

ECO PLATFORM

Requirements for publishing digital data in ECO Portal

Technical specification for publishing data digitally via ECO Portal

Version 1.0 (June 2024)

Table 1: Version of this document

Version Number	Date	Summary of changes
V 1.0	20.06.2024	Summary of existing requirements in first version of ECO Platform Digital Data Requirements document

1	INTRODUCTION.....	4
1.1	Background	4
1.2	Introduction	4
2	PROVIDING DATA ON A PO NODE.....	5
2.1	Prerequisites	5
2.2	Data Node	5
2.3	General Operational Requirements	6
2.4	Connection to ECO Portal	6
2.4.1	Connection of a PO Node to ECO Portal	6
2.4.2	Alternative: ECO Platform Small Data Providers Node	6
3	AUDIT / VALIDATION OF DIGITAL COMPLIANCE BY ECO PLATFORM	6

1 INTRODUCTION

1.1 Background

Target audience:

- all ECO EPD Programme Operators

This document aims at describing

- the technical requirements for EPD Program Operators (POs) in order to share machine readable EPD data via ECO Portal
- the process of connecting a PO node to ECO Portal
- the interfaces between ECO Portal and its nodes
- the tools that can be used to verify the technical compliance

The data quality and formats of the data are subject of a separate document: "Digital Data Requirements".

1.2 Introduction

ECO Platform is committed to keeping its quality promise by ensuring compliance with the applicable ECO Platform rules and requirements defined in the "ECO Platform Standards". The enforcement of these rules and requirements is crucial to protect ECO Platform's reputation as well as the credibility of the ECO EPDs. The ECO Platform audit is one core element to ensure compliance of the ECO EPD Programme Operators (POs) with above-mentioned rules and requirements.

The ECO Portal is a data hub for free access to reliable digital EPD data. All ECO EPD POs are obliged to publish their ECO EPD digitally via the ECO Portal. A data provider agreement is to be signed by each ECO EPD PO accordingly. The digital data must be compliant with the Digital Data Requirements as specified in this document.

Aspired solution for the data transfer is an API (Application Programming Interface) connection of the PO data node to the ECO Portal. In case a PO is not operating an own data node, a temporary solution is offered by ECO Platform, for uploading EPD data to a Small Data Provider Node (SMDP node), operated by ECO Platform.

Furthermore, the digital data quality as well as the performance of the data connection to the ECO Portal are subject to a validation of the ECO EPD PO by ECO Platform.

The two main technical criteria that have to be fulfilled for a PO to be able to publish their data in machine readable form via ECO Portal are:

1. compliance of the data with the ILCD+EPD data format in its latest revision and
2. the online availability of the data via a defined API.

Before their node can be accepted to be connected to ECO Portal, the PO has to demonstrate to ECO Platform that both their node and the data on that node are in compliance with the technical specifications. ECO Platform will appoint a person or entity as the digital compliance validator ("the

ECO Platform Validator") who will verify these claims and either approve or deny the connection of the node to ECO Portal based on its ability to fulfill the criteria.

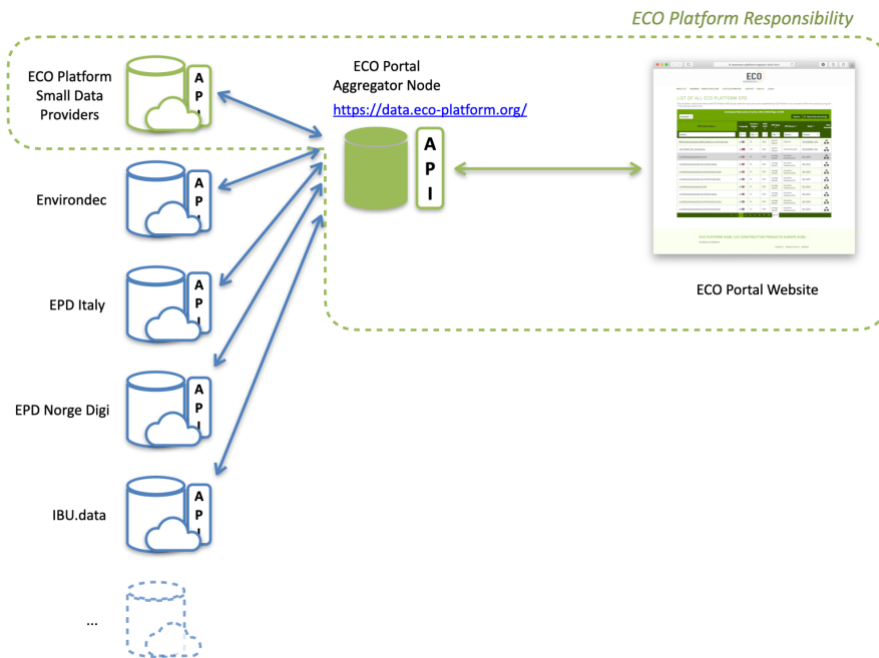
2 PROVIDING DATA ON A PO NODE

2.1 Prerequisites

The prerequisite for establishing a connection between a PO’s node and ECO Portal is a signed Data Provider Agreement between the PO and ECO Platform.

2.2 Data Node

The data that is made available via ECO Portal is published individually by POs under their own responsibility in a common machine-readable data format as specified in ECO Platform’s Digital Data Requirements. ECO Portal acts merely as an aggregator. The data resides solely on the individual member nodes, NOT on ECO Portal itself. If an individual dataset is published on a member node, it will instantly become visible on ECO Portal; in the event it is removed from the member node, it will also not appear on ECO Portal anymore (both with a certain latency of up to 2-3 hours due to query caching).



In order to make their data available via ECO Portal, a PO must operate their own node that exposes a REST API compatible with the free and Open Source reference implementation soda4LCA. While it is recommended to use the reference implementation soda4LCA as it provides all necessary functionality, a PO can choose to expose a compatible REST API on their proprietary system. In order to be compatible, all dataset(s) GET end points must be supported as well as /nodeinfo as per the soda4LCA API spec¹. If soda4LCA is used, the latest public release version must be used.

¹ The full API documentation can be found at https://bitbucket.org/okusche/soda4lca/src/7.x-branch/Doc/src/Service_API/Service_API.md

2.3 General Operational Requirements

The PO must ensure a reliable and secure operation of their node, in particular:

- It must be secured by an SSL certificate,
- It must be configured for automated restarts upon failure to ensure uptime,
- A monitoring must be in place that alerts the PO or their service provider in case of downtime in order for them to be able to restore the service.

2.4 Connection to ECO Portal

2.4.1 Connection of a PO Node to ECO Portal

In order to connect their node to ECO Portal, a PO must demonstrate that they have an instance of either the reference implementation soda4LCA at the latest version or a system exposing a compatible API. The candidate node will first be connected to the ECO Portal staging system. The ECO Platform representative will verify the correct functionality of the candidate node and the compliance of the data thereon. Upon successful validation, the candidate node will be connected to the production ECO Portal.

2.4.2 Alternative: ECO Platform Small Data Providers Node

For small POs who are not able or willing to operate their own node, they can use the ECO Platform Small Data Providers Node (ECO SMDP) at <https://ecosmdp.eco-platform.org> free of charge.

Candidate POs can apply for write access to the ECO SMDP (via ECO Platform office) and will be assigned a dedicated data stock and access credentials to the ECO SMDP staging system. The ECO Platform representative will verify that the data is format compliant. Upon successful validation, access will be granted to the ECO SMDP production node and the PO will be able to upload data as they choose.

3 AUDIT / VALIDATION OF DIGITAL COMPLIANCE BY ECO PLATFORM

Please refer to the ECO Platform Standards – Audit Requirements for further information.