

# 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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### License

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

### Version Iri

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

### Version Info

0.1

### Preferred Namespace Prefix

actor

### Preferred Namespace Uri

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

### Description

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

### Covers Requirements

What are the roles of this actor in this circular value network/process/in relation to this resource?  
What are the capabilities of this actor?

## 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>](#)

## 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** <http://w3id.org/CEON/ontology/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** <http://w3id.org/CEON/ontology/actorODP/Role><sup>c</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** [Resource Relation](#)<sup>c</sup> and <http://w3id.org/CEON/ontology/actorODP/participantRole>  
op value

## 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

<http://w3id.org/CEON/ontology/actorODP/CollaborationParticipation><sup>C</sup>  
<http://w3id.org/CEON/ontology/actorODP/participationIn><sup>op</sup> some  
and <http://w3id.org/CEON/ontology/actorODP/participantRole><sup>op</sup> some  
and <http://w3id.org/CEON/ontology/actorODP/CollaborationParticipation><sup>C</sup> and  
<http://w3id.org/CEON/ontology/actorODP/participatingActor><sup>op</sup> some

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

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

### Equivalentclass

[Resource Relation](#)<sup>C</sup> and <http://w3id.org/CEON/ontology/actorODP/participantRole><sup>op</sup> value

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

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

### Equivalentclass

[Resource Relation](#)<sup>C</sup> and <http://w3id.org/CEON/ontology/actorODP/participantRole><sup>op</sup> value

## 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="#">Resource Relation</a> <sup>c</sup> and <a href="http://w3id.org/CEON/ontology/actorODP/participantRole">http://w3id.org/CEON/ontology/actorODP/participantRole</a> <sup>op</sup> value

## 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="http://w3id.org/CEON/ontology/actorODP/CollaborationParticipation">http://w3id.org/CEON/ontology/actorODP/CollaborationParticipation</a> <sup>c</sup> <a href="http://w3id.org/CEON/ontology/actorODP/CollaborationParticipation">http://w3id.org/CEON/ontology/actorODP/CollaborationParticipation</a> <sup>c</sup> and <a href="http://w3id.org/CEON/ontology/actorODP/participatingActor">http://w3id.org/CEON/ontology/actorODP/participatingActor</a> <sup>op</sup> some and <a href="http://w3id.org/CEON/ontology/actorODP/participantRole">http://w3id.org/CEON/ontology/actorODP/participantRole</a> <sup>op</sup> some and <a href="http://w3id.org/CEON/ontology/actorODP/participationIn">http://w3id.org/CEON/ontology/actorODP/participationIn</a> <sup>op</sup> some

## 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="#">Resource Relation</a> <sup>c</sup> and <a href="http://w3id.org/CEON/ontology/actorODP/participantRole">http://w3id.org/CEON/ontology/actorODP/participantRole</a> <sup>op</sup> value

## 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> and <a href="http://w3id.org/CEON/ontology/actorODP/participantRole">http://w3id.org/CEON/ontology/actorODP/participantRole</a> <sup>op</sup> value

## 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="http://w3id.org/CEON/ontology/actorODP/participantRole">http://w3id.org/CEON/ontology/actorODP/participantRole</a> <sup>op</sup> value and <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="http://w3id.org/CEON/ontology/actorODP/participantRole">http://w3id.org/CEON/ontology/actorODP/participantRole</a> <sup>op</sup> value and <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="http://w3id.org/CEON/ontology/actorODP/participantRole">http://w3id.org/CEON/ontology/actorODP/participantRole</a> <sup>op</sup> value 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="http://w3id.org/CEON/ontology/actorODP/participantRole">http://w3id.org/CEON/ontology/actorODP/participantRole</a> <sup>op</sup> value and <a href="#">Resource Relation</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="http://w3id.org/CEON/ontology/actorODP/participantRole">http://w3id.org/CEON/ontology/actorODP/participantRole</a> <sup>op</sup> value

## 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="http://w3id.org/CEON/ontology/actorODP/participantRole">http://w3id.org/CEON/ontology/actorODP/participantRole</a> <sup>op</sup> value

## 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>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/actorODP/Capability">http://w3id.org/CEON/ontology/actorODP/Capability</a>
<b>In Domain Of</b>	<a href="#">capability extent</a> <sup>op</sup> <a href="#">needed resource relations</a> <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**  
<http://w3id.org/CEON/ontology/actorODP/Participation<sup>C</sup>> *and* <http://w3id.org/CEON/ontology/actorODP/participantRole<sup>op</sup>> some  
*and* <http://w3id.org/CEON/ontology/actorODP/participatingResource<sup>op</sup>> some  
*and* <http://w3id.org/CEON/ontology/actorODP/participatingActor<sup>op</sup>> some

**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>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/cvn/CVN">http://w3id.org/CEON/ontology/cvn/CVN</a>
<b>Description</b>	A collaboration between actors that constitute a Circular Value Newtworks, implicitly or explicitly set up.
<b>Sub Class Of</b>	<a href="http://w3id.org/CEON/ontology/cvn/Collaboration">http://w3id.org/CEON/ontology/cvn/Collaboration</a> <sup>C</sup>

## Collaboration<sup>C</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/cvn/Collaboration">http://w3id.org/CEON/ontology/cvn/Collaboration</a>
<b>Super Class Of</b>	<a href="#">Circular Value Network</a> <sup>C</sup>

## Process<sup>C</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/process/Process">http://w3id.org/CEON/ontology/process/Process</a>
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## Resource<sup>C</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/resourceODP/Resource">http://w3id.org/CEON/ontology/resourceODP/Resource</a>
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## Object Properties

### capability extent<sup>OP</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/ontology/actor/capabilityExtent">http://w3id.org/CEON/ontology/actor/capabilityExtent</a>
<b>Description</b>	The extent of this capability, e.g. stating whether there are limist to the capability, such as a maximum amount or size of something.
<b>Sub Property Of</b>	<a href="http://w3id.org/CEON/ontology/actorODP/capabilityProperty">http://w3id.org/CEON/ontology/actorODP/capabilityProperty</a> <sup>OP</sup>
<b>Domain</b>	<a href="http://w3id.org/CEON/ontology/actorODP/Capability">http://w3id.org/CEON/ontology/actorODP/Capability</a> <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, infrastrucutre, know-how, information etc.

**Sub Property Of** <http://w3id.org/CEON/ontology/actorODP/capabilityProperty><sup>op</sup>

**Domain** <http://w3id.org/CEON/ontology/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>

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

## Namespaces

### actor

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

### 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

op

ap

Classes

Object Properties

Annotation Properties