

Study on Environment-Related IT Business in Japan

~Shift from passive to strategic responses to cope with REACH and environmental management~

➔ **Research Outline**

Yano Research Institute has conducted a research on the environment-related IT market in Japan with following conditions.

1. Research period: May 2008 to August 2008
2. Research targets: Environment-related IT packaged system vendors, system solution vendors, etc. in Japan (14 firms)
3. Research methodologies:
Face-to-face interviews with relevant personnel were primarily employed, being supplemented by interviews via telephone and e-mail.

<What is Environment-Related Information Technology?>

The environment-related information technology is the systems or services used by corporations to collect and process information on environmental issues they are involved in by utilizing general-purpose packaged software and systems, etc.

➔ **Key Findings**

- ◆ **Environment-related IT is an indispensable tool for environmental management for the future**
Scope of environmental management has been expanded and fields of management involved have also been diversified. The individuals in charge are now forced to collect and process the necessary information efficiently and timely to make good use of it for carrying out their strategies. In addition, the amount of information that the manufacturing sectors must have has been becoming huge due to such regulations as REACH. Therefore, the environment-related IT systems at this time are expected to meet these changing needs.
- ◆ **The challenges are how to cope with the various needs, how respond quickly to environmental regulations, etc.**
While the needs for environment-related IT is high, many users do not have appropriate systems at this moment. Some of the problems include lack of flexible responses to various needs of each corporate user and prompt response to the environmental regulations. Another problem is insufficient strategic proposals, which could directly lead to improvement that can be measured objectively in figures, and to improvement of management and that in production cost.
- ◆ **Environment-related IT market in Japan is expected to grow to the scale of 73,850 million yen in 2010.**
We estimated that the market size in 2007 was 51,100 million yen (107.2% year-on-year) and forecast that it grows to 73,850 million yen (112.6% year-on-year) in 2010. The percentage distribution by application in 2007 was: 38% for chemical substance, 25% for environmental management, 13% for waste material, 8% for ASP (Application Service Provider) and 16% for others.

➤ **Report format:**

Published report: “Environment-Related Information Technology Business 2008”

Issued in: September 2008

Language: Japanese

Format: 186 pages in A4 format

Price: 100,000 yen (5,000 yen of consumption tax will be additionally charged for sales in Japan.)

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➤ **Research Summary**

1. Definition and scope of environment-related IT system market

The environment-related information technology in this study refers to the systems used by corporations to collect and process information on environmental issues they are involved in by utilizing general-purpose packaged software and system software, etc. The scope of the market is defined in the table 1. below.

Table 1 Definition and Scope of the Environment-related IT System Market

Service	Service Details	Scale of Target Companies	Application Field
Packaged Systems	Packaged software, Customization	Medium to large	Environmental management (Environmental Report, CSR, etc.) Environmental accounting Response to laws and regulations inside/outside the country (RoHS, ELV, REACH, etc.) Information management on contained chemical substances Information management on waste materials Volume of CO ₂ emissions etc.
	Packaged software, Partial system integration	Relatively large to large	
	Single software, Packaged software	Small to medium	
System Integration	System integration only	Medium to large There are also self-developed products.	
ASP*1 Services		Small to medium	
Environmental Information Services		Medium to large, Ordinary citizens	Prompt renewal of regulations, Publicity of environmental trends

*1: ASP: Application Service Provider

(Estimated by Yano Research Institute)

2. Market overview

The companies in every field of industry in Japan nowadays are more and more deeply involved in activities related to environmental issues. Although some changes have started to be observed in the environment-related IT system market, it has not shown drastic expansion for the last few years.

Looking at other areas of the world, in Europe, which is leading environmental policies, a number of new environmental regulations such as REACH*¹ have been issued. Those regulations have been increasingly becoming stricter year by year and largely affected other countries and areas.

Many Japanese companies generate a good part of their operating profit from overseas countries or regions, and Europe is one of the most important parts of the world in terms of the proportion of the profit. At the same time, the Japanese companies deploying their business globally have a serious problem of how they can share their sense of crisis with their downstream subcontractors, and some major companies even extensively announced their intention to do business only with the parts suppliers who already have sophisticated systems of material information management. Considering the status as just described, it could be forecasted that the environment-related IT business further expand.

*1: "REACH (Registration, Evaluation, Authorization and Restriction of Chemicals)" is a rule enforced in June 2007 and is so strict that chemical substance information for approx. 30,000 items, which are outside the scope of "RoHS" for data preparation and maintenance, evidence obtained in the process of testing those material, and furthermore, 100% of the material information, not limited to management of the numbers and names of the materials, have to be prepared. REACH is a law, and companies operating in Europe have to comply with it to duly conduct their businesses.

3. Prospects of the market

The environment-related IT systems have potential to extend their functions and roles to fleet dispatch control systems, logistic control systems, energy-saving systems, etc., which are related to CO₂ and energy consumption as examples, in addition to conventional packaged software and systems that support generating environment reports, collection and organization of information on environmental burden to be reported and collection and management of chemical substances and waste materials. Also, the environmental IT systems will have strategic meaning if the information on the chemical substances and waste materials interface with production processes. Furthermore, if it is effectively linked to corporate business strategies, environmental accounting, etc, further expansion of the market is anticipated.

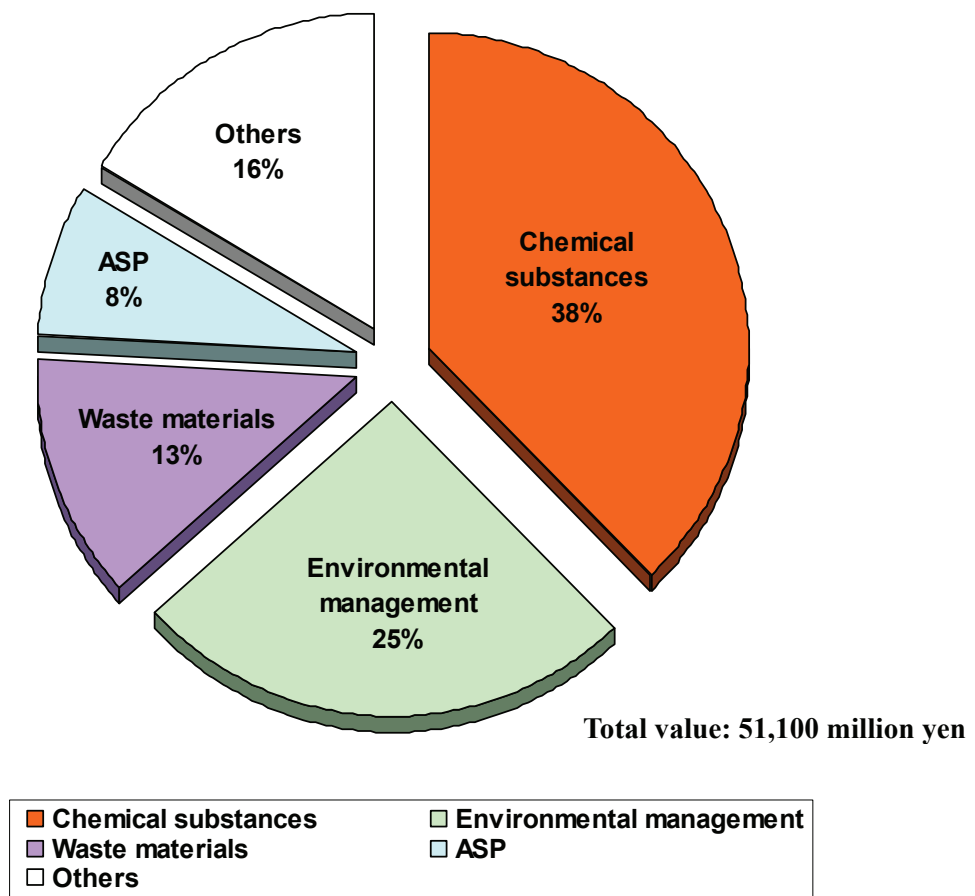
The role of environment-related IT is expected to increase, considering that there is high possibility that various new schemes including green procurement, MFCA (Material Flow Cost Accounting), etc. will be strictly required to be implemented in future, because many major companies, most of which are manufacturers, will aggressively develop or find themselves with no choice but to develop their environmental measures due to changes in and requirement from external environment, while they currently have to cope mainly with REACH of Europe as for the chemical substance-related issues.

It is not easy to provide users with the systems that could clearly benefit them, taking the above possibilities into consideration, and there should be a lot of challenges to do it. They are not something that have just been created recently but have long existed since the initial stage of the system proposal, which is simply how to propose user friendly systems (i.e. easy-to-use, simple and effective systems).

Some factors that make development of environment-related IT systems difficult are that it is largely affected by external factors such as environment regulations, required to respond quickly to those regulations and to be flexible enough to match internal operations, while most other systems could be built based on the companies' own initiative and purposes, and necessary packaged software of their own choice can be used. It is possible that these factors restrain the market from expanding at the pace as it should be.

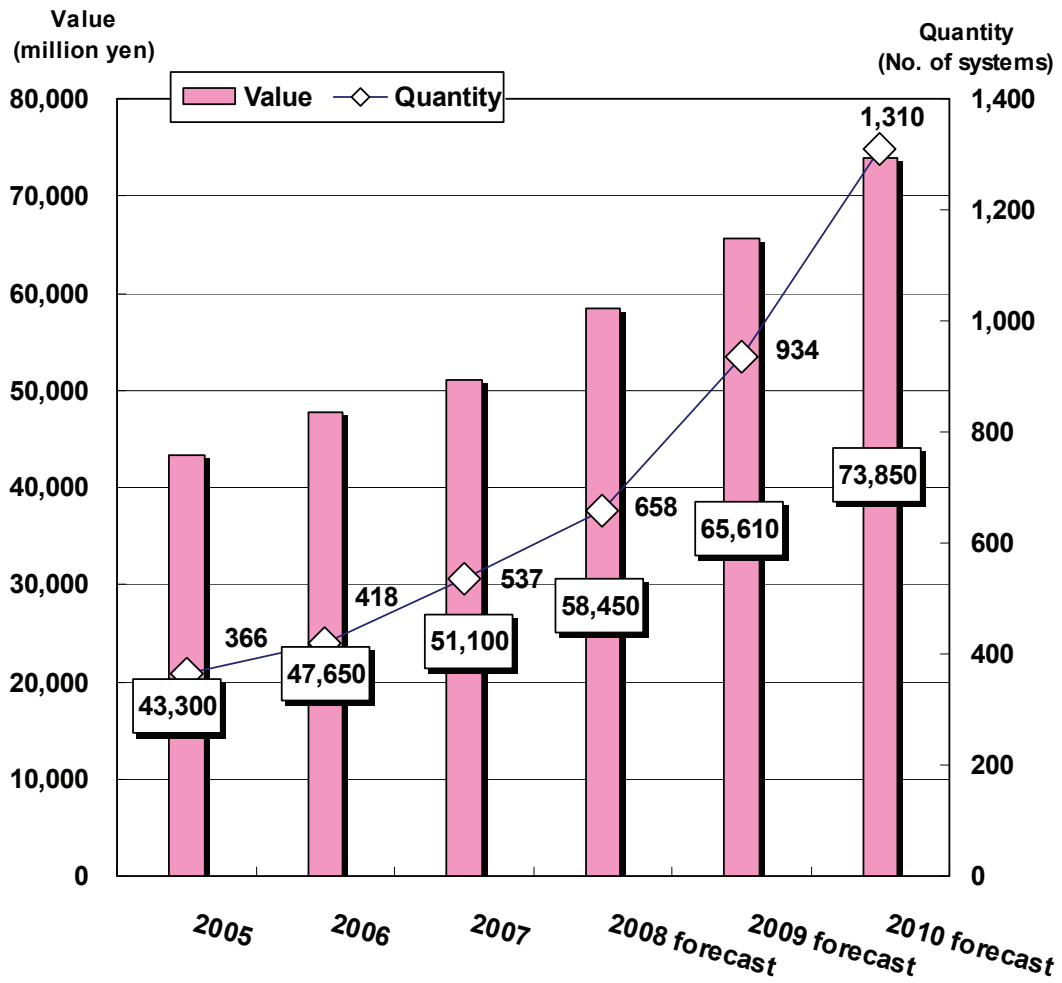
There is a possibility for the environment-related IT market to drastically expand and play an important role in future, depending on the ingenuity and contents of proposal of the market entrants. Despite this possibility, it is difficult to introduce and utilize the environment-related IT effectively in many cases. It will be quite important for the market entrants to clearly show how much the environment-related IT systems have strategic value to the potential users who regard the expense for environment-related IT as a sort of costs.

Figure 1 Percentage Distribution of Environment-related IT System Market by Application



(Estimated by Yano Research Institute)

Figure 2 Market Size of Environment-related IT System Business in Japan



*The figures for 2008 - 2010 are the forecast by Yano Research Institute.

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