



VELIS
REAL ESTATE TECH

Why Does the Real Estate Market Need ESG Reporting Software?

Benefits of Implementing the ESG Reporting System for Real Estate



SINGU
FM Platform

Environmental, social, and governance (ESG) reporting was a voluntary business practice until recently. Today, in the era of new legal and EU regulations and the ever-increasing environmental pressures, it has become a foundation of running a business responsibly and a key element of competitive advantage. Beginning in 2023, the non-financial reporting requirement will apply to large companies and companies listed on a stock exchange. However, starting in 2026, it will be obligatory for most companies.

Non-financial reporting focuses on sustainability factors, which the European Union is currently finalizing. These standards (ESRS – European

Sustainability Reporting Standards) outline reporting requirements in the following four areas:

- **General principles** (general, strategy, governance, and materiality assessment disclosure requirements)
- **Environment** (e.g., climate change, pollution, water & marine resources)
- **Social** (e.g., own workforce, consumers, and end users)
- **Corporate governance** (e.g., governance, risk management, and internal control).

This white paper highlights how ESG reporting software can benefit the real estate industry.

How Can ESG Reporting Software for Real Estate Help?

1 ORGANIZE AND VISUALIZE DATA

ESG reporting tools must enable regular data collection from various areas of real estate operations in a structured and standardized way.

With such solutions, real estate data can be collected and tracked efficiently for non-financial reporting in compliance with current EU directives. With the right software, “tailored”

building data can be collected from a computer-aided facility management (CAFM) system that has already been implemented.

Dashboards and widgets can present all the necessary information in one place. As a result, it's much easier to spot problems and areas for improvement.



Flexibility in Data Collection and Reporting

The flexible collection of ESG data for properties is one of the advantages of ESG reporting software. Building attributes can usually be found in ready-made sections, but users should also be

able to create customized attributes based on their needs and preferences. This allows the data to be adapted to meet certification requirements (e.g., GRESB, LEED, BREEAM).



Compliance with GRESB and More

In addition to having prebuilt report templates that meet GRESB certification requirements (for example, energy and water consumption, greenhouse

gas emissions, and waste generation), ESG reporting software should also allow users to create customized reports based on their individual needs.



Collecting Survey Data

Surveys are another useful tool in ESG reporting. This type of application allows building managers to prepare customer satisfaction surveys, which they can send to all their tenants. In addition, using

the collected responses is a valuable method of gathering non-financial reporting information that can be relevant when applying for certifications, such as GRESB.



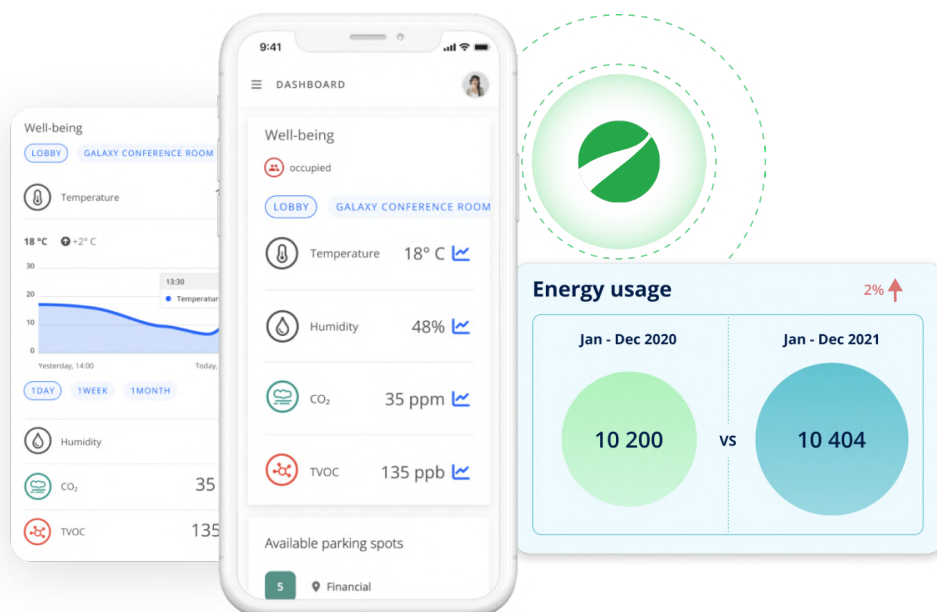
Internet of Things (IoT)

A key component of Industry 4.0 is the Internet of Things, which allows machines, objects, and devices to collect, process, and exchange data, such as current ambient environmental conditions (e.g., CO₂ levels, temperature, humidity, or energy consumption).

IoT is used in smart metering, supported by facility management applications along with ESG reporting software. IoT sensors allow the monitoring of utility or energy consumption in real time. This enables

continuous monitoring of a given parameter's consumption at a specified time.

Sensors can also be utilized to measure the physical parameters of an environment (e.g., temperature, humidity) or parameters associated with specific equipment (e.g., vibration, leakage). IoT sensors collect and monitor data about how parameters translate into real-world environmental conditions in comparison to smart meters, which provide information about the exact parameters we deliver or transmit.



EXAMPLE:

A smart sensor measures electricity consumption. For example, the IoT sensor measures the temperature in a room heated by an electric heater. By combining these two IoT elements, we can observe and analyze how much energy it takes to maintain a room's temperature and how much energy is consumed when it is raised or lowered.

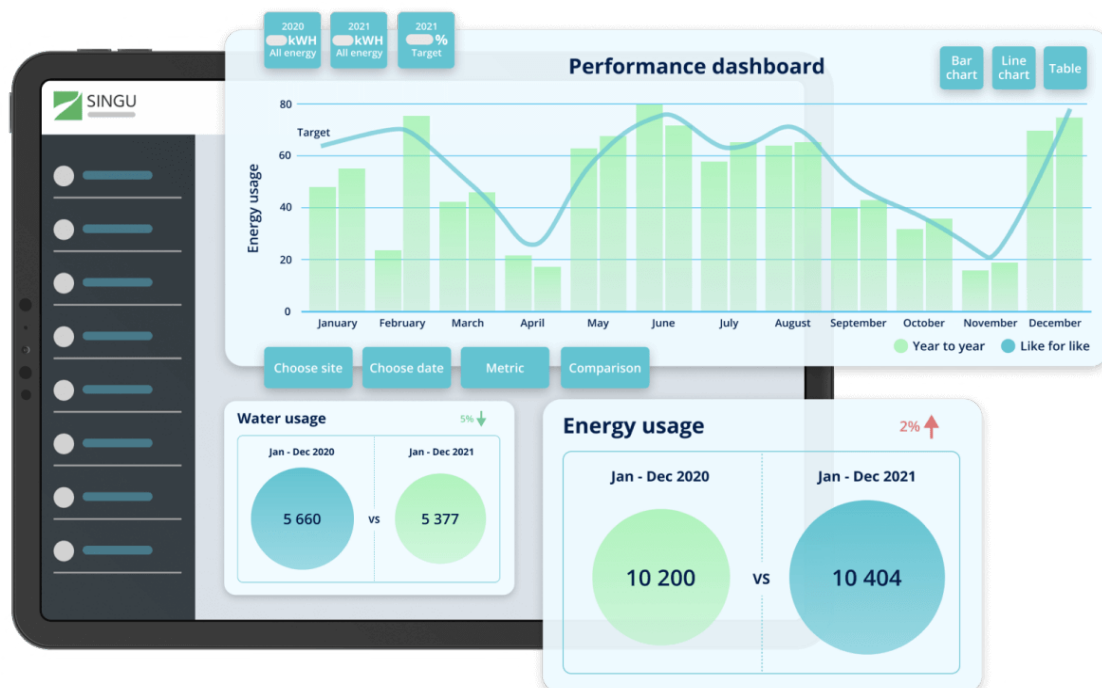
**Data Visualization (Dashboard and Widgets)**

Built-in dashboards display data on energy and water consumption, waste generation, or greenhouse gas emissions in selected buildings as graphs (bar, line).

A dashboard can display data **year-to-year** or **like-for-like** (compared to the previous period) and download data to an XLS file for further analysis. Furthermore, predefined goals can be overlayed on the chart for easy goal management and assessment.

In addition to data visualization, widgets allow users to compare data resources from various periods based on the settings.

It is important that your software can integrate with IoT sensors. With the integration of IoT, widgets can visualize building parameters such as CO₂ levels, temperature, humidity, energy, or water consumption.



2 DETAILED AND TRANSPARENT DATA

Using ESG reporting software helps real estate companies prepare non-financial reports more easily. The advantages include detailed and accurate data from different areas of a building's

operations, transparency, better communication with tenants, and support in identifying and tracking risks related to environmental, social, and governance (ESG) issues.



ESG Target Setting

A key issue of the EU non-financial reporting standards is how companies set **measurable sustainability goals** and implement them.

To meet these requirements, software should enable you to define and set your own goals regarding, for example, energy consumption, water consumption, waste generation, and greenhouse gas emissions.

With this type of application, you can define any number of targets for your property portfolio. Dedicated goals panels allow quick assessment of individual tasks' progress against their goals by displaying all predefined goals.

Park	Building	Name	Metrics	Target year	Base year	Quarter	Target
	Galaxy	Energy Efficiency	Energy efficiency	2024	2023	I	2.00 %
	Star	GHG Reduction	Greenhouse gas emissions	2025	2022	III	1.50 %



Reporting Based on Meters

With the extensive capabilities of ESG reporting systems in real estate, it is possible to obtain detailed information about meters located in buildings. In addition to accurately describing **the location of the meter** (e.g., area of the owner/tenant/common area/ exterior of the building), the software allows you to locate the exact **source of the meter**.

Meters can also be identified by their exact source. Not just **what the meter measures** (energy/water) but **whether it's renewable** (like photovoltaics) or not. Additionally, each meter can be categorized into **three scopes of CO₂ emissions**, which simplifies the calculation and reporting of carbon footprints for businesses.



Scope 1 emissions, direct emissions - from sources that are owned or controlled by the organization. Scope 1 emissions physically occur in assets owned or controlled by the reporting company.

Scope 2 emissions, indirect emissions — from purchased electricity, heat, steam, or cooling consumed by the company but generated elsewhere.

Scope 3 emissions, or other indirect emissions — that occur as a consequence of the organization's operations but are not directly owned or controlled by that organization.

Source: [GRESB](#)



Sources of Data — How to Collect Data Effectively?

A single standard for information acquisition is essential for collecting non-financial data for non-financial reports. This is especially vital in buildings where the automated transmission of building parameters involves a great deal of data.

Combined with its non-financial reporting software extension, Singu FM uses the MQTT protocol for data transfer. Through this global standard, it is possible to connect many IoT sensors, smart meters, or equipment directly to Singu and read their operating parameters.

Individual parameter readings can also be entered manually in the Equipment

or Meter module of the application. Even though the readings are not automated, they will be integrated into the ESG report.

The MQTT protocol, which we use for Singu FM applications, provides customers with the opportunity to integrate other data into the system. Such an example would be an integrated building management system (BMS) with a meter reading. If the data in the specified form can be exported from the BMS in accordance with the MQTT protocol, then it is possible to transfer the data to the Singu FM application, thus creating a batch of data for the ESG report.



Intensity Indicators

In non-financial reporting, various indicators convert a given resource into a square meter of a given area. By using the intensity indicators built into the system, it

is possible to prepare reports containing data based on this indicator. Indicators also allow the comparison of buildings of different sizes and dimensions.



Waste Disposal and Management

As part of their non-financial reporting, companies will be required to provide detailed information about the waste they generate. ESG reporting software program will provide detailed information on **the type** and **amount of waste** generated by the enterprise, as well as

the method of disposal. When waste disposal companies provide information in units other than kilograms, the system should be able to convert cubic meters to tons with the help of appropriate **conversion factors** (set by the user).

3 ASSESSING IMPROVEMENT OPPORTUNITIES

Monitoring and reporting non-financial data regularly can help companies identify areas for improvement and compare their performance. As a result, they can make more informed investment decisions. A well-

collected and visualized ESG data can assist in identifying environmental and social risks and opportunities that affect asset value. By collecting ESG data properly, we can take a holistic view of asset performance.



In the ESG dashboard, defined goals can be overlayed on a chart, making it easy to continually track progress and respond in real-time when emerging results do not match expectations.

With Singu FM, you can easily compare data from different periods and spot any deviations that may have occurred.

Often, ESG reporting is treated as an annual report, but it is crucial to continuously record and **monitor data throughout the year**. IoT sensors provide live data readings that can be analyzed in real-time. This makes it easier

to manage, as well as to take quick corrective actions. Consequently, problems with the infrastructure are noted as soon as they arise, preventing leaks and equipment repairs.

A Step-by-step Guide to Implementing ESG Reporting Software

THERE ARE SEVERAL MAJOR STEPS INVOLVED IN IMPLEMENTING THE ESG REPORTING SYSTEM:

- 1 Establishing a project team and coordinators
- 2 Choosing the first building to be implemented
- 3 Technical audit:
 - a. Verification of utility meter readings
 - b. Verification of waste disposal methods
- 4 Organizing a workshop and creating the implementation schedule
- 5 Completing the building data questionnaire and existing certification (GRESB, LEED, BREEAM)

- 6 Installing technical devices to improve meter readings of utility consumption
- 7 Configuring the application to collect data on waste disposal
- 8 Setting ESG targets and strategies for the building (self-improvement)
- 9 Analyzing the first data and conclusions

Streamline ESG Reporting in Real Estate

ESG reporting can be challenging for interdepartmental teams that need to collect data from multiple sources, including buildings, locations within properties, and various areas of the company, among others. It is recommended that all building data, such as waste disposal, meter readings, or tenant surveys,

be collected in one place, preferably by using the same software.

This document described several capabilities offered by **Singu FM** — a software solution that combines facility management and maintenance management with **ESG reporting features**.

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→ Do you want to discover the potential of IT in ESG reporting and schedule a workshop with our specialists?

→ Are you looking for real estate ESG reporting software?

For more information, please contact us: www.velistech.com/ESG

VELIS REAL ESTATE TECH

With over 13 years of experience, Velis develops and implements PropTech solutions for commercial and industrial real estate. Created solutions include **Singu FM** — a facility and maintenance management system with ESG reporting add-in, Singu Tenant App, integration with IoT sensors, and BIM technology.

Contact us: sales@velistech.com