# Open 3P Standard Custodian Board

## Document control

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| **Title** | Supporting Information for Open 3P version 3.0 pre-release |
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| **Status** | Draft |
| **Approved by** | |
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| **Review frequency** | |
| **Next review date** | |

## Version control

| Version | Date | Summary of changes | Name |
|---|---|---|---|
| 0.1 | 16th August 2024 | Draft for information | Tom Passmore |
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# Supporting Information for Open 3P version 3.0 pre-release

## Pre-release v3.0

The aims and objectives of version 3.0 are to embrace multi-dimensionality, internationalisation and using other standards to help with education and adoption.

### Multi-dimensional

All stable, depreciated and obsolete versions of the standard are “wide” standards, v2.0 saw the introduction of “relationship lists” to remove of this. However, as we learn more, and asked to include more into the standard we still create one-or-many new attributes into one-or-many of the existing schema. However, by adding more “relationship lists” around grouped functionality we could add many new attributes, allow linking to all schema and reduce the number of breaking changes.

### Measurements

Currently the stable version of the standards incorporates measurements within each schema and the included measurements change depending on the schema.

**Materials**

| | | | | |
|---|---|---|---|---|
| areaDensity | areaDensityUnit | areaDensityTolerance | areaDensityToleranceType | areaDensityDate |

**Components**

| | |
|---|---|
| height | heightDate |

| | |
|---|---|
| width | widthDate |

| | |
|---|---|
| depth | depthDate |

| | |
|---|---|
| volume | volumeDate |

| | | | |
|---|---|---|---|
| weight | weightTolerance | weightToleranceType | weightDate |

**Complete Package**

| | |
|---|---|
| height | heightDate |

| | |
|---|---|
| width | widthDate |

| | |
|---|---|
| depth | depthDate |

| | |
|---|---|
| volume | volumeDate |

| | | | |
|---|---|---|---|
| weight | weightTolerance | weightToleranceType | weightDate |

In the current set up, adding a tolerance, for example, against width would in complete packaging would add two new attributes widthTolerance and widthToleranceType. And would create questions:

- Why just width?
- Why just complete packages?

Adding tolerance and toleranceType to all measurements would “widen” the complete package and components schema by eight new attributes each, 16 in total.

And why does materials but not components get areaDensity?

Adding areaDensity to components would add ANOTHER five attributes.

However, other types of measure exist. We have, currently, identified nine different measures:

- mass
- height
- width
- depth
- volume
- density
- thickness
- area density
- yield

(if liquids are included as a potential material or component then specific gravity should be included as well).

The solution is to remove measurements from the core schema and convert them into a relationship list; breaking the standard, but providing huge potential for extensibility as measures (such as mass, yield etc.) will be added into a measures controlled list. Meaning that if/when we want to include liquids then we add specific gravity to the controlled list, no change is needed in the measurements relationship list and no change is needed in the schema. Thus reducing the need for breaking changes in the future.

| Column | Status | Format | Notes |
|---|---|---|---|
| measurementIdentifier | mandatory | UUID | A globally unique identifier. See identifiers section for information on how to construct this identifier |
| itemIdentifier | mandatory | UUID | The unique identifier of the items that this component is made of. There must be an equivalent record in the Base_Materials, Materials, Components, Complete_Packaging, Multipacks OR Load data. |
| measureIdentifier | mandatory | ID | The measure type of this item. The entry here should be drawn from the meausures controlled list.. |
| measurementValue | mandatory | Decimal | The value of this measurement. |
| tolerance | optional | Decimal | The threshold of the measure that this item can vary by. |
| toleranceType | optional | String | The threshold of the measurement type this can be given in unit or percentage; where unit matches to the measure unit. For example if the measure unit is grams, the tolerance type will also be grams. |
| date | optional | Date | The date that the measure was last verified/measured. Use the format yyyy-mm-dd adhering to the ISO 8601 dateTime standard. |

## Claims?

Should the same approach be used for claims?

We have:

- recycledContentClaims
- recyclabilityClaims
- certificationClaims

Will more “claims” around packaging be added? Do these claims need to be against each schema?

# Other improvements for version 3.0

## External Identifiers “suggested” list

A few times users have asked what should the externalIdentifiers name be? It would be great if that is standardised? We have always pushed back saying where do we even start?

Looking into this I think we could start with a subsection of the schema.org product schema.

- brand
- gtin
- gtin12
- gtin13
- gtin14
- gtin8
- hasGS1DigitalLink
- productID
- sku

I think we should also include

- primaryKey

## Deposit Return Scheme

Deposit Return Scheme isn’t fit for purpose for international audience. Currently it is a list of UK countries, none of which have a DRS, and adds very little value or context.

- How can this be improved?
- Where is a good place to start?
- Does digital and analogue DRS need to be included?
- Does the “scheme administrator” need to be shown?
- Show it identify if it is a private or nationalised DRS?
- Does this information and/or structure already exist?

# Loads

- Does the loads schema work?
- Does it add value?
- Does it ask for the correct data to get the correct knowledge out to create reports?

- Can we learn from the universal business language (UBL) and transportation and shipping standards?
- Is this within scope of the open standard for packaging data?

## Recyclability scale

Currently we have a "does this [[item]] have a recyclability accreditation" than a "where is this accreditation from" but it was pointed out in the plastic expert review that we should look at including the different accreditations' banding. With OPRL it's binary, where as others are Red/Amber/Green and others still are on a A-F banding.

Does this need to be investigated further?