

# Oracle ESG Intelligence Framework

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Statement of Direction

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## Introduction

Corporate reporting on environmental, social, and governance (ESG) performance is becoming a high priority as governments, regulators, investors, and other stakeholders increasingly seek to hold businesses responsible for their impacts on the environment, the climate, and the well-being of communities and individuals. Pressure is rising for companies to report on the financial risks and opportunities they face regarding physical and "transition" impacts of climate change. ESG reporting is increasingly becoming mandatory for organizations around the world.

Oracle itself seeks to [operationalize sustainability](#) in a companywide effort to protect natural resources, minimize adverse impacts, and lead the way toward a more sustainable future. We are committed to strong governance practices and to creating a workplace where all kinds of people can do their best work. Oracle is also committed to delivering innovative cloud technology to accelerate meaningful change.

As part of that latter commitment, Oracle already provides a number of technologies that empower our customers to meet their ESG goals, and we plan to build additional capabilities that allow those customers to leverage our comprehensive enterprise software applications even more.

## Technology as an enabler to advance ESG initiatives

Technology plays a key role in advancing humanity's efforts to address climate change and sustainability more broadly. To meet organizational ESG ambitions and address the associated challenges, companies need enterprise software that embeds ESG in the bones of their finance, manufacturing, procurement, and human resource operations. When ESG metrics are integrated into these essential operations, data are readily available for analysis, giving people at all levels of the organization the awareness and tools to support the overall ESG goals.

At an infrastructure level, organizations can improve their environmental performance by leveraging the high efficiency of [Oracle Cloud](#), for which we have a goal of carbon neutrality by 2025. Delivering computing technology as a service also aligns with the goal of building a more circular economy. Every year Oracle either reuses or recycles over 99.6 percent of the retired hardware collected.

Oracle's [ESG reporting and planning solution](#), built on Oracle Fusion Cloud Enterprise Performance Management (EPM), allows customers to collect and standardize ESG data from multiple sources and manage all their ESG data in one place. Once an ESG baseline is established, organizations can model short- and long-term sustainability goals, align initiatives across their operations, and make decisions based on an integrated understanding of ESG, finance, and operations. The flexibility of Oracle EPM ensures that customers can meet the reporting requirements of most regulatory organizations, such as the [Global Reporting Initiative \(GRI\)](#), the [Sustainability Accounting Standards Board \(SASB\)](#),

and the [Taskforce on Climate-Related Financial Disclosures \(TCFD\)](#). The narrative reporting capabilities of Oracle EPM let you combine data and narrative in one report, providing context for the data. Oracle EPM's task and process management capabilities provide controls and visibility that are key to a disciplined reporting process.

[Oracle Human Capital Management \(HCM\)](#) includes solutions for many areas under the "S" of ESG, including talent development, workforce management, health and safety, diversity and inclusion, and culture management. Pre-built dashboards for diversity and inclusion allow you to track your progress toward diversity goals at every level of your organization, and diversity metrics are embedded in HCM to help foster diversity as a value throughout your company.

Within [Oracle Fusion Cloud ERP](#), one example of an application that supports ESG is [Oracle Risk Management and Compliance](#), which provides built-in health and safety features with simple workflows that can be deployed in a matter of days. These capabilities can be used to execute against an organization's commitment to health and safety and help ensure accurate ESG disclosures. For more information, see [Health and Safety ESG disclosures](#).

[Oracle Supply Chain Management \(SCM\)](#) also provides critical built-in capabilities that help you design for the environment, support product lifecycle circularity, and improve supply chain efficiency. Oracle SCM allows you to view and compare suppliers' sustainability performance, supporting an organization's ambition to source materials ethically. Functional practitioners can monitor the efficiency and sustainability of their end-to-end supply chain, from planning, sourcing, production, and packaging all the way through to shipping, distribution, and ultimately product take back. Oracle SCM drives the reduction of carbon footprints by maximizing resource efficiencies and optimizing distribution networks.

[Oracle Fusion Analytics](#), a family of prebuilt, cloud native analytics applications for Oracle Cloud Applications, provides line-of-business users with ready-to-use insights to improve decision-making. Data from non-Oracle sources can be uploaded and included along with the pre-built analytics. This flexibility, which allows you to upload and analyze ESG data from any source, provides the basis for the ESG intelligence framework described below.

Case studies of customers using Oracle to specifically achieve their environmental sustainability objectives are available at [www.oracle.com/sustainability/customers/](http://www.oracle.com/sustainability/customers/).

## Looking ahead

Customers at all stages of their ESG reporting journeys consistently tell us that their greatest challenge regarding ESG reporting is gathering and organizing the required data. The data typically reside in multiple disparate systems, with all the attendant real-world problems of duplicates, gaps, and inconsistent formats. Oracle plans to help customers address this challenge by creating an ESG intelligence framework that includes:

- A canonical, open data model that supports ESG Analytics as well as other Oracle products such as EPM, and that accepts input data from Oracle applications and external sources
- A carbon calculator that calculates Scope 1, 2, and 3 emissions
- An ESG register that provides an auditable record of all activities and events identified as having an ESG impact, along with any associated greenhouse gas emissions
- Guidance on how to capture ESG-related data in the Oracle Fusion applications that customers already use in their day-to-day operations
- ESG Analytics, including pre-built dashboards that provide insights into sustainability KPIs during key decision making

By helping customers capture more ESG data in our finance, procurement, supply chain, and workforce management applications, and building ESG Analytics on these native data elements, we'll not only simplify the data collection process, but also help customers build sustainability awareness and measurement into their organizations' basic functions. In some cases, we may add new pre-defined data fields or attributes to the Oracle Fusion applications. In other cases, we may provide configuration blueprints or libraries that customers can use to capture data for specific ESG use cases.

Our data model and carbon calculator, described later in this document, will be agnostic with respect to data sources, whether Oracle or external, affording flexibility for customers whose data reside in multiple places.

Decision makers at all levels of an organization need up-to-date, accurate, thorough data to drive progress toward ESG goals. The Oracle ESG intelligence framework will leverage [Oracle Fusion Analytics](#) to provide both pre-built dashboards and the ability to drill into the underlying data and perform detailed analyses. Because Fusion Analytics is built on Oracle Analytics Cloud, the ESG Analytics data model and calculator can be adopted by non-Fusion applications as well.

## Phased approach

The first phase of the Oracle ESG intelligence framework will cover KPIs that apply to most organizations across sectors, focusing specifically on:

- Energy consumption
- Greenhouse gas emissions
- Water consumption
- Waste generation and disposition
- Diversity, equity, and inclusion
- Workforce health and safety
- Supplier ESG performance

In subsequent phases, we plan to enhance the framework to support:

- Metrics for logistics emissions, calculated in alignment with a variety of frameworks
- Product lifecycle and circularity metrics related to materials, carbon footprint, water, and waste
- Sector-specific and project-specific ESG metrics

## Data model

The Oracle ESG intelligence framework will include a modular data model that will underlie ESG Analytics and that can be used, in whole or in part, by other Oracle products and by custom implementations.

In the first phase, we plan the data model to support:

- Native loading of data from Oracle applications
- Importing of data from spreadsheets and from a wide variety of external sources using industry-standard methods
- Organizational hierarchies down to any level of granularity, with the ability to define organizational boundaries in alignment with financial reporting hierarchies or using the financial control, operational control, or equity share methods described by the Greenhouse Gas (GHG) Protocol
- Analyses of energy consumption and Scope 1, 2, and 3 emissions
- Allocation of energy and emissions to an organization's legal entities, business units, and functional groups
- Configurable options for emission calculation methods, depending on the specificity of the available data
- Details of facilities, including area and headcount, to support calculation of energy and emissions intensity
- Details of transportation modes, fleets, and vehicles to support calculation of mobile emissions
- A library of standard emission factor sets as well as custom emission factors
- ESG metrics related to water consumption as well as waste generation and disposition
- Metrics for diversity, equity, and inclusion, and for workforce health and safety
- Reporting on supplier ESG performance
- Mappings of KPIs to standard reporting frameworks such as GRI, the UN SDGs, TCFD, and SASB

The model will continue to evolve to support subsequent phases.

## Carbon calculator

Also included in this plan is a native carbon calculator that performs Scope 1, 2, and 3 emission calculations, with full support for the calculation methods described in the GHG Protocol. Calculations will be released iteratively; for example, Scope 3 calculations may use simpler methods in Phase 1, with support for more precision and specificity in subsequent phases. The calculator will support the GHG Protocol's special requirements, such as those related to biomass fuels. We will document any assumptions built into the calculations.

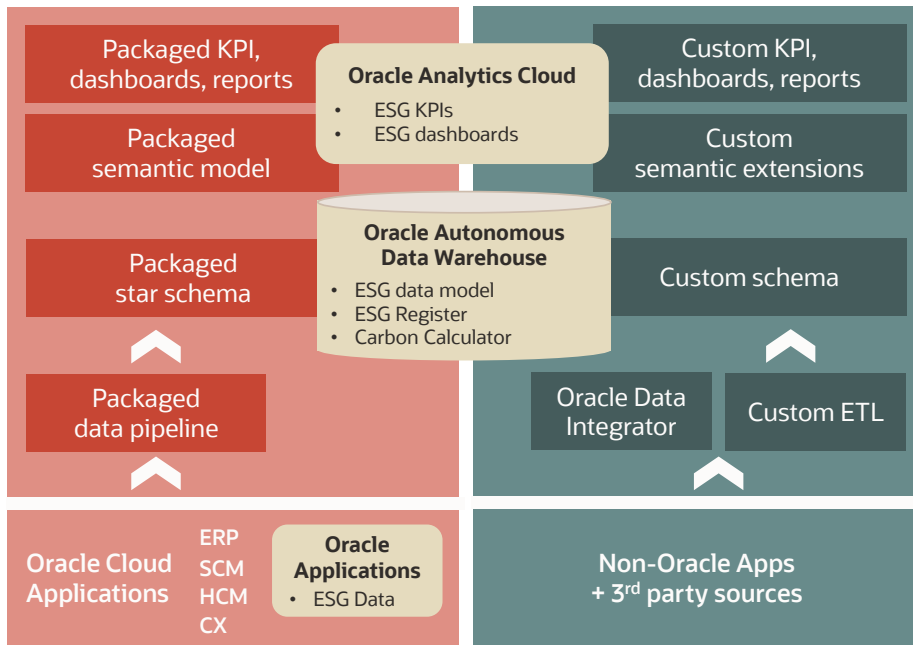


Figure 1. The ESG data model will accept data from both Oracle and external sources.

## ESG register

We plan to maintain an auditable register of all activities and events identified as having an ESG impact (with an initial focus on environmental impact), along with any associated greenhouse gas emissions. Customers will be able to associate each record in the register with a legal entity, business unit, and/or functional group within the organization's structure. Register records will be protected from deletions and updates to maintain traceability. Each register record will include fields that customers can use to map the record to a financial ledger or account. The register will place organizations in a better position in a market landscape with increasing regulatory vigilance around ESG reporting. This will become even more important as regulators and investors push for subjecting ESG reporting to financial-level scrutiny.

## Pre-built and custom analyses, dashboards, and KPIs

The Oracle ESG intelligence framework will add pre-built ESG dashboards and KPIs to the existing Oracle [ERP Analytics](#), [SCM Analytics](#), and [HCM Analytics](#) applications. It will also provide a holistic, cross-functional ESG Analytics



application that includes the ESG dashboards from the three pillars plus more, offering a 360° view of an organization's ESG performance and allowing drilldown from pre-built insights into the underlying details. You can easily add custom analyses, dashboards, and KPIs that provide the exact views you need, whether by geography, business unit, or time period.

### **Measuring progress, scenario modeling, and planning**

Measuring your current ESG performance is only the first step toward the real goal of reducing emissions and closing gaps in other ESG areas. Oracle ESG Analytics helps you understand how your metrics are trending. Moreover, the native integration between Oracle Analytics and Oracle EPM allows you to leverage EPM's scenario modeling and planning features to make decisions that support your sustainability goals in alignment with your financial targets. For example, you can test the impacts of switching out a key supplier on your Scope 3 emissions, your costs, and social risks such as those related to supplier labor policies. If you are exploring the possibility of transitioning to cleaner energy sources for specific facilities, you can view the effects on Scope 1 and 2 emissions in concert with the financial implications. Other examples of what-if scenarios include decisions around new facility locations or alternative shipment modes and routes.

### **Reporting in alignment with frameworks**

To create reports in alignment with ESG reporting frameworks, you can leverage Oracle Analytics Publisher, which allows you to author, manage, and deliver pixel-perfect reports. You can create layouts using a WYSIWIG, drag and drop interface for creating reports in PDF, RTF, Excel, Word, PowerPoint, and HTML. Alternatively, integrating with Oracle EPM provides the narrative reporting and task and process management capabilities mentioned earlier in this document.

### **Conclusion**

The Oracle ESG intelligence framework will provide a unifying approach that builds on the capabilities that already exist in Oracle's enterprise applications to help our customers to achieve their ESG ambitions. By embedding ESG data within our Oracle Fusion Applications and leveraging Oracle Fusion Analytics and Oracle EPM, we will provide organizations with the integrated ESG data and analytics they need to measure ESG performance and make impactful decisions that advance their progress toward short- and long-term ESG goals.

The ESG regulatory and market landscape is highly dynamic. Standards "harmonization" and changes in investor priorities will affect the requirements for ESG analysis. Guidelines for calculation of Scope 3 emissions may evolve. While this Statement of Direction represents the current strategy, Oracle will continue to consult with customers, partners, and analysts to prioritize and reevaluate the content of future updates.

For more information on sustainability at Oracle visit [www.oracle.com/sustainability](http://www.oracle.com/sustainability).

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