

Circular Economy Ontology Network (CEON) - Process ODP

Metadata

IRI

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

Title

Circular Economy Ontology Network (CEON) - Process ODP

Creator

Eva Blomqvist

Contributor

Huanyu Li

Mikael Lindecrantz

Robin Keskisärkkä

Date Created

2024-12-17

License

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

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 ^C	
IRI	http://w3id.org/CEON/ontology/location/Location
In Range Of	occursAtLocation^{OP}

Description ^C	
IRI	http://w3id.org/CEON/ontology/processODP/Description
Super Class Of	Plan^C

Event^C

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

Super Class Of [Process](#)^C

Plan^C

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

Sub Class Of [Description](#)^C

Restriction [hasPart](#)^{op} some [Plan](#)^C

Plan Execution^C

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

Sub Class Of [Situation](#)^C
[duringTime](#)^{op} some [TimeInterval](#)^C or [occursAtTime](#)^{dp} some [xsd:dateTime](#)^C

In Domain Of [followsExecution](#)^{op}
[precedesExecution](#)^{op}
[occursAtTime](#)^{dp}

Restriction [followsExecution](#)^{op} some [PlanExecution](#)^C
[hasPart](#)^{op} some [PlanExecution](#)^C
[isSettingFor](#)^{op} some [PlanExecution](#)^C
[precedesExecution](#)^{op} some [PlanExecution](#)^C
[satisfiesPlan](#)^{op} some [PlanExecution](#)^C

Super Class Of [Transition](#)^C

Process^C

IRI <http://w3id.org/CE0N/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](#)^C

In Domain Of [hasInput](#)^{op}
[hasOutput](#)^{op}
[hasProcessType](#)^{op}

Super Class Of [TransformationProcess](#)^C

Process Type^C

IRI	http://w3id.org/CE0N/ontology/processODP/ProcessType
<u>In Range Of</u>	<u>hasProcessType</u> ^{op}

Situation^C

IRI	http://w3id.org/CE0N/ontology/processODP/Situation
<u>In Domain Of</u>	<u>isSettingFor</u> ^{op}
<u>Restriction</u>	<u>isSettingFor</u> ^{op} some <u>Situation</u> ^C
<u>Super Class Of</u>	<u>PlanExecution</u> ^C

Time Interval^C

IRI	http://w3id.org/CE0N/ontology/processODP/TimeInterval
<u>In Domain Of</u>	<u>endTime</u> ^{dp} <u>startTime</u> ^{dp}
<u>In Range Of</u>	<u>duringTime</u> ^{op}

Transformation Process^C

IRI	http://w3id.org/CE0N/ontology/processODP/TransformationProcess
<u>Sub Class Of</u>	<u>Process</u> ^C

Transition^C

IRI	http://w3id.org/CE0N/ontology/processODP/Transition
<u>Sub Class Of</u>	<u>PlanExecution</u> ^C
<u>In Domain Of</u>	<u>affectedObject</u> ^{op} <u>duringTime</u> ^{op}
<u>Restriction</u>	<u>isSettingFor</u> ^{op} some <u>Transition</u> ^C <u>affectedObject</u> ^{op} <i>min</i> 1 <u>Transition</u> ^C

Object Properties

affected object^{op}

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

Sub Property Of [isSettingFor^{op}](#)

Domain [Transition^c](#)

during time^{op}

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

Sub Property Of [isSettingFor^{op}](#)

Domain [Transition^c](#)

Range [TimeInterval^c](#)

follows execution^{op}

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

Sub Property Of [isSettingFor^{op}](#)

Domain [PlanExecution^c](#)

has input^{op}

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

Domain [Process^c](#)

has output^{op}

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

Domain [Process^c](#)

has part^{op}

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

has plan execution^{op}

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

Description A plan can have specific executions.

has process type^{op}

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

Domain [Process](#)^c

Range [ProcessType](#)^c

is setting for^{op}

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

Super Property Of

- [affectedObject](#)^{op}
- [duringTime](#)^{op}
- [followsExecution](#)^{op}
- [occursAtLocation](#)^{op}
- [precedesExecution](#)^{op}

Domain [Situation](#)^c

occurs at location^{op}

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

Sub Property Of [isSettingFor](#)^{op}

Range <http://w3id.org/CE0N/ontology/location/Location>^c

precedes execution^{op}

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

Sub Property Of [isSettingFor](#)^{op}

Domain [PlanExecution](#)^c

satisfies plan^{op}

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

Datatype Properties

end time^{dp}

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

Domain [TimeInterval](#)^c

occurs at time^{dp}

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

Domain [PlanExecution](#)^c

Range [xsd:dateTime](#)

start time^{dp}

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

Domain [TimeInterval](#)^c

Annotation Properties

contributor^{ap}

IRI <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/cannotation-schema.owl#coversRequirements>

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