

# Circular Economy Ontology Network (CEON) - Actor Module

## Metadata

### IRI

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

### Title

Circular Economy Ontology Network (CEON) - Actor Module

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### Version Iri

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

### Version Info

0.2

### 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<sup>C</sup>

**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<sup>C</sup>](#)

**Named Individuals**

- [collector<sup>ni</sup>](#)
- [dismantler<sup>ni</sup>](#)
- [manufacturer<sup>ni</sup>](#)
- [recycler<sup>ni</sup>](#)
- [reseller<sup>ni</sup>](#)
- [seller<sup>ni</sup>](#)
- [supplier<sup>ni</sup>](#)
- [user<sup>ni</sup>](#)

## Actor collaboration role<sup>C</sup>

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

**Description** The roles of an actor involved in a collaboration.

**Sub Class Of** [actorODP:Role<sup>C</sup>](#)

**Super Class Of**

- [Actor Circular Value Network role<sup>C</sup>](#)
- [Actor process role<sup>C</sup>](#)

## Actor process role<sup>C</sup>

**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<sup>C</sup>](#)

## Actor resource role<sup>C</sup>

**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<sup>C</sup>](#)

**Named Individuals** [buyer<sup>ni</sup>](#)  
[consumer<sup>ni</sup>](#)  
[issuer<sup>ni</sup>](#)  
[owner<sup>ni</sup>](#)  
[producer<sup>ni</sup>](#)  
[provider<sup>ni</sup>](#)  
[reseller<sup>ni</sup>](#)  
[seller<sup>ni</sup>](#)  
[supplier<sup>ni</sup>](#)  
[updater<sup>ni</sup>](#)  
[user<sup>ni</sup>](#)  
[viewer<sup>ni</sup>](#)

## Buying resource<sup>C</sup>

**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<sup>C</sup>](#)

**Equivalentclass** [actorODP:participantRole<sup>op</sup>](#) value [buyer<sup>C</sup>](#) and [Resource Relation<sup>C</sup>](#)

## Circular Value Network Participation<sup>C</sup>

**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<sup>C</sup>](#)  
[actorODP:CollaborationParticipation<sup>C</sup>](#) and [actorODP:participantRole<sup>op</sup>](#) some [Actor Circular Value Network role<sup>C</sup>](#) and [actorODP:participationIn<sup>op</sup>](#) some [Circular Value Network<sup>C</sup>](#) and [actorODP:participatingActor<sup>op</sup>](#) some [actorODP:Actor<sup>C</sup>](#)

## Consuming resource<sup>C</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/actor/ConsumingResource">http://w3id.org/CEON/ontology/actor/ConsumingResource</a>
<b>Description</b>	The relation where the role of the actor is the consumer of a certain resource.
<b>Sub Class Of</b>	<a href="#">Resource Relation</a> <sup>C</sup>
<b>Equivalentclass</b>	<a href="#">Resource Relation</a> <sup>C</sup> and <a href="#">actorODP:participantRole</a> <sup>Op</sup> value <a href="#">consumer</a> <sup>C</sup>

## Issuing resource<sup>C</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/actor/IssuingResource">http://w3id.org/CEON/ontology/actor/IssuingResource</a>
<b>Description</b>	The relation where the role of the actor is the issuer of a certain resource.
<b>Sub Class Of</b>	<a href="#">Resource Relation</a> <sup>C</sup>
<b>Equivalentclass</b>	<a href="#">Resource Relation</a> <sup>C</sup> and <a href="#">actorODP:participantRole</a> <sup>Op</sup> value <a href="#">issuer</a> <sup>C</sup>

## Owning resource<sup>C</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/actor/OwningResource">http://w3id.org/CEON/ontology/actor/OwningResource</a>
<b>Description</b>	The relation where the role of the actor is the owner of a certain resource.
<b>Sub Class Of</b>	<a href="#">Resource Relation</a> <sup>C</sup>
<b>Equivalentclass</b>	<a href="#">actorODP:participantRole</a> <sup>Op</sup> value <a href="#">owner</a> <sup>C</sup> and <a href="#">Resource Relation</a> <sup>C</sup>

## Process Participation<sup>C</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/actor/ProcessParticipation">http://w3id.org/CEON/ontology/actor/ProcessParticipation</a>
<b>Description</b>	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.
<b>Sub Class Of</b>	<a href="#">actorODP:CollaborationParticipation</a> <sup>C</sup> <a href="#">actorODP:participationIn</a> <sup>Op</sup> some <a href="http://w3id.org/CEON/ontology/processODP/Process">http://w3id.org/CEON/ontology/processODP/Process</a> <sup>C</sup> and <a href="#">actorODP:participantRole</a> <sup>Op</sup> some <a href="#">Actor Circular Value Network role</a> <sup>C</sup> and <a href="#">actorODP:CollaborationParticipation</a> <sup>C</sup> and <a href="#">actorODP:participatingActor</a> <sup>Op</sup> some <a href="#">actorODP:Actor</a> <sup>C</sup>

## Producing resource<sup>C</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/actor/ProducingResource">http://w3id.org/CEON/ontology/actor/ProducingResource</a>
<b>Description</b>	The relation where the role of the actor is the producer of a certain resource.
<b>Sub Class Of</b>	<a href="#">Resource Relation</a> <sup>C</sup>
<b>Equivalentclass</b>	<a href="#">actorODP:participantRole</a> <sup>op</sup> value <a href="#">producer</a> <sup>C</sup> <i>and</i> <a href="#">Resource Relation</a> <sup>C</sup>

## Providing resource<sup>C</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/actor/ProvidingResource">http://w3id.org/CEON/ontology/actor/ProvidingResource</a>
<b>Description</b>	The relation where the role of the actor is the provider of a certain resource.
<b>Sub Class Of</b>	<a href="#">Resource Relation</a> <sup>C</sup>
<b>Equivalentclass</b>	<a href="#">Resource Relation</a> <sup>C</sup> <i>and</i> <a href="#">actorODP:participantRole</a> <sup>op</sup> value <a href="#">provider</a> <sup>C</sup>

## Reselling resource<sup>C</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/actor/ResellingResource">http://w3id.org/CEON/ontology/actor/ResellingResource</a>
<b>Description</b>	The relation where the role of the actor is the reseller of a certain resource.
<b>Sub Class Of</b>	<a href="#">Resource Relation</a> <sup>C</sup>
<b>Equivalentclass</b>	<a href="#">actorODP:participantRole</a> <sup>op</sup> value <a href="#">reseller</a> <sup>C</sup> <i>and</i> <a href="#">Resource Relation</a> <sup>C</sup>

## Selling resource<sup>C</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/actor/SellingResource">http://w3id.org/CEON/ontology/actor/SellingResource</a>
<b>Description</b>	The relation where the role of the actor is the seller of a certain resource.
<b>Sub Class Of</b>	<a href="#">Resource Relation</a> <sup>C</sup>
<b>Equivalentclass</b>	<a href="#">actorODP:participantRole</a> <sup>op</sup> value <a href="#">seller</a> <sup>C</sup> <i>and</i> <a href="#">Resource Relation</a> <sup>C</sup>

## Supplying resource<sup>C</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/actor/SupplyingResource">http://w3id.org/CEON/ontology/actor/SupplyingResource</a>
<b>Description</b>	The relation where the role of the actor is the supplier of a certain resource.
<b>Sub Class Of</b>	<a href="#">Resource Relation</a> <sup>C</sup>
<b>Equivalentclass</b>	<a href="#">actorODP:participantRole</a> <sup>op</sup> value <a href="#">supplier</a> <sup>C</sup> and <a href="#">Resource Relation</a> <sup>C</sup>

## Updating resource<sup>C</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/actor/UpdatingResource">http://w3id.org/CEON/ontology/actor/UpdatingResource</a>
<b>Description</b>	The relation where the role of the actor is the updater of a certain resource.
<b>Sub Class Of</b>	<a href="#">Resource Relation</a> <sup>C</sup>
<b>Equivalentclass</b>	<a href="#">Resource Relation</a> <sup>C</sup> and <a href="#">actorODP:participantRole</a> <sup>op</sup> value <a href="#">updater</a> <sup>C</sup>

## Using resource<sup>C</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/actor/UsingResource">http://w3id.org/CEON/ontology/actor/UsingResource</a>
<b>Description</b>	The relation where the role of the actor is the user of a certain resource.
<b>Sub Class Of</b>	<a href="#">Resource Relation</a> <sup>C</sup>
<b>Equivalentclass</b>	<a href="#">Resource Relation</a> <sup>C</sup> and <a href="#">actorODP:participantRole</a> <sup>op</sup> value <a href="#">user</a> <sup>C</sup>

## Viewing resource<sup>C</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/actor/ViewingResource">http://w3id.org/CEON/ontology/actor/ViewingResource</a>
<b>Description</b>	The relation where the role of the actor is the viewer of a certain resource.
<b>Sub Class Of</b>	<a href="#">Resource Relation</a> <sup>C</sup>
<b>Equivalentclass</b>	<a href="#">Resource Relation</a> <sup>C</sup> and <a href="#">actorODP:participantRole</a> <sup>op</sup> value <a href="#">viewer</a> <sup>C</sup>

## Actor<sup>C</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/actorODP/Actor">http://w3id.org/CEON/ontology/actorODP/Actor</a>
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## Capability<sup>C</sup>

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

**In Domain Of** [capability extent](#)<sup>op</sup>  
[needed resource relations](#)<sup>op</sup>

## Collaboration Participation<sup>C</sup>

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

**Super Class Of** [Circular Value Network Participation](#)<sup>C</sup>  
[Process Participation](#)<sup>C</sup>

## Participation<sup>C</sup>

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

## Resource Relation<sup>C</sup>

**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:participatingResource](#)<sup>op</sup> some <http://w3id.org/CEON/ontology/resourceODP/Resource><sup>C</sup> and [actorODP:participatingActor](#)<sup>op</sup> some [actorODP:Actor](#)<sup>C</sup> and [actorODP:Participation](#)<sup>C</sup> and [actorODP:participantRole](#)<sup>op</sup> some [Actor resource role](#)<sup>C</sup>

**Super Class Of** [Buying resource](#)<sup>C</sup>  
[Consuming resource](#)<sup>C</sup>  
[Issuing resource](#)<sup>C</sup>  
[Owning resource](#)<sup>C</sup>  
[Producing resource](#)<sup>C</sup>  
[Providing resource](#)<sup>C</sup>  
[Reselling resource](#)<sup>C</sup>  
[Selling resource](#)<sup>C</sup>  
[Supplying resource](#)<sup>C</sup>  
[Updating resource](#)<sup>C</sup>  
[Using resource](#)<sup>C</sup>  
[Viewing resource](#)<sup>C</sup>

## Role<sup>c</sup>

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

**Super Class Of** [Actor collaboration role<sup>c</sup>](#)  
[Actor resource role<sup>c</sup>](#)

## Circular Value Network<sup>c</sup>

**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<sup>c</sup>](http://w3id.org/CEON/ontology/cvn/Collaboration)

## Collaboration<sup>c</sup>

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

**Super Class Of** [Circular Value Network<sup>c</sup>](#)

## Process<sup>c</sup>

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

## Resource<sup>c</sup>

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

## Object Properties



## capability extent<sup>op</sup>

**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<sup>op</sup>](#)

**Domain** [actorODP:Capability<sup>c</sup>](#)

## needed resource relations<sup>op</sup>

**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<sup>op</sup>](#)

**Domain** [actorODP:Capability<sup>c</sup>](#)

## capability property<sup>op</sup>

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

**Super Property Of**

- [capability extent<sup>op</sup>](#)
- [needed resource relations<sup>op</sup>](#)

## participant role<sup>op</sup>

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

## participating actor<sup>op</sup>

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

## participating resource<sup>op</sup>

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

participation in<sup>op</sup>

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

## Annotation Properties

contributor<sup>ap</sup>

**IRI** <http://purl.org/dc/terms/contributor>

created<sup>ap</sup>

**IRI** <http://purl.org/dc/terms/created>

creator<sup>ap</sup>

**IRI** <http://purl.org/dc/terms/creator>

description<sup>ap</sup>

**IRI** <http://purl.org/dc/terms/description>

license<sup>ap</sup>

**IRI** <http://purl.org/dc/terms/license>

title<sup>ap</sup>

**IRI** <http://purl.org/dc/terms/title>

preferred namespace prefix<sup>ap</sup>

**IRI** <http://purl.org/vocab/vann/preferredNamespacePrefix>

preferred namespace uri<sup>ap</sup>

**IRI** <http://purl.org/vocab/vann/preferredNamespaceUri>

covers requirements<sup>ap</sup>

<b>IRI</b>	<a href="http://www.ontologydesignpatterns.org/schemas/cpannotationschema.owl#coversRequirements">http://www.ontologydesignpatterns.org/schemas/cpannotationschema.owl#coversRequirements</a>
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## 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