

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

2024-11-13

License

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

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^c

IRI	http://w3id.org/CEON/ontology/location/Location
------------	---

<u>In Range Of</u>	<u>occursAtLocation</u> ^{op}
---------------------------	---

Process^c

IRI	http://w3id.org/CEON/ontology/process0DP/Process
<u>Is Defined By</u>	ISO 59004:2024 - 3.5.5 process
<u>Description</u>	Set of interrelated or interacting activities that transforms inputs into outputs.
<u>In Domain Of</u>	hasInput ^{op} hasOutput ^{op} hasPart ^{op} has process execution ^{op} hasProcessType ^{op} nextProcess ^{op}
<u>In Range Of</u>	hasPart ^{op} nextProcess ^{op}
<u>Restriction</u>	has process execution ^{op} some Process ^c
<u>Super Class Of</u>	Transformation ^c

Process Execution^c

IRI <http://w3id.org/CE0N/ontology/process0DP/ProcessExecution>

In Domain Of

[hasExecutionInput](#)^{op}
[hasExecutionOutput](#)^{op}
[intialSituation](#)^{op}
[nextExecution](#)^{op}
[occursAtLocation](#)^{op}
[resultingSituation](#)^{op}
[occursAtTime](#)^{dp}

In Range Of

[has_process_execution](#)^{op}
[nextExecution](#)^{op}

Restriction

[hasExecutionInput](#)^{op}
some [ProcessExecution](#)^c
[hasExecutionOutput](#)^{op}
some [ProcessExecution](#)^c

Super Class Of

[TransformationExecution](#)^c

Process Type^c

IRI <http://w3id.org/CE0N/ontology/process0DP/ProcessType>

In Range Of

[hasProcessType](#)^{op}

Situation^c

IRI	http://w3id.org/CEON/ontology/process0DP/Situation
<u>In Domain Of</u>	<u>isSettingFor</u> ^{op}
<u>In Range Of</u>	<u>intialSituation</u> ^{op} <u>resultingSituation</u> ^{op}
<u>Restriction</u>	<u>isSettingFor</u> ^{op} some <u>Situation</u> ^c

Transformation^c

IRI	http://w3id.org/CEON/ontology/process0DP/Transformation
<u>Sub Class Of</u>	<u>Process</u> ^c
<u>In Domain Of</u>	<u>hasTransformationExecution</u> ^{op}
<u>Restriction</u>	<u>hasTransformationExecution</u> ^{op} some <u>Transformation</u> ^c

Transformation Execution^c

IRI	http://w3id.org/CEON/ontology/process0DP/TransformationExecution
<u>Sub Class Of</u>	<u>ProcessExecution</u> ^c
<u>In Range Of</u>	<u>hasTransformationExecution</u> ^{op}

Object Properties

has execution input^{op}

IRI	http://w3id.org/CEON/ontology/process0DP/hasExecutionInput
<u>Domain</u>	<u>ProcessExecution</u> ^c

has execution output^{op}

IRI	http://w3id.org/CEON/ontology/process0DP/hasExecutionOutput
<u>Domain</u>	<u>ProcessExecution</u> ^c

has input^{op}

IRI <http://w3id.org/CEON/ontology/process0DP/hasInput>

Domain [Process](#)^C

has output^{op}

IRI <http://w3id.org/CEON/ontology/process0DP/hasOutput>

Domain [Process](#)^C

has part^{op}

IRI <http://w3id.org/CEON/ontology/process0DP/hasPart>

Domain [Process](#)^C

Range [Process](#)^C

has process execution^{op}

IRI <http://w3id.org/CEON/ontology/process0DP/hasProcessExecution>

Description A process can have specific executions.

Super Property Of [hasTransformationExecution^{op}](#)

Domain [Process^c](#)

Range [ProcessExecution^c](#)

has process type^{op}

IRI <http://w3id.org/CEON/ontology/process0DP/hasProcessType>

Domain [Process^c](#)

Range [ProcessType^c](#)

has transformation execution^{op}

IRI <http://w3id.org/CEON/ontology/process0DP/hasTransformationExecution>

Sub Property Of [has process execution^{op}](#)

Domain [Transformation^c](#)

Range [TransformationExecution^c](#)

intial situation^{op}

IRI <http://w3id.org/CEON/ontology/process0DP/intialSituation>

Domain [ProcessExecution^c](#)

Range [Situation^c](#)

is setting for^{op}

IRI <http://w3id.org/CEON/ontology/process0DP/isSettingFor>

Domain [Situation^c](#)

next execution^{op}

IRI <http://w3id.org/CEON/ontology/process0DP/nextExecution>

Domain [ProcessExecution^c](#)

Range [ProcessExecution^c](#)

next process^{op}

IRI <http://w3id.org/CEON/ontology/process0DP/nextProcess>

Domain [Process^c](#)

Range [Process^c](#)

occurs at location^{op}

IRI <http://w3id.org/CEON/ontology/process0DP/occursAtLocation>

Domain [ProcessExecution^c](#)

Range [http://w3id.org/CEON/ontology/location/Location^c](http://w3id.org/CEON/ontology/location/Location)

resulting situation^{op}

IRI <http://w3id.org/CEON/ontology/process0DP/resultingSituation>

Domain [ProcessExecution^c](#)

Range [Situation^c](#)

Datatype Properties

occurs at time^{dp}

IRI <http://w3id.org/CEON/ontology/process0DP/occursAtTime>

Domain [ProcessExecution^c](#)

Range [xsd:dateTime](#)

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/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

c	Classes
op	Object Properties
dp	Data type Properties
ap	Annotation Properties