OPEN 3P

Open 3P Standard Custodian Board

Document control

Title	Supporting Information for Open 3P version 2.1 minor updates
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Status	Draft
Approved by	
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Review frequency	
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Version control

Version	Date	Summary of changes	Name
0.9	20th February 2024	Draft for information	Julian Tait

Supporting Information for Open 3P version 2.1 minor updates

The minor updates below are yet to have a stable release, however are available for review in a pre-release format.

Pre-release v2.1

- Changed ALL date related fields to ISO 8601 standard, changed the format to Date.
  - Updated ALL JSON dates to read as yyyy-mm-dd.
- Changed appropriate identifier fields to UUID from string.
- Changed Boolean values in JSON examples to true and false rather than "TRUE" and "FALSE".
- Change **manufactedCountry** format to string, and improved description to indicate that the numeric value should be used from ISO 3166.
- Changed Numeric format to either Decimal or Integer.
  - Materials
    - areaDensity -> Decimal
    - areaDensityTolerance -> Decimal
  - Components
    - height -> Decimal
    - width -> Decimal
    - depth -> Decimal
    - volume -> Decimal
    - weight -> Decimal
    - weightTolerance -> Decimal
    - recycledContent -> Decimal
  - Complete Packaging
    - height -> Decimal
    - width -> Decimal
    - depth -> Decimal
    - volume -> Decimal
    - weight -> Decimal
    - weightTolerance -> Decimal
    - servingCapacity -> Integer
  - Multipacks
    - identicalQuantity -> Integer
  - Loads
    - timesSent -> Integer
  - Material Constituents
    - virginMaterial -> Decimal
    - layer -> Integer
    - materialPercentage -> Decimal
  - Component End of Life Routes
    - orderOfPrecedence -> Integer
  - Complete Packaging End of Life Routes
    - orderOfPrecedence -> Integer
  - Load Constituent
    - quantityInLoad -> Integer
- Renamed ~~baseMaterialName~~ to **name**

- Renamed ~~baseMaterialType~~ to **type**
- Renamed ~~materialName~~ to **name**
- Fixed typo in sidebar to Governance
- Added FAQ to base materials page
- Remove definitions from Key Concepts
- Create Glossary page
- Improved Data Flow page
- **recycledContentClaims** changed from mandatory to optional.
- Changed the wording from required to mandatory. Changed the wording recommended to optional. Added asterisk to diagram to signify mandatory. This includes:
  - Complete Packaging
  - Multipack
  - Load
  - Material Constituents
  - Component Constituents
  - Complete Packaging Constituents
  - Multipack Constituents
  - Certificate Claims
  - Recyclability Claims
  - Component End of Life Routes
  - Complete Packaging End of Life Routes
  - Recycled Content Claims
  - Organisation
  - Load Constituents
- Updated JSON examples to match data flow page. This includes:
  - Base materials
  - Materials
  - Components
  - Complete Packages
  - Multipacks
- Added data flow charts to help with visualising the flow of the different schema through the standard. This includes:
  - Base materials
  - Materials
  - Components
  - Complete Packages
  - Multipacks
- Added material types to Material Types controlled lists:
  - Fossil based - Materials derived from fossil sources, which include the remains of ancient plants and animals. This category encompasses substances like oil-based products, gas-based materials, and coal-based resources.
  - Animal based - Materials obtained from animal sources. This category includes a wide range of materials such as leather, wool, silk, and other products derived from animals.
  - Plant based - Materials sourced from plants and plant-derived substances. This category covers a diverse array of materials, including wood, cotton, hemp, and other plant-based fibres.
  - Mineral based - Materials obtained from non-living sources, specifically minerals. This category includes a broad range of substances like stones, and other mineral resources.
  - Metal based - Materials specifically derived from metals. This category includes various metallic elements and alloys.

Glossary

API

An API, which stands for Application Programming Interface, is a set of rules and protocols that allows different software applications to communicate with each other. In other words, it defines the methods and data formats that applications can use to request and exchange information. APIs enable developers to create software components that can interact and integrate seamlessly with other systems, services, or platforms.

Base material

The bases of substances in the manufacture of packaging materials.

Biodegradable plastic

Converts to water, carbon dioxide and biomass over time due to action of micro-organisms.

Bioplastic

Plastics which are sourced from biomass at the beginning of their life (Bio-based), metabolized into organic mass at End of Life (Biodegradable) on both.

BPF

British Plastics Federation.

BRC

British Retail Consortium. Trade association representing retailers in the UK.

Ceflex

Circular Economy for Flexible packaging. Collaboration of over 180 European companies, associations and organisations representing the entire value chain of flexible packaging.

CEPI

European association representing the paper industry.

Complete Packaging

Components are combined to make complete packaging.

Component

A unit made from material / several materials / other components it has form and physical attributes (height/length/depth).

Composite

A composite is a material made up of multiple materials, same or different, that are bonded together. Composites are in an unknown and unordered structure; unlike mulitlayer laminates which are in a known, ordered structure.

Compostable plastic

Subset of biodegradeable plastics which meet an international standard for biodegradation in an industrial composting facility.

Controlled List

Controlled Lists serve as reference points for key terms and phrases that are commonly used in the packaging industry, which are maintained and administered by the SCB.

Corrugated fibreboard

Packaging material consisting of a fluted corrugated sheet and one or two flat liner boards.

CPG

Consumer Packaged Goods. Merchandise that consumers use up and replace on a frequent basis.

CPI

Confederation of Paper Industries. Leading trade association representing the UK's paper-based industries.

CSV

Stands for "Comma-Separated Values." A simple file format used to store tabular data, such as a spreadsheet or a database. In a CSV file, each line of the file corresponds to a row in the table, and each field (or column) within a row is separated by a comma.

Data Standard

A technical specification that describes how data should be stored or exchanged for the consistent collection and interoperability of the data across systems, users and sources.

DEFRA

Department of Environment Food & Rural Affairs. UK Government Department responsible for legislation pertaining to waste & recycling.

DSHB

Data Standard Holding Body. The body that owns the IP for the Open 3P data standard and is mandated to develop and maintain the standard by the SCB. The DSHB is function of Open Data Manchester CIC.

Ellen Macarthur Foundation

Charity committed to creating a circular economy which is designed to eliminate waste & pollution, circulate products and materials and regenerate nature.

EPR for packaging (UK)

Extended Producer Responsibility Legislation replacing the Producer Responsibility Packaging Regulations within the UK, to place greater responsibility on businesses for the full net cost of packaging at end of life.

EUPIA

European Printing Ink Association.

FBB

Folding Box Board. Card used for making light weight cartons for e.g. cereal carton.

FBC

Fibre based composite.

FDF

Food & Drink Federation. Represents and advocates for the UK food & drinks industry.

FEFCO

The European Federation of Corrugated Board Manufacturers.

FPA

Food Service Packaging Association. A voice of the food service packaging sector.

FSA

Food Standards Agency (UK). UK Government Department responsible for oversight of the food supply chain.

FSC

Forest Stewardship Council. International organisation whose goal is to ensure forests are managed in an environmentally responsible, socially beneficial and economically viable way. Run a certification scheme with logo used by audited members.

GSM

Grams per square metre. Measurement of weight used widely for paper. 80 - 100gsm normal office paper. 170 - 200gsm midpoint between paper and card. Greater than 250gsm usually referred to as card.

IGD

Institute of Grocery Distribution. Research & training organisation serving the UK food & grocery industry.

Incpen

Industry Council for Packaging & the Environment. UK based trade association representing businesses in the packaging supply chain. Promotes the responsible and sustainable use of packaging materials.

Innovate UK

Part of UKRI, Innovate UK is the national innovation agency which allocates grants and funding to SMEs (Small & Medium Enterprises) to help them commercialise innovative ideas.

IOM3

Institute of Materials, Minerals & Mining (UK). Professional engineering, environmental & scientific institution governed by a Royal charter.

JSON

JavaScript Object Notation. Is a lightweight data-interchange format that is easy for humans to read and write and for machines to parse and generate. JSON is commonly used to transmit data between a server and a web application, as well as for configuration files and data storage.

Laminate

A multilayer laminate is a material made up of multiple layers of materials, same or different, that are bonded together. Mulitlayer laminates are in a known, ordered structure; unlike a composite which in an unknown and unordered structure.

LCA

Life Cycle Analysis. A compilation and evaluation of the inputs, outputs and potential environmental impacts of a product system throughout its life cycle.

Legacy System

A legacy system is an outdated computer system or software still in use, often due to past investments, risk aversion, business criticality, customization, or a lack of resources for replacement.

Material

Made from base materials, combining base materials or other materials, a material is the final substance which is used to make components.

Micron (µm)

Equal to 1 micrometre which is 0.001millimetres. Common unit of measure for thin flexible films.

Mobius Loop

Well known symbol to indicate an item is recyclable although it has no usage rules.

MPMA

Metal Packaging Manufacturers Association (UK). A voice of the metal packaging sector within the UK.

MRF

Materials Recycling Facility.

Open Data Standard

An open standard for data that is made available to the general public and developed (or approved) and maintained via a collaborative and consensus-driven process.

Oxo-degradable plastic

Neither a bioplastic nor a biodegradable plastic but a conventional plastic mixed with an additive to imitate biodegradation. Results in microplastics which do not break down at molecular level like biodegradable and compostable plastics.

PEFC

Program for the Endorsement of Forest Certification. International organisation promoting responsible forest management. Unlike the FSC which has a single global standard, the PEFC recognises and endorses the use of national and alternative schemes.

PPWD/PPWR

Packaging & Packaging Waste Directive/Regulation. EU legislation to manage packaging and packaging waste.

Primary Packaging

Packaging used to contain a single sales unit to sell to customers.

Relationship List

A relationship list is a user-defined list used in data standards to specify the relationships between different data elements. Unlike controlled lists relationship lists are populated by the user to provide context and clarity to the data being recorded.

RIC

Resin Identification Code. Numbers used to identify the type of plastic used in an item usually combined with a mobius loop.

RPC

Reusable plastic container.

RSC

Regular slotted container. Refers to a cardboard box.

SCB

Standard Custodian Board. A panel of experts from the packaging and data sectors who oversee the development of the Open 3P data standard and mandate the DSHB on any revisions.

Schema

Logical structured hierarchy of information.

Secondary Packaging

Packaging used to group several units together.

Shipment Packaging

Packaging used to ship single or multiple sales units to customers.

Single Source of Truth

In information science and information technology, single source of truth (SSOT) architecture, or single point of truth (SPOT) architecture, for information systems is the practice of structuring information models and associated data schemas such that every data element is mastered (or edited) in only one place. Link

SSPP

UKRI's Smart Sustainable Plastic Packaging Challenge is a UK Government investment in sustainable plastics packaging innovation & research.

SUP

Single Use Plastic.

Tertiary Packaging

Used to group secondary packaging units together while being transported or handled. Also known as transit packaging.

UK Plastics Packaging Tax

The Plastic Packaging Tax is a policy initiative in the United Kingdom aimed at reducing the use of single-use plastics and promoting environmental sustainability. It came into effect on April 1, 2022. Tax is liable on any plastic not containing 30% recycled content.

UK Plastics Pact

The UK Plastics Pact is a collaborative initiative in the United Kingdom that brings together businesses, governments, and other organizations with the goal of reducing plastic waste and promoting a circular economy for plastics.

UKCPN

The UK Circular Plastics Network is a 5000+ strong community of individuals from business, academia and government and non-governmental organisations, innovators, funders and policy makers.

UKRI

UK Research and Innovation,a government organization that oversees and funds research and innovation activities in the United Kingdom.

UUID

Universally Unique Identifier is a 128-bit identifier that is used to uniquely identify information or entities in a distributed computing environment.

VFFS

Vertical Form Fill Seal. Packaging system to form bags from flexible film.

WRAP

A non-profit organization that works with businesses, governments, and communities to create a more sustainable and resource-efficient economy. Their areas of focus include reducing food waste, promoting recycling, and encouraging sustainable resource management practices.

Further tasks have been identified to be completed as part of the minor release. There are:

- Indicate IF components can be separated.

- Research recyclability scales.