

# 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/0.1/>

### Version Info

0.1

### 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, CVN-Input/Output-1,3,4, C3-1, C4-2, C4-5, C4-7, C4-9, C13-2, E2-6

## Classes

### Process Participation<sup>c</sup>

#### IRI

<http://w3id.org/CEON/ontology/actor/ProcessParticipation>

#### Restriction

[actorODP:participationIn](#)<sup>op</sup> some [actor:ProcessParticipation](#)<sup>c</sup>

## Process<sup>C</sup>

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

**Description** An activity in the context of a circular value network, handling resources.

**In Domain Of** [has part](#)<sup>op</sup>  
[hasProcessExecution](#)<sup>op</sup>  
[hasProcessType](#)<sup>op</sup>  
[next process](#)<sup>op</sup>

**In Range Of** [has part](#)<sup>op</sup>  
[next process](#)<sup>op</sup>

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

## ProcessExecution<sup>C</sup>

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

**Description** An execution of a specific process.

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

## ProcessType<sup>C</sup>

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

**Description** The type of a process.

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

## Situation<sup>C</sup>

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

**Description** A situation that may involve some resources and actors, i.e. a state of affairs at a certain point in time.

**In Domain Of** [is the setting for](#)<sup>op</sup>

**In Range Of** [initial situation](#)<sup>op</sup>  
[resulting situation](#)<sup>op</sup>

## Transformation<sup>c</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/processODP/Transformation">http://w3id.org/CEON/ontology/processODP/Transformation</a>
<b>Description</b>	A process that transforms some situation into another situation, i.e. changes the state of affairs of some actor, resource etc.
<b>Sub Class Of</b>	<a href="#">Process<sup>c</sup></a>
<b>In Domain Of</b>	<a href="#">has input<sup>op</sup></a> <a href="#">has output<sup>op</sup></a> <a href="#">initial situation<sup>op</sup></a> <a href="#">occurs in location<sup>op</sup></a> <a href="#">resulting situation<sup>op</sup></a>

## Object Properties

### participation in<sup>op</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/actorODP/participationIn">http://w3id.org/CEON/ontology/actorODP/participationIn</a>
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### has input<sup>op</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/processODP/hasInput">http://w3id.org/CEON/ontology/processODP/hasInput</a>
<b>Description</b>	The situation before the transformation takes place, i.e. the state of affairs before the process takes places, such as the set of components before they are assembled into a product.
<b>Domain</b>	<a href="#">Transformation<sup>c</sup></a>

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

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/processODP/hasOutput">http://w3id.org/CEON/ontology/processODP/hasOutput</a>
<b>Description</b>	The output situation of a transformation, i.e. the state of affairs after the transformation took place.
<b>Domain</b>	<a href="#">Transformation<sup>c</sup></a>

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

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/processODP/hasPart">http://w3id.org/CEON/ontology/processODP/hasPart</a>
<b><u>Description</u></b>	A process can consists of several part, which are sub-processes.
<b><u>Domain</u></b>	<a href="#">Process</a> <sup>c</sup>
<b><u>Range</u></b>	<a href="#">Process</a> <sup>c</sup>

## hasProcessExecution<sup>op</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/processODP/hasProcessExecution">http://w3id.org/CEON/ontology/processODP/hasProcessExecution</a>
<b><u>Description</u></b>	A process can have specific executions.
<b><u>Domain</u></b>	<a href="#">Process</a> <sup>c</sup>
<b><u>Range</u></b>	<a href="#">ProcessExecution</a> <sup>c</sup>

## hasProcessType<sup>op</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/processODP/hasProcessType">http://w3id.org/CEON/ontology/processODP/hasProcessType</a>
<b><u>Description</u></b>	The type of the process.
<b><u>Domain</u></b>	<a href="#">Process</a> <sup>c</sup>
<b><u>Range</u></b>	<a href="#">ProcessType</a> <sup>c</sup>

## initial situation<sup>op</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/processODP/initialSituation">http://w3id.org/CEON/ontology/processODP/initialSituation</a>
<b><u>Description</u></b>	The situation before executing a process.
<b><u>Domain</u></b>	<a href="#">Transformation</a> <sup>c</sup>
<b><u>Range</u></b>	<a href="#">Situation</a> <sup>c</sup>

## is the setting for<sup>op</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/processODP/isSettingFor">http://w3id.org/CEON/ontology/processODP/isSettingFor</a>
<b>Description</b>	The thing(s) that this situation is the setting for, e.g. a resource that is in a certain state.
<b>Domain</b>	<a href="#">Situation</a> <sup>c</sup>

## next process<sup>op</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/processODP/nextProcess">http://w3id.org/CEON/ontology/processODP/nextProcess</a>
<b>Description</b>	A relation between one process and the next one following it in some sequence of processes, e.g. a sequence of transformations in a material flow.
<b>Domain</b>	<a href="#">Process</a> <sup>c</sup>
<b>Range</b>	<a href="#">Process</a> <sup>c</sup>

## occurs in location<sup>op</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/processODP/occursInLocation">http://w3id.org/CEON/ontology/processODP/occursInLocation</a>
<b>Description</b>	The location in which a transformation takes place, e.g. the factory location where something is manufactured.
<b>Domain</b>	<a href="#">Transformation</a> <sup>c</sup>

## resulting situation<sup>op</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/processODP/resultingSituation">http://w3id.org/CEON/ontology/processODP/resultingSituation</a>
<b>Description</b>	The situation after the execution of a process.
<b>Domain</b>	<a href="#">Transformation</a> <sup>c</sup>
<b>Range</b>	<a href="#">Situation</a> <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/cpannotationschema.owl#coversRequirements>

## Namespaces

:

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

**actor**

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

**actorODP**

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

**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/>

## Legend

c

Classes

op

Object Properties

ap

Annotation Properties