

# 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<sup>OP</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>dp</sup> some [xsd:dateTime](#)<sup>C</sup>

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

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

## Situation<sup>C</sup>

<b>IRI</b>	<a href="http://w3id.org/CE0N/ontology/processODP/Situation">http://w3id.org/CE0N/ontology/processODP/Situation</a>
<b><u>In Domain Of</u></b>	<a href="#">isSettingFor</a> <sup>op</sup>
<b><u>Restriction</u></b>	<a href="#">isSettingFor</a> <sup>op</sup> some <a href="#">Situation</a> <sup>C</sup>
<b><u>Super Class Of</u></b>	<a href="#">PlanExecution</a> <sup>C</sup>

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

<b>IRI</b>	<a href="http://w3id.org/CE0N/ontology/processODP/TimeInterval">http://w3id.org/CE0N/ontology/processODP/TimeInterval</a>
<b><u>In Domain Of</u></b>	<a href="#">endTime</a> <sup>dp</sup> <a href="#">startTime</a> <sup>dp</sup>
<b><u>In Range Of</u></b>	<a href="#">duringTime</a> <sup>op</sup>

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

<b>IRI</b>	<a href="http://w3id.org/CE0N/ontology/processODP/TransformationProcess">http://w3id.org/CE0N/ontology/processODP/TransformationProcess</a>
<b><u>Sub Class Of</u></b>	<a href="#">Process</a> <sup>C</sup>

## Transition<sup>C</sup>

<b>IRI</b>	<a href="http://w3id.org/CE0N/ontology/processODP/Transition">http://w3id.org/CE0N/ontology/processODP/Transition</a>
<b><u>Sub Class Of</u></b>	<a href="#">PlanExecution</a> <sup>C</sup>
<b><u>In Domain Of</u></b>	<a href="#">affectedObject</a> <sup>op</sup> <a href="#">duringTime</a> <sup>op</sup>
<b><u>Restriction</u></b>	<a href="#">isSettingFor</a> <sup>op</sup> some <a href="#">Transition</a> <sup>C</sup> <a href="#">affectedObject</a> <sup>op</sup> <i>min</i> 1 <a href="#">Transition</a> <sup>C</sup>

## Object Properties

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

<b>IRI</b>	<a href="http://w3id.org/CE0N/ontology/processODP/affectedObject">http://w3id.org/CE0N/ontology/processODP/affectedObject</a>
<b><u>Sub Property Of</u></b>	<a href="#">isSettingFor</a> <sup>op</sup>
<b><u>Domain</u></b>	<a href="#">Transition</a> <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.

is setting for<sup>op</sup>

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

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

**Range** <http://w3id.org/CE0N/ontology/location/Location><sup>c</sup>

precedes execution<sup>op</sup>

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

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

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

satisfies plan<sup>op</sup>

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

## Datatype Properties

end time<sup>dp</sup>

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

## Namespaces

:	<a href="http://w3id.org/CEON/ontology/processODP/">http://w3id.org/CEON/ontology/processODP/</a>
<b>dcterms</b>	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
<b>odp</b>	<a href="http://www.ontologydesignpatterns.org/schemas/cpannotationschema.owl#">http://www.ontologydesignpatterns.org/schemas/cpannotationschema.owl#</a>
<b>owl</b>	<a href="http://www.w3.org/2002/07/owl#">http://www.w3.org/2002/07/owl#</a>
<b>prov</b>	<a href="http://www.w3.org/ns/prov#">http://www.w3.org/ns/prov#</a>
<b>rdf</b>	<a href="http://www.w3.org/1999/02/22-rdf-syntax-ns#">http://www.w3.org/1999/02/22-rdf-syntax-ns#</a>
<b>rdfs</b>	<a href="http://www.w3.org/2000/01/rdf-schema#">http://www.w3.org/2000/01/rdf-schema#</a>
<b>vann</b>	<a href="http://purl.org/vocab/vann/">http://purl.org/vocab/vann/</a>
<b>xsd</b>	<a href="http://www.w3.org/2001/XMLSchema#">http://www.w3.org/2001/XMLSchema#</a>

## Legend

c	Classes
op	Object Properties
dp	Datatype Properties
ap	Annotation Properties