User Guide – First steps & Tips

New measurement campaign based on an experiment

Organize and add data for intended experiment

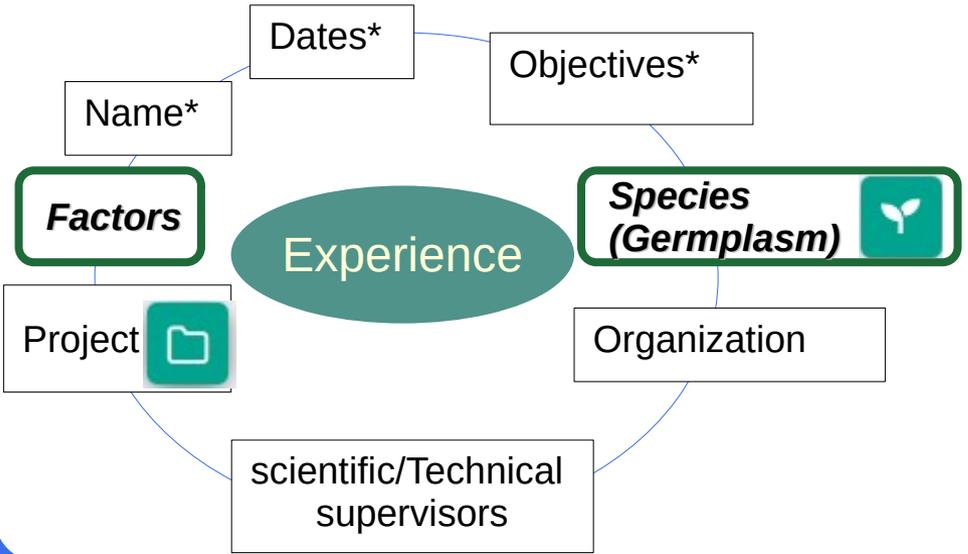**Declare Events for different objects**

Visualize intended experiment and linked information

Useful Tips

New measurement campaign based on an experiment

OpenSILEX

Add a new experiment **1**

Scientific Organization ► Experiments ► Add experience

Experience

- Dates*
- Objectives*
- Name*
- **Factors**
- **Species (Germplasm)**
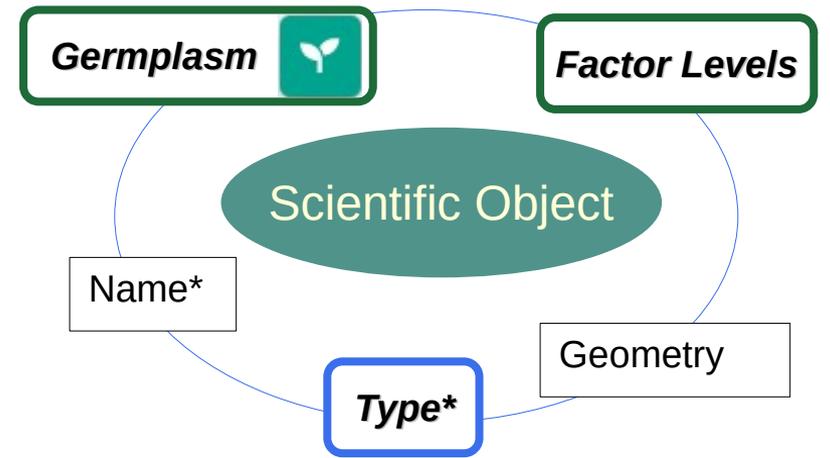- Project
- Organization
- scientific/Technical supervisors

Factors (levels) To be defined for intended Exp.

Add Scientific Object **2**

Intended Exp. ► Scientific Objects ► Add Sci. Obj.

Scientific Object

- **Germplasm**
- **Factor Levels**
- Name*
- **Type***
- Geometry

Germplasm (To be) defined in **Sci. Inf.**

Type* (To be) defined in **Vocabulary**

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Organize and add tabular data for intended experiment

OpenSILEX
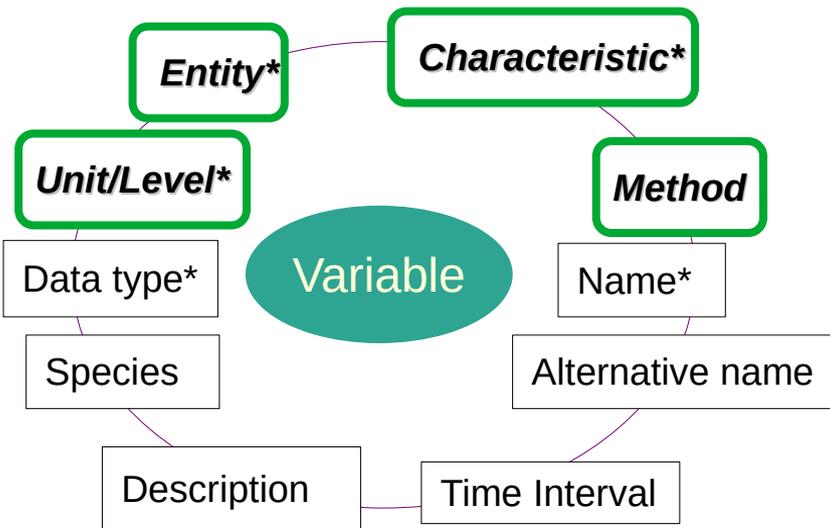
1 Add Variable

Scientific Information ▶ Variables ▶ Add Variable

Entity* **Characteristic***

Unit/Level*

Data type*

Species

Description

Variable

Method

Name*

Alternative name

Time Interval

2 Add Device

Scientific Organization ▶ Device ▶ Add Device

Type*   Variables

Name*

Start-up date*   *if*

Device

brand

Facility*

Description
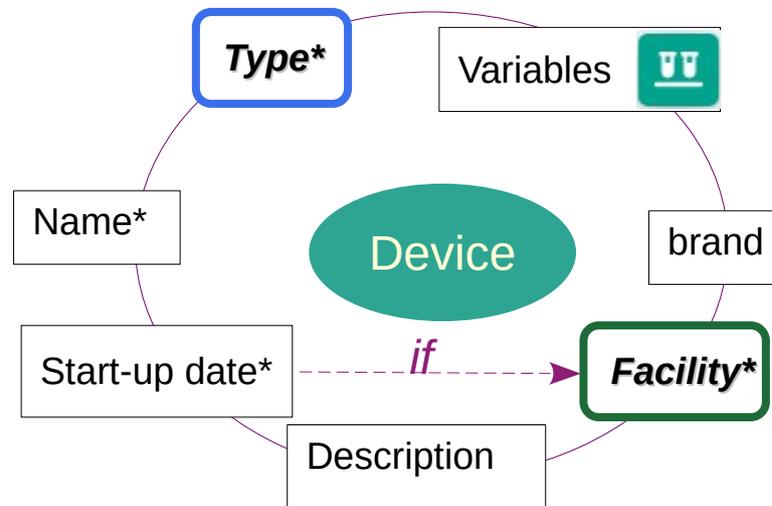
Next

Entity* **Characteristic*** **Unit/Level*** **Method**

Add if Absent / necessary
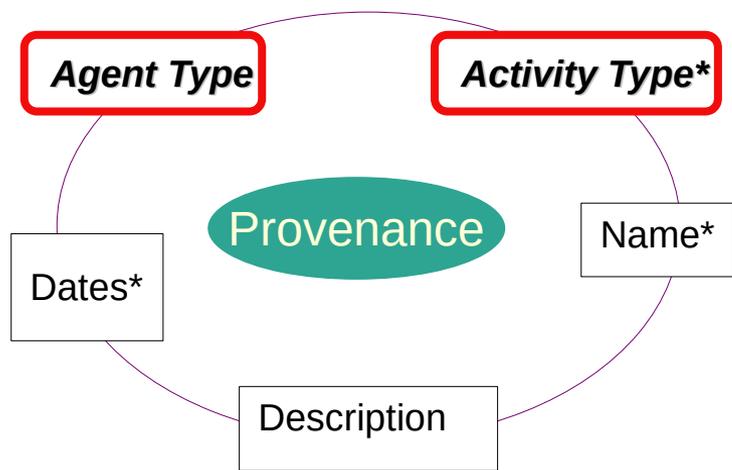
Facility (To be) defined previously in Organization

Type* (To be) defined in **Vocabulary**

Organize and add tabular data for intended experiment

OpenSILEX

Add Provenance 📊 ③

Data ▶ Provenance ▶ Add Provenance

Agent Type   **Activity Type***

Provenance

Dates*   Name*

Description

Add Data 📊 ④

Intended experience ▶ Data ▶ csv Import

Scientific Object*

Dates*   Tabular Data   Variables*
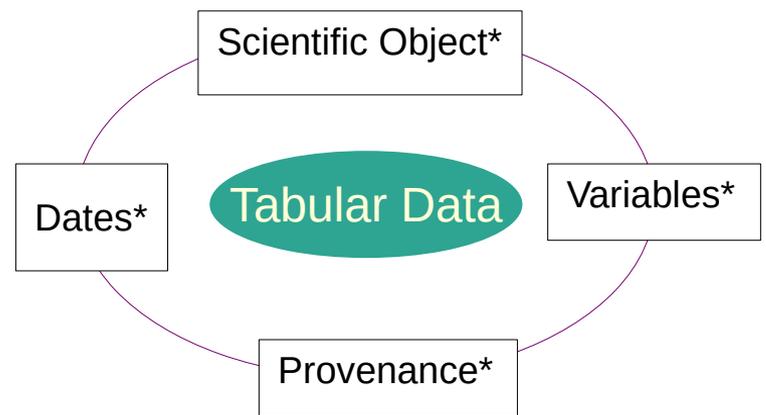
Provenance*

Next

Activity Type*   OpenSilex established Ontology

Agent Type   OpenSilex established Ontology

Upload Data file

Authentication **Post/ Security/ authenticate**

```
body
{
    "identifier": "OpenSilex login",    ***@***.***
    "password": "OpenSilex password"
}
```

Try it out!

```
{
  "token": "eyJ0eXAiOiJKV1QiLCJhbGci0iJSUzUxMiJ9.eyJpcl9hZG1pbiI6dHJ...."
}
```

Data **Post/ core/ datafiles**

Parameters

Parameter	Value	Description
description	(required)	**File descrip** **metadata**
file	Parcourir... Local PC file	**Data file**

```json
{
    "rdf_type": "http://www.opensilex.org/vocabulary/oeso#Image",
    "date": "2020-08-21T00:00:00+01:00",
    "target": "http://plot01",
    "provenance": {
        "uri": "http://opensilex.dev/provenance/1598001689415"
    },
}
```
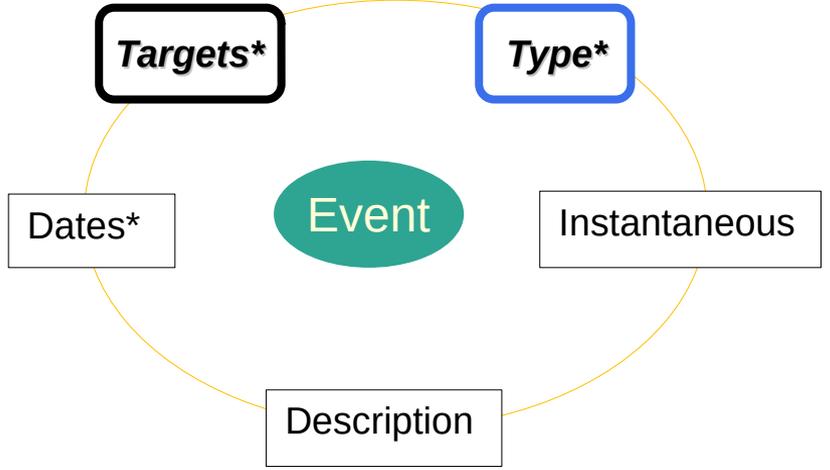
JSON model example

Try it out!

🐍 python™   **Python Package**

Ⓡ   **R Package**

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Declare Events for different objects

OpenSILEX

Add Event 〜

Scientific Organization ► Event ► Add event

Targets* **Type***

Dates* **Event** Instantaneous

Description

Add Area + event 〜

Any existing Exp. ► Map ► Add Area

Type of Area* **Type***

Dates* **Area** Instantaneous

Description
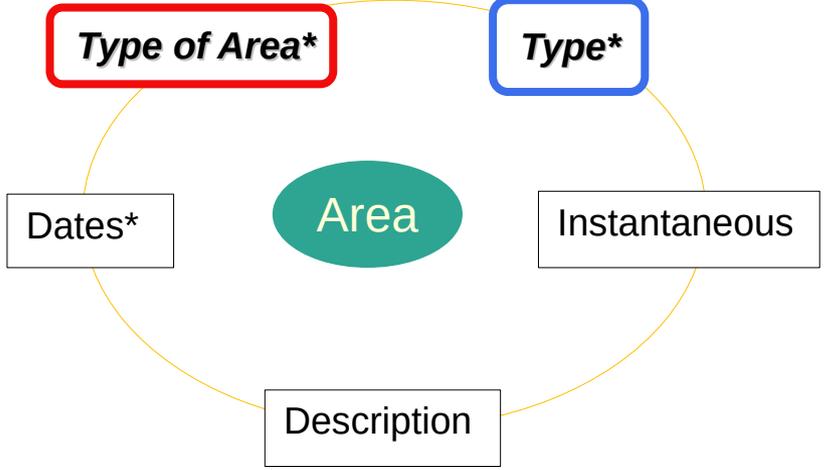
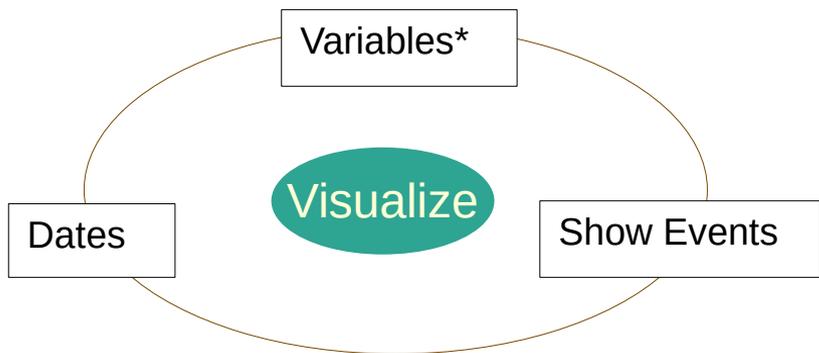**Type*** (To be) defined in **Vocabulary**

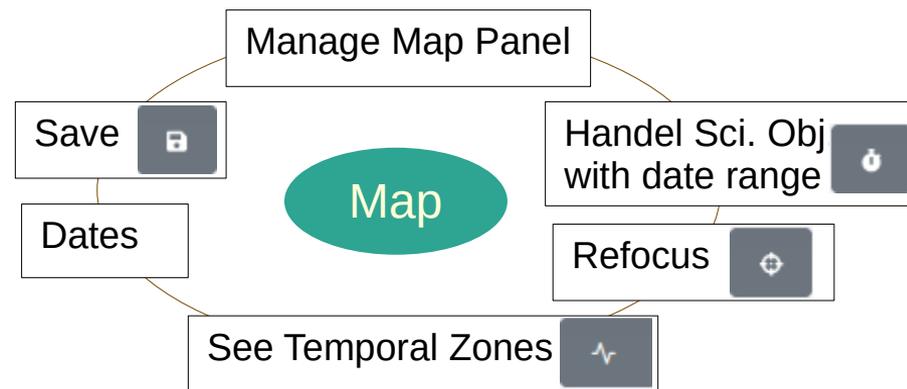**Targets** Must be an existing **Device** or **Sci. Obj.**

Type of Area* OpenSilex established **Ontology**
By definition, only **Temporal** zones could be linked to an event

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Data visualization

Intended Exp. ▶ Sci. Obj. ▶ Action ▶ Visualize

Sci. Object ▶ Select ▶ Visualization

Variables*

Dates

Visualize

Show Events

Click or right click on each data point for more information or functions

Experiment Map

Intended Exp. ▶ Map

Manage Map Panel

Save

Dates

Map

Handel Sci. Obj with date range

Refocus

See Temporal Zones

Click on each object to see all information

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Useful Tips

OpenSILEX

Func. & Obj. must be defined/ used globally (out of Exp)

Device
Provenance
Event
Germplasm
Variables

Func. & Obj. can be defined globally or inside Exp.

Scientific object
Data
Documents
Data visualization
Annotations

Func. & Obj. must be defined/ used inside Exp.

Factor
Map

- ➢ Scientific Object defined **in Experiment:** Sci. Obj. and Exp. Have the same life cycle. Example: annual crops

- ➢ Scientific Object defined generally and **apart from Experiment** : Sci. Obj can exist more than an Exp. Example: fruit trees, vine stock, ..

Ontology

- ➢ OpenSilex established vocabulary — **No Access**
- ➢ OpenSilex per-suggested vocabulary — **Admin Access**
- ➢ OpenSilex created vocabulary — **Free Access**

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