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

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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-ResourceType-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

Super Class Of

Information^c Resource^c

Batch Of Objects ^C

Sub Class Of

Resource^c

<u>hasPhysicalObject^{op} only PhysicalObject^o and hasPhysicalObject^{op} some</u>

PhysicalObject^c

In Domain Of

batchID^{dp} batchLabel^{dp} batchSize^{dp}

In Range Of hasBatch op

Restriction <u>batchSize dp</u> exactly 1 <u>BatchOfObjects c</u>

Constituent^C

In Range Of hasConstituent op

Digital Object^C

Sub Class Of Resource^C

Information ^C

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

Sub Class Of Asset^C

In Domain Of

containsInformation op

<u>isAbout</u>op

In Range Of

<u>containsInformation</u> op <u>isRealizationOf</u> op

Matter ^c

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

In Range Of hasMatter op

Physical Object^C

Sub Class Of

Resource^c

hasConstituent^{op} some Constituent^c and hasConstituent^{op} only Constituent^c

hasMatter op some Matter and hasMatter op only Matter o

In Domain Of

hasConstituent op

<u>hasMatter^{op}</u>

In Range Of hasPhysicalObject^{op}

Resource ^C

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

Is Defined By ISO 59004:2024 - 3.1.5 resource

Sub Class Of

<u>Asset^c</u>

<u>hasResourceCondition</u> op some <u>ResourceCondition</u> and <u>hasResourceCondition</u>

op only ResourceCondition^c

 $\underline{\mathsf{has}\mathsf{ResourceProperty}^\mathsf{op}}\, \mathbf{only}\,\, \underline{\mathsf{ResourceProperty}^\mathsf{c}}\, \mathit{and}\,\, \underline{\mathsf{has}\mathsf{ResourceProperty}^\mathsf{op}}$

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/CEON/ontology/resourceODP/ResourceConditio

n

In Range Of hasResourceCondition op

Resource Property^C

In Range Of hasResourceProperty^{op}

Resource Quality^C

In Range Of hasResourceQuality^{op}

Set Of Objects^C

Sub Class Of

Resource^c

<u>hasBatch</u>^{op} only <u>BatchOfObjects</u>^c and <u>hasBatch</u>^{op} some <u>BatchOfObjects</u>^c <u>hasPhysicalObject</u>^{op} some <u>PhysicalObject</u>^{op} only

PhysicalObject^C

In Domain Of hasBatch op

Object Properties

has location op

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

Super Property Of hasResourceLocation op

contains information op

ion

Sub Property Of hasPart^{op}

<u>Domain</u> <u>Information</u>^c

Range <u>Information</u>^C

has batch op

Domain SetOfObjects^C

Range BatchOfObjects^c

has constituent op

Sub Property Of hasPart op

Domain PhysicalObject^C

Range Constituent^C

has matter op

Domain PhysicalObject^C

Range Matter^c

has part op

Super Property Of

• containsInformation op

hasConstituent^{op}

has physical object op

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

t

<u>Domain</u> <u>SetOfObjects^c or BatchOfObjects^c</u>

Range PhysicalObject^C

has resource condition op

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

tion

Domain Resource^c

Range ResourceCondition^C

has resource location op

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

ion

Sub Property Of <u>location:hasLocation op</u>

Domain Resource^c

Range location:Location^C

has resource property op

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

rty

Domain Resource^c

Range ResourceProperty^C

has resource quality op

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

ty

Domain Resource^C

Range ResourceQuality^C

is about op

Domain <u>Information</u>^C

is realization of op

Range <u>Information</u>^C

Datatype Properties

batch id dp

Domain BatchOfObjects^c

Range <u>xsd:string</u>

batch label dp

Domain BatchOfObjects^C

Range xsd:string

```
batch size dp

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

Domain BatchOfObjects C

Range xsd:nonNegativeInteger
```

Namespaces

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