Circular Economy Ontology Network (CEON) - Construction Module

Metadata

IRI

http://w3id.org/CEON/demo/construction/

Title

Circular Economy Ontology Network (CEON) - Construction Module

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Date Created

2025-03-18

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Version Iri

http://w3id.org/CEON/demo/construction/0.2/

Version Info

0.2

Preferred Namespace Prefix

construction

Preferred Namespace Uri

http://w3id.org/CEON/demo/construction/

Description

The construction use case ontology in Onto-DESIDE, as a module of CEON.

Classes

A1Raw M Aterial Extraction Impact c

tionImpact

Sub Class Of ProductStageImpact^C

A2Transportation Of Raw Materials Impact C

IRI http://w3id.org/CEON/demo/construction/A2TransportationOfR

awMaterialsImpact

Sub Class Of ProductStageImpact^C

A3Manufacturing Impact ^C

IRI http://w3id.org/CEON/demo/construction/A3ManufacturingImpa

ct

Sub Class Of ProductStageImpact^C

A4Transportation Of Manufactured Products Impact^c

IRI http://w3id.org/CEON/demo/construction/A4TransportationOfM

anufacturedProductsImpact

Sub Class Of ProductStageImpact^C

A5The Construction Phase Impact c

IRI http://w3id.org/CEON/demo/construction/A5TheConstructionPh

aseImpact

Sub Class Of ProductStageImpact^C

B1Installed Product Impact C

IRI http://w3id.org/CEON/demo/construction/B1InstalledProductI

mpact

Sub Class Of UseStageImpact^C

B2Maintenance Impact ^C

Sub Class Of UseStageImpact^C

B3Repair Impact^C

Sub Class Of UseStageImpact^C

B4Replacement Impact^c

Sub Class Of UseStageImpact^C

B5Refurbishment Impact ^c

IRI http://w3id.org/CEON/demo/construction/B5RefurbishmentImpa

ct

Sub Class Of UseStageImpact^C

B6Operational Energy Consumption ^c

IRI http://w3id.org/CEON/demo/construction/B6OperationalEnergy

Consumption

Sub Class Of UseStageImpact^C

B7Operational Water Use ^c

IRI http://w3id.org/CEON/demo/construction/B7OperationalWaterU

se

Sub Class Of UseStageImpact^C

Beyond End Of Life C

IRI http://w3id.org/CEON/demo/construction/BeyondEndOfLife

Sub Class Of LifeCycleAssessmentImpact^C

C1Demolition ^C

Sub Class Of EndOfLifeStage^C

C2Transportation Of Demolition Waste ^c

IRI http://w3id.org/CEON/demo/construction/C2Transportation0fD

emolitionWaste

Sub Class Of EndOfLifeStage^C

C3Recycling Or Disposal C

al

Sub Class Of EndOfLifeStage^C

C4Final Disposal^C

Sub Class Of EndOfLifeStage^C

Co2Eq^c

IRI http://w3id.org/CEON/demo/construction/CO2Eq

Sub Class Of http://qudt.org/schema/qudt/Unit

Conductivity ^C

IRI http://w3id.org/CEON/demo/construction/Conductivity

Sub Class Of

http://qudt.org/schema/qudt/Quantity. http://w3id.org/CEON/ontology/resourceODP/ResourceProperty.

In Domain Of hasConductivityValue op

In Range Of hasConductivityProperty^{op}

Restriction hasConductivityValue^{op} only Conductivity^c

Conductivity Value ^C

IRI http://w3id.org/CEON/demo/construction/ConductivityValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit_only http://qudt.org/schema/qudt/Unit c and http://qudt.org/schema/qudt/hasUnit_some http://qudt.org/schema/qudt/Unit_c

In Range Of hasConductivityValue op

Restriction http://qudt.org/schema/qudt/numericValue_only_ConductivityValueC

Construction Product Quality C

IRI http://w3id.org/CEON/demo/construction/ConstructionProduct

Quality

http://w3id.org/CEON/ontology/resourceODP/ResourceQuality **Sub Class Of**

In Range Of hasProductQuality^{op}

Named Individuals

construction product quality high ni construction_product_quality_lowni construction product quality medium ni

Contaminant ^C

IRI http://w3id.org/CEON/demo/construction/Contaminant

Sub Class Of http://w3id.org/CEON/ontology/resourceODP/Matter

In Range Of hasContaminant op

Dimensional Deviation ^C

IRI http://w3id.org/CEON/demo/construction/DimensionalDeviatio

In Range Of hasDimensionalDeviation op Dismantling Cost Value ^C

IRI http://w3id.org/CEON/demo/construction/DismantlingCostValu

е

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit_only http://qudt.org/schema/qudt/Unit^c and http://qudt.org/schema/qudt/hasUnit_some http://qudt.org/schema/qudt/Unit^c

Restriction http://qudt.org/schema/qudt/numericValue only DismantlingCostValue only

End Of Life Stage C

Sub Class Of LifeCycleAssessmentImpact^C

Super Class Of

C1Demolition^C

C2TransportationOfDemolitionWaste^C

C3RecyclingOrDisposal^C
C4FinalDisposal^C

Environmental Impact ^C

IRI http://w3id.org/CEON/demo/construction/EnvironmentalImpact

Sub Class Of http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

Super Class Of LifeCycleAssessmentImpact^C

Fire Resistance Rating^c

IRI http://w3id.org/CEON/demo/construction/FireResistanceRatin

g

Sub Class Of http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Range Of hasFireResistanceRating op

Named Individuals

F30ⁿⁱ F60ⁿⁱ

Fire Resistance Relation ^c

IRI http://w3id.org/CEON/demo/construction/FireResistanceRelat

ion

Sub Class Of actorODP:ResourceParticipation

Floor Panel Height^C

IRI http://w3id.org/CEON/demo/construction/FloorPanelHeight

Sub Class Of

http://qudt.org/schema/qudt/Quantity. http://w3id.org/CEON/ontology/resourceODP/ResourceProperty.

quantity:hasRefurbishmentCost In Domain Of

Restriction hasHeight^{op} only FloorPanelHeight^c

Floor Panel Height Value C

IRI http://w3id.org/CEON/demo/construction/FloorPanelHeightVal

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

> http://qudt.org/schema/qudt/hasUnit_some http://qudt.org/schema/qudt/Unit c and http://qudt.org/schema/qudt/hasUnit_only http://qudt.org/schema/qudt/UnitC

Restriction http://qudt.org/schema/qudt/numericValue_only_FloorPanelHeightValueC

Floor Panel Length^C

IRI http://w3id.org/CEON/demo/construction/FloorPanelLength

Sub Class Of http://qudt.org/schema/qudt/Quantity

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

Restriction hasLength^{op} only FloorPanelLength^c

Floor Panel Length Value ^C

IRI http://w3id.org/CEON/demo/construction/FloorPanelLengthVal

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

> http://qudt.org/schema/qudt/hasUnit_only http://qudt.org/schema/qudt/Unit and http://qudt.org/schema/qudt/hasUnit some http://qudt.org/schema/qudt/UnitC

Restriction http://qudt.org/schema/qudt/numericValue_only_FloorPanelLengthValue_c

Floor Panel Width C

IRI http://w3id.org/CEON/demo/construction/FloorPanelWidth

Sub Class Of

http://qudt.org/schema/qudt/Quantity http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

Restriction hasWidth op only FloorPanelWidth c Floor Panel Width Value C

IRI http://w3id.org/CEON/demo/construction/FloorPanelWidthValu

е

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit_only http://qudt.org/schema/qudt/Unit_c and http://qudt.org/schema/qudt/hasUnit_some http://qudt.org/schema/qudt/Unit_c

Restriction http://qudt.org/schema/qudt/numericValue only FloorPanelWidthValue^C

Floor Tile C

Sub Class Of product:Product

Floor Tile Condition C

Sub Class Of http://w3id.org/CEON/ontology/resourceODP/ResourceCondition

Named Individuals

bad_conditionⁿⁱ
good_conditionⁿⁱ
medium_conditionⁿⁱ

Floor Tile Condition Relation ^C

IRI http://w3id.org/CEON/demo/construction/FloorTileConditionR

elation

Sub Class Of actorODP:ResourceParticipation

Galvanized Steel Material C

IRI http://w3id.org/CEON/demo/construction/GalvanizedSteelMate

rial

Sub Class Of <u>material:Material</u>

Global Warming Potential ^C

IRI http://w3id.org/CEON/demo/construction/GlobalWarmingPotent

ial

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit_only CO2Eq^c and http://qudt.org/schema/qudt/hasUnit_some CO2Eq^c

In Range Of hasGlobalWarmingPotential op

Restriction http://qudt.org/schema/qudt/numericValue_onlygglobalWarmingPotential

Installation Location ^C

IRI http://w3id.org/CEON/demo/construction/InstallationLocatio

n

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

Restriction

http://w3id.org/CEON/ontology/location/hasCity_max 1 InstallationLocation^C

http://w3id.org/CEON/ontology/location/hasCountry_max 1 InstallationLocation^c

http://w3id.org/CEON/ontology/location/hasPostalCode_max 1

InstallationLocation C

http://w3id.org/CEON/ontology/location/hasStreetAddress_max_1

InstallationLocation^C

Life Cycle Assessment Impact^C

IRI http://w3id.org/CEON/demo/construction/LifeCycleAssessment

Impact

Sub Class Of http://qudt.org/schema/qudt/Quantity

EnvironmentalImpact^C

In Domain Of hasGlobalWarmingPotential op

Restriction hasGlobalWarmingPotential op only LifeCycleAssessmentImpact only LifeCycleAssessm

Super Class Of

BeyondEndOfLife^C

EndOfLifeStage^C
ProductStageImpact^C
UseStageImpact^C

Local Recycling Plant Distance ^C

Distance

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit some http://qudt.org/schema/qudt/Unit and http://qudt.org/schema/qudt/hasUnit only http://qudt.org/schema/qudt/Unit tolly http://qudt.org/

In Range Of

<u>hasDistanceToRecyclingPlant</u>op

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

Restriction http://gudt.org/schema/gudt/numericValue-only-LocalRecyclingPlantDistance

Market Value For Product C

IRI http://w3id.org/CEON/demo/construction/MarketValueForProdu

ct

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit_some http://qudt.org/schema/qudt/Unit_cand http://qudt.org/schema/qudt/hasUnit_only http://qudt.org/schema/qudt/Unit_cand http://qudt.org/schema/qud

In Range Of

hasMarketValueForNewProduct^{op}
hasMarketValueForReusedProduct^{op}

quantity:hasMarketValue

Restriction http://gudt.org/schema/gudt/numericValue only MarketValueForProduct[©]

Maximal Dismantling Cost Per Sqm^C

IRI http://w3id.org/CEON/demo/construction/MaximalDismantlingC

ostPerSqm

Sub Class Of http://qudt.org/schema/qudt/Quantity

Restriction quantity:hasDismantlingCost only MaximalDismantlingCostPerSqm^C

Maximal Dismantling Cost Per Sqm Value C

IRI http://w3id.org/CEON/demo/construction/MaximalDismantlingC

ostPerSqmValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

 $\frac{\text{http://qudt.org/schema/qudt/hasUnit}}{\text{only http://qudt.org/schema/qudt/Unit}^{\texttt{C}}} \text{ and } \\ \frac{\text{http://qudt.org/schema/qudt/hasUnit}}{\text{some http://qudt.org/schema/qudt/Unit}^{\texttt{C}}}$

Restriction http://qudt.org/schema/qudt/numericValue only

<u>MaximalDismantlingCostPerSqmValue</u>^C

Maximal Dismantling Cost Value C

IRI http://w3id.org/CEON/demo/construction/MaximalDismantlingC

ostValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit_only http://qudt.org/schema/qudt/Unit_c and http://qudt.org/schema/qudt/hasUnit_some http://qudt.org/schema/qudt/Unit_c

Restriction http://qudt.org/schema/qudt/numericValue-only-MaximalDismantlingCostValue

Minimal Dismantling Cost Per Sqm^C

IRI http://w3id.org/CEON/demo/construction/MinimalDismantlingC

ostPerSqm

Sub Class Of http://qudt.org/schema/qudt/Quantity

Restriction <u>quantity:hasDismantlingCost_only_MinimalDismantlingCostPerSqm</u>^C

Minimal Dismantling Cost Per Sqm Value C

IRI http://w3id.org/CEON/demo/construction/MinimalDismantlingC

ostPerSqmValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit_only http://qudt.org/schema/qudt/Unit_c and http://qudt.org/schema/qudt/hasUnit_some http://qudt.org/schema/qudt/Unit_c

Restriction http://qudt.org/schema/qudt/numericValue only

MinimalDismantlingCostPerSqmValue^C

Minimal Dismantling Cost Value ^C

ostValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit_only http://qudt.org/schema/qudt/Unit^c and http://qudt.org/schema/qudt/hasUnit_some http://qudt.org/schema/qudt/Unit^c

Restriction http://qudt.org/schema/qudt/numericValue only MinimalDismantlingCostValue only

Pedestal^C

IRI http://w3id.org/CEON/demo/construction/Pedestal

Sub Class Of product:Item

Pedestal Height^C

IRI http://w3id.org/CEON/demo/construction/PedestalHeight

Sub Class Of http://qudt.org/schema/qudt/Quantity

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

Restriction hasHeight op only PedestalHeight

Pedestal Height Value ^c

IRI http://w3id.org/CEON/demo/construction/PedestalHeightValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit_some http://qudt.org/schema/qudt/Unit and http://qudt.org/schema/qudt/hasUnit_only http://qudt.org/schema/qudt/Unit bnly http://qudt.org/schema/qudt

Restriction http://gudt.org/schema/gudt/numericValue_only_PedestalHeightValue_C

Pedestal Length ^C

Sub Class Of http://gudt.org/schema/gudt/Quantity

http://qudt.org/schema/qudt/Quantity http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

Restriction hasLength^{op} only PedestalLength^c

Pedestal Length Value ^C

IRI http://w3id.org/CEON/demo/construction/PedestalLengthValue

Sub Class Of http://qudt.org/schema/gudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit_only http://qudt.org/schema/qudt/Unit_c and http://qudt.org/schema/qudt/hasUnit_some http://qudt.org/schema/qudt/Unit_c

Restriction http://qudt.org/schema/qudt/numericValue only PedestalLengthValue^C

Pedestal Width ^C

Sub Class Of http://gudt.org/schema/gudt/Ouantity

http://qudt.org/schema/qudt/Quantity.http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

Restriction hasWidth^{op} only PedestalWidth^c

Pedestal Width Value ^c

IRI http://w3id.org/CEON/demo/construction/PedestalWidthValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit_only http://qudt.org/schema/qudt/Unit_c and http://qudt.org/schema/qudt/hasUnit_some http://qudt.org/schema/qudt/Unit_c

Restriction http://qudt.org/schema/qudt/numericValue only PedestalWidthValue^C

Product Stage Impact ^c

Sub Class Of LifeCycleAssessmentImpact^C

Super Class Of

<u>A1RawMAterialExtractionImpact</u>^C

<u>A2TransportationOfRawMaterialsImpact</u>^C

A3ManufacturingImpact^C

A4TransportationOfManufacturedProductsImpact^C

A5TheConstructionPhaseImpact^C

Recycling Deconstructability Value ^C

tabilityValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit_only http://qudt.org/schema/qudt/Unit_c and http://qudt.org/schema/qudt/hasUnit_some http://qudt.org/schema/qudt/Unit_c

In Range Of <u>hasReuseDeconstructability</u>op

Restriction http://qudt.org/schema/qudt/numericValue only

<u>RecyclingDeconstructabilityValue</u>^C

Recycling Potential Value^c

IRI http://w3id.org/CEON/demo/construction/RecyclingPotentialV

alue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

 $\frac{http://qudt.org/schema/qudt/hasUnit}{only} \frac{http://qudt.org/schema/qudt/Unit}{only} \frac{http://qudt.org/schema/$

In Range Of hasRecyclingPotential op

Restriction http://qudt.org/schema/qudt/numericValue only RecyclingPotentialValue^C

Recycling Separability ^c

ty

Sub Class Of http://gudt.org/schema/gudt/Quantity

http://qudt.org/schema/qudt/Quantity http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasRecyclingSeparability op

Restriction <u>hasRecyclingSeparability</u> op only <u>RecyclingSeparability</u> on the <u>RecyclingSeparability</u> of the <u>RecyclingSeparability</u> of the <u>RecyclingSeparability</u> of the <u>RecyclingSeparabilit</u>

Recycling Separability Value ^c

IRI http://w3id.org/CEON/demo/construction/RecyclingSeparabili

tyValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit_some http://qudt.org/schema/qudt/Unit_cand http://qudt.org/schema/qudt/hasUnit_only http://qudt.org/schema/qudt/Unit_cand http://qudt.org/schema/qud

In Range Of hasRecyclingSeparability op

Restriction http://gudt.org/schema/gudt/numericValue only RecyclingSeparabilityValue^C

Refurbishment Cost Value ^C

lue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit_only http://qudt.org/schema/qudt/Unit_c and http://qudt.org/schema/qudt/hasUnit_some http://qudt.org/schema/qudt/Unit_c

In Range Of quantity:hasRefurbishmentCost

Restriction http://qudt.org/schema/qudt/numericValue only RefurbishmentCostValue^C

Resistance To Earth ^c

IRI http://w3id.org/CEON/demo/construction/ResistanceToEarth

Sub Class Of http://qudt.org/schema/qudt/Quantity

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

In Domain Of hasResistanceToEarth op

Restriction hasResistanceToEarth^{op} only ResistanceToEarth^c

Resistance To Earth Value C

IRI http://w3id.org/CEON/demo/construction/ResistanceToEarthVa

lue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit_only http://qudt.org/schema/qudt/Unit_c and http://qudt.org/schema/qudt/hasUnit_some http://qudt.org/schema/qudt/Unit_c

In Range Of hasResistanceToEarth op

Restriction http://qudt.org/schema/qudt/numericValue only ResistanceToEarthValue^C

Reuse Deconstructability ^c

IRI http://w3id.org/CEON/demo/construction/ReuseDeconstructabi

lity

Sub Class Of http://qudt.org/schema/qudt/Quantity

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

In Domain Of hasReuseDeconstructability op

Restriction hasReuseDeconstructability op only ReuseDeconstructability

Reuse Potential ^C

Sub Class Of http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasRecyclingPotential op

In Range Of hasReusePotential op

Named Individuals

high_reuse_potentialⁿⁱ

needs_refurbishment_before_reuse ni

Screw^c

IRI http://w3id.org/CEON/demo/construction/Screw

Sub Class Of product:Item

System Maximal Weight^C

Sub Class Of http://qudt.org/schema/qudt/Quantity

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

Restriction <u>hasSystemWeight</u>^{op} only <u>SystemMaximalWeight</u>^c

System Maximal Weight Value ^C

Value

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit_some http://qudt.org/schema/qudt/Unit_and http://qudt.org/schema/qudt/hasUnit_only http://qudt.org/schema/qudt/Unit_and htt

Restriction http://qudt.org/schema/qudt/numericValue only SystemMaximalWeightValue^c

System Minimal Weight ^C

Sub Class Of http://qudt.org/schema/qudt/Quantity

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

Restriction hasSystemWeight^{op} only SystemMinimalWeight^C

System Minimal Weight Value ^C

IRI http://w3id.org/CEON/demo/construction/SystemMinimalWeight

Value

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit some http://qudt.org/schema/qudt/Unit^c and http://qudt.org/schema/qudt/hasUnit.only http://qudt.org/schema/qudt/Unit^c

Restriction http://qudt.org/schema/qudt/numericValue only SystemMinimalWeightValue on SystemMinimalWeightVa

System Weight^C

IRI http://w3id.org/CEON/demo/construction/SystemWeight

Sub Class Of http://qudt.org/schema/qudt/Quantity

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

Restriction hasSystemWeight^{op} only SystemWeight^c

System Weight Value ^C

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

 $\frac{\text{http://qudt.org/schema/qudt/hasUnit only http://qudt.org/schema/qudt/Unit}^{\text{c}} \textit{ and } \\ \frac{\text{http://qudt.org/schema/qudt/hasUnit some http://qudt.org/schema/qudt/Unit}^{\text{c}}}{\text{http://qudt.org/schema/qudt/Unit}^{\text{c}}}$

In Range Of hasSystemWeight^{op}

Restriction http://qudt.org/schema/qudt/numericValue only SystemWeightValue only SystemWeight only SystemWeight only SystemWeight only SystemWeight only <a href="mailto:SystemWeightVal

Testing Cost Value ^C

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit_only http://qudt.org/schema/qudt/Unit_c and http://qudt.org/schema/qudt/hasUnit_some http://qudt.org/schema/qudt/Unit_c

In Range Of quantity:hasTestingCost

Restriction http://qudt.org/schema/qudt/numericValue only TestingCostValue only

Thickness ^C

IRI http://w3id.org/CEON/demo/construction/Thickness

Sub Class Of

http://qudt.org/schema/qudt/Quantity. http://w3id.org/CEON/ontology/resourceODP/ResourceProperty.

In Domain Of hasThickness op

Restriction hasThickness^{op} only Thickness^c

Thickness Value C

IRI http://w3id.org/CEON/demo/construction/ThicknessValue

Sub Class Of

http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit_only http://qudt.org/schema/qudt/Unit and http://qudt.org/schema/qudt/hasUnit_some http://qudt.org/schema/qudt/Unit c

In Range Of hasThickness op

Restriction http://qudt.org/schema/qudt/numericValue_only ThicknessValue^C

Transport Cost Value ^c

IRI http://w3id.org/CEON/demo/construction/TransportCostValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

> http://qudt.org/schema/qudt/hasUnit_some http://qudt.org/schema/qudt/Unitc and http://qudt.org/schema/qudt/hasUnit only http://qudt.org/schema/qudt/Unit c

In Range Of quantity:hasTransportCost

Restriction http://qudt.org/schema/qudt/numericValue_only_TransportCostValue_c

Treatment Policy^C

IRI http://w3id.org/CEON/demo/construction/TreatmentPolicy

http://w3id.org/CEON/ontology/resourceODP/Information **Sub Class Of**

In Range Of $\underline{\mathsf{policyOnTreatment}}^{\mathsf{op}}$

Named Individuals <u>refurbishⁿⁱ</u>

reprocess ni <u>reuse</u>ni

Use Span Time ^C

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit_only http://qudt.org/schema/qudt/Unit_c and http://qudt.org/schema/qudt/hasUnit_some http://qudt.org/schema/qudt/Unit_c

In Range Of

<u>hasUseSpan</u>op

<u>hasUseSpanRemaining</u>^{op} <u>hasUseSpanTotal</u>^{op}

Restriction http://qudt.org/schema/qudt/numericValue only UseSpanTime^C

Use Stage Impact ^C

Sub Class Of <u>LifeCycleAssessmentImpact</u>^C

Super Class Of

B1InstalledProductImpact^C
B2MaintenanceImpact^C
B3RepairImpact^C
B4ReplacementImpact^C
B5RefurbishmentImpact^C

B6OperationalEnergyConsumption^C

B7OperationalWaterUse^C

Object Properties

has accessory op

IRI http://w3id.org/CEON/demo/construction/hasAccessory

has conductivity property op

erty

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

<u>Domain</u> <u>product:Product or product:Item</u>

Range <u>Conductivity</u>^C

has conductivity value op

IRI http://w3id.org/CEON/demo/construction/hasConductivityValu

е

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

Conductivity^C

• product:Item^c or product:Product^c

Range ConductivityValue^C

has contaminant op

Domain product:Item^c or product:Product^c

Range Contaminant^C

has dimension op

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Super Property Of

• <u>hasHeight</u>^{op}

hasLength^{op}

hasThickness^{op}

• hasWidth op

has dimensional deviation op

IRI http://w3id.org/CEON/demo/construction/hasDimensionalDevia

tion

Sub Property Of topObjectProperty op

Domain product:Product^c or product:Item^c

Range <u>Dimensional Deviation</u>^C

has distance to recycling plant op

ingPlant

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain <u>product:Product^C or product:Item^C</u>

Range <u>LocalRecyclingPlantDistance</u>^C

has fire resistance rating op

IRI http://w3id.org/CEON/demo/construction/hasFireResistanceRa

ting

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

<u>Domain</u> <u>product:Item^c or product:Product^c</u>

Range FireResistanceRating^C

has global warming potential op

ential

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

• <u>LifeCycleAssessmentImpact</u>^C

<u>product:Product^c or product:Item^c</u>

Range GlobalWarmingPotential^C

has height op

Sub Property Of hasDimension op

Domain

PedestalHeight^c or FloorPanelHeight^c
 product:Product^c or product:Item^c

Range PedestalHeightValue or FloorPanelHeightValue

has installation location op

tion

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

<u>Domain</u> <u>product:Product or product:Item</u>

has length op

IRI http://w3id.org/CEON/demo/construction/hasLength

Sub Property Of hasDimension op

Domain

• FloorPanelLength^c or PedestalLength^c

product:Product^c or product:Item^c

Range PedestalLengthValue or FloorPanelLengthValue

has market value for new product op

IRI http://w3id.org/CEON/demo/construction/hasMarketValueForNe

 ${\it wProduct}$

Sub Property Of quantity:hasMarketValue

<u>Domain</u> <u>product:Product^c or product:Item^c</u>

Range <u>MarketValueForProduct</u>^C

has market value for reused product op

usedProduct

Sub Property Of quantity:hasMarketValue

<u>Domain</u> <u>product:Item^c or product:Product^c</u>

Range <u>MarketValueForProduct</u>^C

has product quality op

Sub Property Of topObjectProperty op

Domain <u>product:Item</u>^c or <u>product:Product</u>^c

Range ConstructionProductQuality^C

has recycling plant op

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Range <u>LocalRecyclingPlantDistance</u>^C

has recycling potential op

al

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

• ReusePotential^C

product:Product^c or product:Item^c

Range RecyclingPotentialValue^C

has recycling separability op

IRI http://w3id.org/CEON/demo/construction/hasRecyclingSeparab

ility

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

RecyclingSeparability^C

<u>product:Product^c or product:Item^c</u>

Range RecyclingSeparabilityValue^C

has resistance to earth op

h

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

ResistanceToEarth^C

• product:Product^c or product:Item^c

Range ResistanceToEarthValue^C

has reuse deconstructability op

IRI http://w3id.org/CEON/demo/construction/hasReuseDeconstruct

ability

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

ReuseDeconstructability^c

product:Item^c or product:Product^c

Range RecyclingDeconstructabilityValue^C

has reuse potential op

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Domain product:Item^c or product:Product^c

Range ReusePotential^C

has system weight op

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

SystemMaximalWeight^c or SystemWeight^c or SystemMinimalWeight^c

product:Product^c or product:Item^c

Range SystemWeightValue^C

has thickness op

Sub Property Of hasDimension op

Domain

Thickness^c

product:Product^c or product:Item^c

Range ThicknessValue^C

has use span op

IRI http://w3id.org/CEON/demo/construction/hasUseSpan

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Super Property Of

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

• hasUseSpanTotal^{op}

Domain product:Product^c or product:Item^c

Range <u>UseSpanTime</u>^C

has use span remaining op

Sub Property Of hasUseSpan op

Range <u>UseSpanTime</u>^C

has use span total op

Sub Property Of hasUseSpan op

Range <u>UseSpanTime</u>^C

has width op

IRI http://w3id.org/CEON/demo/construction/hasWidth

Sub Property Of hasDimension op

Domain

<u>PedestalWidth^c or FloorPanelWidth^c</u>
 <u>product:Item^c or product:Product^c</u>

Range PedestalWidthValue^C or FloorPanelWidthValue^C

policy on treatment op

Sub Property Of topObjectProperty op

Domain product:Item^c or product:Product^c

Range <u>TreatmentPolicy</u>^C

Datatype Properties

has accessories dp

Domain product:Item^c or product:Product^c

Range xsd:string

has construction year dp

Sub Property Of topDataProperty dp

Range <u>xsd:gYear</u>

has dismantling instruction ^{dp}

uction

Sub Property Of topDataProperty dp

Domain <u>product:Product^c or product:Item^c</u>

Range <u>xsd:anyURI</u>

has dismantling method dp

IRI http://w3id.org/CEON/demo/construction/hasDismantlingMetho

d

Sub Property Of topDataProperty dp

Domain product:Product^c or product:Item^c

Range <u>xsd:string</u>

has installation date dp

Sub Property Of topDataProperty dp

Domain product:Item

Range xsd:date

has packaging recommendations after dismantling ^{dp}

ndationsAfterDismantling

Sub Property Of topDataProperty dp

Domain product:Item^c or product:Product^c

Range xsd:string

has product description dp

on

Sub Property Of topDataProperty dp

Domain product:Item^c or product:Product^c

Range <u>xsd:string</u>

has product id dp

Sub Property Of topDataProperty dp

Domain <u>product:Item</u>^c or <u>product:Product</u>^c

Range <u>xsd:int</u>

has production date dp

Sub Property Of topDataProperty dp

Domain product:Item

Range xsd:date

has production site dp

Sub Property Of topDataProperty dp

<u>Domain</u> <u>product:Item^c or product:Product^c</u>

Range <u>xsd:string</u>

has refurbishment method dp

IRI http://w3id.org/CEON/demo/construction/hasRefurbishmentMet

hod

Sub Property Of topDataProperty dp

Domain product:Product^c or product:Item^c

Range <u>xsd:string</u>

has take back program from original manufacturer dp

romOriginalManufacturer

Sub Property Of topDataProperty dp

Domain product:Product

Range <u>xsd:boolean</u>

has take back program other manufacturer dp

IRI http://w3id.org/CEON/demo/construction/hasTakeBackProgram0

therManufacturer

Sub Property Of topDataProperty dp

Domain product:Product

Range xsd:boolean

has technical requirements for take back for recycling dp

IRI http://w3id.org/CEON/demo/construction/hasTechnicalRequire

mentsForTakeBackForRecycling

Sub Property Of topDataProperty dp

Domain product:Item^c or product:Product^c

Range xsd:string

has technical requirements for take back for reuse dp

mentsForTakeBackForReuse

Sub Property Of topDataProperty dp

Domain product:Product^c or product:Item^c

Range xsd:string

is contaminated ^{dp}

IRI http://w3id.org/CEON/demo/construction/isContaminated

Sub Property Of topDataProperty dp

Domain <u>product:Item</u>^c or <u>product:Product</u>^c

Range xsd:boolean

Annotation Properties

contributor ap

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

created ^{ap}

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

creator ^{ap}

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

description ap

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

```
license ap
IRI
                 http://purl.org/dc/terms/license
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/demo/construction/
actor
    http://w3id.org/CEON/ontology/actor/
actorODP
    http://w3id.org/CEON/ontology/actorODP/
dcterms
    http://purl.org/dc/terms/
material
    http://w3id.org/CEON/ontology/material/
odp
    http://www.ontologydesignpatterns.org/schemas/cpannotationschema.owl#
owl
    http://www.w3.org/2002/07/owl#
product
    http://w3id.org/CEON/ontology/product/
prov
    http://www.w3.org/ns/prov#
quantity
    http://w3id.org/CEON/ontology/quantity#
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/

Legend

С	Classes
ор	Object Properties
dp	Datatype Properties
ap	Annotation Properties