

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
In Range Of	occursAtLocation ^{op}

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.
In Domain Of	hasInput ^{op} hasOutput ^{op} hasPart ^{op} has process execution ^{op} hasProcessType ^{op} nextProcess ^{op}
In Range Of	hasPart ^{op} nextProcess ^{op}
Restriction	has process execution ^{op} some Process ^C
Super Class Of	Transformation ^C

Process Execution^C

IRI	http://w3id.org/CE0N/ontology/processODP/ProcessExecution
In Domain Of	hasExecutionInput ^{op} hasExecutionOutput ^{op} initialSituation ^{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/processODP/ProcessType
In Range Of	hasProcessType ^{op}

Situation^C

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

Transformation^C

IRI	http://w3id.org/CE0N/ontology/processODP/Transformation
<u>Sub Class Of</u>	Process ^C
<u>In Domain Of</u>	hasTransformationExecution ^{op}
<u>Restriction</u>	hasTransformationExecution ^{op} some Transformation ^C

Transformation Execution^C

IRI	http://w3id.org/CE0N/ontology/processODP/TransformationExecution
<u>Sub Class Of</u>	ProcessExecution ^C
<u>In Range Of</u>	hasTransformationExecution ^{op}

Object Properties

has execution input^{op}

IRI	http://w3id.org/CE0N/ontology/processODP/hasExecutionInput
<u>Domain</u>	ProcessExecution ^C

has execution output^{op}

IRI	http://w3id.org/CE0N/ontology/processODP/hasExecutionOutput
<u>Domain</u>	ProcessExecution ^C

has input^{op}

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

Domain [Process](#)^c

Range [Process](#)^c

has process execution^{op}

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

Domain [Process](#)^c

Range [ProcessType](#)^c

has transformation execution^{op}

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

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

Domain [Transformation](#)^c

Range [TransformationExecution](#)^c

intial situation^{op}

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

Domain [ProcessExecution](#)^c

Range [Situation](#)^c

is setting for^{op}

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

Domain [Situation](#)^c

next execution^{op}

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

Domain [ProcessExecution](#)^c

Range [ProcessExecution](#)^c

next process^{op}

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

Domain [Process](#)^c

Range [Process](#)^c

occurs at location^{op}

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

Domain [ProcessExecution](#)^c

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

resulting situation^{op}

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

Domain [ProcessExecution](#)^c

Range [Situation](#)^c

Datatype Properties

occurs at time^{dp}

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