

Circular Economy Ontology Network (CEON) - Resource ODP

Metadata

IRI

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

Title

Circular Economy Ontology Network (CEON) - Resource ODP

Publisher

Onto-DESIDE

Creator

Huanyu Li

Contributor

Eva Blomqvist

Date Created

2025-03-20

Date Issued

2025-06-30

License

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

Version Iri

<http://w3id.org/CEON/ontology/resourceODP/0.5/>

Version Info

0.5

Prior Version

0.4

Preferred Namespace Prefix

ceon-resourceODP

Preferred Namespace Uri

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

Description

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

Covers Requirements

Covers the following requirements from Onto-DESIDE D3.1: CVN-Resource-1,3, CVN-Composition-1,2, CVN-ResrouceType-4, C7-3, E2-2, E4-6, E5-1, E6-3, T3-1.

Covers the following requirements from Onto-DESIDE D3.2: CE1-2, CE3-3, CE4-3, CE5-2, CE9-1, CE10-1, CE11-8, CE12-2, CE12-4, C7-3, E2-2, E4-6, E5-1, E6-3, T3-1.

Classes

Location ^c	
IRI	http://w3id.org/CEON/ontology/location/Location
In Range Of	hasResourceLocation ^{op}

Asset^C

IRI <http://w3id.org/CE0N/ontology/resourceODP/Asset>

Super Class Of
[Information^C](#)
[Resource^C](#)

Batch Of Objects^C

IRI <http://w3id.org/CE0N/ontology/resourceODP/BatchOf0bjects>

Sub Class Of
[Resource^C](#)
[hasPhysicalObject^{op}](#) some [PhysicalObject^C](#) and [hasPhysicalObject^{op}](#) only
[PhysicalObject^C](#)

In Domain Of
[batchID^{dp}](#)
[batchLabel^{dp}](#)
[batchSize^{dp}](#)

In Range Of [hasBatch^{op}](#)

Restriction [batchSize^{dp}](#) *exactly* 1 [BatchOfObjects^C](#)

Constituent^C

IRI <http://w3id.org/CE0N/ontology/resourceODP/Constituent>

In Range Of [hasConstituent^{op}](#)

Digital Object^C

IRI <http://w3id.org/CE0N/ontology/resourceODP/DigitalObject>

Sub Class Of [Resource^C](#)

Information^C

IRI <http://w3id.org/CE0N/ontology/resourceODP/Information>

Sub Class Of [Asset^C](#)

In Domain Of
[containsInformation^{op}](#)
[isAbout^{op}](#)

In Range Of
[containsInformation^{op}](#)
[isRealizationOf^{op}](#)

Matter^c

IRI <http://w3id.org/CE0N/ontology/resource0DP/Matter>

In Range Of [hasMatter^{op}](#)

Physical Object^c

IRI <http://w3id.org/CE0N/ontology/resource0DP/PhysicalObject>

Sub Class Of [Resource^c](#)
[hasConstituent^{op}](#) only [Constituent^c](#) and [hasConstituent^{op}](#) some [Constituent^c](#)
[hasMatter^{op}](#) only [Matter^c](#) and [hasMatter^{op}](#) some [Matter^c](#)

In Domain Of [hasConstituent^{op}](#)
[hasMatter^{op}](#)

In Range Of [hasPhysicalObject^{op}](#)

Resource^c

IRI <http://w3id.org/CE0N/ontology/resource0DP/Resource>

Is Defined By ISO 59004:2024 - 3.1.5 resource

Sub Class Of [Asset^c](#)
[hasResourceCondition^{op}](#) only [ResourceCondition^c](#) and [hasResourceCondition^{op}](#) some [ResourceCondition^c](#)
[hasResourceProperty^{op}](#) only [ResourceProperty^c](#) and [hasResourceProperty^{op}](#) some [ResourceProperty^c](#)
[hasResourceQuality^{op}](#) some [ResourceQuality^c](#) and [hasResourceQuality^{op}](#) only [ResourceQuality^c](#)

In Domain Of [hasResourceCondition^{op}](#)
[hasResourceLocation^{op}](#)
[hasResourceProperty^{op}](#)
[hasResourceQuality^{op}](#)

Super Class Of [BatchOfObjects^c](#)
[DigitalObject^c](#)
[PhysicalObject^c](#)
[SetOfObjects^c](#)

Resource Condition^c

IRI <http://w3id.org/CE0N/ontology/resource0DP/ResourceCondition>

In Range Of [hasResourceCondition^{op}](#)

Resource Property^c

IRI	http://w3id.org/CE0N/ontology/resource0DP/ResourceProperty
<u>In Range Of</u>	hasResourceProperty ^{op}

Resource Quality^c

IRI	http://w3id.org/CE0N/ontology/resource0DP/ResourceQuality
<u>In Range Of</u>	hasResourceQuality ^{op}

Set Of Objects^c

IRI	http://w3id.org/CE0N/ontology/resource0DP/SetOf0bjects
<u>Sub Class Of</u>	Resource ^c hasBatch ^{op} only BatchOfObjects ^c and hasBatch ^{op} some BatchOfObjects ^c hasPhysicalObject ^{op} some PhysicalObject ^c and hasPhysicalObject ^{op} only PhysicalObject ^c
<u>In Domain Of</u>	hasBatch ^{op}

Object Properties

has location^{op}

IRI	http://w3id.org/CE0N/ontology/location/hasLocation
<u>Super Property Of</u>	hasResourceLocation ^{op}

contains information^{op}

IRI	http://w3id.org/CE0N/ontology/resource0DP/containsInformation
<u>Sub Property Of</u>	hasPart ^{op}
<u>Domain</u>	Information ^c
<u>Range</u>	Information ^c

has batch^{op}

IRI	http://w3id.org/CE0N/ontology/resource0DP/hasBatch
<u>Domain</u>	SetOfObjects ^c
<u>Range</u>	BatchOfObjects ^c

has constituent^{op}

IRI	http://w3id.org/CE0N/ontology/resource0DP/hasConstituent
Sub Property Of	hasPart ^{op}
Domain	PhysicalObject ^c
Range	Constituent ^c

has matter^{op}

IRI	http://w3id.org/CE0N/ontology/resource0DP/hasMatter
Domain	PhysicalObject ^c
Range	Matter ^c

has part^{op}

IRI	http://w3id.org/CE0N/ontology/resource0DP/hasPart
Super Property Of	<ul style="list-style-type: none">• containsInformation^{op}• hasConstituent^{op}

has physical object^{op}

IRI	http://w3id.org/CE0N/ontology/resource0DP/hasPhysicalObject
Domain	SetOfObjects ^c or BatchOfObjects ^c
Range	PhysicalObject ^c

has resource condition^{op}

IRI	http://w3id.org/CE0N/ontology/resource0DP/hasResourceCondition
Domain	Resource ^c
Range	ResourceCondition ^c

has resource location^{op}

IRI	http://w3id.org/CE0N/ontology/resource0DP/hasResourceLocation
Sub Property Of	location:hasLocation ^{op}
Domain	Resource ^c
Range	location:Location ^c

has resource property^{op}

IRI	http://w3id.org/CE0N/ontology/resource0DP/hasResourceProperty
Domain	Resource ^c
Range	ResourceProperty ^c

has resource quality^{op}

IRI	http://w3id.org/CE0N/ontology/resource0DP/hasResourceQuality
Domain	Resource ^c
Range	ResourceQuality ^c

is about^{op}

IRI	http://w3id.org/CE0N/ontology/resource0DP/isAbout
Domain	Information ^c

is realization of^{op}

IRI	http://w3id.org/CE0N/ontology/resource0DP/isRealizationOf
Range	Information ^c

Datatype Properties

batch id^{dp}

IRI	http://w3id.org/CE0N/ontology/resource0DP/batchID
Domain	BatchOfObjects ^c
Range	xsd:string

batch label^{dp}

IRI	http://w3id.org/CE0N/ontology/resource0DP/batchLabel
Domain	BatchOfObjects ^c
Range	xsd:string

batch size^{dp}

IRI <http://w3id.org/CEON/ontology/resource0DP/batchSize>

Domain [BatchOfObjects^c](#)

Range [xsd:nonNegativeInteger](#)

Namespaces

:

<http://w3id.org/CEON/ontology/resource0DP/>

dcterms <http://purl.org/dc/terms/>

geo <http://www.opengis.net/ont/geosparql#>

location <http://w3id.org/CEON/ontology/location/>

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

^c	Classes
^{op}	Object Properties
^{dp}	Datatype Properties