# 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	http://w3id.org/CEON/ontology/location/Location
In Range Of	occursAtLocation <sup>op</sup>
Description <sup>c</sup>	
IRI	http://w3id.org/CEON/ontology/processODP/Description
Super Class Of	<u>Plan<sup>c</sup></u>

Event<sup>c</sup>

IRI http://w3id.org/CEON/ontology/processODP/Event

Super Class Of Process<sup>C</sup>

Plan<sup>c</sup>

IRI http://w3id.org/CEON/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>

Sub Class Of Situation C

<u>duringTime</u> op some <u>TimeInterval</u> or <u>occursAtTime</u> op some <u>xsd:dateTime</u> op some xsd:dateTime op some xsd:date

In Domain Of

followsExecution op precedesExecution op occursAtTime dp

Restriction

followsExecution op some PlanExecution c

hasPart<sup>op</sup> some PlanExecution<sup>c</sup> isSettingFor<sup>op</sup> some PlanExecution<sup>c</sup>

<u>precedesExecution</u> op some <u>PlanExecution</u> satisfiesPlan op some <u>PlanExecution</u> of some <u>PlanExecuti</u>

Super Class Of Transition<sup>C</sup>

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.

Sub Class Of Event<sup>C</sup>

In Domain Of

<u>hasInput<sup>op</sup></u> <u>hasOutput<sup>op</sup></u>

Super Class Of <u>TransformationProcess</u><sup>C</sup>

Situation <sup>C</sup>

IRI http://w3id.org/CEON/ontology/processODP/Situation

In Domain Of isSettingFor op

Restriction <u>isSettingFor</u><sup>op</sup> some <u>Situation</u><sup>c</sup>

Super Class Of PlanExecution<sup>C</sup>

Time Interval<sup>C</sup>

In Domain Of

endTime<sup>dp</sup> startTime<sup>dp</sup>

In Range Of <u>duringTime op</u>

Transformation Process<sup>C</sup>

http://w3id.org/CEON/ontology/processODP/TransformationPro

cess

Sub Class Of Process C

Transition <sup>C</sup>

Sub Class Of PlanExecution<sup>C</sup>

In Domain Of

affectedObject<sup>op</sup> duringTime<sup>op</sup>

Restriction

isSettingFor<sup>op</sup> some <u>Transition</u><sup>c</sup> <u>affectedObject</u><sup>op</sup> *min* 1 <u>Transition</u><sup>c</sup>

## **Object Properties**

affected object op

Sub Property Of isSettingFor op

Domain <u>Transition</u><sup>C</sup>

during time op

Sub Property Of isSettingFor op

Domain <u>Transition</u><sup>C</sup>

Range <u>TimeInterval</u><sup>C</sup>

follows execution op

Sub Property Of isSettingFor op

Domain PlanExecution<sup>C</sup>

has input op

Domain Process<sup>C</sup>

has output op

Domain Process<sup>C</sup>

has part<sup>op</sup>

has plan execution op

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

is setting for op

**Super Property Of** 

• affectedObjectop

• <u>duringTime</u><sup>op</sup>

• <u>followsExecution</u> op

occursAtLocation<sup>op</sup>

• precedesExecution op

Domain Situation C

occurs at location op

IRI http://w3id.org/CEON/ontology/processODP/occursAtLocation

Sub Property Of isSettingFor op

Range <a href="http://w3id.org/CEON/ontology/location/Location">http://w3id.org/CEON/ontology/location/Location</a>

precedes execution op

http://w3id.org/CEON/ontology/processODP/precedesExecution

Sub Property Of isSettingFor op

Domain PlanExecution<sup>C</sup>

satisfies plan op

http://w3id.org/CEON/ontology/processODP/satisfiesPlan

## **Datatype Properties**

end time dp

Domain <u>TimeInterval</u><sup>C</sup>

occurs at time dp

Domain PlanExecution C

Range xsd:dateTime

start time <sup>dp</sup>	
IRI	http://w3id.org/CEON/ontology/processODP/startTime
Domain	<u>TimeInterval</u> <sup>C</sup>

# **Annotation Properties**

Amotation	Properties	
contributor <sup>a</sup>	р	
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>8</sup>	ар	
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 requ	irements <sup>ap</sup>	

covers requirements <sup>ap</sup>		
IRI	http://www.ontologydesignpatterns.org/schemas/cpannotationschema.owl#coversRequirements	

## Namespaces

```
http://w3id.org/CEON/ontology/processODP/
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/
xsd
    http://www.w3.org/2001/XMLSchema#
```

# Legend

С	Classes
ор	Object Properties
dp	Datatype Properties
ap	Annotation Properties