

Report

EU Taxonomy Alignment

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PURPOSE OF THE REPORT

This report documents the EU Taxonomy alignment of the EcoCocon Straw Panel – a load-bearing twin-stud timber frame panel with homogenous straw infill for thermal insulation.

EU TAXONOMY ALIGNMENT

EcoCocon provides a taxonomy-aligned solution for sustainable construction, helping developers and architects demonstrate compliance through verified carbon data, circular design, and non-toxic materials.

Activity	Description	Taxonomy Criteria
7.1	Construction of new buildings	Primary Energy Demand (PED) ≤ 90% of NZEB standard
7.2	Renovation of buildings	PED reduced by ≥ 30%
7.3	Installation of energy efficiency equipment	Use of high-performance insulation & energy-saving components

EU TAXONOMY ENVIRONMENTAL OBJECTIVES

Climate Change Mitigation –

reducing or preventing greenhouse gas emissions.

Sustainable Use and Protection of Water and Marine Resources

– avoiding water pollution and overuse.

Protection and Restoration of Biodiversity and Ecosystems

– safeguarding habitats, species, and ecosystems.



Transition to a Circular Economy –

promoting reuse, recycling, and resource efficiency.

Pollution Prevention and Control –

reducing air, soil, and water pollution.

Climate Change Adaptation –

increasing resilience to the impacts of climate change.



How EcoCocon Meets Criteria

CRITERIA

The EU Taxonomy identifies which economic activities can be considered environmentally sustainable. To qualify, an activity must:

- » Make a substantial contribution to at least one environmental objective (e.g., Climate Change Mitigation).
- » Do No Significant Harm (DNSH) to other objectives.
- » Comply with Minimum Social Safeguards (e.g. labour, human rights).
- » Meet Technical Screening Criteria (quantitative or qualitative thresholds).

CLIMATE CHANGE MITIGATION

Meets the Taxonomy's requirement for low life-cycle GHG emissions. EcoCocon directly supports this objective through:

- » Low A1–A3 embodied carbon. Refer to Environmental Product Declaration.
- » ~115 kg CO₂e/m² biogenic carbon stored (LCA verified).
- » Renewable, biobased materials – rapidly renewable and locally sourced.
- » High thermal performance, low U-value wall build-up, high airtightness and low thermal bridging through prefab precision. EcoCocon Straw Panel $\lambda = 0.0645$ W/m-K, confirmed by Passive House Institute. Refer to Passive House Certified Component document.
- » Slovak Technical Assessment SK TP-25/0007–V2, issued by issued by authorised body SK 04, TSÚS.
- » European Technical Assessment ETA-26/0071, issued by TZÚS Prague.

CIRCULAR ECONOMY & POLLUTION PREVENTION

Aligned with circular economy and pollution prevention objectives. EcoCocon follows circular design and clean production principles:

- » Panels support circularity in biological and technical material cycles. High-level environmental certification in progress.
- » Designed for disassembly – panels can be reused or recycled at end of life.
- » Dry production process – no water pollution, minimal waste, low energy use.
- » EcoCocon panels are typically supplied as PEFC Certified and are also available as FSC® Mix Credit upon request.

DO NO SIGNIFICANT HARM (DNSH) COMPLIANCE

Supports DNSH compliance for sustainable construction. EcoCocon's material sourcing and manufacturing avoid harm to:

- » Water and marine resources – no water used in production, no chemicals or harmful runoff.
- » Biodiversity – uses straw (an agricultural by-product) instead of extracting new raw materials.
- » Human health – very low VOCs, no formaldehyde or toxic additives. Safe for occupant contact and compliant with international low-emission standards for healthy indoor air. Refer to Environmental Product Declaration.

MINIMUM SOCIAL SAFEGUARDS

EcoCocon implements due diligence procedures covering labour rights (ILO), anti-corruption, and fair taxation across operations and direct suppliers.



Activity Mapping

7.1 Construction

Activity 7.1: Construction of New Buildings.

Applies to: Projects using EcoCocon Straw Wall System in new building construction.

1. SUBSTANTIAL CONTRIBUTION TO ENVIRONMENTAL OBJECTIVES

Objective	Test results
Climate Change Mitigation	<ul style="list-style-type: none"> » Low A1–A3 embodied carbon (EPD). ~115 kg CO₂e/m² biogenic carbon stored. » Enables Passive House/NZEB energy performance. » Airtight, thermal bridge-free.
Circular Economy	<ul style="list-style-type: none"> » 98% renewable, recyclable, and biodegradable material content. » Dry, modular construction — designed for disassembly and reuse. » Available as PEFC Certified or FSC® Mix Credit upon request.
Other Objectives	<ul style="list-style-type: none"> » Supports biodiversity and pollution prevention through non-toxic, low-impact materials.

2. TECHNICAL SCREENING CRITERIA FULFILLED

Criterion	Requirement	EcoCocon Status
Energy Performance	PED ≤ 90% of NZEB limit	Low U-value wall build-up, thermal bridge-optimised. Panel λ = 0.0645 W/m-K, Passive House Institute and SK TP-25/0007 certified.
Material Use	Low-impact, durable, non-toxic materials	EPD verified, formaldehyde-free, straw & wood. Available as PEFC Certified or FSC® Mix Credit upon request.
Performance Documentation	Third-party verified LCA and EPD	EPD, third-party verified LCA, and PHI Passive House certificate available on request.
Construction Product Compliance	CE marking / Declaration of Performance (DoP)	CE marking via DoP ETA-26/0071, issued by TZÚS Prague. SK-DoP issued under SK-TP 25/0007 (TSÚS).

3. DO NO SIGNIFICANT HARM (DNSH) COMPLIANCE SUMMARY

Objective	DNSH Requirement	EcoCocon Status
Climate Adaptation	Climate risk assessed	Durable prefab modules with high resilience.
Water Use	Efficient, low-pollution systems	Zero water in production.
Circularity	Design for reuse/recovery	Fully modular. Supporting circularity in both biological and technical material cycles. A high-level environmental certification is currently in progress.
Pollution	Avoid significant emission	Low VOC emissions, no harmful emissions — verified by an accredited laboratory (Eurofins) to meet strict international indoor air quality standards.
Biodiversity	Avoid harm to ecosystems	Straw from existing agriculture; no protected habitats or species affected.

4. MINIMUM SOCIAL SAFEGUARDS

Requirement	EcoCocon Status
OECD, ILO, UNGP	EcoCocon implements due diligence procedures covering labour rights (ILO), anti-corruption, and fair taxation across operations and direct suppliers.



Activity Mapping

7.2 Renovation

Activity 7.2: Renovation of Existing Buildings.

Applies to: Deep renovation projects using EcoCocon Straw Panels (e.g., overcladding, timber retrofit solutions).

1. SUBSTANTIAL CONTRIBUTION TO ENVIRONMENTAL OBJECTIVES

Objective	Test results
Climate Change Mitigation	<ul style="list-style-type: none"> » Low A1–A3 embodied carbon (EPD). ~115 kg CO₂e/m² biogenic carbon stored. » Enables Passive House/NZEB energy performance. » Airtight, thermal bridge-free.
Circular Economy	<ul style="list-style-type: none"> » 98% renewable, recyclable, and biodegradable material content. » Dry, modular construction — designed for disassembly and reuse. » Panels are available as PEFC Certified or FSC® Mix Credit upon request.
Other Objectives	<ul style="list-style-type: none"> » Supports biodiversity and pollution prevention through non-toxic, low-impact materials.

2. TECHNICAL SCREENING CRITERIA FULFILLED

Criterion	Requirement	EcoCocon Status
Energy Performance	≥30% PED reduction vs pre-renovation	Easily achieved with EcoCocon retrofit envelope, certified under SK-TP 25/0007 and ETA-26/0071.
Material Use	Efficient, bio-based, recyclable	Bio-based straw — material composition and environmental impact detailed in EPD and LCA. Available as PEFC Certified or FSC® Mix Credit upon request.
Performance Documentation	Longevity and performance documentation	≥50-year assumed working life declared in ETA-DoP (ETA-26/0071). Supported by validated performance data and long-term use cases.
Construction Product Compliance	CE marking / Declaration of Performance (DoP)	CE marking via DoP ETA-26/0071, issued by TZÚS Prague. SK-DoP issued under SK-TP 25/0007 (TSÚS).

3. DO NO SIGNIFICANT HARM (DNSH) COMPLIANCE SUMMARY

Objective	DNSH Requirement	EcoCocon Status
Climate Adaptation	Climate risk assessed	Durable prefab modules with high resilience.
Water Use	Efficient, low-pollution systems	Zero water in production.
Circularity	Design for reuse/recovery	Fully modular. Supporting circularity in both biological and technical material cycles. A high-level environmental certification is currently in progress.
Pollution	Avoid significant emission	Low VOC emissions, no harmful emissions — verified by an accredited laboratory (Eurofins) to meet strict international indoor air quality standards.
Biodiversity	Avoid harm to ecosystems	Straw from existing agriculture; no protected habitats or species affected.

4. MINIMUM SOCIAL SAFEGUARDS

Requirement	EcoCocon Status
OECD, ILO, UNGP	EcoCocon implements due diligence procedures covering labour rights (ILO), anti-corruption, and fair taxation across operations and direct suppliers.



Activity Mapping

7.3 Insulation

Activity 7.3: Installation, Maintenance and Repair of Energy Efficiency Equipment.

Applies to: Projects using EcoCocon Straw Panels or retrofits as part of envelope upgrades.

1. SUBSTANTIAL CONTRIBUTION TO ENVIRONMENTAL OBJECTIVES

Objective	Test results
Climate Change Mitigation	<ul style="list-style-type: none"> » Low A1–A3 embodied carbon (EPD). ~115 kg CO₂e/m² biogenic carbon stored. » Enables Passive House/NZEB energy performance. » Airtight, thermal bridge-free.
Circular Economy	<ul style="list-style-type: none"> » 98% renewable, recyclable, and biodegradable material content. » Dry, modular construction — designed for disassembly and reuse. » Available as PEFC Certified or FSC® Mix Credit upon request.
Other Objectives	<ul style="list-style-type: none"> » Supports biodiversity and pollution prevention through non-toxic, low-impact materials.

2. TECHNICAL SCREENING CRITERIA FULFILLED

Criterion	Requirement	EcoCocon Status
Energy Performance	Component must reduce building energy use	Low U-value wall build-up, thermal bridge-optimised. Panel $\lambda = 0.0645$ W/m·K, Passive House Institute and SK TP-25/0007 certified.
Durability	Component lifespan must justify impact	≥50-year assumed working life declared in ETA-DoP (ETA-26/0071). Supported by validated performance data and long-term use cases.
Material Impact	No harmful substances	Low VOC emissions, no harmful emissions — verified by an accredited laboratory (Eurofins) to meet strict international indoor air quality standards.
Construction Product Compliance	CE marking / Declaration of Performance (DoP)	CE marking via DoP ETA-26/0071, issued by TZÚS Prague. SK-DoP issued under SK-TP 25/0007 (TSUS).

3. DO NO SIGNIFICANT HARM (DNSH) COMPLIANCE SUMMARY

Objective	DNSH Requirement	EcoCocon Status
Climate Adaptation	Climate risk assessed	Durable prefab modules, enabling resilient thermal envelope.
Water Use	Efficient, low-pollution systems	Zero water in production.
Circularity	Design for reuse/recovery	Fully modular. Supporting circularity in both biological and technical material cycles. High-level environmental certification in progress.
Pollution	Avoid significant emission	Low VOC emissions, no harmful emissions — verified by an accredited laboratory (Eurofins) to meet strict international indoor air quality standards.
Biodiversity	Avoid harm to ecosystems	Straw from existing agriculture; no protected habitats or species affected.

4. MINIMUM SOCIAL SAFEGUARDS

Requirement	EcoCocon Status
OECD, ILO, UNGP	EcoCocon implements due diligence procedures covering labour rights (ILO), anti-corruption, and fair taxation across operations and direct suppliers.