

# 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/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<sup>c</sup>

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**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>

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**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>

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

## 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 [actorODP:participantRole<sup>op</sup>](#) value [consumer<sup>c</sup>](#)

## 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** [actorODP:participantRole<sup>op</sup>](#) value [issuer<sup>c</sup>](#) and [Resource Relation<sup>c</sup>](#)

## Owning resource<sup>c</sup>

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

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

## Process Participation<sup>c</sup>

**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<sup>c</sup>](#)  
[actorODP:participationIn<sup>op</sup>](#) some <http://w3id.org/CEON/ontology/process/Process<sup>c</sup>>  
and [actorODP:participantRole<sup>op</sup>](#) some [Actor Circular Value Network role<sup>c</sup>](#) and  
[actorODP:CollaborationParticipation<sup>c</sup>](#) and [actorODP:participatingActor<sup>op</sup>](#) some  
[actorODP:Actor<sup>c</sup>](#)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## Actor<sup>C</sup>

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

## 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:participantRole](#)<sup>op</sup> some [Actor resource role](#)<sup>c</sup> and [actorODP:Participation](#)<sup>c</sup> and [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>

**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>

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**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>

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**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>

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

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

## Process<sup>c</sup>

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

## Resource<sup>c</sup>

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

## Object Properties

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

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**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>

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**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>

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**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>

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

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

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

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

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**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> |
|------------|---|

## 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