

Circular Economy Ontology Network (CEON) - Actor Module

Metadata

IRI

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

Title

Circular Economy Ontology Network (CEON) - Actor Module

Creator

Eva Blomqvist

Contributor

Huanyu Li

Mikael Lindecrantz

Robin Keskisärkkä

Date Created

2023-03-16

License

<https://github.com/LiUSemWeb/CEON/blob/master/LICENSE>

Version Iri

<http://w3id.org/CEON/ontology/actor/0.1/>

Version Info

0.1

Preferred Namespace Prefix

actor

Preferred Namespace Uri

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

Description

The Actor module of CEON (Circular Economy Ontology Network).

Covers Requirements

In addition to requirements covered by imported ODPs, covers the following requirements from Onto-DESIDE D3.1: C0-1, C0-2, C3-4, T3-4

Classes

Actor Circular Value Network role^C

IRI <http://w3id.org/CEON/ontology/actor/ActorCVNRole>

Description The role(s) of an actor in a Circular Value Network, which is a specific type of collaboration.

Sub Class Of [Actor collaboration role^C](#)

Named Individuals

- [collectorⁿⁱ](#)
- [dismantlerⁿⁱ](#)
- [manufacturerⁿⁱ](#)
- [recyclerⁿⁱ](#)
- [resellerⁿⁱ](#)
- [sellerⁿⁱ](#)
- [supplierⁿⁱ](#)
- [userⁿⁱ](#)

Actor collaboration role^C

IRI <http://w3id.org/CEON/ontology/actor/ActorCollaborationRole>

Description The roles of an actor involved in a collaboration.

Sub Class Of [actorODP:Role^C](#)

Super Class Of

- [Actor Circular Value Network role^C](#)
- [Actor process role^C](#)

Actor process role^C

IRI <http://w3id.org/CEON/ontology/actor/ActorProcessRole>

Description The role(s) of an actor involved in a process.

Sub Class Of [Actor collaboration role^C](#)

Actor resource role^C

IRI <http://w3id.org/CEON/ontology/actor/ActorResourceRole>

Description The role(s) of an actor in relation to a resource.

Sub Class Of [actorODP:Role^C](#)

Named Individuals [buyerⁿⁱ](#)
[consumerⁿⁱ](#)
[issuerⁿⁱ](#)
[ownerⁿⁱ](#)
[producerⁿⁱ](#)
[providerⁿⁱ](#)
[resellerⁿⁱ](#)
[sellerⁿⁱ](#)
[supplierⁿⁱ](#)
[updaterⁿⁱ](#)
[userⁿⁱ](#)
[viewerⁿⁱ](#)

Buying resource^C

IRI <http://w3id.org/CEON/ontology/actor/BuyingResource>

Description The relation where the role of the actor is the buyer of a certain resource.

Sub Class Of [Resource Relation^C](#)

Equivalentclass [actorODP:participantRole^{op}](#) value [buyer^C](#) and [Resource Relation^C](#)

Circular Value Network Participation^C

IRI <http://w3id.org/CEON/ontology/actor/CVNPParticipation>

Description A participation-relation, that represents the participation of an actor in a CVN with a certain role. For instance, a specific company playing the role of recycler in a certain flow of a CVN. The participation may also be related to a certain time (or time interval).

Sub Class Of [actorODP:CollaborationParticipation^C](#)
[actorODP:participantRole^{op}](#) some [Actor Circular Value Network role^C](#) and
[actorODP:participatingActor^{op}](#) some [actorODP:Actor^C](#) and
[actorODP:participationIn^{op}](#) some [Circular Value Network^C](#) and
[actorODP:CollaborationParticipation^C](#)

Consuming resource^C

IRI	http://w3id.org/CEON/ontology/actor/ConsumingResource
Description	The relation where the role of the actor is the consumer of a certain resource.
Sub Class Of	Resource Relation ^C
Equivalentclass	actorODP:participantRole ^{op} value consumer ^C and Resource Relation ^C

Issuing resource^C

IRI	http://w3id.org/CEON/ontology/actor/IssuingResource
Description	The relation where the role of the actor is the issuer of a certain resource.
Sub Class Of	Resource Relation ^C
Equivalentclass	actorODP:participantRole ^{op} value issuer ^C and Resource Relation ^C

Owning resource^C

IRI	http://w3id.org/CEON/ontology/actor/OwningResource
Description	The relation where the role of the actor is the owner of a certain resource.
Sub Class Of	Resource Relation ^C
Equivalentclass	actorODP:participantRole ^{op} value owner ^C and Resource Relation ^C

Process Participation^C

IRI	http://w3id.org/CEON/ontology/actor/ProcessParticipation
Description	Participation of a certain actor in a certain process, with a certain role. For instance, a certain department of a recycling company having the role of quality controllant, or material sorter, in a certain recycling process. The participation may also be given a time, e.g. a start and end time.
Sub Class Of	actorODP:CollaborationParticipation ^C actorODP:participatingActor ^{op} some actorODP:Actor ^C and actorODP:participationIn ^{op} some http://w3id.org/CEON/ontology/process/Process ^C and actorODP:CollaborationParticipation ^C and actorODP:participantRole ^{op} some Actor Circular Value Network role ^C

Producing resource^C

IRI	http://w3id.org/CEON/ontology/actor/ProducingResource
Description	The relation where the role of the actor is the producer of a certain resource.
Sub Class Of	Resource Relation ^C
Equivalentclass	Resource Relation ^C and actorODP:participantRole ^{Op} value producer ^C

Providing resource^C

IRI	http://w3id.org/CEON/ontology/actor/ProvidingResource
Description	The relation where the role of the actor is the provider of a certain resource.
Sub Class Of	Resource Relation ^C
Equivalentclass	Resource Relation ^C and actorODP:participantRole ^{Op} value provider ^C

Reselling resource^C

IRI	http://w3id.org/CEON/ontology/actor/ResellingResource
Description	The relation where the role of the actor is the reseller of a certain resource.
Sub Class Of	Resource Relation ^C
Equivalentclass	actorODP:participantRole ^{Op} value reseller ^C and Resource Relation ^C

Selling resource^C

IRI	http://w3id.org/CEON/ontology/actor/SellingResource
Description	The relation where the role of the actor is the seller of a certain resource.
Sub Class Of	Resource Relation ^C
Equivalentclass	Resource Relation ^C and actorODP:participantRole ^{Op} value seller ^C

Supplying resource^C

IRI	http://w3id.org/CEON/ontology/actor/SupplyingResource
Description	The relation where the role of the actor is the supplier of a certain resource.
Sub Class Of	Resource Relation^C
Equivalentclass	actorODP:participantRole^{op} value supplier^C and Resource Relation^C

Updating resource^C

IRI	http://w3id.org/CEON/ontology/actor/UpdatingResource
Description	The relation where the role of the actor is the updater of a certain resource.
Sub Class Of	Resource Relation^C
Equivalentclass	actorODP:participantRole^{op} value updater^C and Resource Relation^C

Using resource^C

IRI	http://w3id.org/CEON/ontology/actor/UsingResource
Description	The relation where the role of the actor is the user of a certain resource.
Sub Class Of	Resource Relation^C
Equivalentclass	Resource Relation^C and actorODP:participantRole^{op} value user^C

Viewing resource^C

IRI	http://w3id.org/CEON/ontology/actor/ViewingResource
Description	The relation where the role of the actor is the viewer of a certain resource.
Sub Class Of	Resource Relation^C
Equivalentclass	actorODP:participantRole^{op} value viewer^C and Resource Relation^C

Actor^C

IRI	http://w3id.org/CEON/ontology/actorODP/Actor
------------	---

Capability^c

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

In Domain Of [capability extent](#)^{op}
[needed resource relations](#)^{op}

Collaboration Participation^c

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

Super Class Of [Circular Value Network Participation](#)^c
[Process Participation](#)^c

Participation^c

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

Resource Relation^c

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

Description A relation between a resource, an actor, and the role the actor has in relation to the resource. For instance, the role of owner that a certain actor takes for a certain resource for a certain period of time. Or the seller of a certain resource, until that resource has been sold, and the actor no longer has that role in relation to the resource.

Sub Class Of [actorODP:participantRole](#)^{op} some [Actor resource role](#)^c and [actorODP:participatingActor](#)^{op} some [actorODP:Actor](#)^c and [actorODP:Participation](#)^c and [actorODP:participatingResource](#)^{op} some <http://w3id.org/CEON/ontology/resourceODP/Resource>^c

Super Class Of [Buying resource](#)^c
[Consuming resource](#)^c
[Issuing resource](#)^c
[Owning resource](#)^c
[Producing resource](#)^c
[Providing resource](#)^c
[Reselling resource](#)^c
[Selling resource](#)^c
[Supplying resource](#)^c
[Updating resource](#)^c
[Using resource](#)^c
[Viewing resource](#)^c

Role^c

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

Super Class Of [Actor collaboration role^c](#)
[Actor resource role^c](#)

Circular Value Network^c

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

Description A collaboration between actors that constitute a Circular Value Newtworks, implicitly or explicitly set up.

Sub Class Of [http://w3id.org/CEON/ontology/cvn/Collaboration^c](http://w3id.org/CEON/ontology/cvn/Collaboration)

Collaboration^c

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

Super Class Of [Circular Value Network^c](#)

Process^c

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

Resource^c

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

Object Properties

capability extent^{op}

IRI <http://w3id.org/CEON/ontology/actor/capabilityExtent>

Description

The extent of this capability, e.g. stating whether there are limits to the capability, such as a maximum amount or size of something.

Sub Property Of [actorODP:capabilityProperty^{op}](#)

Domain [actorODP:Capability^c](#)

needed resource relations^{op}

IRI <http://w3id.org/CEON/ontology/actor/neededResourceRelation>

Description

In order for an actor to have a capability, it needs to have certain resources, e.g. materials, infrastructure, know-how, information etc.

Sub Property Of [actorODP:capabilityProperty^{op}](#)

Domain [actorODP:Capability^c](#)

capability property^{op}

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

Super Property Of

- [capability extent^{op}](#)
- [needed resource relations^{op}](#)

participant role^{op}

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

participating actor^{op}

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

participating resource^{op}

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

participation in^{op}

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

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/actor/>

actorODP

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

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/>

Legend

^c

Classes

^{op}

Object Properties

^{ap}

Annotation Properties