## 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

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 op
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 time point dp exactly 1 1c or start time dp 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** resourceODP:Resource or Actor 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 resourceODP:Resource<sup>C</sup>

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 process: Process c

#### **Datatype Properties**

end time dp

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

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

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

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

## covers requirements ap

IRI

http://www.ontologydesignpatterns.org/schemas/cpannotationschema.owl#covers Requirements

## Namespaces

:

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

cvn

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

dcterms

http://purl.org/dc/terms/

odp

http://www.ontologydesignpatterns.org/schemas/cpannotationschema.owl#

owl

http://www.w3.org/2002/07/owl#

process

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

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#

resourceODP

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

vann

http://purl.org/vocab/vann/

xsd

http://www.w3.org/2001/XMLSchema#

## Legend

Classes

op Object Properties
dp Datatype Properties

ap Annotation Properties