Circular Economy Ontology Network (CEON) - Process ODP

Metadata

IRI

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

Title

Circular Economy Ontology Network (CEON) - Process ODP

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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/CEO
N/ontology/processO
DP/hasOutput`

Domain

Process ^c

has part ^{op}

IRI

`http://w3id.org/CEO
N/ontology/processO
DP/hasPart`

has plan execution ^{op}

IRI

`http://w3id.org/CEO
N/ontology/processO
DP/hasPlanExecution`

Description

A plan can have specific
executions.

has process type ^{op}

IRI

`http://w3id.org/CEO
N/ontology/processO
DP/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

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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

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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/CEO`
`N/ontology/processO`
`DP/satisfiesPlan`

Datatype Properties

end time ^{dp}

IRI   `http://w3id.org/CEO`
`N/ontology/processO`
`DP/endTime`

Domain   TimeInterval ^c

occurs at time ^{dp}

IRI   `http://w3id.org/CEO`
`N/ontology/processO`
`DP/occursAtTime`

Domain   PlanExecution ^c

Range   xsd:dateTime

start time ^{dp}

IRI   `http://w3id.org/CEO`
`N/ontology/processO`
`DP/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/voc
ab/vann/preferredNa
mespacePrefix
```

preferred namespace uri ^{ap}

IRI
```
http://purl.org/voc
ab/vann/preferredNa
mespaceUri
```

covers requirements ^{ap}

IRI
```
http://www.ontology
designpatterns.org/
schemas/cpannotatio
nschema.owl#coversR
equirements
```

Namespaces

:
```
http://w3id.org/CEON/ontology/pr
ocessODP/
```

dcterms
```
http://purl.org/dc/terms/
```

odp
```
http://www.ontologydesignpattern
s.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