

# Circular Economy Ontology Network (CEON) - Process ODP

## Metadata

### IRI

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

### Title

Circular Economy Ontology Network (CEON) - Process ODP

### Creator

Eva Blomqvist

### Contributor

Huanyu Li

Mikael Lindecrantz

Robin Keskisärkkä

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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<sup>OD</sup></a>
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<sup>c</sup></a>

## Event<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/processODP/Event>

**Super Class Of** [Process<sup>C</sup>](#)

## Plan<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/processODP/Plan>

**Sub Class Of** [Description<sup>C</sup>](#)

**Restriction** [hasPart<sup>OP</sup>](#) some [Plan<sup>C</sup>](#)

## Plan Execution<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/processODP/PlanExecution>

**Sub Class Of** [Situation<sup>C</sup>](#)  
[duringTime<sup>OP</sup>](#) some [TimeInterval<sup>C</sup>](#) or [occursAtTime<sup>OP</sup>](#) some [xsd.dateTime<sup>C</sup>](#)

**In Domain Of** [followsExecution<sup>OP</sup>](#)  
[precedesExecution<sup>OP</sup>](#)  
[occursAtTime<sup>OP</sup>](#)

**Restriction** [followsExecution<sup>OP</sup>](#) some [PlanExecution<sup>C</sup>](#)  
[hasPart<sup>OP</sup>](#) some [PlanExecution<sup>C</sup>](#)  
[isSettingFor<sup>OP</sup>](#) some [PlanExecution<sup>C</sup>](#)  
[precedesExecution<sup>OP</sup>](#) some [PlanExecution<sup>C</sup>](#)  
[satisfiesPlan<sup>OP</sup>](#) some [PlanExecution<sup>C</sup>](#)

**Super Class Of** [Transition<sup>C</sup>](#)

## Process<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/processODP/Process>

**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** [Event<sup>C</sup>](#)

**In Domain Of** [hasInput<sup>OP</sup>](#)  
[hasOutput<sup>OP</sup>](#)  
[hasProcessType<sup>OP</sup>](#)

**Super Class Of** [TransformationProcess<sup>C</sup>](#)

## Process Type<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/processODP/ProcessType>

**In Range Of** [hasProcessType](#)<sup>op</sup>

## Situation<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/processODP/Situation>

**In Domain Of** [isSettingFor](#)<sup>op</sup>

**Restriction** [isSettingFor](#)<sup>op</sup> some [Situation](#)<sup>C</sup>

**Super Class Of** [PlanExecution](#)<sup>C</sup>

## Time Interval<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/processODP/TimeInterval>

**In Domain Of** [endTime](#)<sup>dp</sup>  
[startTime](#)<sup>dp</sup>

**In Range Of** [duringTime](#)<sup>op</sup>

## Transformation Process<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/processODP/TransformationProcess>

**Sub Class Of** [Process](#)<sup>C</sup>

## Transition<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/processODP/Transition>

**Sub Class Of** [PlanExecution](#)<sup>C</sup>

**In Domain Of** [affectedObject](#)<sup>op</sup>  
[duringTime](#)<sup>op</sup>

**Restriction** [isSettingFor](#)<sup>op</sup> some [Transition](#)<sup>C</sup>  
[affectedObject](#)<sup>op</sup> *min* 1 [Transition](#)<sup>C</sup>

## Object Properties

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

**IRI** <http://w3id.org/CE0N/ontology/processODP/affectedObject>

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

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

### during time<sup>op</sup>

**IRI** <http://w3id.org/CE0N/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/CE0N/ontology/processODP/followsExecution>

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

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

### has input<sup>op</sup>

**IRI** <http://w3id.org/CE0N/ontology/processODP/hasInput>

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

### has output<sup>op</sup>

**IRI** <http://w3id.org/CE0N/ontology/processODP/hasOutput>

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

### has part<sup>op</sup>

**IRI** <http://w3id.org/CE0N/ontology/processODP/hasPart>

### has plan execution<sup>op</sup>

**IRI** <http://w3id.org/CE0N/ontology/processODP/hasPlanExecution>

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

has process type<sup>op</sup>

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

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

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

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>op</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/CE0N/ontology/processODP/occursAtTime>

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

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

start time<sup>dp</sup>

**IRI** <http://w3id.org/CE0N/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/cannotation-schema.owl#coversRequirements>

## Namespaces

:

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

**dcterms**

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

**odp**

<http://www.ontologydesignpatterns.org/schemas/cannotationschema.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

<b>c</b>	Classes
<b>op</b>	Object Properties
<b>dp</b>	Datatype Properties
<b>ap</b>	Annotation Properties