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/CEON/ontology/processODP/Event
Super Class Of	Process ^C

Plan ^C

IRI	http://w3id.org/CEON/ontology/processODP/Plan
Sub Class Of	Description ^C
Restriction	hasPart ^{op} some Plan ^C

Plan Execution ^C

IRI	http://w3id.org/CEON/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/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 ^C
In Domain Of	hasInput ^{op} hasOutput ^{op} hasProcessType ^{op}
Super Class Of	TransformationProcess ^C

Process Type ^C

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

In Range Of   hasProcessType ^{op}

Situation ^C

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

In Domain Of   isSettingFor ^{op}

Restriction   isSettingFor ^{op} some Situation ^C

Super Class Of   PlanExecution ^C

Time Interval ^C

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

In Domain Of   endTime ^{dp}
                 startTime ^{dp}

In Range Of   duringTime ^{op}

Transformation Process ^C

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

Sub Class Of   Process ^C

Transition ^C

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

Sub Class Of   PlanExecution ^C

In Domain Of   affectedObject ^{op}
                 duringTime ^{op}

Restriction   isSettingFor ^{op} some Transition ^C
                 affectedObject ^{op} *min* 1 Transition ^C

Object Properties

affected object ^{op}

IRI	http://w3id.org/CEON/ontology/processODP/affectedObject
Sub Property Of	isSettingFor ^{op}
Domain	Transition ^c

during time ^{op}

IRI	http://w3id.org/CEON/ontology/processODP/duringTime
Sub Property Of	isSettingFor ^{op}
Domain	Transition ^c
Range	TimeInterval ^c

follows execution ^{op}

IRI	http://w3id.org/CEON/ontology/processODP/followsExecution
Sub Property Of	isSettingFor ^{op}
Domain	PlanExecution ^c

has input ^{op}

IRI	http://w3id.org/CEON/ontology/processODP/hasInput
Domain	Process ^c

has output ^{op}

IRI	http://w3id.org/CEON/ontology/processODP/hasOutput
Domain	Process ^c

has part ^{op}

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

has plan execution ^{op}

IRI	http://w3id.org/CEON/ontology/processODP/hasPlanExecution
Description	A plan can have specific executions.

has process type ^{op}

IRI   `http://w3id.org/CEON/ontology/processODP/hasProcessType`

Domain   Process [c]

Range   ProcessType [c]

is setting for ^{op}

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

Sub Property Of   isSettingFor [op]

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

precedes execution ^{op}

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

Sub Property Of   isSettingFor [op]

Domain   PlanExecution [c]

satisfies plan ^{op}

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

Datatype Properties

end time ^{dp}

IRI   `http://w3id.org/CEON/ontology/processODP/endTime`

Domain   TimeInterval [c]

occurs at time ^{dp}

IRI	http://w3id.org/CEON/ontology/processODP/occursAtTime
Domain	PlanExecution ^c
Range	xsd:dateTime

start time ^{dp}

IRI	http://w3id.org/CEON/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/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	Datatype Properties
ap	Annotation Properties