

# 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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**Date Created**

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**License**

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**Version Iri**

<http://w3id.org/CEON/ontology/processODP/0.3/>

**Version Info**

0.3

**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

## Classes

Location <sup>c</sup>	
<hr/>	
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>

Process <sup>c</sup>	
IRI	http://w3id.org/CEON/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.
In Domain Of	<a href="#">hasInput</a> <sup>op</sup> <a href="#">hasOutput</a> <sup>op</sup> <a href="#">hasPart</a> <sup>op</sup> <a href="#">has process execution</a> <sup>op</sup> <a href="#">hasProcessType</a> <sup>op</sup> <a href="#">nextProcess</a> <sup>op</sup>
In Range Of	<a href="#">hasPart</a> <sup>op</sup> <a href="#">nextProcess</a> <sup>op</sup>
Restriction	<a href="#">has process execution</a> <sup>op</sup> some <a href="#">Process</a> <sup>c</sup>
Super Class Of	<a href="#">Transformation</a> <sup>c</sup>

Process Execution <sup>c</sup>	
IRI	http://w3id.org/CEON/ontology/processODP/ProcessExecution
In Domain Of	<a href="#">hasExecutionInput</a> <sup>op</sup> <a href="#">hasExecutionOutput</a> <sup>op</sup> <a href="#">initialSituation</a> <sup>op</sup> <a href="#">nextExecution</a> <sup>op</sup> <a href="#">occursAtLocation</a> <sup>op</sup> <a href="#">resultingSituation</a> <sup>op</sup> <a href="#">occursAtTime</a> <sup>dp</sup>
In Range Of	<a href="#">has process execution</a> <sup>op</sup> <a href="#">nextExecution</a> <sup>op</sup>
Restriction	<a href="#">hasExecutionInput</a> <sup>op</sup> some <a href="#">ProcessExecution</a> <sup>c</sup> <a href="#">hasExecutionOutput</a> <sup>op</sup> some <a href="#">ProcessExecution</a> <sup>c</sup>
Super Class Of	<a href="#">TransformationExecution</a> <sup>c</sup>

Process Type <sup>c</sup>	
IRI	http://w3id.org/CEON/ontology/processODP/ProcessType
In Range Of	<a href="#">hasProcessType</a> <sup>op</sup>

## Situation<sup>c</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/processODP/Situation">http://w3id.org/CEON/ontology/processODP/Situation</a>
<b><u>In Domain Of</u></b>	<a href="#">isSettingFor</a> <sup>op</sup>
<b><u>In Range Of</u></b>	<a href="#">initialSituation</a> <sup>op</sup> <a href="#">resultingSituation</a> <sup>op</sup>
<b><u>Restriction</u></b>	<a href="#">isSettingFor</a> <sup>op</sup> some <a href="#">Situation</a> <sup>c</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><u>Sub Class Of</u></b>	<a href="#">Process</a> <sup>c</sup>
<b><u>In Domain Of</u></b>	<a href="#">hasTransformationExecution</a> <sup>op</sup>
<b><u>Restriction</u></b>	<a href="#">hasTransformationExecution</a> <sup>op</sup> some <a href="#">Transformation</a> <sup>c</sup>

## Transformation Execution<sup>c</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/processODP/TransformationExecution">http://w3id.org/CEON/ontology/processODP/TransformationExecution</a>
<b><u>Sub Class Of</u></b>	<a href="#">ProcessExecution</a> <sup>c</sup>
<b><u>In Range Of</u></b>	<a href="#">hasTransformationExecution</a> <sup>op</sup>

## Object Properties

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

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/processODP/hasExecutionInput">http://w3id.org/CEON/ontology/processODP/hasExecutionInput</a>
<b><u>Domain</u></b>	<a href="#">ProcessExecution</a> <sup>c</sup>

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

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/processODP/hasExecutionOutput">http://w3id.org/CEON/ontology/processODP/hasExecutionOutput</a>
<b><u>Domain</u></b>	<a href="#">ProcessExecution</a> <sup>c</sup>

### 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><u>Domain</u></b>	<a href="#">Process</a> <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** [Process](#)<sup>c</sup>

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

has process execution<sup>op</sup>

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

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

**Super Property Of** [hasTransformationExecution](#)<sup>op</sup>

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

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

has process type<sup>op</sup>

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

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

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

has transformation execution<sup>op</sup>

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

**Sub Property Of** [has process execution](#)<sup>op</sup>

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

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

intial situation<sup>op</sup>

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

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

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

is setting for<sup>op</sup>

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

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

next execution<sup>op</sup>

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

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

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

next process<sup>op</sup>

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

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

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

occurs at location<sup>op</sup>

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

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

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

resulting situation<sup>op</sup>

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

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

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

## Datatype Properties

occurs at time<sup>dp</sup>

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

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

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

## Annotation Properties

contributor <sup>ap</sup>	
IRI	<a href="http://purl.org/dc/terms/contributor">http://purl.org/dc/terms/contributor</a>
created <sup>ap</sup>	
IRI	<a href="http://purl.org/dc/terms/created">http://purl.org/dc/terms/created</a>
creator <sup>ap</sup>	
IRI	<a href="http://purl.org/dc/terms/creator">http://purl.org/dc/terms/creator</a>
description <sup>ap</sup>	
IRI	<a href="http://purl.org/dc/terms/description">http://purl.org/dc/terms/description</a>
license <sup>ap</sup>	
IRI	<a href="http://purl.org/dc/terms/license">http://purl.org/dc/terms/license</a>
title <sup>ap</sup>	
IRI	<a href="http://purl.org/dc/terms/title">http://purl.org/dc/terms/title</a>
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/cannotation-schema.owl#coversRequirements">http://www.ontologydesignpatterns.org/schemas/cannotation-schema.owl#coversRequirements</a>

## 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

c	Classes
op	Object Properties
dp	Datatype Properties
ap	Annotation Properties