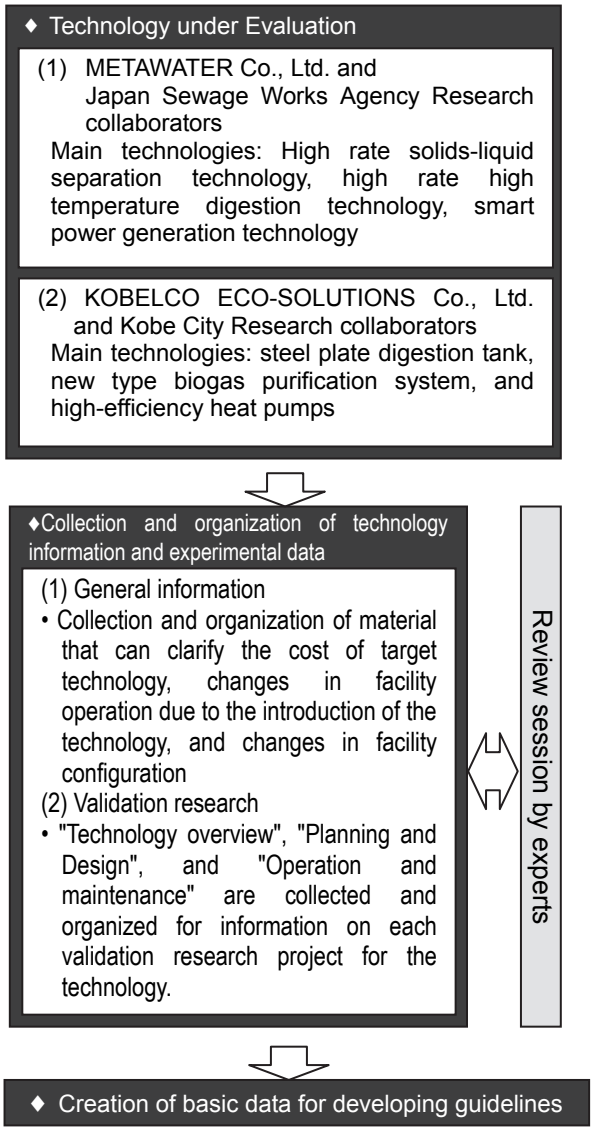

Figure 1. Flow Chart of This Study

The results from the collection and organization of materials that can clarify the cost of the relevant technology, changes in facility operation due to the introduction of the technology, and changes in facility configuration are organized as content relating to the "Study of the introduction of technology". In addition, "Technology overview", "Planning and Design", and "Operation and maintenance" provide information on the collaborative research on each technology. Hence, they are separately organized for each collaborative research project.

[2] Challenges for the promotion of the technology

As well as viewing the system as a whole, an overview is also given and the features of and general information for each technology developed and verified are also laid out in order to promote the technologies, and methods for comparison with the conventional technologies are set forth.

※ Policy support project from National Institute for Land and Infrastructure Management

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Key words	Research on Breakthrough by Dynamic Approach in Sewage High Technology, energy technology, biomass, cost reduction, greenhouse effect gas reduction