

# Circular Economy Ontology Network (CEON) - Process ODP

## Metadata

### IRI

<http://w3id.org/CEON/ontology/processODP/>

### Title

Circular Economy Ontology Network (CEON) - Process ODP

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### Version IRI

<http://w3id.org/CEON/ontology/processODP/0.4/>

### Version Info

0.4

### Preferred Namespace Prefix

processODP

### Preferred Namespace Uri

<http://w3id.org/CEON/ontology/processODP/>

### Description

A core ODP of the CEON ontology network, defining aspects of the process concept.

### Covers Requirements

Covers the following requirements from Onto-DESIDE D3.1: CVN-Process-3,4,5, C3-1, C4-2, C4-5, C4-7, C4-9, C13-2, E2-6

Covers the following requirements from Onto-DESIDE D3.2: CE1-1, CE3-5, CE7-4, CE7-5, CE8-2, CE10-7, CE12-1, C3-1, C4-2, C4-5, C4-7, C4-9, C13-2, E2-6

## Classes

Location <sup>c</sup>	
IRI	<a href="http://w3id.org/CEON/ontology/location/Location">http://w3id.org/CEON/ontology/location/Location</a>
In Range Of	<a href="#">occursAtLocation</a> <sup>op</sup>
Description <sup>c</sup>	
IRI	<a href="http://w3id.org/CEON/ontology/processODP/Description">http://w3id.org/CEON/ontology/processODP/Description</a>
Super Class Of	<a href="#">Plan</a> <sup>c</sup>

## Event<sup>c</sup>

IRI	<a href="http://w3id.org/CEON/ontology/processODP/Event">http://w3id.org/CEON/ontology/processODP/Event</a>
Super Class Of	<a href="#">Process<sup>c</sup></a>

## Plan<sup>c</sup>

IRI	<a href="http://w3id.org/CEON/ontology/processODP/Plan">http://w3id.org/CEON/ontology/processODP/Plan</a>
Sub Class Of	<a href="#">Description<sup>c</sup></a>
Restriction	<a href="#"><u>hasPart</u><sup>op</sup> some Plan<sup>c</sup></a>

## Plan Execution<sup>c</sup>

IRI	<a href="http://w3id.org/CEON/ontology/processODP/PlanExecution">http://w3id.org/CEON/ontology/processODP/PlanExecution</a>
Sub Class Of	<a href="#">Situation<sup>c</sup></a> <a href="#"><u>duringTime</u><sup>op</sup> some TimeInterval<sup>c</sup> or <u>occursAtTime</u><sup>dp</sup> some xsd:dateTime<sup>c</sup></a>
In Domain Of	<a href="#"><u>followsExecution</u><sup>op</sup></a> <a href="#"><u>precedesExecution</u><sup>op</sup></a> <a href="#"><u>occursAtTime</u><sup>dp</sup></a>
Restriction	<a href="#"><u>followsExecution</u><sup>op</sup> some PlanExecution<sup>c</sup></a> <a href="#"><u>hasPart</u><sup>op</sup> some PlanExecution<sup>c</sup></a> <a href="#"><u>isSettingFor</u><sup>op</sup> some PlanExecution<sup>c</sup></a> <a href="#"><u>precedesExecution</u><sup>op</sup> some PlanExecution<sup>c</sup></a> <a href="#"><u>satisfiesPlan</u><sup>op</sup> some PlanExecution<sup>c</sup></a>
Super Class Of	<a href="#">Transition<sup>c</sup></a>

## Process<sup>c</sup>

IRI	<a href="http://w3id.org/CEON/ontology/processODP/Process">http://w3id.org/CEON/ontology/processODP/Process</a>
Is Defined By	ISO 59004:2024 - 3.5.5 process
Description	Set of interrelated or interacting activities that transforms inputs into outputs.
Sub Class Of	<a href="#">Event<sup>c</sup></a>
In Domain Of	<a href="#"><u>hasInput</u><sup>op</sup></a> <a href="#"><u>hasOutput</u><sup>op</sup></a>
Super Class Of	<a href="#">TransformationProcess<sup>c</sup></a>

## Situation<sup>c</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/processODP/Situation">http://w3id.org/CEON/ontology/processODP/Situation</a>
<b>In Domain Of</b>	<a href="#">isSettingFor<sup>op</sup></a>
<b>Restriction</b>	<a href="#">isSettingFor<sup>op</sup></a> some <a href="#">Situation<sup>c</sup></a>
<b>Super Class Of</b>	<a href="#">PlanExecution<sup>c</sup></a>

## Time Interval<sup>c</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/processODP/TimeInterval">http://w3id.org/CEON/ontology/processODP/TimeInterval</a>
<b>In Domain Of</b>	<a href="#">endTime<sup>dp</sup></a> <a href="#">startTime<sup>dp</sup></a>
<b>In Range Of</b>	<a href="#">duringTime<sup>op</sup></a>

## Transformation Process<sup>c</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/processODP/TransformationProcess">http://w3id.org/CEON/ontology/processODP/TransformationProcess</a>
<b>Sub Class Of</b>	<a href="#">Process<sup>c</sup></a>

## Transition<sup>c</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/processODP/Transition">http://w3id.org/CEON/ontology/processODP/Transition</a>
<b>Sub Class Of</b>	<a href="#">PlanExecution<sup>c</sup></a>
<b>In Domain Of</b>	<a href="#">affectedObject<sup>op</sup></a> <a href="#">duringTime<sup>op</sup></a>
<b>Restriction</b>	<a href="#">isSettingFor<sup>op</sup></a> some <a href="#">Transition<sup>c</sup></a> <a href="#">affectedObject<sup>op</sup></a> <i>min</i> 1 <a href="#">Transition<sup>c</sup></a>

## Object Properties

### affected object<sup>op</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/processODP/affectedObject">http://w3id.org/CEON/ontology/processODP/affectedObject</a>
<b>Sub Property Of</b>	<a href="#">isSettingFor<sup>op</sup></a>
<b>Domain</b>	<a href="#">Transition<sup>c</sup></a>

during time<sup>op</sup>

**IRI** <http://w3id.org/CEON/ontology/processODP/duringTime>

**Sub Property Of** [isSettingFor<sup>op</sup>](#)

**Domain** [Transition<sup>c</sup>](#)

**Range** [TimeInterval<sup>c</sup>](#)

follows execution<sup>op</sup>

**IRI** <http://w3id.org/CEON/ontology/processODP/followsExecution>

**Sub Property Of** [isSettingFor<sup>op</sup>](#)

**Domain** [PlanExecution<sup>c</sup>](#)

has input<sup>op</sup>

**IRI** <http://w3id.org/CEON/ontology/processODP/hasInput>

**Domain** [Process<sup>c</sup>](#)

has output<sup>op</sup>

**IRI** <http://w3id.org/CEON/ontology/processODP/hasOutput>

**Domain** [Process<sup>c</sup>](#)

has part<sup>op</sup>

**IRI** <http://w3id.org/CEON/ontology/processODP/hasPart>

has plan execution<sup>op</sup>

**IRI** <http://w3id.org/CEON/ontology/processODP/hasPlanExecution>

**Description** A plan can have specific executions.

is setting for<sup>op</sup>

**IRI** <http://w3id.org/CEON/ontology/processODP/isSettingFor>

**Super Property Of**

- [affectedObject<sup>op</sup>](#)
- [duringTime<sup>op</sup>](#)
- [followsExecution<sup>op</sup>](#)
- [occursAtLocation<sup>op</sup>](#)
- [precedesExecution<sup>op</sup>](#)

**Domain**

[Situation<sup>c</sup>](#)

occurs at location<sup>op</sup>

**IRI** <http://w3id.org/CEON/ontology/processODP/occursAtLocation>

**Sub Property Of** [isSettingFor<sup>op</sup>](#)

**Range** [http://w3id.org/CEON/ontology/location/Location<sup>c</sup>](#)

precedes execution<sup>op</sup>

**IRI** <http://w3id.org/CEON/ontology/processODP/precedesExecution>

**Sub Property Of** [isSettingFor<sup>op</sup>](#)

**Domain** [PlanExecution<sup>c</sup>](#)

satisfies plan<sup>dp</sup>

**IRI** <http://w3id.org/CEON/ontology/processODP/satisfiesPlan>

## Datatype Properties

end time<sup>dp</sup>

**IRI** <http://w3id.org/CEON/ontology/processODP/endTime>

**Domain** [TimeInterval<sup>c</sup>](#)

occurs at time<sup>dp</sup>

**IRI** <http://w3id.org/CEON/ontology/processODP/occursAtTime>

**Domain** [PlanExecution<sup>c</sup>](#)

**Range** [xsd:dateTime](#)

start time<sup>dp</sup>

**IRI** <http://w3id.org/CEON/ontology/processODP/startTime>

**Domain** [TimeInterval](#)<sup>c</sup>

## Annotation Properties

contributor<sup>ap</sup>

**IRI** <http://purl.org/dc/terms/contributor>

created<sup>ap</sup>

**IRI** <http://purl.org/dc/terms/created>

creator<sup>ap</sup>

**IRI** <http://purl.org/dc/terms/creator>

description<sup>ap</sup>

**IRI** <http://purl.org/dc/terms/description>

license<sup>ap</sup>

**IRI** <http://purl.org/dc/terms/license>

title<sup>ap</sup>

**IRI** <http://purl.org/dc/terms/title>

preferred namespace prefix<sup>ap</sup>

**IRI** <http://purl.org/vocab/vann/preferredNamespacePrefix>

preferred namespace uri<sup>ap</sup>

**IRI** <http://purl.org/vocab/vann/preferredNamespaceUri>

covers requirements<sup>ap</sup>

**IRI** <http://www.ontologydesignpatterns.org/schemas/cpannotation schema.owl#coversRequirements>

## Namespaces

:

**dcterms** <http://purl.org/dc/terms/>

**odp** <http://www.ontologydesignpatterns.org/schemas/cpannotationschema.owl#>

**owl** <http://www.w3.org/2002/07/owl#>

**prov** <http://www.w3.org/ns/prov#>

**rdf** <http://www.w3.org/1999/02/22-rdf-syntax-ns#>

**rdfs** <http://www.w3.org/2000/01/rdf-schema#>

**vann** <http://purl.org/vocab/vann/>

**xsd** <http://www.w3.org/2001/XMLSchema#>

## Legend

 c	Classes
 op	Object Properties
 dp	Datatype Properties
 ap	Annotation Properties