**FIEC** is the European Construction Industry Federation, representing via its 32 National Member Federations in 27 countries (24 EU countries, Norway, Switzerland & Ukraine) construction enterprises of all sizes, i.e., small, and medium-sized enterprises as well as "global players", carrying out all forms of building and civil engineering activities. **FIEC** is a Member of the Platform on Sustainable Finance.

# FIEC reaction to the final Platform on Sustainable Finance's Technical Working Group (TWG) report ("TaxO4 Report") of 30 March 2022

## Substantial contribution to transition to a circular economy technical screening criteria

## Maintenance of roads and motorways, construction of new buildings, renovation of existing buildings

23/06/2022

In the following you can find FIEC's comments and proposals for amending the Platform on Sustainable Finance's report and its annexes with recommendations on technical screening criteria for the four remaining environmental objectives of the EU taxonomy, published on 30 March 2022 (the so-called "TaxO4 Report"). This report forms the basis for the draft delegated act on the four remaining environmental objectives, which is currently being elaborated by the European Commission (the "TaxO4 Delegated Act").

As a member of the Technical Working Group (TWG) in the Platform on Sustainable Finance, FIEC especially wants to ensure the usability of the technical screening criteria (TSC) proposed by the Platform for the **substantial contribution to the transition to a circular economy** of the following activities: **maintenance of roads and motorways, construction of new buildings and renovation of existing buildings.**

The comments are based on input from member federations as well as on input provided by other organisations representing companies that carry out specific construction or construction-related activities. FIEC especially wants to ensure the usability and acceptability of the TSCs so that the construction sector and its companies, a large proportion of which are small and medium-sized enterprises (SMEs) and microenterprises, can comply with the criteria. As highlighted in its initial reaction to the publication of the TaxO4 Report on 30 March, FIEC is of the opinion that a major overhaul of the criteria is urgently needed.

The recommendations taken from the Platform's TaxO4 Report are marked in **light green**. FIEC's comments and/or proposed amendments are marked in **red** and **black.**

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# Detailed comments on the circular economy technical screening criteria

## *4.2 Maintenance of roads and motorways & circular economy*

### a) *Description of the activity*

**TWG report**

Maintenance of streets, roads and motorways defined as all actions undertaken to maintain and restore the serviceability and level of service of roads. It includes routine maintenance which can be scheduled on a periodical basis with a view of maintaining a satisfactory level of service and preventive maintenance and rehabilitation which are defined as works undertaken to preserve or restore serviceability and to extend the service life of an existing road. The maintenance operation is mainly dedicated to pavement management and concerns only the following main elements of the road: binder course and surface course and concrete slabs. The roads in the scope of this activity are made of asphalt, concrete, or asphalt concrete.

The activity could be linked to construction of roads and motorways classified under NACE code F42.11 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

**FIEC proposal**

Maintenance of streets, roads and motorways defined as all actions undertaken to maintain and restore the serviceability and level of service of roads. It includes routine maintenance which can be scheduled on a periodical basis with a view of maintaining a satisfactory level of service and preventive maintenance and rehabilitation which are defined as works undertaken to preserve or restore serviceability and to extend the service life of an existing road. The maintenance operation is mainly dedicated to pavement management and concerns only the following main elements of the road: **base course**, binder course, surface course and concrete slabs. The roads in the scope of this activity are made of asphalt, concrete, or asphalt concrete.

The activity could be linked to construction of roads and motorways classified under NACE code F42.11 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

**Explanation**

We fully support the inclusion of maintenance activities under the circular economy objective. Maintenance is circular by nature and the most predominant type of road works with the European road network being developed to a significant extent. The added value of maintenance is shown through the simulation with the World Bank tool HDM4 (see TWG report) illustrating the material savings.

Restriction to upper layers of roads aims on the one hand at incentivising regular maintenance works to avoid negligence and large works in the end. There is however no reason to exclude the **base course** from the scope of the activity as the base course is part of the upper layers of a road. The base course is also in the scope of the corresponding EU GPP criteria for road maintenance.

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## *b) Criteria for substantial contribution to a circular economy*

### 1) Waste management requirement

#### TWG report

Where main road elements (binder course and/or surface course or concrete slabs) are demolished or removed, 100% (by weight) of the non-hazardous waste [excluding naturally occurring material referred to in category 17 05 04 (soil and stones) in the European List of Waste established by Commission Decision 2000/532/EC479] is prepared and collected with the aim of subsequent re-use and recycling, excluding backfilling and landfilling.

#### FIEC proposal

Where main road elements (**base course** and/or binder course and/or surface course or concrete slabs) are demolished or removed, 100% (by weight) of the non-hazardous waste [excluding naturally occurring material referred to in category 17 05 04 (soil and stones) in the European List of Waste established by Commission Decision 2000/532/EC479] is prepared and collected with the aim of subsequent re-use and recycling.

#### Explanation

We support the 100% recycling/re-use rate for waste because non-hazardous materials used in the upper layers of roads can be entirely recycled, and sometimes reused. It is essential to leave flexibility to the economic operator (whether to recycle or reuse) as not all materials are suitable for reuse on site.

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### 2) Use of secondary material requirement

#### TWG text

Where road elements are newly installed after demolition or removal, at least 50% (by weight) of the materials used are recycled, re-used or re-manufactured materials and/or by-products.

Deviation from the 50% target is justified

- For a period of 2 years from the adoption of the Delegated Act*, where the use of recycled materials to such extent is not in accordance with national regulations as long as the maximum allowed threshold is reached.
- **or** where the use of recycled content, re-used content, re-manufactured content and/or by- products leads to higher $CO_2$ emissions than the use of virgin material. This is proven by calculating and comparing the $CO_2$ emissions generated through the production processes and the transportation of the recycled or re-used material with the $CO_2$ emissions generated through the production process and the transportation of virgin material. The calculation is based on EN 17472 *(waiting for publication, accepted in CEN formal vote)*, and refers to the lifecycle stages A1 to A4.

[* Note: After 2 years from the adoption of the Delegated Act has passed, this allowance will no longer be valid grounds for deviation from the target.]

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## FIEC proposal

Where road elements are newly installed after demolition or removal, at least **30%** (by weight) of the materials used are recycled, re-used or re-manufactured materials and/or by-products.

Deviation from the **30%** target is justified

- ~~for a period of 2 years from the adoption of the Delegated Act*~~where the use of recycled materials to such extent is not in accordance with technical standards and/or national regulations **as long as the maximum allowed threshold at national level is reached.**
- or where the use of recycled content, re-used content, re-manufactured content and/or by-products leads to higher $CO_2$ emissions than the use of virgin material. This is proven by calculating and comparing the $CO_2$ emissions generated through the production processes and the transportation of the recycled or re-used material with the $CO_2$ emissions generated through the production process and the transportation of virgin material.

~~[* Note: After 2 years from the adoption of the Delegated Act has passed, this allowance will no longer be valid grounds for deviation from the target.]~~

**If the rate of 30 % cannot be achieved due to national rules, at least the maximum allowed threshold under national rules shall be achieved.**

## Explanation

There is no justification based on figures for the 50% target. We propose a 30% target based on the EU GPP criteria, the current rate for recycled/reused non-metallic (15%), production figures for recycled aggregates (11,4% of total aggregate production) and figures from the European Asphalt Pavement Association (EAPA) concerning the share for recycled asphalt which are far below 50% for most EU countries. <u>On the reuse of materials:</u> According to the latest information provided by EAPA, by dividing the total amount of reclaimed asphalt (RA), which was re-used by the asphalt industry for the total asphalt production, it is possible to estimate the average content of RA in new asphalt mixtures. Such content significantly varies from country to country, with values higher than 0 % to values close to 30%, but never exceeding this threshold.

***Table 1. Average in % of Reclaimed Asphalt available to the industry and re-used for new asphalt mixes***

| | |
|---|---|
| Austria | 13,6% |
| Belgium | 29,7% |
| Croatia | 3,6% |
| Czech Republic | 14,9% |
| Denmark | 25,0% |
| Finland | 21,2% |
| France | 17,8% |
| Germany | 25,6% |
| Great Britain | 8,0% |
| Hungary | 2,8% |
| Ireland | 11,6% |
| Italy | 13,3% |
| Norway | 4,3% |

| | |
|---|---|
| Romania | 1,0% |
| Slovakia | 5,2% |
| Slovenia | 3,6% |
| Spain | 8,1% |
| Turkey | 0,1% |

*Source: European Asphalt Pavement Association (EAPA), Asphalt in Figures 2020.*

Higher numbers can of course be reached in individual projects, but there would be a lack of materials for other projects. Moreover, the market for recycled materials is regional, even local. Not all materials can be re-used on site. Some are not suitable for recycling as they contain tar and need special treatment. To achieve higher figures, material would have to be transported over large distances.

The reference to technical standards and/or national regulations is essential as these can prescribe maximum values of recycled content. Deviating from such regulations makes the contractor liable in case of deficiencies. Such rules are elaborated with concerned stakeholders at national or even regional level and are adapted to the climate conditions and safety requirements in a specific country. We therefore reject making this deviation invalid after two years. This would mean that the contractor can either not demonstrate Taxonomy-alignment because of national/regional regulations or would have to violate such regulations to comply with the Taxonomy.

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## 3) Durability requirement

### TWG report

Where newly installed, the binder course has a service lifetime no shorter than 20 years.

### FIEC proposal

Where newly installed, the binder course has a service lifetime no shorter than 20 years.

**Where newly installed, the base course has a service lifetime no shorter than 40 years.**

### Explanation

Including the base course in the scope of the activity requires specifying durability criteria for the base course. This criterion is in line with the corresponding EU GPP criteria.

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# *5.1 Construction of new buildings & circular economy*

## *a) Description of the activity*

**TWG report**

Development of building projects for residential and non-residential buildings by bringing together financial, technical, and physical means to realize the building projects for later sale as well as the construction of complete residential or non-residential buildings, on own account for sale or on a fee or contract basis.

The economic activities in this category could be associated with several NACE codes, in particular F41.1 and F41.2, including also activities under F43, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

**No comments.**

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## *b) Criteria for substantial contribution to a circular economy*

### 1) Waste management requirement

**TWG report**

All generated construction and demolition waste is treated in accordance with the checklist of the EU Demolition and Construction Waste Protocol and at least 90 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Commission Decision 2000/532/EC479) generated on the construction site is prepared for re-use or recycling. This should be demonstrated with reference to Level(s) indicator 2.2 (construction and demolition waste and materials) with the Level 3 reporting format for different waste streams.

**FIEC proposal**

At least 90 % (by weight) of the non-hazardous construction waste* (all waste fractions excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Commission Decision 2000/532/EC479) generated on the construction site **is prepared and collected with the aim of subsequent recycling or re-use.**

*****Construction waste is the waste generated through the construction process, excluding excavation and demolition waste.*

**Where a demolition of the previous structure is part of the same contract, it is carried out in accordance with the checklist of the EU Demolition and Construction Waste Protocol and at least 80 % (by weight) of the non-hazardous construction and demolition waste (all waste fractions excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Commission Decision 2000/532/EC479) is prepared and collected with the aim of subsequent recycling or re-use.** ~~**This should be demonstrated with reference to Level(s) indicator 2.2 (construction and demolition waste and materials) with the Level 3 reporting format for different waste streams.**~~

**Explanation**

It is necessary to take a different approach for the management of construction waste on the one hand, and construction **and demolition waste** on the other. They are different approaches regarding the waste streams and the quantities. Also, the management of construction waste is under the control of the contractor, while demolition waste is generated from the structure which was already on site.

It is also relevant to recognize a boundary issue, i.e., that the action/activity of construction companies when it comes to waste recycling is limited to preparation and collection. The actual recycling is done by the waste contractor. It is also unclear why mandating the use of Level(s) for reporting is a substantial contribution. If kept, it should only be optional and considered as guidance for reporting in case a company has no established tool for the measuring and reporting of waste streams.

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## 2) Life-cycle assessment (LCA) requirement

**TWG report**

A life cycle assessment of the entire building has been calculated according to Level(s) and EN 15978, covering each stage in the life cycle and the results are made publicly available.

**FIEC proposal**

**Delete**

**Explanation**

If it is prescribed from the outset what materials must be used, mandating an LCA is questionable as the important material choices have already been made by complying with the criteria for, e.g., secondary materials. It is furthermore not explained why a full LCA is relevant under the circular economy objective.

If a full LCA is kept, consistency should be ensured with the Climate Delegated Act which limits LCAs to buildings larger than 5000m².

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## 3) Circular design requirement (qualitative criterion)

**TWG report**

Construction designs and techniques support circularity and, in particular, demonstrate how they are designed to be more resource efficient, adaptable, flexible and easy to dismantle to enable reuse and recycling. This should be demonstrated with reference to Level(s) indicators 2.3550 (design for adaptability) and 2.4551 (design for deconstruction) at Level 2, in accordance with ISO 20887:2020, EN 15643, and EN 16309.

**FIEC proposal**

**Delete**

**Explanation**

To facilitate reporting, qualitative criteria should be avoided. It is unclear how compliance with such a criterion should be proven in practice. Moreover, it is not clear whether this criterion is mandatory.

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## 4) Secondary material requirement

**TWG text**

The asset comprises at least 50% (either by weight or by surface area of building elements including facades, roofs and internal walls and floors) from a combination of re-used components, recycled content, or responsibly sourced renewable materials. The 50% should be reached with the following criteria:

- Minimum 15% comes from re-used components[1],
- Minimum 15% comes from recycled content,
- The remaining 20% may be met by either re-used or recycled content or by responsibly sourced, renewable materials or any combination of these three.

**FIEC proposal**

**30%** (by weight ~~or by surface area~~) of materials for use in the permanent works** are recycled, re-used or re-manufactured materials and/or by-products or ~~responsibly sourced renewable materials.~~

**Relates only to the materials used for the main building parts: structural frame, external walls, floors and ceilings, internal walls, roof, foundation, and substructure.

Deviation from the **30%** target is justified

- where the use of recycled materials to such extent is not in accordance with technical standards and/or national regulations;
- **or** where the use of recycled content, re-used content, re-manufactured content and/or by-products leads to higher $CO_2$ emissions than the use of virgin material. This is proven by calculating and comparing the $CO_2$ emissions generated through the production processes and the transportation of the recycled or re-used material with the $CO_2$ emissions generated through the production process and the transportation of virgin material.

*** *The calculation is based on EN 15978 and refers to the lifecycle stages A1 to A4.*

[1] *It was noted by our member federations that the market for reusable building materials and components is intrinsically linked to the deconstruction of buildings. Existing buildings that are currently being deconstructed have not been built with the idea or objective of a possible second life cycle for their building materials. Their reuse is often not technically feasible. In addition, many of these materials (currently) do not satisfy most of the characteristics related to fire safety or energy efficiency (requirements). Therefore, the availability of reusable materials and components is difficult to determine.*

**Explanation**

**There is no justification based on figures for the 50% target which we consider unrealistic and impossible to achieve in real life projects.**

We propose maximum 30% based on the ambition of the 2020 Circular Economy Action Plan (CEAP) to double the circular material use rate (current rate of 15%) by 2030[2]. The availability of recycled aggregates depends on raw materials used in the manufacturing of other vital construction products. Of all produced aggregates, 11,4% are recycled. The total annual demand of construction materials is estimated to be in the range of 3 to 6 billion tonnes. Construction and demolition waste amounts to 900 million tonnes per year. Overall, the total demand of construction materials is therefore several times higher than the amount of potential secondary material. For concrete, the total annual volume is estimated to be in the range of 1.3 to 2.5 billion tonnes. Concrete waste is estimated at 300 million tonnes per year. Also here, 50% are mathematically impossible.

**There should not be a defined percentage for recycled or re-used content**. Such a requirement on the use of secondary materials is not solution oriented; the percentages are chosen arbitrarily as there are no figures indicating the current re-use rate of materials. What is needed is an openness to materials and a preferential treatment for individual materials should be avoided. Flexibility should be left to the economic operator according to the needs and the possibilities/potential of individual projects. Especially re-use rates are difficult to align with performance requirements of products and conflict with energy efficiency objectives and climate change mitigation (e.g., a window from a building erected in the 1970s does not comply with current performance requirements).

**Any mention to renewable materials must be removed**. The explicit mention of (virgin) renewable materials is not in line with Article 13 of the Taxonomy Regulation in which material efficiency is supposed to apply to all types of natural resources. Moreover, there is no justification for the circularity of (virgin) renewable materials. On the contrary, statistics show that less than half of wood waste is being recycled (which is also due to the necessary chemical treatment of such materials). The justification for including such materials is biased and arbitrary; and disregards, for instance, several scientific reports, such as a recent report from the JRC which states that wood materials did not show any clear benefits on embodied carbon compared to other materials (latest background report for EU GPP criteria for office buildings).

In addition, recent figures clearly show that the increased use of wood will not lead to the expected environmental benefits in many Member States[3]. For Finland, for example, the figures show that a permanent increase of forest harvesting will significantly reduce the carbon sink capacity or carbon sink potential of forests by the end of the century when compared to a scenario where forest harvesting is kept at the current level. It is often assumed that

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[2] *It was also noted by our member federations that when constructing new buildings, earthworks and civil engineering measures are undertaken so that the entire soil is improved before a building is erected. By doing so, it is possible to increase the technical characteristics of existing earth building materials so that they can be reused on the construction site. Alternatively, it is necessary to replace these soil materials and replace them with substitute building materials.*
*Instead of the technical screening criteria proposed by the TWG, the sustainable use of earth building materials on the construction site could be defined as a type of reuse. The 15% rate could thus be reached by improving earth materials on the construction site in a resource-saving way.*

[3] *Suomen ilmastopaneeli (The Finnish Climate Change Panel), Rapportti (Report) 3/2022, see https://www.ilmastopaneeli.fi/wp-content/uploads/2022/05/ilmastopaneelin-raportti-3-2022-metsat-ja-ilmasto-hakkuut-hiilinielut-ja-puun-kayton-korvaushyodyt.pdf*

forest harvesting increases the carbon sink capacity of forests in the medium term (30 to 80 years) and thereby generates huge climate benefits. This approach is fundamentally incorrect[4].

Also, the construction specific chapter in the CEAP does not contain any mention of renewable materials.

It is unclear how recycled/re-used content should be measured by surface area. Two metrics will be confusing when it comes to reporting. It should therefore be limited to weight.

It is essential to limit the target to defined building elements (and thereby materials). It is otherwise unclear to what materials used in the building the criterion applies. Also, it would be an immense administrative burden to go through the entire bill of materials and define the recycled content for each material. This approach is also used by the EU GPP criteria for office buildings.

**The reference to technical standards and/or national regulations is essential as these can prescribe maximum values of recycled content**. Deviating from such regulations makes the contractor liable in case of deficiencies. Such maximum values have been defined with concerned stakeholders and are crucial to guarantee the safety of the structure. Ignoring such requirements would mean that the contractor can either not demonstrate Taxonomy-alignment because of national/regional regulations or would have to violate such regulations to comply with the Taxonomy.

**It is necessary to conduct a $CO_2$ assessment,** i.e., a comparison between recycled/reused and virgin materials for lifecycle stages A1 to A4, to avoid increased $CO_2$ emissions which might be caused by the transportation of secondary material if regionally or locally not available. This is to ensure that the recycled content requirement is not causing harm and is not in conflict with the climate mitigation objective.

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## 5) "Responsibly sourced" renewable materials requirements

### TWG text

Any responsibly sourced, renewable materials used in the building (regardless of whether these count towards the 50% target or not) must meet the following requirements:

- wood, wood fibers or wood particles should stem from forests that are verified as being managed so as to implement the principles and measures aimed at ensuring sustainable forest management as defined by intergovernmental definition such as Forest Europe H1 resolution embedded and implemented in existing national forest and nature legislation
- other renewable materials, which are materials that are composed of biomass from a living source and that can be continually replenished, or from a source which is continually replenished by nature. When claims of renewability are made for virgin materials, those materials shall come from sources that are replenished at a rate equal to or greater than the rate of depletion. Certification must be internationally

[4] *When looking at all forests managed at the national level of Finland, the reductions of emissions due to the carbon stored in wood-based materials and the substitution effects of such materials and fuels compared to fossil-based options are not sufficient to compensate for the loss of forest carbon sink capacities in at least 150 years' time if there is a permanent increase of forest harvesting to produce wood-based materials.*

recognized, such as the ISCC PLUS Certification for the Circular Economy and Bioeconomy, or the RSB Global Advanced Products Certification.

**FIEC proposal**

**Delete**

**Explanation**

Any mention to renewable materials must be removed (see explanation above). Accordingly, these paragraphs become obsolete.

Most importantly, **certifications for bio-based materials do by no means ensure the circularity of the eventual construction product**. Nor do they ensure the "sustainability" of such materials. Certifications such as FSC or PEFC are heavily criticized. Also, they did not form part of the final Climate Delegated Act even though their use was proposed by the TEG. Consistency between the Climate Delegated Act and the Environmental Delegated Act must be ensured.

**Astonishingly, the certifications mentioned in the last paragraph (ISCC and RSB) are not even related to construction products.** These schemes relate to other products and would therefore be impossible to implement by construction companies. This criterion is not usable.

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## 6) Substances of very high concern requirement

**TWG text**

Components and materials used in the construction do not contain asbestos nor substances of very high concern as identified on the list of substances subject to authorization set out in Annex XIV to Regulation (EC) No 1907/2006 of the European Parliament and of the Council unless authorized or exempted for the specific use through the appropriate processes in REACH.

**FIEC proposal**

**Delete**

**Explanation**

This criterion has no added value. The use of asbestos is prohibited by law and the use of substances of very high concern is subject to authorization.

Moreover, the DNSH criteria for pollution prevention and control are already extensive when it comes to the use of chemical substances.

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### 7) Use of electronic tools requirement

**TWG text:**

Electronic tools are used to describe the characteristics of the building as built, including the materials and components used, for the purpose of future maintenance, recovery, and reuse. The information is stored in a digital format and is made available to the client.

**FIEC proposal**

**Delete**

**Explanation**

In the absence of a harmonized tool, this criterion is too vague, uncertain, and therefore not usable. It could result in an excel file or a BIM model. The absence of a harmonized tool, whether at national or European level, also puts at risk the usability of such information at the end of life of the building. The EU taxonomy should build on already existing tools and not preempt national or European regulation.

In addition, there is no justification why this criterion provides a substantial contribution to a circular economy. Instead, it could cause an immense burden for companies given the large number of materials/components used in a building.

## General comments on the rationale of/behind the criteria put forward in the TWG report:

The recycled content requirements are not based on figures/facts. The percentages are chosen arbitrarily. Industry data has been ignored.

The underlying justification is mainly focusing on the low carbon footprint of materials while the environmental objective at hand is "circular economy". At the same time, studies/initiatives are ignored which put into question/assess the environmental/climate benefit of bio-based material.
Therefore, the provided rationale is not proving that the use of virgin renewable materials can be considered circular and disregards the low recyclability of wooden construction products.
Several of the mentioned sources are very general, do not specifically relate to construction and are not conclusive to a point that they justify an explicit criterion for renewable materials in construction. A butterfly diagram (Ellen MacArthur Foundation) is not an appropriate source for defining circularity criteria for an eventual legal act affecting real construction companies.

In addition, it seems that European Commission strategies and their contents have been quoted arbitrarily. Also, both the EU Forest Strategy for 2030 as well as the Bioeconomy Strategy and Action Plan point to the challenges concerning the circularity of bio-based materials while the rationale of the report assumes the circularity of such products. The Circular Economy Action Plan (CEAP) does not contain a single point justifying the use of renewable materials in construction for circularity purposes.

## *5.2 Renovation of existing buildings & circular economy*

### *a) Description of the activity*

**TWG report**

Renovation of existing buildings.

The economic activities in this category could be associated with several NACE codes, in particular F41 and F43 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

**FIEC proposal**

**Major or deep renovation** of existing buildings **as defined in [(recast) Energy Performance of Buildings Directive (EPBD)].**

The economic activities in this category could be associated with several NACE codes, in particular F41 and F43 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

**Explanation**

Determining eligibility regarding the Climate Delegated Act has proven difficult due to unclear activity descriptions. The notion of "renovation" is very broad and can relate to small measures (such as exchanging windows or modernising sanitary facilities) or major or deep renovations. The description of the activity should therefore be clarified and a reference to the (future recast) Energy Performance of Buildings Directive introduced so that coherence with the future Directive is guaranteed. Moreover, setting a requirement for the use of recycled/re-used content only makes sense when the renovation is material-intensive which might not be the case for individual measures where specific materials might be used for which there are no recycled/re-used alternatives.

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### *b) Criteria for substantial contribution to a circular economy*

#### 1) Waste management requirement

**TWG report**

All generated construction and demolition waste is treated in accordance with the checklist of the EU Demolition and Construction Waste Protocol and at least 90 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Commission Decision 2000/532/EC479) generated on the construction site is prepared for re-use or recycling. This should be demonstrated with reference to Level(s) indicator 2.2 (construction and demolition waste and materials) with the Level 3 reporting format for different waste streams.

**FIEC proposal**

At least **80 %** (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Commission Decision 2000/532/EC479) is prepared and collected with the aim of subsequent recycling or re-use. The generated

construction and demolition waste is treated in accordance with the checklist of the EU Demolition and Construction Waste Protocol. ~~This should be demonstrated with reference to Level(s) indicator 2.2 (construction and demolition waste and materials) with the Level 3 reporting format for different waste streams.~~

**Explanation**

It is necessary to take a different approach for the management of construction waste on the one hand, and construction and demolition waste on the other[5]. There are different approaches regarding the waste streams and the quantities. Also, the management of construction waste is under the control of the contractor, while demolition waste is generated from the structure which was already on site. As waste generated through renovation works is a mixture of both, and less under control of the contractor than in the case of new constructions, **the recycling target should be lowered to at least 80%.** Some materials, especially from older buildings on which the 'Renovation Wave' focusses, are simply not suitable for recycling or reuse.

It is also relevant to recognize a boundary issue, i.e., that the action/activities of construction companies when it comes to waste recycling is limited to preparation and collection. The actual recycling is done by the waste contractor, and it cannot be proven what eventually happens with the waste once brought to the recycling facility.

It is unclear why mandating the use of Level(s) for reporting is a substantial contribution. If kept, it should only be optional and considered as guidance for reporting in case a company has no established tool for the measuring and reporting of waste streams. The generation of data on waste streams is not among the objectives of Article 13 and it is therefore not necessary to mandate the use of Level(s).

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## 2) Life-cycle assessment (LCA) requirement

**TWG report**

A life cycle assessment of the entire renovation works has been calculated according to Level(s) and EN 15978, covering each stage in the life cycle and the results are made publicly available.

**FIEC proposal**

**Delete**

**Explanation**

If it is prescribed from the outset what materials must be used, mandating an LCA is questionable as the important material choices have already been made by complying with the criteria for, e.g., secondary materials. It is furthermore not explained why a full LCA is relevant under the circular economy objective.

[5] *It was noted by our member federations that in the case of renovation/refurbishment, the entire building substance should be considered in the mass balance (the positive contribution of the reused building shell is considered 'avoided waste'). In this way, the mineral building materials would be prepared for reuse in the same building during building redevelopment. Since preparation for reuse ranks higher in the waste hierarchy than recycling, the sustainability of a renovation would further be promoted in comparison to deconstruction. In addition, by including all mineral building materials, the preservation of these materials would be given higher priority and promoted in terms of sustainability. This would actively contribute to the reduction of waste generation.*

Furthermore, it has not been proven if there are any benefits and added value of using LCAs for old buildings. The technical performance of old building structures and materials is not easy to determine. How could LCAs contribute to properly calculate the technical performance of old buildings? In addition, it is impossible to establish and set limit values for $CO_2$ emissions of old buildings.

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### 3) Circular design requirement (qualitative criterion)

**TWG report**

Construction designs and techniques support circularity and, in particular, demonstrate how they are designed to be more resource efficient, adaptable, flexible and easy to dismantle to enable reuse and recycling. This should be demonstrated with reference to Level(s) indicators 2.3550 (design for adaptability) and 2.4551 (design for deconstruction) at Level 2, in accordance with ISO 20887:2020, EN 15643, and EN 16309.

**FIEC proposal**

**Delete**

**Explanation**

To facilitate reporting, qualitative criteria should be avoided. It is unclear how compliance with such a criterion should be proven in practice. Moreover, from the wording, it is not clear whether this criterion is mandatory.

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### 4) Retained part of the building requirement

**TWG report**

At least 50% of original building is retained. This can be calculated based on the combined total surface area of all elements (facades, roofs, internal walls, and floors but excluding landscaping and groundworks).

**FIEC proposal**

**Delete**

**Explanation**

Is such a calculation possible? How is the proportion of the retained part of the building determined in relation to the total building?[6]

[6] *It has been noted by our member federations that, if this criterion is maintained, the calculation could be made via the mass (kg) of the components retained instead of a calculation via the surface. In this way, the mass of the entire building could be placed in proportion and the proportion of 50% preserved building components be clearly determined.*

If left unchanged, this criterion risks conflicting with the definition of major renovation and especially of "deep renovation" as defined in the (future recast) Energy Performance of Buildings Directive. These operations might affect more than 50% of the surface area of the building envelope. As the primary objective of a renovation is to increase the energy efficiency of buildings, this criterion should be deleted to avoid unsolvable conflicts between the climate change mitigation objective and the circular economy objective.

It further seems that the 50% have been chosen arbitrarily. There is no justification or data behind this figure.

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## 5) Secondary material requirement

### TWG report

The asset comprises at least 50% (either by weight or by surface area of building elements including facades, roofs and internal walls and floors) from a combination of re-used components, recycled content, or responsibly sourced renewable materials. The 50% should be reached with the following criteria:

- Minimum 15% comes from re-used components,
- Minimum 15% comes from recycled content,
- The remaining 20% may be met by either re-used or recycled content or by responsibly sourced, renewable materials or any combination of these three.

### FIEC proposal

**30%** (by weight) of materials for use in the permanent works are recycled, re-used or re-manufactured materials and/or by-products.

Deviation from the **30%** target is justified

- where the use of recycled materials to such extent is not in accordance with technical standards and/or national regulations;
- **or** where the use of recycled content, re-used content, re-manufactured content and/or by-products leads to higher CO2 emissions than the use of virgin material. This is proven by calculating and comparing the $CO_2$ emissions generated through the production processes and the transportation of the recycled or re-used material with the CO2 emissions. **The calculation is based on EN 15978, and refers to the lifecycle stages A1 to A4.*

### Explanation

See full and similar explanation above with regards to criterion for new buildings (it seems that these figures have been arbitrarily chosen and copy-pasted from the criteria for new buildings).

It should be emphasized that the use of recycled, re-used or re-manufactured materials, in many cases, is a case-by-case decision and differs from country to country. It is very much dependent on the respective regulatory requirements set at national level (e.g., national safety requirements, energy performance requirements etc.). All these aspects must be considered when taking decisions on major or deep renovations. It is highly questionable whether harmonizing the use of materials and components at Union level for renovation operations is possible/desirable.

In addition, it must be added that the removal of any mention of renewable materials is even more necessary when it comes to renovations as the building to be renovated might not be suitable for the use of such materials, e.g., large office building with a concrete-steel structure and large window front.

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## 6) "Responsibly sourced" renewable materials requirement

**TWG text**

Any responsibly sourced, renewable materials used in the building (regardless of whether these count towards the 50% target or not) must meet the following requirements:

- wood, wood fibers or wood particles should stem from forests that are verified as being managed so as to implement the principles and measures aimed at ensuring sustainable forest management as defined by intergovernmental definition such as Forest Europe H1 resolution embedded and implemented in existing national forest and nature legislation.
- other renewable materials, which are materials that are composed of biomass from a living source and that can be continually replenished, or from a source which is continually replenished by nature. When claims of renewability are made for virgin materials, those materials shall come from sources that are replenished at a rate equal to or greater than the rate of depletion. Certification must be internationally recognized, such as the ISCC PLUS Certification for the Circular Economy and Bioeconomy, or the RSB Global Advanced Products Certification.

**FIEC proposal**

**Delete**

**Explanation**

See full and identical explanation above with regards to same criterion for new construction.

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## 7) Substances of very high concern requirement

**TWG report**

Components and materials used in the construction do not contain asbestos nor substances of very high concern as identified on the list of substances subject to authorization set out in Annex XIV to Regulation (EC) No 1907/2006 of the European Parliament and of the Council unless authorized or exempted for the specific use through the appropriate processes in REACH.

**FIEC proposal**

**Delete**

**Explanation**

See full and identical explanation above with regards to same criterion for new construction.

## 8) Use of electronic tools requirement

**TWG text**

Electronic tools are used to describe the characteristics of the building as built, including the materials and components used, for the purpose of future maintenance, recovery, and reuse. The information is stored in a digital format and is made available to the client.

**FIEC proposal**

**Delete**

**Explanation**

See full and similar explanation above with regards to same criterion for new construction.

## 9) Type of renovation requirement

**TWG text**

The building renovation complies with the applicable requirements for major renovations. Alternatively, it leads to a reduction of primary energy demand (PED) of at least 30 %.

**FIEC proposal**

**Delete**

**Explanation**

It is a formal error to include this criterion under the criteria for substantial contribution for circular economy as these are the criteria for climate change mitigation.

The prescribed type of renovation should figure in the activity description to facilitate the determination of eligibility.