

ESG Management Support Service for Sustainable Management

Along with companies becoming more conscious of sustainable management, the growth of ESG investment over recent years has made it more important that the relevant information be disclosed to investors. As a timely response to changes in the rules governing such disclosures is also called for, a lot of human effort and time goes into the collection and collation of large amounts of ESG information, which comes in many different forms and is dispersed across different organizations and countries. In response, Hitachi has developed a service that helps companies pursue sustainable management by streamlining the tasks of collecting, presenting, and analyzing ESG information. This article describes the goals and features of this service.

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1. Introduction

Integrated reporting has arisen as a means of presenting management strategies in terms of both the financial and non-financial conditions of companies, as laid out in the 2013 International Integrated Reporting Framework.

More recently, in the 2020s, there has also been an acceleration of action on the standardization and formalization of non-financial information disclosure. Examples include work on standardizing the disclosure of financial information relating to climate and sustainability, especially by the International Financial Reporting Standards¹ (IFRS) Foundation, the introduction of regulations in the European Union (EU) based on its Corporate Sustainability Reporting Directive², and more extensive non-financial information disclosure requirements from the Securities and Exchange Commission in the USA.

One of the challenges when collecting large amounts of different types of environmental, social, and governance (ESG) data is that it takes a lot of work. It also requires dealing with data formats that differ between organizations and nations while maintaining data consistency when organizations restructure or merge and responding quickly to changes in the topics covered by ESG disclosures. To address this, Hitachi has developed its ESG Management Support Service (MSS) to make collecting, presenting, and analyzing ESG data more efficient and to support digital transformation (DX) in ways that facilitate sustainable management. The service was launched in January 2023 (see **Figure 1**).

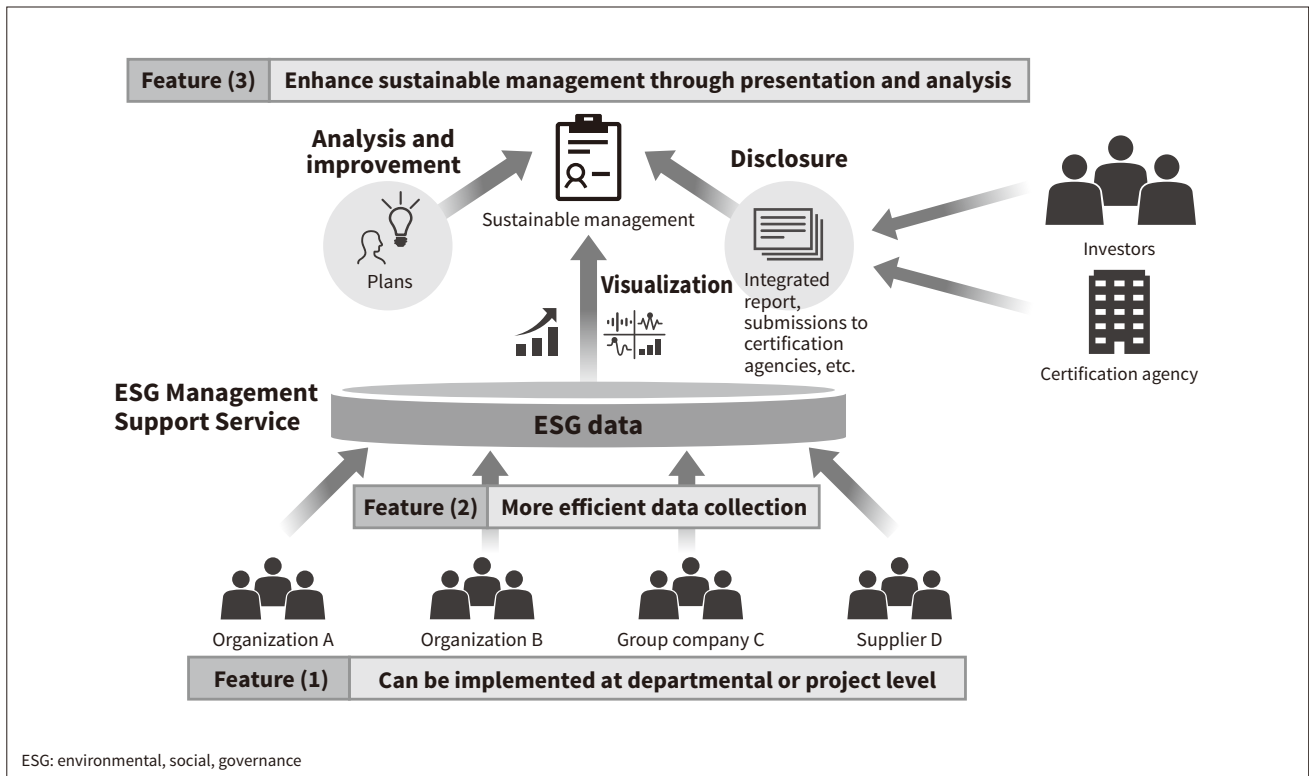
This article describes the challenges that arise when establishing a platform for information collection and how these are addressed by the functions of the ESG Management Support Service.

¹ Accounting standards formulated by the International Accounting Standards Board.

² A law stipulating requirements for reporting on issues ranging from environmental sustainability and societal rights to human rights and governance.

Figure 1 – Concept Diagram of ESG Management Support Service

Rather than being implemented on a company-wide basis, use of the service can be targeted at smaller operational units, such as specific departments or projects. It eliminates human inefficiencies, delivers greater transparency in the collection process, and supports the presentation of collected data.



2. Challenges of ESG Information Collection and Functions of ESG-MSS

2.1

Challenges of ESG Information Collection

While efforts to collect ESG information have accelerated in recent years, the methods for doing so have not kept pace. At many companies, it involves the following sequence of steps.

- (1) A senior manager uses a spreadsheet to define the format for collecting data.
- (2) The manager sends an e-mail to subordinates with the spreadsheet attached.
- (3) Where necessary, these subordinates send a similar e-mail to their own subordinates.
- (4) The staff assigned to carry out these requests go about collecting the required information, manually entering it into the spreadsheet in the specified format, and returning it, again as an e-mail attachment.
- (5) The manager reviews the received file, consulting with staff members where necessary to correct any data entry errors and resolve any uncertainties.
- (6) When all the data has been obtained from subordinates, it is collated in the specified format and returned to the person who requested it.

Hitachi has identified the following three issues with collecting data in this way.

(1) Lack of information literacy

Many companies use spreadsheets for entering and managing data and e-mail for communications. This is because dedicated information collection systems cannot cope with changes to the data being collected, requiring modifications when new data is added, and because companies lack the budget to build such systems.

(2) Lack of consistency in information collection formats

Differences in the formats used by parent and subsidiary companies, or across different departments within the same company, mean that preparing reports takes a lot of work, with managers having to map data items to the reporting template manually.

As the scope of information collection expands, it often creates a need for modifications to existing systems and services. Given the time and expense involved, companies are unable to implement changes to collection formats quickly.

(3) Manual data entry checks

While spreadsheets come with a certain level of error checking, such as detecting when text is present in a numeric field or an incorrect range has been specified for calculating a total, there are many instances where these checks fail to identify mistakes in manually created spreadsheets, such as missing settings or incorrect ranges.

2.2

Development of ESG-MSS

Based on the issues identified, Hitachi commenced development of the ESG-MSS in April 2022, recognizing the urgent need for such a service to support collection functions.

The functions to be developed were split into four groups based on how users go about collecting data. These were: (1) Registration of template, (2) Management of contact lists, (3) Collection requests and reception of answer forms, and (4) Analysis (see **Figure 2**). The MSS was limited to the provision of data, with customers using business intelligence (BI) tools such as PowerBI^{*3} for analysis.

To ensure that the service can be delivered in a way that fits with how customers use it, the scope of data collection work is split into separate “tenants” and service contracts are offered on a tenant-by-tenant basis. This provides flexibility in service configuration, supporting both large and small implementations.

The main MSS functions are as follows.

(1) Registration of template

This function defines the data to be collected. The field name (English and Japanese), data type, and data entry

rules (upper and lower limits) for each item are specified in a spreadsheet and registered in the MSS. This is then used to generate the schema for storing data in the MSS and the answer form file [described in (3) below] for collating the collected data. When the information collection request function is executed, the schema generated from the template is used to create the database schema in the data lakehouse (Databricks^{*4}) that stores the data in the MSS. As this database schema is updated whenever a user adds fields or otherwise modifies the template, such changes can be made at any time.

(2) Management of contact lists

This function manages the contact lists used to send out collection requests by e-mail.

Circumstances such as corporate mergers and acquisitions or changing business conditions result in organizational changes, and personnel transfers lead to renaming of departments or reassignment of responsibilities. As information may be requested from tens or even hundreds of people, large departmental reorganizations or changes in the contact network generate a lot of work.

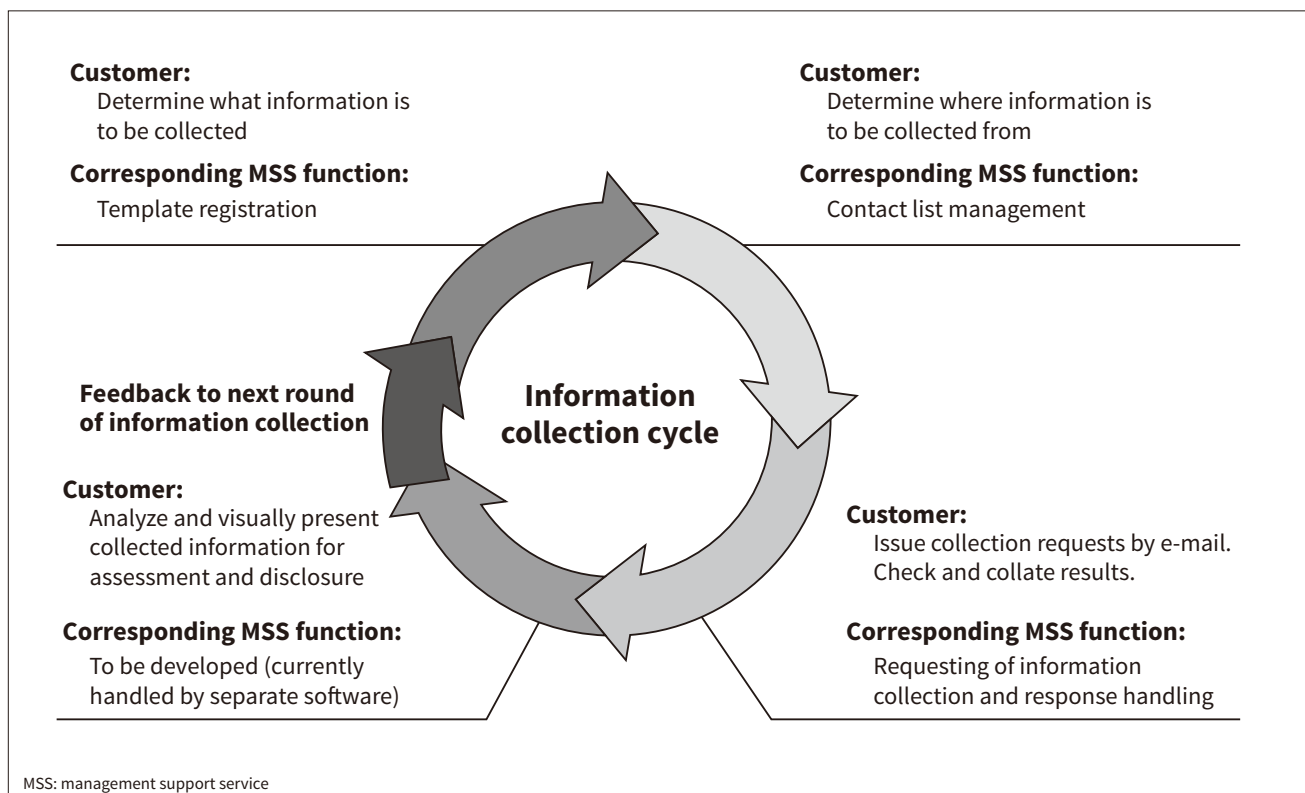
By providing a way to update contacts automatically by coordinating the contact lists and information about

^{*4} An integrated environment that provides the functions required for using data in the cloud, including data collection, archiving, artificial intelligence (AI), analytics, and visualization. Databricks is a registered trademark of Databricks Inc.

^{*3} PowerBI is a registered trademark of Microsoft Corporation.

Figure 2 — Four Types of Functions Provided by ESG Management Support Service

Information collection can be divided into four blocks: (1) Define information to be collected, (2) Determine where information is to be collected from, (3) Collect and return the required information, (4) Analyze and present the collected information. This service improves efficiency by providing the functions needed for each block.



the people in charge across different tenants, the function for managing contact lists makes it easy to reorganize the contact network.

(3) Collection request and reception of answer form

The template and contact lists created by the above functions are combined into an information collection request package. When a collection request is issued, an email is sent requesting action by each of the designated contact people with the answer form generated from the template included as an attachment.

The recipients fill out the attached answer form and return it in their e-mail reply. The MSS then checks this file and the data it contains based on the data entry rules in the template. If errors are found, the person who provided the information is notified. If not, the data is updated in the MSS.

3. Conclusions

This article has described how Hitachi has addressed the difficulties companies face when collecting information, developing functions for a service that utilizes companies' existing tools and works the same way as their existing data collection practices.

In the future, Hitachi intends to expand the service with additional functions that will allow its use for information collection by more companies.

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