## Circular Economy Ontology Network (CEON) - Actor ODP

#### Metadata

IRI

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

Title

Circular Economy Ontology Network (CEON) - Actor ODP

Creator

Eva Blomqvist

Contributor

Eva Blomqvist

Huanyu Li

Mikael Lindecrantz

Robin Keskisärkkä

**Version Iri** 

http://w3id.org/CEON/ontology/actorODP/0.1/

**Version Info** 

0.1

**Preferred Namespace Prefix** 

actorODP

**Preferred Namespace Uri** 

https://w3id.org/CEON/ontoloy/actorODP/

Description

A core ODP of the CEON ontology network, defining aspects of the actor concept.

**Covers Requirements** 

Covers the following requirements from Onto-DESIDE D3.1: CVN-Process-3, CVN-Actor-1,4,6,7, CVN-Competency-3, CVN-Information-4, C11-1, C11-3, E1-6,6,6,9, E4-10

#### Classes

Actor <sup>C</sup>	
IRI	http://w3id.org/CEON/ontology/actorODP/Actor
Description	An agent able to act in the context of a circular value network, e.g. an organisation, person.
In Domain Of	has actor type <sup>op</sup>
In Range Of	Relates to the actor holding the capability. op has participating actor op

Actor Type C

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

Description

The type of an actor, e.g. the type of company, or a specific subtype based on the

organisations capabilities.

In Range Of has actor type op

Capability <sup>C</sup>

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

Description

Something that the actor is capable of doing, e.g. perfomring a certain role in a

process, based on some properties, such as access to infrastructure, resources

and know-how.

In Domain Of
Relates to the actor holding the capability. op

capability property<sup>op</sup>

In Range Of based on capability op

Collaboration participation <sup>c</sup>

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

**Description**The relation involving the role of a certain actor with respect to a value network or

a process in such a network, e.g. an organisation (actor) acting as the recycler (role) in a glass recycling value netowrk (network) at a specific point or period in time. Or an organisation (actor) acting as the dismantler (role) in a dismantling step of a building deconstruction process (process step) at a specific point or

period in time.

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

In Domain Of based on capability op

is a participation in op

Participation <sup>c</sup>

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

Sub Class Of start time<sup>dp</sup> exactly 1 1c or time point<sup>dp</sup> exactly 1 1c

In Domain Of

has participant role op has participating actor op

start time dp time point dp

**Super Class Of** 

Collaboration participation<sup>C</sup>

Resource Relation<sup>c</sup>

Resource Relation<sup>c</sup>

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

Description

The relation involving the role of a certain actor with respect to a certain resource,

e.g. an organisation or individual (actor) owning (role) a specific product (resource)

at a specific point or period in time.

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

In Domain Of has participating resource op

Role<sup>C</sup>

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

**Description**A role that an actor can take in a specific context. Applies both to roles in the

context of resources, such as owner, manufacturer, reseller etc. of that resource, as well as roles in relation to a circular value network, such as recycler, dismantler,

transporter etc., in relation to a material flow.

In Range Of has participant role op

Collaboration <sup>C</sup>

IRI http://w3id.org/CEON/ontology/cvn/Collaboration

**Description**A collaboration between a set of actors.

Process <sup>c</sup>

IRI http://w3id.org/CEON/ontology/process/Process

Resource <sup>C</sup>

IRI http://w3id.org/CEON/ontology/resourceODP/Resource

In Range Of has participating resource op

#### **Object Properties**

has actor type op

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

**Description** The type of the actor.

Domain Actor<sup>C</sup>

Range Actor Type<sup>C</sup>

based on capability op

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

**Description**An actor participates in a collaboration based on that it has some capability that is

useful for the collaboration.

Domain Collaboration participation<sup>c</sup>

Range Capability<sup>c</sup>

Relates to the actor holding the capability.capability of op

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

Domain Capability<sup>C</sup>

Range Actor<sup>C</sup>

capability property op

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

**Description**Relates some properties to the capability, such as the parameters of it, or the

needed resources.

Domain Capability<sup>c</sup>

has location op

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

Domain Actor or http://w3id.org/CEON/ontology/resourceODP/Resource c

has participant role op

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

Description Holds the value of the role of the participant in this participation relation.

**Domain** Participation<sup>C</sup>

Range Role<sup>C</sup>

has participating actor op

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

**Description**Holds the value of the actor involved in this participation relation.

**Domain** Participation<sup>c</sup>

Range Actor<sup>c</sup>

has participating resource op

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

Description

The resource that this participation relates to, i.e. for which the actor holds

the specified role.

**Domain** Resource Relation<sup>C</sup>

Range <a href="http://w3id.org/CEON/ontology/resourceODP/Resource">http://w3id.org/CEON/ontology/resourceODP/Resource</a>

is a participation in op

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

**Description**The collaboration or process that this participation relates to.

**Domain** Collaboration participation<sup>c</sup>

Range Collaboration or http://w3id.org/CEON/ontology/process/Process

#### **Datatype Properties**

end time dp

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

**Description**The end of a time interval.

Range xsd:dateTime<sup>c</sup> or xsd:date<sup>c</sup> or xsd:gMonthYear<sup>c</sup> or xsd:gYear<sup>c</sup>

start time dp

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

**Description**The start of a time interval.

**Domain** Participation<sup>C</sup>

Range xsd:date<sup>c</sup> or xsd:dateTime<sup>c</sup> or xsd:gYear<sup>c</sup> or xsd:gMonthYear<sup>c</sup>

time point dp	
IRI Description	http://w3id.org/CEON/ontology/actorODP/participationTimePoint  The point in time when something took place or was valid.
Domain Range	Participation <sup>c</sup> xsd:gMonthYear <sup>c</sup> or xsd:date <sup>c</sup> or xsd:dateTime <sup>c</sup> or xsd:gYear <sup>c</sup>

# **Annotation Properties**

contributor <sup>ap</sup>		
IRI	http://purl.org/dc/terms/contributor	
creator <sup>ap</sup>		
IRI	http://purl.org/dc/terms/creator	
description ap		
IRI	http://purl.org/dc/terms/description	
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	

## Namespaces

```
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
ар	Annotation Properties