## Circular Economy Ontology Network (CEON) - Process ODP

#### Metadata

IRI

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

Title

Circular Economy Ontology Network (CEON) - Process ODP

Creator

Huanyu Li

Contributor

Eva Blomqvist

Mikael Lindecrantz

Robin Keskisärkkä

**Date Created** 

2023-03-23

License

https://creativecommons.org/licenses/by/4.0/

**Version Iri** 

http://w3id.org/CEON/ontology/processODP/0.2/

**Version Info** 

0.2

**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

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> has process execution <sup>op</sup> has process type <sup>op</sup> nextProcess <sup>op</sup> resultingSituation <sup>op</sup> occursAtTime <sup>dp</sup>
In Range Of	hasPart <sup>op</sup> nextProcess <sup>op</sup>
Super Class Of	<u>Transformation <sup>c</sup></u>

Process execution <sup>c</sup>

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

In Domain Of

hasExecutionInput<sup>op</sup>
hasExecutionOutput<sup>op</sup>
nextExecution<sup>op</sup>
occursAtLocation<sup>op</sup>

In Range Of

has process execution op

nextExecution op

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

Process type <sup>C</sup>

**Description** The type of a process.

In Range Of has process type op

Situation <sup>c</sup>

In Domain Of isSettingFor op

In Range Of

intialSituation<sup>op</sup> resultingSituation<sup>op</sup>

Transformation <sup>C</sup>

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

Sub Class Of Process<sup>c</sup>

In Domain Of

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

 $\underline{\mathsf{hasTransformationExecution}}^{\mathsf{op}}$ 

intialSituation op

Transformation Execution <sup>c</sup>

cution

Sub Class Of Process execution<sup>C</sup>

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

### **Object Properties**

participation in op

http://w3id.org/CEON/ontology/actorODP/participationIn

has execution input op

**Domain** Process execution C

has execution output op

http://w3id.org/CEON/ontology/process0DP/hasExecutionOutpu

t

Domain Process execution<sup>C</sup>

has input<sup>op</sup>

Domain <u>Transformation</u><sup>C</sup>

has output op

http://w3id.org/CEON/ontology/process0DP/hasOutput

Domain <u>Transformation</u><sup>C</sup>

has part op

Domain Process<sup>c</sup>

Range Process<sup>C</sup>

has process execution op

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

on

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

Domain Process<sup>C</sup>

Range Process execution<sup>C</sup>

has process type op

**Description** The type of the process.

**Domain** Process<sup>c</sup>

Range Process type<sup>c</sup>

has transformation execution op

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

Execution

Domain <u>Transformation</u><sup>C</sup>

Range <u>TransformationExecution</u><sup>C</sup>

intial situation op

Domain <u>Transformation</u><sup>C</sup>

Range Situation<sup>C</sup>

is setting for op

Domain Situation<sup>C</sup>

next execution op

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

Domain Process execution<sup>C</sup>

Range Process execution<sup>C</sup>

next process op

Domain Process<sup>C</sup>

Range Process<sup>C</sup>

occurs at location op

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

Domain Process execution<sup>C</sup>

resulting situation op

http://w3id.org/CEON/ontology/process0DP/resultingSituatio

n

Domain Process<sup>C</sup>

Range Situation C

**Datatype Properties** 

occurs at time dp

Domain Process<sup>C</sup>

Range xsd:dateTime

**Annotation Properties** 

contributor ap

http://purl.org/dc/terms/contributor

created ap

IRI http://purl.org/dc/terms/created

creator ap

IRI http://purl.org/dc/terms/creator

```
description ap
IRI
                 http://purl.org/dc/terms/description
license ap
IRI
                 http://purl.org/dc/terms/license
title ap
IRI
                 http://purl.org/dc/terms/title
preferred namespace prefix ap
IRI
                 http://purl.org/vocab/vann/preferredNamespacePrefix
preferred namespace uri ap
IRI
                 http://purl.org/vocab/vann/preferredNamespaceUri
covers requirements ap
IRI
                 http://www.ontologydesignpatterns.org/schemas/cpannotation
                 schema.owl#coversRequirements
Namespaces
    http://w3id.org/CEON/ontology/processODP/
    http://w3id.org/CEON/ontology/actorODP/
```

```
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/
xsd
    http://www.w3.org/2001/XMLSchema#
```

# Legend

С	Classes
ор	Object Properties
dp	Datatype Properties
ap	Annotation Properties