THE OPEN GROUP
OPEN
FOOTPRINT™
FORUM

The Open Group Open Footprint™ Forum – PIDX

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Background

- Most of us will have heard about **Green House Gasses** (GHG) such CO2, Carbon, etc.
- Many efforts are under way on how we can **reduce these GHG emissions.**
- To assist with these efforts it is as well important that we are able to keep track of these emissions in an consistent way.
- However from the various bodies (WEF / GRI / GDP / etc.) there are **no clear standards** on what data to store.
- Therefore at this moment it is a challenge to keep track of these emissions in an consistent way across Companies & Industries → Everybody is using their own ways of working, but that means that it is **virtual impossible to add together emissions levels of multiple companies**.

Background

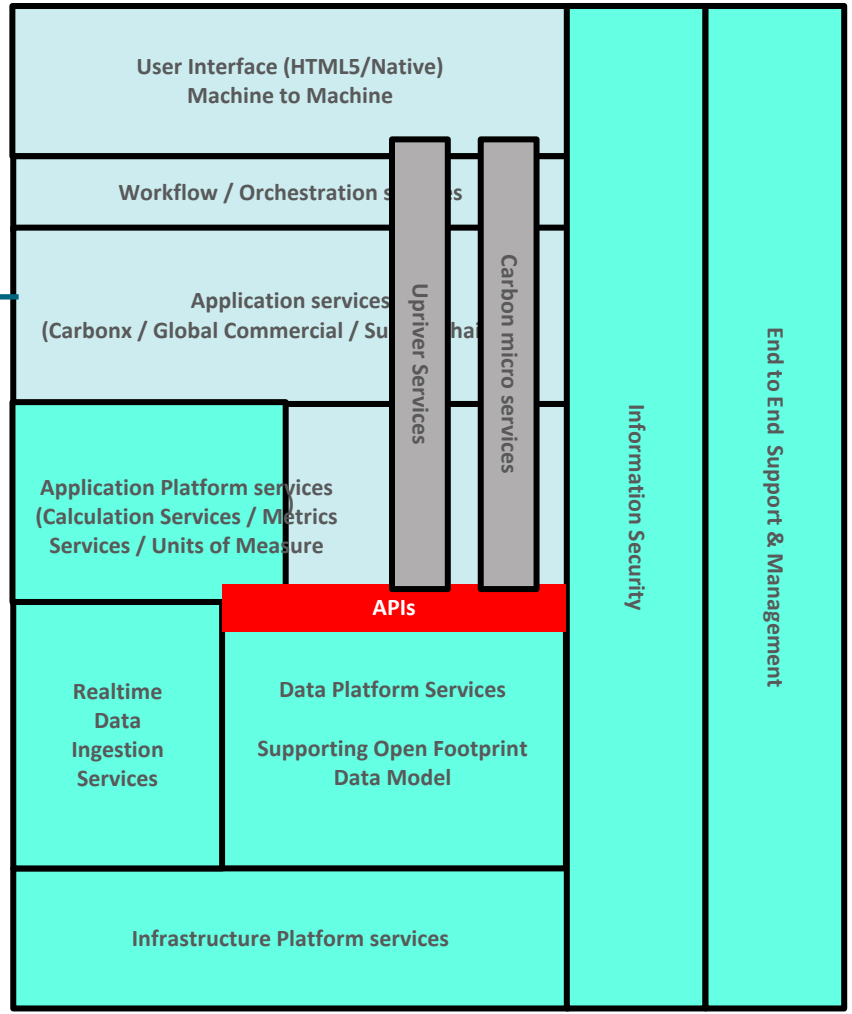
- To stop wasting more time and effort here we have started the **Open Footprint forum** with the aim to create an Industry standard (and Open Source based) data platform where emissions of each company can be saved using these same industry standards.

- It is crucial we work **across Industries**.

- Therefore the deliverables have to be all necessary standards for **an Open Footprint Data Platform** and an Open Source based Architecture & Reference Implementation.

- By doing so it becomes possible for emission values of different companies can be added.

Technical Scope & High level architecture



- Can be deployed as **Private, Community /Shared or Public** (Default data sharing is NONE)
- Can be deployed using **ANY TECHNOLOGY** to suit use case as long as compliant with standards
- Can be deployed by **ANY VENDOR**

1. We do not compete in this space but all work together → Focus at Infrastructure, Data Platform and some Common Apps services.
2. We do compete in this space: We all will be developing / selecting our own applications.
3. (Commercial) Business services (examples)
4. **Open Footprint main characteristics:**
   1. Data access using public APIs.
   2. (Near) Realtime focus.
   3. Large user numbers connecting using own apps → OpenID Connect based.
   4. Machine to machine focus.
   5. Micro Services based.
   6. Orchestration services focus.
   7. Third party apps via MarketPlace.
   8. Open Source driven (LSF).

Architecture support

- **Platform support → API:** Very important to develop ECO system of application developers.
- **Flexibility** for the future is vitally important → Given the unknowns.
- **Scalability:** From very small to very large.
- **Data loading flexibility.**

Benefits of Open Footprint Initiative

- **Standardizing the Architecture and API's will**:
  - Allow for easier data transfer between companies
  - Allow for an ecosystem to be created of compatible applications and services
  - Provide a large market for software developers to target

- **Providing an open source reference implementation will:**
  - Leverage the innovation of many software developers
  - Lower the barrier and ease access to this for smaller companies

- **Reduces the work of collecting data in your supply/value chain (GHG scope 3)**

Open Footprint and Open Group

- Please look at **Opengroup.org** for more information about the Open Group.
- Open Footprint: https://www.opengroup.org/openfootprint-forum
- We have selected the Open Group since we need a (legal) framework under which all companies can work together in an transparent fashion to get to the Open Footprint standards becoming freely available in the market.
- The initial scope is greenhouse gases (GHG). Further environmental issues (such as land spill, water, etc.) will be targeted in phase 2.

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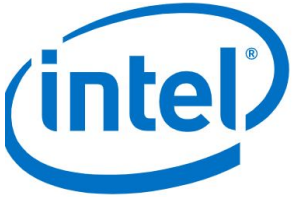
Open Footprint publicly committed companies for now



Active projects (member driven)

- **Project 1:**
  - (charter available) Creating the Open Footprint Data Platform:
    - MVP fashion
    - Scope1 & 2 and later Scope 3.
    - Calculating and Measuring
    - **Items:**
      - MVP scope
      - Metadata scope
      - Data Platform solution
      - Several Industry data requirements.

Active projects (member driven)

- **Project 2:**
  - (charter available) Creating the Reference Architecture and Reference Implementation:
    - Supporting Project 1.
    - Open Source; All Architecture layers.
    - Reference Implementation:
      - Complete implementation.
      - Fully Open Source based (Apache 2.0 license)
      - User Authentication & User Authorisation

- **Project 3:**
  - (charter available) Member recruitment.

(Some) Developments

- **Collecting different business workflows:**
  - Driving the MVPs.
- **Better support for ‘’Open Footprint” inside.**
- **Addressing Calculations / Applications:**
  - Making sure that we have support for common code bases → Non differentiating.
- **(Near) Realtime (IOT) support:**
  - Moving from Calculating to Measuring.

(Some) Developments

- **Better support for calculating end to end Supply Chain GHG values:**
  - Assuming each step is already Open Footprint based → What we do more to easily collect the total emissions.
- **Outside GHG**
- **Link to Blockchain:**
  - Proof of origin.

Why Consider Joining?

» **By actively participating in Open Footprint, your organization can:**

- ❑ Influence the way these standards are developing.
- ❑ Accelerate platform design and development efforts by taking advantage of work that has already been proven.
- ❑ Reduce the cost burden of designing and validating a carbon footprint data platform on your own.
- ❑ Avoid being locked in to proprietary solutions.
- ❑ Help enable the development of a robust ecosystem of software and services for carbon footprint data capture, management, and reporting.

Thanks