

# Circular Economy Ontology Network (CEON) - Process Module

## Metadata

### IRI

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

### Title

Circular Economy Ontology Network (CEON) - Process Module

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Onto-DESIDE

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### Version Iri

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

### Version Info

0.5

### Prior Version

0.4

### Preferred Namespace Prefix

ceon-process

### Preferred Namespace Uri

<https://w3id.org/CEON/ontology/process/>

### Description

The Process module of CEON (Circular Economy Ontology Network).

### Covers Requirements

In addition to requirements covered by imported ODPs, covers the following requirements from Onto-DESIDE D3.1: T8-2

In addition to requirements covered by imported ODPs, covers the following requirements from Onto-DESIDE D3.2: T8-2

## Classes

### Energy<sup>c</sup>

**IRI** <http://w3id.org/CE0N/ontology/energy/Energy>

**Sub Class Of** [resourceODP:Resource<sup>c</sup>](#)

**In Range Of** [needsEnergy<sup>op</sup>](#)

### Assembling Process<sup>c</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/AssemblingProcess>

**Sub Class Of** [TransformationProcess<sup>c</sup>](#)

### Buy Resource Process<sup>c</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/BuyResourceProcess>

**Sub Class Of** [processODP:Process](#)

### Co2Emission<sup>c</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/CO2Emission>

**Sub Class Of** [resourceODP:Resource<sup>c</sup>](#)

**In Range Of** [producesCO2<sup>op</sup>](#)

### Catalyst<sup>c</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/Catalyst>

**Sub Class Of** [resourceODP:Resource<sup>c</sup>](#)

**In Range Of** [usesCatalyst<sup>op</sup>](#)

### Change Resource Process<sup>c</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/ChangeResourceProcesses>

**Sub Class Of** [TransformationProcess<sup>c</sup>](#)

### Contact Process<sup>c</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/ContactProcess>

**Sub Class Of** [processODP:Process](#)

## Deconstruction Process<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/DeconstructionProcesses>

**Sub Class Of** [TransformationProcess<sup>C</sup>](#)

## Disassembling Process<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/DisassemblingProcess>

**Sub Class Of** [TransformationProcess<sup>C</sup>](#)

## Dismantle Process<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/DismantleProcess>

**Sub Class Of** [TransformationProcess<sup>C</sup>](#)

## Ensure Claim Process<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/EnsureClaimProcess>

**Sub Class Of** [processODP:Process](#)

## Issuing Certificate Process<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/IssuingCertificateProcess>

**Sub Class Of** [TransformationProcess<sup>C</sup>](#)

## Manufacturing Process<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/ManufacturingProcess>

**Sub Class Of** [TransformationProcess<sup>C</sup>](#)

## Offset Process<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/OffsetProcess>

**Sub Class Of** [TransformationProcess<sup>C</sup>](#)

## Production Process<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/ProductionProcess>

**Sub Class Of** [TransformationProcess<sup>C</sup>](#)

## Recycle Process<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/RecycleProcess>

**Sub Class Of** [TransformationProcess<sup>C</sup>](#)

## Refurbishment Process<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/RefurbishmentProcess>

**Sub Class Of** [TransformationProcess<sup>C</sup>](#)

## Remove Process<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/RemoveProcess>

**Sub Class Of** [processODP:Process](#)

## Remove Resource Process<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/RemoveResourceProcesses>

**Sub Class Of** [TransformationProcess<sup>C</sup>](#)

## Repair Process<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/RepairProcess>

**Sub Class Of** [TransformationProcess<sup>C</sup>](#)

## Resell Process<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/ResellProcess>

**Sub Class Of** [processODP:Process](#)

## Reuse Process<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/ReuseProcess>

**Sub Class Of** [processODP:Process](#)

## Sell Resource Process<sup>C</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/SellResourceProcess>

**Sub Class Of** [processODP:Process](#)

|                                     |  |
|-------------------------------------|--|
| Service Process <sup>c</sup>        |  |
| IRI                                 | <a href="http://w3id.org/CE0N/ontology/process/ServiceProcess">http://w3id.org/CE0N/ontology/process/ServiceProcess</a>  |
| <u>Sub Class Of</u>                 | <a href="#">TransformationProcess<sup>c</sup></a>  |
| Share Resource Process <sup>c</sup> |  |
| IRI                                 | <a href="http://w3id.org/CE0N/ontology/process/ShareResourceProcess">http://w3id.org/CE0N/ontology/process/ShareResourceProcess</a>  |
| <u>Sub Class Of</u>                 | <a href="#">processODP:Process</a>   |
| Take Back Process <sup>c</sup>      |  |
| IRI                                 | <a href="http://w3id.org/CE0N/ontology/process/TakeBackProcess">http://w3id.org/CE0N/ontology/process/TakeBackProcess</a>  |
| <u>Sub Class Of</u>                 | <a href="#">processODP:Process</a>   |
| Transformation Process <sup>c</sup> |  |
| IRI                                 | <a href="http://w3id.org/CE0N/ontology/process/TransformationProcesses">http://w3id.org/CE0N/ontology/process/TransformationProcesses</a>  |
| <u>Is Defined By</u>                | ISO 59004:2024 - 3.5.5 process   |
| <u>Description</u>                  | Set of interrelated or interacting activities that transforms inputs into outputs.   |
| <u>Sub Class Of</u>                 | <a href="#">processODP:Process</a>   |
| <u>Super Class Of</u>               | <a href="#">AssemblingProcess<sup>c</sup></a><br><a href="#">ChangeResourceProcess<sup>c</sup></a><br><a href="#">DeconstructionProcess<sup>c</sup></a><br><a href="#">DisassemblingProcess<sup>c</sup></a><br><a href="#">DismantleProcess<sup>c</sup></a><br><a href="#">IssuingCertificateProcess<sup>c</sup></a><br><a href="#">ManufacturingProcess<sup>c</sup></a><br><a href="#">OffsetProcess<sup>c</sup></a><br><a href="#">ProductionProcess<sup>c</sup></a><br><a href="#">RecycleProcess<sup>c</sup></a><br><a href="#">RefurbishmentProcess<sup>c</sup></a><br><a href="#">RemoveResourceProcess<sup>c</sup></a><br><a href="#">RepairProcess<sup>c</sup></a><br><a href="#">ServiceProcess<sup>c</sup></a> |
| Transition <sup>c</sup>             |  |
| IRI                                 | <a href="http://w3id.org/CE0N/ontology/process/Transition">http://w3id.org/CE0N/ontology/process/Transition</a>  |
| <u>Sub Class Of</u>                 | <a href="#">processODP:Situation</a>   |
| <u>In Domain Of</u>                 | <a href="#">affectsObject<sup>op</sup></a>   |

## Resource<sup>c</sup>

**IRI** <http://w3id.org/CEON/ontology/resourceODP/Resource>

**In Range Of** [resultingResource<sup>op</sup>](#)

**Super Class Of** <http://w3id.org/CEON/ontology/energy/Energy><sup>c</sup>  
[CO2Emission](#)<sup>c</sup>  
[Catalyst](#)<sup>c</sup>

## Event<sup>c</sup>

**IRI** <http://w3id.org/CEON/ontology/processODP/Event>

## Object Properties

### affects object<sup>op</sup>

**IRI** <http://w3id.org/CEON/ontology/process/affectsObject>

**Sub Property Of** [processODP:isSettingFor](#)

**Domain** [Transition](#)<sup>c</sup>

### needs energy<sup>op</sup>

**IRI** <http://w3id.org/CEON/ontology/process/needsEnergy>

**Sub Property Of** [processODP:hasInput<sup>op</sup>](#)

**Range** <http://w3id.org/CEON/ontology/energy/Energy><sup>c</sup>

### produces co2<sup>op</sup>

**IRI** <http://w3id.org/CEON/ontology/process/producesCO2>

**Sub Property Of** [processODP:hasOutput<sup>op</sup>](#)

**Range** [CO2Emission](#)<sup>c</sup>

### resulting resource<sup>op</sup>

**IRI** <http://w3id.org/CEON/ontology/process/resultingResource>

**Sub Property Of** [processODP:hasOutput<sup>op</sup>](#)

**Range** [resourceODP:Resource](#)<sup>c</sup>

uses catalyst<sup>op</sup>

**IRI** <http://w3id.org/CE0N/ontology/process/usesCatalyst>

**Sub Property Of** [processODP:hasInput<sup>op</sup>](#)

**Range** [Catalyst<sup>c</sup>](#)

has input<sup>op</sup>

**IRI** <http://w3id.org/CE0N/ontology/processODP/hasInput>

**Super Property Of**

- [needsEnergy<sup>op</sup>](#)
- [usesCatalyst<sup>op</sup>](#)

has output<sup>op</sup>

**IRI** <http://w3id.org/CE0N/ontology/processODP/hasOutput>

**Super Property Of**

- [producesCO2<sup>op</sup>](#)
- [resultingResource<sup>op</sup>](#)

## Namespaces

:

<http://w3id.org/CE0N/ontology/process/>

**dcterms**

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

**odp**

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

**owl**

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

**processODP**

<http://w3id.org/CE0N/ontology/processODP/>

**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/CE0N/ontology/resourceODP/>

**vann**

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

## Legend

|    |                      |
|----|----------------------|
| c  | Classes              |
| op | Object<br>Properties |