

JD Edwards Sustainability Framework

Statement of Direction

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Purpose statement

This document provides an overview of JD Edwards direction towards Sustainability Framework. It is intended to present JD Edwards Roadmap for Sustainability Framework, which is solely designed to help you assess the business benefits of adopting the Sustainability Framework.

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Overview of ESG

Within the corporate realm, Environmental, Social, and Governance (ESG) encompasses a collection of measures, such as policies, procedures, and metrics, which companies adopt to either minimize adverse effects or bolster favorable contributions to the realms of the environment, society, and governance. Furthermore, ESG offers a means of gauging potential business risks and opportunities within these domains.

Following are the three pillars of ESG:

Environment (E)

Environmental considerations include efforts by an organization to preserve the environment. These considerations involve the formulation of policies to tackle climate change, energy consumption, waste management, pollution control, conservation of natural resources, and ethical treatment of animals.

Social (S)

Social criteria determine the relationships of an organization with its employees, customers, suppliers, and the communities in which it operates. Social criteria assist organizations in addressing social justice concerns that can impact business risk, including aspects like labor rights, gender and racial equality, child labor, and the environmental impact on public health.

Governance (G)

Governance factors address the internal controls and practices of an organization that govern the organization. These factors ensure that organizations adhere to regulations, industry standards, and corporate policies. Critical components of corporate governance structures include defining the company's purpose, the composition of the board of directors, and overseeing the compensation and management of top executives.

Embracing ESG principles entails focusing the corporate strategy around the triad of environmental, social, and governance pillars. This involves implementing actions to decrease pollution and carbon emissions, minimize waste, and foster diversity and inclusion throughout the organization.

Role of JD Edwards in ESG

In recent years, meeting ESG requirements and reporting have become increasingly important for businesses. ESG reporting is the disclosure of information that provides insights into a company's Environmental, Social, and Governance (ESG) practices. This practice sheds light on the company's ESG initiatives while enhancing transparency for investors.

The primary focus of JD Edwards EnterpriseOne ESG solution is the Environmental (E) part of ESG. The environmental part of ESG that deals with environmental risks and natural resource management is often given the most emphasis. Over the past few years, the most significant risks listed in the Global Risks Report 2023 by World Economic Forum are all environmental risks, especially climate-related. These risks have a direct impact on everyday business operations.

Gathering environmental data enables businesses to track emissions relative to predefined goals or limits, enabling them to identify potential cost-saving and emission reduction opportunities. Keeping records of this data also aids organizations in meeting mandatory or voluntary global environmental reporting requirements.

High Level Approach

Focus on Data Collection:

Organizations are mandated to collect, store, and analyze pertinent ESG data, such as greenhouse gas (GHG) inventories, fuel consumption, and energy usage, as part of their ESG initiatives.

The primary steps identified in completing a GHG inventory are:

- **Define** - Determine the organizational boundaries and emissions sources included within those boundaries.
- **Collect** – Identify data requirements and preferred methods for data collection and develop data collection procedures and tools.
- **Quantify** – Choose emission factors and calculate emissions.

In these steps, one of the major challenges for most organizations is the data collection process. Environmental data is sourced from multiple channels, necessitating manual entry of this information. Proper verification and validation of environmental data is crucial, but this task is time-consuming and burdensome. Many organizations may struggle to gather this data due to the lack of established processes.

The JD Edwards Sustainability Framework provides a standardized and optimized way of collecting environmental information. This framework enables users to enter and store environmental data from various day-to-day activities by leveraging JD Edwards applications.

Functional Overview

JD Edwards Sustainability Framework focuses on setting up the sustainability foundation by identifying the environmental reference data and gathering the environmental data which reside in different business processes and store them in the Sustainability Activity Ledger to calculate GHG emissions.

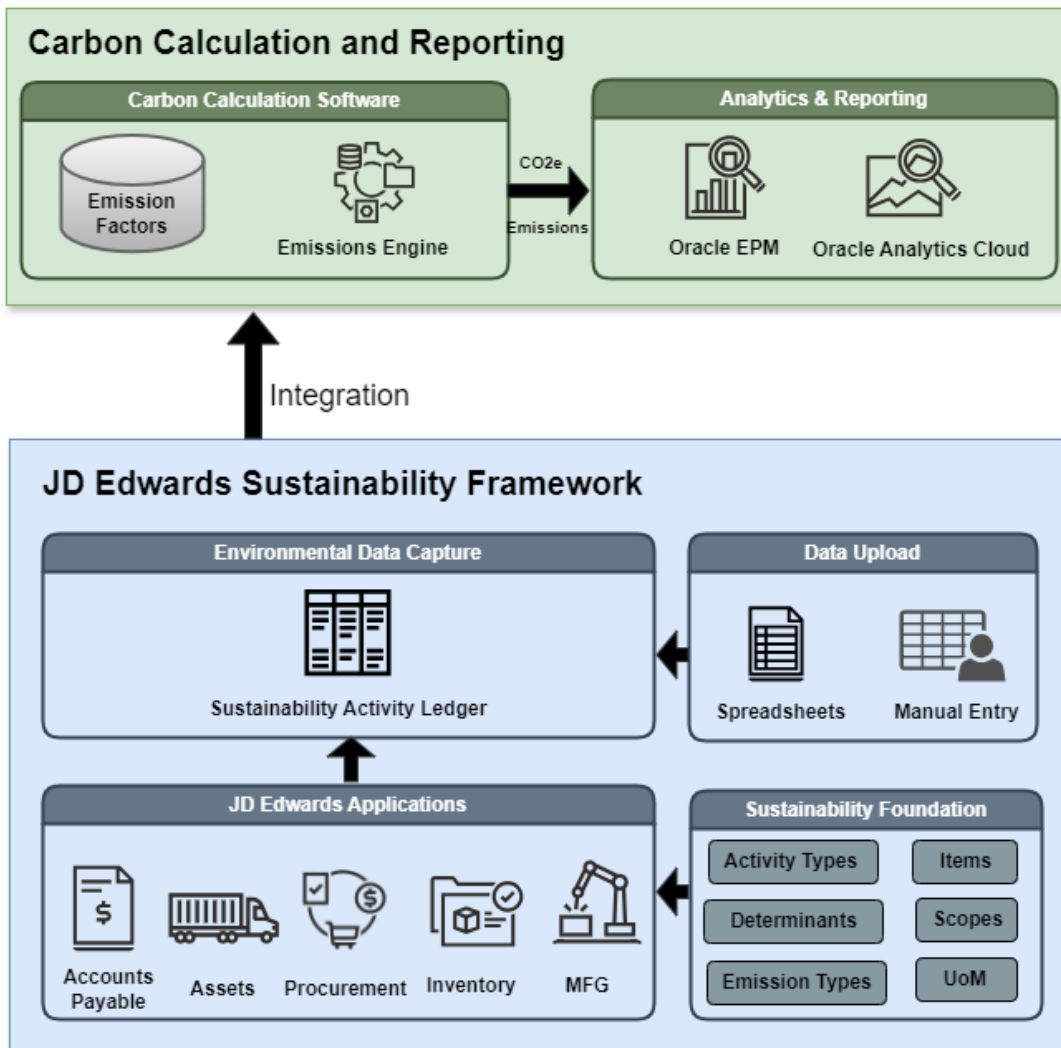


Figure 1: JD Edwards Sustainability Framework - High Level Architecture

JD Edwards Sustainability Framework has the following components:

Sustainability Foundation

This component helps to set up reference data that is required to be captured for environmental reporting purposes. Reference data setup includes:

- **Scopes** - Set up emission scope codes to categorize an environmental activity into one of the following scopes defined by the GHG Protocol:
 - Scope 1 – Direct GHG emissions from owned or controlled sources.
 - Scope 2 – Indirect GHG emissions from the energy that is purchased.
 - Scope 3 – Other indirect GHG emissions (which are not included in Scope 2).
- **Activity Types** – Define the types of environmental activities that generate greenhouse gas emissions. These include stationary combustion, mobile combustion, fugitive emissions, and purchased energy.
- **Emission Types** - Set up emission types to define the types of greenhouse gas emissions that result from environmental activities. For example, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and other fugitive emissions (SF₆, NF₃, and so on).
- **Determinants** – Set up various determinants such as fuel types, vehicle types, and energy types required for different activity types.
- **Unit of Measure** – Set up units of measure in which fuel and energy consumption will be captured.
- **Items** - Set up new attributes such as 'Activity Source' and 'Fuel Type' for items with environmental implications, such as fuels.

Capture environmental data in JD Edwards Transactions

Data such as fuel consumption, and energy consumed or generated at facilities or locations will be captured in new environmental attributes of JD Edwards interactive applications. A few are listed here:

- **Accounts Payable**

In many organizations, invoices serve as the primary source of data pertaining to fuel and energy consumption over a reporting period. The JD Edwards Sustainability Framework will enable organizations to capture data in the Accounts Payable process when standard vouchers are generated from these invoices. This approach helps organizations to track consumption of fuel and energy for stationary combustion (Scope1), mobile combustion (Scope 1) and purchased energy (Scope 2) activities.

In Application 9.2 Release 25, the solution provides the ability to collect the stationary combustion data from the Standard Voucher application.
- **Procurement**

Organizations that depend on fuels such as diesel for their operations often manage these resources as inventory items. These environmental items are typically acquired from suppliers using purchase orders. In such situations, JD Edwards Sustainability Framework can facilitate the data collection within the Procurement process, particularly when matching vouchers with purchase orders and receipts. This encompasses the tracking of fuel purchases for stationary combustion (Scope1) and mobile combustion (Scope 1) activities.

In Application 9.2 Release 25, the solution provides the ability to collect the stationary combustion data from the Voucher Match application.
- **Assets**

Vehicles, industrial machines, agricultural, and construction equipment consume energy during their operation. To facilitate environmental reporting at a granular level, JD Edwards will support data capture from individual assets and asset meters. For example, capturing data on fuel consumed and distance travelled by a company owned vehicle using meter readings accounts for Scope 1 mobile combustion.

- **Inventory**

When organizations track fuel consumption at a more granular level than invoices, consumption data can be retrieved from inventory transactions. In such cases, JD Edwards will enable data capture in inventory transactions for stationary combustion and mobile combustion.

Sustainability Activity Ledger

Sustainability activity ledger is a record of an event or activity that has environmental impact, stationary combustion, energy consumption and so on. JD Edwards Sustainability Framework will capture the data that impacts environment from various business processes and store it in a repository called Sustainability Activity Ledger. JD Edwards will also provide flexibility to enter and modify the activity data directly in the repository. An audit trail will be provided to track all the changes made to sustainability activity ledger records.

Integration for Carbon Calculation and Reporting

While JD Edwards Sustainability Framework is a powerful tool for collecting and managing environmental data, it is important to clarify that it will not include carbon emissions calculation and reporting functionalities. It will not automatically calculate or estimate carbon emissions based on the data input. Instead, our framework is intended to serve as a foundational platform for environmental data management and reporting, leaving the calculation of carbon emissions to be performed through external methods or software, if desired. This approach enables users the flexibility to tailor their environmental assessments to their specific needs and integrate with specialized carbon emissions software or methodologies when required.

Carbon calculation varies depending on the country, industry, and other relevant factors. Therefore, it is crucial to integrate suitable computational tools. JD Edwards digital platform offers capabilities like Orchestrator and web service, enabling organizations to seamlessly connect with any ESG tools for efficient carbon emission calculation and analysis.

For carbon reporting, organizations can explore Oracle analytics tools such as [Oracle Enterprise Performance Management](#) (EPM) and [Oracle Analytics Cloud](#) based on their business needs, and choose the appropriate tool for detailed analysis and reporting. Oracle EPM's [ESG Reporting and Planning Solution](#) can be used to plan, manage, and report ESG practices, and to improve decisions with built-in intelligence and advanced analytics.

Conclusion


JD Edwards Sustainability Framework represents a valuable option for organizations seeking to take control of their environmental data and streamline the management of various sustainability metrics. It is designed to simplify the process of collecting and organizing data related to energy consumption, fuel usage, and other vital environmental factors spread across different business processes. By offering optimized solution to capture the data within JD Edwards core modules and with the option of leveraging external carbon calculation and reporting tools, we help organizations to complete environmental assessment and provide a roadmap for more sustainable business practices. By harnessing the power of JD Edwards Sustainability Framework, companies can not only stay competitive in an evolving marketplace, but also contribute to a more sustainable and equitable future.

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