

Circular Economy Ontology Network (CEON) - Actor ODP

Metadata

IRI

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

Title

Circular Economy Ontology Network (CEON) - Actor ODP

Creator

Eva Blomqvist

Contributor

Huanyu Li

Mikael Lindecrantz

Robin Keskisärkkä

Date Created

2023-03-17

License

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

Version Iri

<http://w3id.org/CEON/ontology/actorODP/0.2/>

Version Info

0.2

Preferred Namespace Prefix

actorODP

Preferred Namespace Uri

<https://w3id.org/CEON/ontology/actorODP/>

Description

A core ODP of the CEON ontology network, defining aspects of the actor concept.

Covers Requirements

Covers the following requirements from Onto-DESIDE D3.1: CVN-Process-3, CVN-Actor-1,4,6,7, CVN-Competency-3, CVN-Information-4, C11-1, C11-3, E1-6,6,6,9, E4-10

Classes

Actor^c

IRI <http://w3id.org/CEON/ontology/actorODP/Actor>

Description An agent able to act in the context of a circular value network, e.g. an organisation, person.

In Domain Of [has actor type^{op}](#)

In Range Of [capability of^{op}](#)
[has participating actor^{op}](#)

Actor Type^c

IRI <http://w3id.org/CEON/ontology/actorODP/ActorType>

Description The type of an actor, e.g. the type of company, or a specific subtype based on the organisations capabilities.

In Range Of [has actor type^{op}](#)

Capability^c

IRI <http://w3id.org/CEON/ontology/actorODP/Capability>

Description Something that the actor is capable of doing, e.g. performing a certain role in a process, based on some properties, such as access to infrastructure, resources and know-how.

In Domain Of [capability of^{op}](#)
[capability property^{op}](#)

In Range Of [based on capability^{op}](#)

Collaboration participation^c

IRI <http://w3id.org/CEON/ontology/actorODP/CollaborationParticipation>

Description

The relation involving the role of a certain actor with respect to a value network or a process in such a network, e.g. an organisation (actor) acting as the recycler (role) in a glass recycling value network (network) at a specific point or period in time. Or an organisation (actor) acting as the dismantler (role) in a dismantling step of a building deconstruction process (process step) at a specific point or period in time.

Sub Class Of [Participation^c](#)

In Domain Of [based on capability^{op}](#)
[is a participation in^{op}](#)

Participation^c

IRI <http://w3id.org/CEON/ontology/actorODP/Participation>

Description

Represents the participation of objects in some situation.

Sub Class Of [participation time point^{dp} exactly 1 1^c](#) or [participation start time^{dp} exactly 1 1^c](#)

In Domain Of [has participant role^{op}](#)
[has participating actor^{op}](#)
[participation end time^{dp}](#)
[participation start time^{dp}](#)
[participation time point^{dp}](#)

Super Class Of [Collaboration participation^c](#)
[Resource participation^c](#)
[Resource Relation^c](#)

Resource participation^c

IRI <http://w3id.org/CEON/ontology/actorODP/ResourceParticipation>

Description

The generic relation representing the participation of a resource in some relation. For example, it can be specialized to represent a reified version of an object or data property.

Sub Class Of [Participation^c](#)

In Domain Of [participating object^{op}](#)
[participating subject^{op}](#)

Resource Relation^c

IRI <http://w3id.org/CEON/ontology/actorODP/ResourceRelation>

Description

The relation involving the role of a certain actor with respect to a certain resource, e.g. an organisation or individual (actor) owning (role) a specific product (resource) at a specific point or period in time.

Sub Class Of [Participation^c](#)

In Domain Of [has participating resource^{op}](#)

Role^c

IRI <http://w3id.org/CEON/ontology/actorODP/Role>

Description

A role that an actor can take in a specific context. Applies both to roles in the context of resources, such as owner, manufacturer, reseller etc. of that resource, as well as roles in relation to a circular value network, such as recycler, dismantler, transporter etc., in relation to a material flow.

In Range Of [has participant role^{op}](#)

Collaboration^c

IRI <http://w3id.org/CEON/ontology/cvn/Collaboration>

Description

A collaboration between a set of actors.

Process^c

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

Resource^c

IRI <http://w3id.org/CEON/ontology/resourceODP/Resource>

In Range Of [has participating resource^{op}](#)

Object Properties

has actor type^{op}

IRI <http://w3id.org/CEON/ontology/actorODP/actorType>

Description The type of the actor.

Domain [Actor](#)^c

Range [Actor Type](#)^c

based on capability^{op}

IRI <http://w3id.org/CEON/ontology/actorODP/basedOnCapability>

Description An actor participates in a collaboration based on that it has some capability that is useful for the collaboration.

Domain [Collaboration participation](#)^c

Range [Capability](#)^c

capability of^{op}

IRI <http://w3id.org/CEON/ontology/actorODP/capabilityOf>

Description Relates to the actor holding the capability.

Domain [Capability](#)^c

Range [Actor](#)^c

capability property^{op}

IRI <http://w3id.org/CEON/ontology/actorODP/capabilityProperty>

Description Relates some properties to the capability, such as the parameters of it, or the needed resources.

Domain [Capability](#)^c

has location ^{op}

IRI <http://w3id.org/CEON/ontology/actorODP/hasLocation>

Description Defines the location of an actor or resource.

Domain [resourceODP:Resource^c](#) or [Actor^c](#)

has participant role ^{op}

IRI <http://w3id.org/CEON/ontology/actorODP/participantRole>

Description Holds the value of the role of the participant in this participation relation.

Domain [Participation^c](#)

Range [Role^c](#)

has participating actor ^{op}

IRI <http://w3id.org/CEON/ontology/actorODP/participatingActor>

Description Holds the value of the actor involved in this participation relation.

Domain [Participation^c](#)

Range [Actor^c](#)

participating object ^{op}

IRI <http://w3id.org/CEON/ontology/actorODP/participatingObject>

Description Participating object in a resource participation. This is part of a resource participation that can be a directional relation, and the participating object is the end point of the relation.

Domain [Resource participation^c](#)

has participating resource ^{op}

IRI	http://w3id.org/CEON/ontology/actorODP/participatingResource
Description	The resource that this participation relation relates to, i.e. for which the actor holds the specified role.
Domain	Resource Relation ^c
Range	resourceODP:Resource ^c

participating subject ^{op}

IRI	http://w3id.org/CEON/ontology/actorODP/participatingSubject
Description	Participating subject in a resource participation. This is part of a resource participation that can be a directional relation, and the participating subject is the starting point of the relation.
Domain	Resource participation ^c

is a participation in ^{op}

IRI	http://w3id.org/CEON/ontology/actorODP/participationIn
Description	The collaboration or process that this participation relates to.
Domain	Collaboration participation ^c
Range	processODP:Process ^c or Collaboration ^c

Datatype Properties

participation end time ^{dp}

IRI	http://w3id.org/CEON/ontology/actorODP/participationEndTime
Description	The end of a time interval.
Domain	Participation ^c
Range	xsd:date ^c or xsd:gMonthYear ^c or xsd:gYear ^c or xsd:dateTime ^c

participation start time^{dp}

IRI <http://w3id.org/CEON/ontology/actorODP/participationStartTime>

Description The start of a time interval.

Domain [Participation^c](#)

Range [xsd:gMonthYear^c](#) or [xsd:gYear^c](#) or [xsd:dateTime^c](#) or [xsd:date^c](#)

participation time point^{dp}

IRI <http://w3id.org/CEON/ontology/actorODP/participationTimePoint>

Description The point in time when something took place or was valid.

Domain [Participation^c](#)

Range [xsd:gYear^c](#) or [xsd:gMonthYear^c](#) or [xsd:date^c](#) or [xsd:dateTime^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/actorODP/>

cvn

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

dcterms

<http://purl.org/dc/terms/>

odp

<http://www.ontologydesignpatterns.org/schemas/cpannotationschema.owl#>

owl

<http://www.w3.org/2002/07/owl#>

processODP

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

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#>

resourceODP

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

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