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

Creator

Huanyu Li

Contributor

Eva Blomqvist

Mikael Lindecrantz

Robin Keskisärkkä

Date Created

2024-11-13

Date Issued

2025-06-30

License

https://creativecommons.org/licenses/by/4.0/

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

Sub Class Of ActorCollaborationRole^C

Named Individuals

collectorⁿⁱ
dismantlerⁿⁱ
manufacturerⁿⁱ
recyclerⁿⁱ
resellerⁿⁱ
sellerⁿⁱ
supplierⁿⁱ
userⁿⁱ

Actor Collaboration Role C

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

Sub Class Of actorODP:Role^C

Super Class Of

ActorCVNRole^C
ActorProcessRole^C

Actor Process Role C

Sub Class Of ActorCollaborationRole^C

Actor Resource Role C

Sub Class Of actorODP:Role^C

Named Individuals

buyerni
consumerni
issuerni
ownerni
producerni
providerni
repairerni
resellerni
supplierni
updaterni
userni

<u>viewerⁿⁱ</u>

Buying Resource ^C

Sub Class Of actorODP:ResourceRelation^C

Equivalentclass actorODP:participantRole^{op} value buyer^c and actorODP:ResourceRelation^c

Cvn Participation C

Sub Class Of

actorODP:CollaborationParticipation^C

actorODP:participatingActor^{op} some actorODP:Actor^c and

actorODP:participantRole op some ActorCVNRole and actorODP:participationIn

op some http://w3id.org/CEON/ontology/cvn/CVNc and

actorODP:CollaborationParticipationC

Consuming Resource ^c

Dismantling Resource ^C

Sub Class Of actorODP:ResourceRelation^C

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

Sub Class Of actorODP:ResourceRelation^C

Equivalentclass actorODP:participantRole op value dismantler and actorODP:ResourceRelation

С

Issuing Resource ^C

Sub Class Of actorODP:ResourceRelation^C

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

Manufacturing Resource ^C

Sub Class Of actorODP:ResourceRelation^C

Equivalentclass actorODP:participantRole op value manufacturer and

actorODP:ResourceRelationC

Organisation ^c

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^C

<u>hasOrganisationLocation</u>^{op} some <u>OrganisationLocation</u>^c and <u>hasOrganisationLocation</u>^{op} only <u>OrganisationLocation</u>^c

In Domain Of

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

Restriction hasOrganisationName dp some Organisation C

Organisation Location ^C

Sub Class Of http://w3id.org/CEON/ontology/location/Location

In Range Of hasOrganisationLocation op

Owning Resource ^C

Sub Class Of actorODP:ResourceRelation^C

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

Person^C

Sub Class Of actorODP:Actor^C

Process Participation ^C

Sub Class Of

actorODP:CollaborationParticipation^C

actorODP:participantRole^{op} some ActorProcessRole^c and

actorODP:participationIn^{op} some

http://w3id.org/CEON/ontology/processODP/Process^c and

actorODP:CollaborationParticipation^c and actorODP:participatingActor^{op} some

actorODP:Actor^C

Producing Resource^C

Sub Class Of actorODP:ResourceRelation^C

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

Providing Resource ^C

Sub Class Of actorODP:ResourceRelation^C

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

Recycling Resource^C

Sub Class Of actorODP:ResourceRelation^C

Equivalentclass actorODP:ResourceRelation and actorODP:participantRole popular value recycler and actorODP:participant value recycler and actorODP:participant value recycler and actorODP:participant value recycler and actorODP

Repairing Resource ^C

Sub Class Of actorODP:ResourceRelation^C

Equivalentclass actorODP:ResourceRelation and actorODP:participantRole popular repairer repairer and actorODP:participantRole popular repairer repai

Reselling Resource C

Sub Class Of actorODP:ResourceRelation^C

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

Selling Resource ^C

Sub Class Of actorODP:ResourceRelation^C

Equivalentclass actorODP:participantRole^{op} value seller^c and actorODP:ResourceRelation^c

Stakeholder ^C

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.

portospitor rido poer mado inform to tiro organiza

Sub Class Of Person^c or Organisation^c

Supplying Resource ^C

Sub Class Of actorODP:ResourceRelation^C

<u>Equivalentclass</u> <u>actorODP:participantRole^{op} value supplier^c and actorODP:ResourceRelation^c</u>

Taking Back Resource ^c

Sub Class Of actorODP:ResourceRelation^C

Equivalentclass actorODP:ResourceRelation and actorODP:participantRole op value collector

Updating Resource ^C

Sub Class Of actorODP:ResourceRelation^C

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

Using Resource ^c

Sub Class Of actorODP:ResourceRelation^C

Equivalentclass actorODP:ResourceRelation and actorODP:participantRole population actorODP:participant

Viewing Resource^C

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

Sub Class Of actorODP:ResourceRelation^C

<u>Equivalentclass</u> <u>actorODP:ResourceRelation^c and actorODP:participantRole^{op} value <u>viewer^c</u></u>

Actor ^C

Super Class Of

Organisation^c
Person^c

Capability ^C

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

In Domain Of capabilityExtent op

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

Collaboration Participation ^c

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

ipation

Super Class Of

CVNParticipation^C
ProcessParticipation^C

Participation ^C

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

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

Sub Property Of actorODP:capabilityProperty op

Domain actorODP:Capability^c

has organisation location op

n

Sub Property Of http://w3id.org/CEON/ontology/location/hasLocation op

Domain Organisation^C

Range OrganisationLocation^C

needed resource relation op

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

Sub Property Of actorODP:capabilityProperty op

Domain actorODP:Capability^C

capability property op

Super Property Of

• capabilityExtent op

• neededResourceRelation op

participant role op

participating actor op

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

participating resource op

ce

participation in op		
IRI	http://w3id.org/CEON/ontology/actorODP/participationIn	
has location ^{op}		
IRI	http://w3id.org/CEON/ontology/location/hasLocation	
Super Property Of	hasOrganisationLocation ^{op}	

Datatype Properties

has organisation name ^{dp}		
IRI	http://w3id.org/CEON/ontology/actor/hasOrganisationName	
Domain	<u>Organisation ^c</u>	
Range	xsd:string	

Annotation Properties

http://purl.org/dc/terms/contributor
http://purl.org/dc/terms/created
http://purl.org/dc/terms/creator
http://purl.org/dc/terms/description
http://purl.org/dc/terms/issued
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