

# 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/0.5/>

### Version Info

0.5

### 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>
In Range Of	<a href="#">satisfiesPlan</a> <sup>op</sup>
Super Class Of	<a href="#">Plan</a> <sup>c</sup>

Event <sup>C</sup>	
IRI	<a href="http://w3id.org/CE0N/ontology/processODP/Event">http://w3id.org/CE0N/ontology/processODP/Event</a>
<u>Super Class Of</u>	<a href="#">Process</a> <sup>C</sup>
Plan <sup>C</sup>	
IRI	<a href="http://w3id.org/CE0N/ontology/processODP/Plan">http://w3id.org/CE0N/ontology/processODP/Plan</a>
<u>Sub Class Of</u>	<a href="#">Description</a> <sup>C</sup>
<u>In Domain Of</u>	<a href="#">has plan execution</a> <sup>op</sup>
<u>Restriction</u>	<a href="#">hasPart</a> <sup>op</sup> some <a href="#">Plan</a> <sup>C</sup>
Plan Execution <sup>C</sup>	
IRI	<a href="http://w3id.org/CE0N/ontology/processODP/PlanExecution">http://w3id.org/CE0N/ontology/processODP/PlanExecution</a>
<u>Sub Class Of</u>	<a href="#">Situation</a> <sup>C</sup> <a href="#">duringTime</a> <sup>op</sup> some <a href="#">TimeInterval</a> <sup>C</sup> or <a href="#">occursAtTime</a> <sup>dp</sup> some <a href="#">xsd:dateTime</a> <sup>C</sup>
<u>In Domain Of</u>	<a href="#">followsExecution</a> <sup>op</sup> <a href="#">precedesExecution</a> <sup>op</sup> <a href="#">occursAtTime</a> <sup>dp</sup>
<u>In Range Of</u>	<a href="#">has plan execution</a> <sup>op</sup>
<u>Restriction</u>	<a href="#">followsExecution</a> <sup>op</sup> some <a href="#">PlanExecution</a> <sup>C</sup> <a href="#">hasPart</a> <sup>op</sup> some <a href="#">PlanExecution</a> <sup>C</sup> <a href="#">isSettingFor</a> <sup>op</sup> some <a href="#">PlanExecution</a> <sup>C</sup> <a href="#">precedesExecution</a> <sup>op</sup> some <a href="#">PlanExecution</a> <sup>C</sup> <a href="#">satisfiesPlan</a> <sup>op</sup> some <a href="#">PlanExecution</a> <sup>C</sup>
<u>Super Class Of</u>	<a href="#">Transition</a> <sup>C</sup>
Process <sup>C</sup>	
IRI	<a href="http://w3id.org/CE0N/ontology/processODP/Process">http://w3id.org/CE0N/ontology/processODP/Process</a>
<u>Is Defined By</u>	ISO 59004:2024 - 3.5.5 process
<u>Description</u>	Set of interrelated or interacting activities that transforms inputs into outputs.
<u>Sub Class Of</u>	<a href="#">Event</a> <sup>C</sup>
<u>In Domain Of</u>	<a href="#">hasInput</a> <sup>op</sup> <a href="#">hasOutput</a> <sup>op</sup>
<u>Super Class Of</u>	<a href="#">TransformationProcess</a> <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="#"><u>isSettingFor</u></a> <sup>op</sup> <a href="#"><u>satisfiesPlan</u></a> <sup>op</sup>
<b><u>Restriction</u></b>	<a href="#"><u>isSettingFor</u></a> <sup>op</sup> some <a href="#"><u>Situation</u></a> <sup>c</sup>
<b><u>Super Class Of</u></b>	<a href="#"><u>PlanExecution</u></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="#"><u>endTime</u></a> <sup>dp</sup> <a href="#"><u>startTime</u></a> <sup>dp</sup>
<b><u>In Range Of</u></b>	<a href="#"><u>duringTime</u></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="#"><u>Process</u></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="#"><u>PlanExecution</u></a> <sup>c</sup>
<b><u>In Domain Of</u></b>	<a href="#"><u>affectedObject</u></a> <sup>op</sup> <a href="#"><u>duringTime</u></a> <sup>op</sup>
<b><u>Restriction</u></b>	<a href="#"><u>isSettingFor</u></a> <sup>op</sup> some <a href="#"><u>Transition</u></a> <sup>c</sup> <a href="#"><u>affectedObject</u></a> <sup>op</sup> <i>min</i> 1 <a href="#"><u>Transition</u></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="#"><u>isSettingFor</u></a> <sup>op</sup>
<b><u>Domain</u></b>	<a href="#"><u>Transition</u></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>

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

**Range** [PlanExecution<sup>c</sup>](#) or [Plan<sup>c</sup>](#)

has plan execution<sup>op</sup>

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

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

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

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

is setting for<sup>op</sup>

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**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>

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**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>

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**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>

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

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

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

## Datatype Properties

end time<sup>dp</sup>

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

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

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

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>](#)

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

## 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	<a href="http://purl.org/vocab/vann/preferredNamespaceUri">http://purl.org/vocab/vann/preferredNamespaceUri</a>

  

covers requirements <sup>ap</sup>	
IRI	<a href="http://www.ontologydesignpatterns.org/schemas/cannotation-schema.owl#coversRequirements">http://www.ontologydesignpatterns.org/schemas/cannotation-schema.owl#coversRequirements</a>

## Namespaces

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