



CIRCULAR ECONOMY TAXONOMY STUDY

Analysis of the proposed criteria Circular Economy EU Taxonomy



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The EU Taxonomy is a unified language for sustainability, initiated by the European Commission. This language applies to all economic activities, including the construction and real estate sector. The Dutch Green Building Council (DGBC) has published a whitepaper describing what EU Taxonomy is and what it means for the construction and real estate sector. Six climate goals have been formulated under the EU Taxonomy, the fourth climate goal concerns circular economy. Criteria have been drawn up for each climate goal. Some are finalised, but for circularity, for example, these criteria are still in draft form.

DGBC has analysed these draft criteria in collaboration with several other European Green Building Councils. In 2022 the first analysis findings were shared with the European Commission as feedback. The final results of the analysis are now published; the results cover different countries and make some generic recommendations and draw some general conclusions. DGBC has made the following summary specifically for the Dutch situation.

National translation of the criteria

At the time of this report, the European Commission has not yet finalised the circular criteria, it was expected that this would happen in December 2022. That does not prevent DGBC from continuing to work on the national translation of the criteria in the meantime.

Six criteria for New Construction

The Netherlands is known as a leader in making circular construction measurable and this is also reflected in the analysis of the six criteria (see the table below for an overview of the criteria). With the MPG (The Dutch equivalent of the Environmental Performance of Buildings) included in the Dutch Building Decree, the foundation has been laid for circular construction. In addition, through extra-statutory instruments such as BREEAM-NL, many tools and criteria are already available that are in line with the framework of the EU Taxonomy. Such as waste management on construction sites, circular design for adaptability, building flexibility and detachability and developments with building passports.

The biggest challenge will lie in the use of circular

materials and maximising non-renewable materials: there is a requirement that states that at least 50% of the materials used must consist of reused, recycled or renewable materials.

If we take a closer look at the six criteria, we can state that:

- The EU Waste Protocol, which the EU Taxonomy refers to, is not familiar to market parties in the Netherlands. However, the protocol is in line with a credit in BREEAM-NL regarding construction site management and the reporting that is requested. From BREEAM projects we also see that the 90% can be achieved. Our recommendation: you should take a step towards separating waste into reuse in addition to recycling.
- 2. In the Netherlands, an LCA (life cycle analysis) for a building is called the MPG (Environmental Performance of Buildings). The MPG is guaranteed in Dutch legislation (Dutch Building Decree) for new-build homes/new-build offices, but not for other functions nor renovation. The requirement that the LCA is also shared publicly has not yet been met.
- and detachability are not new in the Netherlands in the non-statutory systems, as they are in several other European countries. However, the EU Taxonomy does not yet set a threshold or measurable minimum value that must be met, so for the Dutch situation this will therefore still have to be determined for adaptivity and detachability. In cooperation with W/E consultants and the Circular Building Economy Transition Agenda, DGBC has developed methodologies for adaptivity and

detachability, these methods are in line with the European (Level(s)) Frameworks and could fulfill the criteria. Resource efficiency is often difficult to demonstrate: how do you demonstrate that you have not used something?

- 4. The criterion of using 50% circular materials will become a challenge, especially in the reuse (15%) of construction products. The application of 15% recycled raw materials and renewable materials will succeed if this is properly recorded, like with steel, concrete granulate or developments with glass. With demolition/new construction, for example, you can also recycle a lot directly, but this is not energetically sustainable. There is not yet an unequivocal method for establishing this criterion, but we should have the basis.
- 5. The requirements regarding hazardous substances seem to have been largely tackled in Dutch legislation, by means of European legislation (REACH). It is unclear how you can properly comply with this as an additional requirement and/or how to demonstrate it for all products used in a construction project.
- 6. Building passports have made their appearance in the Netherlands in recent years and are also embedded in non-statutory systems (such as BREEAM-NL and Madaster). The EU Taxonomy also requires some specific information about maintenance, end-of-life and dismantling plans

and possible reuse, which will have to be included even more explicitly in the current systems and criteria.

Two additional criteria for Renovation

The same six criteria as New Construction apply to Renovation, but two additional criteria have been added. This concerns the preservation of materials from the existing building (at least 50%), and that the energy performance requirements that apply to a 'major renovation' are met or that the primary energy demand is reduced by at least 30%. Both criteria seem feasible and demonstrable, although the documentation is not always set up for this.

What is an issue is the extent to which the criteria on circular design principles and use of materials are feasible and applicable in the right way. After all, a large part of the building will be retained (the most circular option), but it can therefore no longer be adapted or improved.

No criteria for installation and maintenance, acquisition and property ownership

For construction and real estate activities, there are therefore only criteria for New Construction (7.1) and Renovation (7.2), and not for activities on existing real estate: installation and maintenance (7.3 to 7.6) and acquisition and ownership of real estate (7.7).



Conclusion

- The circular criteria are very recognisable for developments in the Netherlands, so we are in line with the European goals. You could also flip it around: the Netherlands is known as a leader in making circular construction measurable and that is reflected in the analysis of the six criteria. There is still a lot to be done in the final determination of criteria and how to make them measurable and demonstrable, but our extra-statutory instruments are a good match for this.
- The greatest challenge will lie in the use of circular materials and maximising non-renewable materials: the concept requirement requires that at least 50% of the materials used consist of reused, recycled or renewable materials.
- What we do see is that the criteria for Renovation
 Projects have a higher threshold than New
 Construction. The criteria are largely the same but are therefore more difficult to achieve in practice. For example, on the use of materials: if you maintain 50% of the building, it is even more difficult to use circular materials in the new part. This is actually in contradiction with the aim of promoting renovation rather than new construction. Because preserving value and materials in buildings is the most circular approach.

Sig	nificantly Contribute to Transition to Circular Economy	Do No Significant Harm to Transition to Circular Economy
1.	Treatment of all generated waste according to EU Demolition and Construction Waste Protocol.	Limit waste generation using best available techniques, selectively demolishing and using sorting systems.
2.	Prepare at least 90% of non-hazardous construction and demolition waste for re-use and recycling.	Prepare at least 70% of non-hazardous construction and demolition waste for re-use and recycling.
3.	Calculate Life Cycle Assessment of entire building and publish results.	n/a
4.	Support circularity by designing resource efficiently, adaptable and flexible and dismantlable.	Support circularity by designing resource efficiently, adaptable and flexible and dismantable.
5.	Retain at least 50% of the original building (only applicable for renovation).	n/a
6.	Built asset comprising of 15% re-used and 15% recycled components and 20% a combination of re-used, recycled or responsibly sourced renewable materials.	n/a
7.	Confirm that components and materials do not contain asbestos nor SVHCs according to REACH.	n/a
8.	Use electronic tools to provide information on materials and components used, guidance on future maintenance, recovery and reuse pathways, which are made available to the client.	n/a



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