# Circular Economy Ontology Network (CEON) - Actor Module

#### Metadata

IRI

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

Title

Circular Economy Ontology Network (CEON) - Actor Module

**Publisher** 

Onto-DESIDE

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**Version Iri** 

http://w3id.org/CEON/ontology/actor/0.4/

**Version Info** 

0.4

**Prior Version** 

0.3

**Preferred Namespace Prefix** 

ceon-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.

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

### Classes

#### Actor Cvn Role C

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

Sub Class Of ActorCollaborationRole<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 C

Sub Class Of actorODP:Role<sup>C</sup>

**Super Class Of** 

ActorCVNRole<sup>C</sup>
ActorProcessRole<sup>C</sup>

# Actor Process Role C

Sub Class Of ActorCollaborationRole<sup>C</sup>

### Actor Resource Role <sup>C</sup>

Sub Class Of actorODP:Role<sup>C</sup>

**Named Individuals** 

buyerni
consumerni
issuerni
ownerni
producerni
providerni
repairerni
sellerni
supplierni
updaterni
userni

<u>viewer<sup>ni</sup></u>

### Buying Resource <sup>C</sup>

Sub Class Of actorODP:ResourceRelation<sup>C</sup>

Equivalentclass actorODP:ResourceRelation and actorODP:participantRole pop value buyer actorODP:

### Cvn Participation <sup>C</sup>

IRI http://w3id.org/CEON/ontology/actor/CVNParticipation

**Sub Class Of** 

actorODP:CollaborationParticipation<sup>C</sup>

 $\frac{actorODP:participationIn^{op}}{actorODP:CollaborationParticipation^{c}} \\ \frac{and}{actorODP:CollaborationParticipation^{c}} \\ \frac{and}{actorODP:participatingActor^{op}} \\ \frac{actorODP:participatingActor^{op}}{and} \\ \frac{actorODP:Actor^{c}}{and} \\ \frac{actorODP:participantRole^{op}}{actorCVNRole^{c}} \\ \frac{actorODP:Description}{actorODP:Description} \\ \frac{actorODP:Description$ 

# Consuming Resource <sup>C</sup>

IRI http://w3id.org/CEON/ontology/actor/ConsumingResource

Sub Class Of actorODP:ResourceRelation<sup>C</sup>

<u>Equivalentclass</u> <u>actorODP:participantRole</u> op value <u>consumer</u> and <u>actorODP:ResourceRelation</u>

С

### Dismantling Resource <sup>c</sup>

Sub Class Of actorODP:ResourceRelation<sup>C</sup>

Equivalentclass actorODP:ResourceRelation and actorODP:participantRole pop value dismantler

С

#### Issuing Resource C

Sub Class Of actorODP:ResourceRelation<sup>C</sup>

Equivalentclass actorODP:participantRole op value issuer and actorODP:ResourceRelation actorODP:

# Manufacturing Resource <sup>c</sup>

Sub Class Of actorODP:ResourceRelation<sup>C</sup>

Equivalentclass actorODP:participantRole op value manufacturer and

actorODP:ResourceRelation<sup>C</sup>

Organisation <sup>c</sup>

IRI http://w3id.org/CEON/ontology/actor/Organisation

Is Defined By ISO 59004:2024 - 3.4.1 organization

**Description** 

Person or group of people that has its own functions with responsibilities, authorities, and relationships to achieve its objectives. The concept of organization includes, but is not limited to sole-trader, company, corporation, firm, enterprise, authority, partnership, charity or institution, or part or combination thereof, whether incorporated or not, public or private (e.g. foundation, union, association, agency, municipality, region, country, intergovernmental agencies). A group of organizations can also be considered

as an organization that has, alone or collectively, their own objectives.

Sub Class Of actorODP:Actor<sup>C</sup>

<u>hasOrganisationLocation</u><sup>op</sup> some <u>OrganisationLocation</u><sup>c</sup> and <u>hasOrganisationLocation</u><sup>op</sup> only <u>OrganisationLocation</u><sup>c</sup>

In Domain Of

<u>hasOrganisationLocation</u> op <u>hasOrganisationName</u> dp

Restriction hasOrganisationName dp some Organisation C

Organisation Location <sup>C</sup>

IRI http://w3id.org/CEON/ontology/actor/OrganisationLocation

Sub Class Of <a href="http://w3id.org/CEON/ontology/location/Location">http://w3id.org/CEON/ontology/location/Location</a>

In Range Of hasOrganisationLocation op

Owning Resource<sup>C</sup>

Sub Class Of actorODP:ResourceRelation <sup>c</sup>

Equivalentclass actorODP:participantRole op value owner and actorODP:ResourceRelation of actorODP:Resou

Person<sup>C</sup>

Sub Class Of actorODP:Actor<sup>C</sup>

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

**Sub Class Of** 

actorODP:CollaborationParticipation<sup>C</sup>

actorODP:CollaborationParticipation<sup>C</sup> and actorODP:participatingActor<sup>Op</sup> some

<u>actorODP:Actor<sup>c</sup></u> <u>and actorODP:participationIn<sup>op</sup></u> some <u>http://w3id.org/CEON/ontology/processODP/Process<sup>c</sup></u> <u>and actorODP:participantRole<sup>op</sup></u> some <u>ActorProcessRole<sup>c</sup></u>

#### Producing Resource<sup>C</sup>

IRI http://w3id.org/CEON/ontology/actor/ProducingResource

Sub Class Of actorODP:ResourceRelation<sup>C</sup>

Equivalentclass actorODP:participantRole op value producer and actorODP:ResourceRelation actorOD

#### Providing Resource<sup>C</sup>

IRI http://w3id.org/CEON/ontology/actor/ProvidingResource

Sub Class Of actorODP:ResourceRelation<sup>C</sup>

<u>Equivalentclass</u> <u>actorODP:ResourceRelation</u> and <u>actorODP:participantRole</u> op value <u>provider</u> of <u>actorODP:participantRole</u> of actorODP:participantRole of actorODP:participantRo

#### Recycling Resource <sup>C</sup>

Sub Class Of actorODP:ResourceRelation C

Equivalentclass actorODP:participantRole op value recycler and actorODP:ResourceRelation actorOD

#### Repairing Resource<sup>c</sup>

Sub Class Of actorODP:ResourceRelation<sup>C</sup>

Equivalentclass actorODP:ResourceRelation and actorODP:participantRole popular repairer

#### Reselling Resource <sup>C</sup>

Sub Class Of actorODP:ResourceRelation<sup>C</sup>

Equivalentclass actorODP:participantRole op value reseller and actorODP:ResourceRelation

Selling Resource<sup>C</sup>

Sub Class Of actorODP:ResourceRelation<sup>C</sup>

Equivalentclass actorODP:ResourceRelation and actorODP:participantRole pop value seller actorODP:

Stakeholder <sup>C</sup>

IRI http://w3id.org/CEON/ontology/actor/Stakeholder

Is Defined By ISO 59004:2024 - 3.4.2 interested party, stakeholder

Description

Person or organization that can affect, be affected by, or perceive itself to be

affected by a decision or activity. To "perceive itself to be affected" means the  $\,$ 

perception has been made known to the organization.

Sub Class Of Person<sup>c</sup> or Organisation<sup>c</sup>

Supplying Resource<sup>C</sup>

Sub Class Of actorODP:ResourceRelation<sup>C</sup>

Equivalentclass actorODP:ResourceRelation and actorODP:participantRole popular supplier actor supplier act

Taking Back Resource <sup>C</sup>

Sub Class Of actorODP:ResourceRelation<sup>C</sup>

Equivalentclass actorODP:ResourceRelation and actorODP:participantRole op value collector

Updating Resource <sup>C</sup>

Sub Class Of actorODP:ResourceRelation<sup>C</sup>

Equivalentclass actorODP:ResourceRelation and actorODP:participantRole pop value updater and actorODP:participantRole pop value updater and actorODP:

Using Resource c

Sub Class Of actorODP:ResourceRelation<sup>C</sup>

Equivalentclass actorODP:ResourceRelation and actorODP:participantRole population actorODP:participantRole population actorODP: participantRole population acto

Viewing Resource<sup>C</sup>

Sub Class Of actorODP:ResourceRelation<sup>C</sup>

<u>Equivalentclass</u> <u>actorODP:ResourceRelation<sup>c</sup> and actorODP:participantRole<sup>op</sup> value <u>viewer<sup>c</sup></u></u>

Actor <sup>C</sup>

**Super Class Of** 

Organisation<sup>C</sup>
Person<sup>C</sup>

Capability <sup>C</sup>

In Domain Of capabilityExtent op

 $\underline{\mathsf{neededResourceRelation}}^{\mathsf{op}}$ 

Collaboration Participation <sup>C</sup>

http://w3id.org/CEON/ontology/actorODP/CollaborationPartic

ipation

Super Class Of

CVNParticipation<sup>C</sup>
ProcessParticipation<sup>C</sup>

Participation <sup>C</sup>

 Resource Relation <sup>c</sup> IRI http://w3id.org/CEON/ontology/actorODP/ResourceRelation **Sub Class Of** actorODP:participantRole op some ActorResourceRole and actorODP:participatingActorop some actorODP:Actor and actorODP:participatingResource op some http://w3id.org/CEON/ontology/resourceODP/Resource<sup>c</sup> and actorODP:Participation<sup>C</sup> **Super Class Of** <u>BuyingResource</u><sup>C</sup> <u>ConsumingResource</u><sup>C</sup> <u>DismantlingResource</u><sup>C</sup> <u>IssuingResource</u><sup>C</sup> ManufacturingResource<sup>c</sup> OwningResource C <u>ProducingResource</u><sup>C</sup> ProvidingResource<sup>C</sup> RecyclingResource<sup>C</sup> RepairingResource<sup>C</sup> ResellingResource<sup>C</sup> SellingResource<sup>C</sup> <u>SupplyingResource</u><sup>C</sup> <u>TakingBackResource</u><sup>C</sup> <u>UpdatingResource</u><sup>c</sup> <u>UsingResource</u><sup>c</sup> <u>ViewingResource</u><sup>C</sup> Role <sup>C</sup> IRI http://w3id.org/CEON/ontology/actorODP/Role **Super Class Of** ActorCollaborationRole C ActorResourceRole<sup>C</sup> Cvn<sup>c</sup> IRI http://w3id.org/CEON/ontology/cvn/CVN Location <sup>c</sup> IRI http://w3id.org/CEON/ontology/location/Location **Super Class Of** <u>OrganisationLocation</u><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 op

Sub Property Of actorODP:capabilityProperty op

Domain actorODP:Capability<sup>C</sup>

has organisation location op

n

Sub Property Of <a href="http://w3id.org/CEON/ontology/location/hasLocation">http://w3id.org/CEON/ontology/location/hasLocation</a> op

Domain Organisation<sup>C</sup>

Range OrganisationLocation<sup>C</sup>

needed resource relation op

Sub Property Of actorODP:capabilityProperty op

Domain actorODP:Capability<sup>C</sup>

capability property op

**Super Property Of** 

<u>capabilityExtent</u><sup>op</sup>

• neededResourceRelation op

participant role op

participating actor op

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

participating resource op

IRI http://w3id.org/CEON/ontology/actorODP/participatingResour

ce

participation in op		
IRI	http://w3id.org/CEON/ontology/actorODP/participationIn	
has location <sup>op</sup>		
IRI	http://w3id.org/CEON/ontology/location/hasLocation	
Super Property Of	hasOrganisationLocation <sup>op</sup>	

# **Datatype Properties**

has organisation name dp

IRI http://w3id.org/CEON/ontology/actor/hasOrganisationName

Domain Organisation C

Range xsd:string

# **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 ap	
IRI	http://purl.org/dc/terms/description
issued <sup>ap</sup>	
IRI	http://purl.org/dc/terms/issued
license <sup>ap</sup>	
IRI	http://purl.org/dc/terms/license
•	

```
publisher ap
IRI
                 http://purl.org/dc/terms/publisher
title <sup>ap</sup>
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/cpannotation
                 schema.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/
xsd
    http://www.w3.org/2001/XMLSchema#
```

# Legend

С	Classes
ор	Object Properties
dp	Datatype Properties
ap	Annotation Properties