

# 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 D2.3: 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** <http://w3id.org/CE0N/ontology/location/Location>

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

### Description<sup>c</sup>

**IRI** <http://w3id.org/CE0N/ontology/process0DP/Description>

**Super Class Of** [Plan<sup>c</sup>](#)

### Event<sup>c</sup>

**IRI** <http://w3id.org/CE0N/ontology/process0DP/Event>

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

## Plan<sup>c</sup>

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**IRI** <http://w3id.org/CEON/ontology/process0DP/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/CEON/ontology/process0DP/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>

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<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/process0DP/Process">http://w3id.org/CEON/ontology/process0DP/Process</a>
<b><u>Is Defined By</u></b>	ISO 59004:2024 - 3.5.5 process
<b><u>Description</u></b>	Set of interrelated or interacting activities that transforms inputs into outputs.
<b><u>Sub Class Of</u></b>	<a href="#">Event<sup>C</sup></a>
<b><u>In Domain Of</u></b>	<a href="#">hasInput<sup>op</sup></a> <a href="#">hasOutput<sup>op</sup></a> <a href="#">hasProcessType<sup>op</sup></a>
<b><u>Super Class Of</u></b>	<a href="#">TransformationProcess<sup>C</sup></a>

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

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<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/process0DP/ProcessType">http://w3id.org/CEON/ontology/process0DP/ProcessType</a>
<b><u>In Range Of</u></b>	<a href="#">hasProcessType<sup>op</sup></a>

## Situation<sup>c</sup>

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**IRI** <http://w3id.org/CEON/ontology/process0DP/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>

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**IRI** <http://w3id.org/CEON/ontology/process0DP/TimeInterval>

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

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

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

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**IRI** <http://w3id.org/CEON/ontology/process0DP/TransformationProcess>

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

## Transition<sup>c</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/process0DP/Transition">http://w3id.org/CEON/ontology/process0DP/Transition</a>
<b><u>Sub Class Of</u></b>	<a href="#">PlanExecution<sup>c</sup></a>
<b><u>In Domain Of</u></b>	<a href="#">affectedObject<sup>op</sup></a> <a href="#">duringTime<sup>op</sup></a>
<b><u>Restriction</u></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/process0DP/affected0bject">http://w3id.org/CEON/ontology/process0DP/affected0bject</a>
<b><u>Sub Property Of</u></b>	<a href="#">isSettingFor<sup>op</sup></a>
<b><u>Domain</u></b>	<a href="#">Transition<sup>c</sup></a>

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

**IRI** <http://w3id.org/CEON/ontology/process0DP/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/process0DP/followsExecution>

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

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

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

**IRI** <http://w3id.org/CEON/ontology/process0DP/hasInput>

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



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

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**IRI** <http://w3id.org/CEN/ontology/process0DP/hasOutput>

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

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

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**IRI** <http://w3id.org/CEN/ontology/process0DP/hasPart>

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

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**IRI** <http://w3id.org/CEN/ontology/process0DP/hasPlanExecution>

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

## has process type<sup>op</sup>

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**IRI** <http://w3id.org/CEN/ontology/process0DP/hasProcessType>

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

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

is setting for<sup>op</sup>

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**IRI**

<http://w3id.org/CEON/ontology/process0DP/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/process0DP/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/process0DP/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/process0DP/satisfiesPlan>

## Datatype Properties

end time<sup>dp</sup>

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**IRI** <http://w3id.org/CEON/ontology/process0DP/endTime>

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

occurs at time<sup>dp</sup>

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**IRI** <http://w3id.org/CEON/ontology/process0DP/occursAtTime>

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

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

start time<sup>dp</sup>

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**IRI** <http://w3id.org/CEON/ontology/process0DP/startTime>

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

## Annotation Properties

contributor<sup>ap</sup>

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

created<sup>ap</sup>

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

creator<sup>ap</sup>

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

description<sup>ap</sup>

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

license<sup>ap</sup>

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

title<sup>ap</sup>

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

preferred namespace prefix <sup>ap</sup>	
IRI	<a href="http://purl.org/vocab/vann/preferredNamespacePrefix">http://purl.org/vocab/vann/preferredNamespacePrefix</a>
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/cpannotationschema.owl#coversRequirements">http://www.ontologydesignpatterns.org/schemas/cpannotationschema.owl#coversRequirements</a>

## Namespaces

:

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

**dc**terms

<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	Data type Properties
ap	Annotation Properties