Vertikal Group

Green Financing

Scope ESG Analysis has used its public proprietary methodology to assess the alignment of the Green Financing Framework (Framework) of Vertikal Group (Vertikal) with the 2021 Green Bond Principles (GBP) of the International Capital Market Association (ICMA) and the 2023 Green Loan Principles (GLP) of the Loans Market Association (LMA). Scope ESG affirms that Vertikal's Framework is fully aligned with both the GBPs and GLPs.

This second-party opinion is based on four Green Bond/Loan Principles: use of proceeds, process for project evaluation and selection, management of proceeds, and reporting.

Our methodology adds four dimensions in assessing the 'use of proceeds': an assessment of the issuer's sustainability strategy; an assessment of alignment with the EU taxonomy; an assessment about the 'impact of proceeds'; and a review of environmental and social risks.

We have assigned Vertikal's Framework a Leaf Score of three leaves, which signals a transformative positive environmental contribution.

Table 1: Issuance assessment summary

Scope's criteria	Vertikal Framework description	Scope ESG Assessment
Use of proceeds	→ Renewable energy → Energy efficiency → Clean transportation → Green buildings → Circular economy → Pollution prevention and control	ICMA-aligned
Process for project evaluation and selection	→ Establishment of a green commission comprising key members of the company and chaired by the CEO. → Vertikal has established clear exclusion criteria for the use of proceeds	ICMA-aligned
Management of proceeds	→ Proceeds tracked in a green bond register → Unallocated proceeds should not be temporarily non-green financing	ICMA-aligned
Reporting	→ Annual reporting on the allocation of proceeds until full allocation → Impact indicators include both qualitative and quantitative measures	ICMA-aligned
Vertikal sustainability strategy	→ Vertikal has established targets to be achieved by 2027, 2030 and 2032 related to energy transition, emissions reduction, fleet decarbonisation, circular economy, and resource efficiency	Transformative
EU taxonomy alignment	→ Vertikal's projects pertain to sixteen taxonomy sectors → Vertikal has provided documentation to confirm its adherence to DNSH criteria for the relevant activities. → Compliance with minimum social safeguards	Taxonomy-aligned
Impact assessment	→ The eligible projects support a reduction in the use of virgin raw materials, improve energy efficiency, and decrease emissions by promoting more circular and low-carbon processes	Transformative
Environmental and social risks	→ Vertikal manages business risks through its ERM system and conducts environmental impact studies before projects development → Vertikal has identified and established mitigation strategies for its most relevant risks, which are: material sourcing, waste management, biodiversity, human capital, and energy source	Transformative

Scope Leaf Score scale

- **Transformative**
- Significant
- Limited
- Negative

Figure 1. Alignment with United Nations Sustainable Development Goals

Figure 2. Engagement with EU Taxonomy draft regulation

Substantial contribution to climate change mitigation & adaptation

+

Do no significant harm to any of the six environmental objectives

+

Minimum safeguards are complied with

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1. Methodology and assessment process

We were commissioned by the issuer to provide a second-party opinion on its Framework. We based our opinion on: Vertikal's internal documents, interviews with Vertikal's relevant stakeholders, and documents related to external market/regulatory research.

The Leaf Score summarises our evaluation and verification of the environmental impact of Vertikal's Framework. The targets described within each of the green project categories lead to individual leaf scores. In the case of multiple project categories, the aggregate of the scores yields the overall score of our second-party opinion report.

Our minimum requirement for GBP and GLP alignment is that each green project category of the Framework has a positive environmental impact, as represented by a Leaf Score of one yellow leaf.

Table 2: Sector criteria Leaf Score

Scoring	Description	GBP category	Sector criteria
	Transformative environmental contribution and complete alignment with relevant national and industry standards	Renewable energy	Production of renewable energy equipment complies with highest market standards in sustainable production and power generation during use-phase. Supply-chain, end-of-life management process is covered
		Energy efficiency	Projects that combine cutting-edge technologies, systemic upgrades, and quantifiable targets. Includes top-tier efficiency equipment (top 20%), integrated renovations, electrification of machinery, and R&D for next-gen solutions. Demonstrates sector leadership and deep decarbonisation potential
		Clean transportation	Projects that fully decarbonize transport operations using innovative technologies (e.g. green hydrogen, vehicle-to-grid integration), powered by renewable energy, with quantified GHG reductions and smart mobility integration
		Green buildings	LEED (Platinum) or BREEAM (Outstanding) with life cycle assessment identified and monitored; Hungarian EPC at least AA+
		Circular economy	Projects fully integrate circular principles across the value chain - reuse, high recycled content, and closed-loop systems - demonstrating innovation, with clear targets and strong alignment with EU circular economy goals.
		Pollution prevention and control	Projects prioritize waste prevention, minimization, and advanced treatment with clear targets, innovative technologies, and measurable environmental outcomes contributing to sector decarbonisation.
	Significant environmental contribution and at least partial alignment with relevant market standards	Renewable energy	Transparency on supply chain, environmental footprint of production and power generation during use-phase. Reference to waste and/or end-of-life practices were considered
		Energy efficiency	Projects that reflect strong alignment with established energy efficiency practices and national climate goals. Leverages widely adopted technologies (e.g., LED, basic insulation upgrades) and proven solutions that contribute meaningfully to energy reduction and operational performance. Represents robust ambition consistent with best practice in the sector.
		Clean transportation	Projects that advance fleet electrification and low-emission transport with supporting infrastructure. Aligned with climate goals and sector trends, contributing meaningfully to decarbonization through widely adopted solutions
		Green buildings	BREEAM (Excellent or Very Good) LEED (Gold) and Hungarian EPC at least BB
		Circular economy	Projects strengthen recycling, sorting, and material recovery using established technologies. Well-aligned with circular economy objectives and sector norms, contributing to improved resource efficiency.
		Pollution prevention and control	Projects focus on reuse, recycling, and diversion from landfills using well-established methods. Aligned with regional objectives and sector practice, supporting pollution reduction through credible approaches.
	Environmentally friendly but insufficient quantifiable impact metrics and limited alignment with relevant market standards	Renewable energy	Selective information provided on supply chain and environmental footprint of production and end-of-life practices
		Energy efficiency	Projects that introduce some energy-saving measures (e.g., lighting or HVAC tweaks) but lack overall strategy, clear targets, or high-efficiency standards. Impacts are incremental, and alignment with national energy frameworks is minimal
		Clean transportation	Projects with partial electrification, basic infrastructure, or continued fossil fuel reliance. Contributions are incremental and alignment with long-term decarbonization is limited
		Green buildings	BREEAM (Good) or LEED (Silver) and Hungarian EPC of at least DD
		Circular economy	Projects offer isolated improvements in recycling or reuse but lack clear targets, advanced systems, or integration into a broader circular strategy.
		Pollution prevention and control	Projects address pollution but lack clear targets or innovation. Improvements are narrow in scope and only partially aligned with broader sustainability frameworks.
	No significant or negative environmental impact; lack of alignment with relevant market standards	Renewable energy	Negative impacts from production, use-phase, and end-of-life relative to market practices
		Energy efficiency	Energy-intensive projects and renovations that lead to greater overall energy consumption, with limited regard for efficiency improvements
		Clean transportation	Transportation or transportation infrastructure that increases the emissions output or prolong fossil fuel dependency
		Green buildings	No certification or Hungarian EPC lower than FF
		Circular economy	Projects with limited circular value, high landfill reliance, or minimal recovery. Circularity is nominal and unsupported by meaningful implementation or impact.
		Pollution prevention and control	Projects offer limited environmental value or increase pollution risks - e.g., through low-efficiency incineration or minimal recovery - with no alignment to pollution prevention goals.

2. Introduction

Vertikal - Waste management company listed on the BSE

Vertikal Group is a leading Hungarian company listed on the Budapest Stock Exchange (BSE), specialising in environmental management, waste processing, and manufacturing. With over 50 years of experience, the company offers a broad range of services, including waste collection, recycling, and the production of premium plastic products. Vertikal operates multiple facilities across the country, including locations in Polgárdi, Dombóvár, and Jászberény.

Currently, the company provides public waste-management services to approximately 250-300 municipalities across Hungary and operates 40 waste management facilities, treating and disposing of 350-400 tonnes of waste annually.

Three main business categories: technology, environmental management, and logistics

Vertikal's operations are structured into three main business segments: technology, environmental management, and logistics. The technology segment focuses on manufacturing plastic industrial products such as injection-moulded components for household appliances, bottle-blown food packaging, waste containers, and plastic grass grids. The environmental management segment provides solutions for both industrial and municipal waste collection and treatment. The logistics segment covers the transportation and warehousing of waste and the company's own manufactured products.

Beyond its core activities, Vertikal is also involved in construction projects, offering services from design to general contracting for public institutions, industrial facilities, and heritage conservation projects. The company emphasizes continuous development and actively participates in international forums to share knowledge and stay at the forefront of innovation in environmental management.

Vertikal Group's mission is to implement advanced waste management systems and reduce environmental impact by minimizing waste generation and associated environmental risks. By integrating waste processing with plastic manufacturing, Vertikal contributes to the circular economy - transforming collected waste into valuable raw materials for new products.

Green financing to support the implementation of its sustainability strategy

Vertikal plans to issue a green financing instrument to support the implementation of its sustainability strategy in Hungary, funding projects in renewable energy, energy efficiency, clean transportation, green buildings, circular economy, and pollution prevention and control.

3. Green Bond and Green Loan Principles: assessment of issuance

3.1 Use of proceeds

Table 3: Vertikal eligible projects

Green project category	Fulfilment	Leaf score
Renewable energy	→ New or existing investments in or expenditures on the acquisition, development, construction, and/or installation of the following renewable sources" • Solar PV • Wind farms • Biomass, biogas → It also includes the transmission, distribution, and electrical storage infrastructure (solar PVs) related to renewable energy production.	Transformative
Energy efficiency	→ Expenditure on the R&D, operation, distribution, and maintenance of equipment or technology helping reduce energy consumption and increase energy savings. → Major renovations or refurbishment of existing properties that result in reduction of carbon emissions intensity	Transformative
Clean transportation	→ Investments in or financing of supportive infrastructure (such as EV charging stations, hydrogen fuelling infrastructure, or other investments supporting low-carbon transportation methods) and acquisition of electronic or plug in hybrid vehicles. → Fleet of electric and hybrid vehicles, and bike program.	Significant
Green buildings	→ Acquisition, construction or refurbishment of buildings that meet the following recognised standards such as • BREAM (Very good or above) • LEED (Gold or above) • Or at least 10% better than the minimum Hungarian energy performance certificate (EPC) for nearly zero energy buildings category BB or above and at least category AA from 2026. → Reuse of existing infrastructure, use of resource-saving construction methods or use of recycled material (insulation materials and parts). → Financing of renovation, acquisition or otherwise completed low-energy properties that have, or will, achieve at least a 30% decrease in overall energy consumption or achieves the required energy efficiency in line with the applicable national building code for newly built properties	Significant
Circular economy	→ Development of sustainable production and/or use of materials, components and products that are reusable, recyclable. → Design and production of components, products, and assets that support circular economy through increasing the functionality, durability, modularity and ease of repair. → Circular Value Recovery: Development and sustainable production of new materials from secondary raw materials, by-products, and/or waste → Eco-efficient products → Waste recycling and reuse.	Transformative
Pollution prevention and control	→ Waste collection and management projects: ○ Collection and transport of waste in individual or mixed fractions with a view to preparing it for re-use or recycling. → Waste-to-energy projects ○ Generation of green energy from waste → Waste processing projects ○ Processing waste in a sustainable way, avoiding landfill, excluding biowaste composting facilities, tire recovery projects and glass treatment plants → Soil remediation projects	Significant

The **renewable energy** project category has been awarded a Leaf Score of three leaves, reflecting Vertikal's ambition to finance on-site solar power plants, solar panels, wind, biomass, and biogas power plants. The renewable energy generated from these sources will primarily be used for internal operations within production activities, with any surplus sold back to the grid, in compliance with regulatory requirements.

Vertikal already has experience in renewable energy projects, having produced 1 MW from renewable sources. These initiatives align with Vertikal's long-term targets, which includes increasing renewable energy production to 3MW annually at the group level by 2032, achieving 90% green energy usage (including geothermal energy) on sites by 2032, and ensuring that more than 50% of its energy production portfolio comes from renewable sources by the same year.

Renewable energy projects support Vertikal's energy targets

As part of this project category, Vertikal aims to finance energy storage solutions. While the specific technology to be financed with the green proceeds has not yet been determined, Vertikal has committed to consulting third parties to ensure the selection of the most environmentally friendly solutions. This initiative supports Vertikal's target of reaching 2000 KWh storage capacity at the group level by 2032.

These projects are designed to fully cover Vertikal's energy needs for production in the medium-term, however this might vary with the growth rate of the company.

20% of green proceeds towards energy efficiency projects

The **energy efficiency** project category has also been awarded a Leaf Score of three leaves, reflecting Vertikal's commitment to financing multiple energy-efficiency projects. These include:

- Renovating heating and cooling systems to reduce natural gas consumption in both existing and new facilities
- Centralising energy procurement in real estate renovations
- Investing in manufacturing and recycling services that lower energy consumption
- Installing LED lighting, sensors, and smart solutions in buildings
- Replacing on-site machines with electric alternatives.

Additionally, green proceeds will be allocated toward acquiring or developing energy-efficient equipment that will be among the 20% most energy-efficient in Hungary and purchasing materials that offer at least a 30% lower energy consumption compared to traditional alternatives.

Further investment will support R&D activities focused on enhancing energy efficiency in technologies, including the launch of an energy-consulting business to help customers save energy and reduce CO_2 emissions.

Green proceeds will also be directed toward major renovations or refurbishments of existing properties, sites or factories to reduce carbon emissions intensity and improve energy performance. Renovations may include heating and cooling upgrades, LED lighting installations, and other energy-optimisation measures aimed at improving overall building efficiency.

Given the diverse range of projects in this category, energy reduction targets may vary. However, Vertikal has internally stated that it aims for a 20% energy reduction target for projects to qualify under this Framework.

The **clean transportation** project category receives a Leaf score of two leaves, reflecting Vertikal's ambitious goals to transition its fleet to low-carbon transportation and finance support infrastructure under this Framework. By 2032, the company aims to have over 80% of its corporate fleet and more than 75% of its manufacturing-related vehicles powered by electric, hybrid, or hydrogen technologies.

Use of renewable energy to operate EV charging stations

To align with this target, the green proceeds will support the acquisition of electric vehicles (EVs), including cars, trucks, forklifts, moving devices, special purposes machines, and waste collection vehicles. Additionally, Vertikal plans to invest in supportive infrastructure such as on-site charging stations for EVs, accessible to both internal employees and external clients. The financing will also cover electric and compressed natural gas (CNG) special-purpose machinery and waste collection

vehicles, along with the necessary charging infrastructure. Initially, all these charging stations will operate using Vertikal's renewable energy sources for on-site stations. However, we acknowledge that the Hungarian national grid is also part of the regulatory environment, and the issuer plans to ensure full compliance with applicable regulations.

To complement its transport decarbonisation strategy, Vertikal also intends to introduce a bicycle commuting program for employees across the group promoting low-carbon mobility alternatives.

This project is strongly aligned with market best practice and shows clear ambition, particularly through the use of self-generated renewable energy to operate clean transportation infrastructure. The project category is well aligned with Vertikal's fleet decarbonisation targets, including the planned transition to low-emission vehicles and supporting infrastructure. However, quantitative estimates of avoided emissions, fuel use, or other measurable environmental benefits compared to the baseline fleet performance have not yet been provided.

The **green buildings** project category has a Leaf Score of two leaves, based on Vertikal's commitment to achieving high standards in the acquisition, construction, and refurbishment of buildings. The company aims for all new buildings to be classified as green buildings from 2032 onwards. Each project is designed to meet recognised certification benchmarks, targeting a minimum of 'Very Good' under the BREEAM certification, at least 'Gold' under the LEED standard, or perform at least 10% better than the Hungary's minimum energy performance certificate (EPC) (category BB or above), advancing to category AA by 2027.

Vertikal's green building developments will include new acquisitions, production units, offices, factories, and warehouses – particularly for the logistics services. Additionally, green proceeds will be allocated to R&D investments focused on raw-material innovations to develop new sustainable products and solutions in green buildings projects

Green buildings certifications align with Hungary's market practice

While potential risks related to the construction and renovation of existing buildings have been addressed - please refer to page 21 for detailed analysis - we note that the environmental certification levels align with current market practice in Hungary. These standards are already ambitious but do not currently exceed prevailing industry expectations.

The **circular economy** project category receives a Leaf Score of three leaves, as Vertikal is committed to financing capital expenditures and related investments that support more sustainable manufacturing processes and extend product lifecycles. Key initiatives under this category include:

- Acquiring or upgrading production lines to extend product's lifespan
- Investing in tools and equipment that enable recycling processes
- Developing products that replace virgin materials with secondary raw materials, by-products, and/or waste inputs
- Manufacturing new products and assets from repurposed, refurbished, or remanufactured components
- Investing in infrastructure for the recovery of hazardous and non-hazardous waste, including electronic waste, scrap materials, bio green materials, and compostable waste streams.

To support these initiatives, green proceeds will finance:

- IT systems and monitoring tools that improve waste recycling efficiency in manufacturing
- R&D for scaling up products made from recycled materials
- New waste treatment technologies, including automation, robotization, and digital control systems that optimize circular economy strategies across both products and processes

Vertikal's current use of recycled raw materials is at standard levels, with approximately 30% for waste containers and around 5% for other product types. Through the planned initiatives, the company aims to increase the recycled content in these products to 20% by 2027 (assuming for non-container items) and exceed 50% by 2032. Additionally, these investments are expected to help increase the recycling rate of Vertikal's operational waste to 20% by 2027 and 50% by 2032.

Increase of recycled materials in Vertikal's products

The **pollution prevention and control** project category achieve a Leaf Score of two leaves, as Vertikal intends to allocate green proceeds toward activities that reduce pollution, divert waste from landfills, and promote reuse and recycling. Key areas of investment include the collection, transport, storage, treatment, disposal, sorting, and recovery of waste within dedicated waste management facilities, as well as the development of waste-to-energy (WtE) facilities.

While WtE solutions remain subject to debate due to associated emissions and concerns over their potential to discourage recycling, Vertikal has communicated internally that these projects form part of its long-term strategy to replace fossil fuel-based energy sources.

In alignment with EU targets requiring landfill waste to be reduced to 10% or less by 2035, Vertikal aims to continuously reduce its landfill disposal by 3% to 5% annually.

Divert waste to landfill by 3% to 5% annually

Although these activities are considered standard practice in the waste management sector - particularly in Europe and markets with developed regulatory frameworks – assessing the ambition of their environmental contribution would require greater visibility into differentiating factors. These may include advanced technologies, efficiency levels, emissions control measures (especially for WtE), and the degree of integration with circular economy models such as closed-loop recycling systems and digitalized waste tracking tools.

Our assessment: Vertikal's eligible projects have an aggregated Leaf Score of two leaves, as the projects are clear, detailed, and comply with the GBPs. Some of the stated use of proceeds definitions reaches beyond observed market practices in the industry and we highlight the detailed quantitative environmental impact of the projects provided by the issuer.

Use of proceeds score: **Significant**

3.2 Process for project evaluation and selection

Vertikal will establish a green commission responsible for evaluating and selecting projects for green financing. The green commission will be composed by the CEO, CFO, Board Members, and potentially an external sustainability advisor. Additionally, the commission will consult quarterly with representatives from Finance and Administration, Technical, Manufacturing, Environmental, and Legal departments to identify and recommend eligible projects or expenditures.

Establishment of a green commission

The green commission is led by the CEO, and the allocation of green proceeds requires a consensus decision. All selected projects must comply with applicable national laws and regulations as well as Vertikal's internal policies. If an eligible project no longer meets the eligibility, it will be disposed and replaced by another eligible project based on this project selection.

Beyond project selection, the green commission is also responsible for managing environmental and social risks associated with the projects. It will also monitor sustainability KPIs using external sustainability experts, when required.

Furthermore, Vertikal has established clear exclusion criteria for the use of green proceeds. Funds will not be allocated to projects related to oil and coal, environmentally negative resource extraction, gambling, or tobacco.

Exclusion criteria set for eligible projects

Our assessment: The process for project evaluation and selection has a Leaf Score of three leaves as Vertikal has a precise project selection process with clear environmental benefits and a defined exclusion criteria to reduce negative environmental impacts.

Process for evaluation and selection score: **Transformative**

3.3 Management of proceeds

The green proceeds will be managed by the green commission in a separate green bond register. This register will contain relevant details to identify each eligible project and asset including the

country, category, and nature of the asset. This register will serve as the basis for allocation and impact reporting.

Most of the proceeds for financing new projects with a smaller portion for refinancing

Vertikal aims to allocate the full proceeds within 24 months of the issuance date, primarily financing new green projects, with a smaller portion to refinancing existing green investments that were internally disclosed during this SPO process. If an eligible project no longer meets the eligibility criteria, the proceeds allocated will be reallocated to another eligible green project within a 2-year period.

Any unallocated proceeds will be invested in cash, cash equivalent, and/or money instruments. The green commission will monitor monthly that the proceeds are not temporarily placed in non-green financing or refinancing activities.

Management of proceeds score: **Transformative**

Our assessment: Vertikal's management of proceeds has a Leaf Score of three leaves as the issuer has a well-designed and transparent process to track investments and a process in place for unallocated net proceeds. Vertikal is transparent on the temporary placement of unallocated proceeds and while they are not dedicated to ESG/green products they do avoid non-green financing activities. Vertikal also follows best practices by planning to include external auditors to track internal processes.

3.4 Reporting

Annual reporting until bond maturity

Vertikal is committed to provide annual reporting to investors describing the allocation of green proceeds and the environmental impact of the projects, if available, until the maturity of the green instrument. The report will be available on Vertikal's website with the green financing framework and will be verified by an external party.

Vertikal will report on the allocation of net proceeds to the eligible green projects and its associated environmental impact within one year of the issuance. In addition, the allocation report will include the metrics detailed in the table below:

Table 4: Allocation report indicators

Allocation report indicators
Total amount of funds from green bonds and green loans
Green proceeds use: green bond and loans used to total green proceeds (%)
Amount of green proceeds used between eligible projects and their description
Information on environmental impacts of the eligible projects
Investments in project categories
Amount and share in case of refinancing

Impact indicators established for each project category

In accordance with the 2021 Harmonised Framework for Impact Reporting, Vertikal has committed to provide annual reporting on selected impact indicators to illustrate the environmental and sustainability impacts of the projects financed by this green debt instrument.

The defined impact indicators are the following:

Table 5: Impact reporting indicators

Category	Impact indicators
Renewable energy	Added renewables capacity MW in each year (detailed list)
	Total capacity of renewable energy in MW
Energy efficiency	Annual reduction of energy consumption in % or in MWh (compared to conventional technology, base year 2023)
	Amount of stored energy in kWhe

	Renewable share of stored energy (%)
	Energy efficiency components produced or procured (m^2, m^3, tonnes, or %)
	Annual GHG emissions reduced/avoided in tonnes of CO_2eq
Clean transportation	New EV charging points in reporting year
	Annual g CO_2 emissions reduced/avoided per passenger-km (passenger activities) or per t-km (freight activity); reduction of harmful emissions (NOx, SOx, particles…) in mgr per km
	Percentage of EV on total fleet
Green buildings	Land remediated/decontaminated/regenerated in ha or m^2
	Certification level and m^2 of internationally and nationally recognized standards for green buildings such as LEED, BREAM, or Energy Performance Certificates (EPCs), or national certification schemes.
Circular economy	Annual volume of non-hazardous waste collected for reuse or recycling (tonnes)
	Prevented, minimised, reused, or recycled waste before and after the project in % of total waste and/or as absolute amount in tonnes p.a.
	Recovered waste as of total waste treated (%)
Pollution prevention and control	Waste collection and processing projects Industrial waste treated in tonnes Inhabitants served
	Waste-to-energy projects Total tonnes of waste treated Energy generated from waste

Our assessment: Vertikal's reporting process has a Leaf Score of three leaves as the issuer is committed to provide updated information on the use of proceeds with comprehensive details on the eligible projects on annual basis. Impact reporting is highly transparent, utilizing both qualitative and quantitative measures and the issuer adopts best practices by including an external verifier.

Reporting process score:
Transformative

4. Assessment beyond GBPs and GLPs

4.1 Vertikal Group Sustainability Strategy

Sustainability targets to be achieved by 2027, 2030, and 2032

Vertikal's goal is to contribute to environmental sustainability by integrating sustainability considerations across its operations, business activities, and management processes. Vertikal has established targets to be achieved by 2027, 2030, and 2032, which reflect a comprehensive and forward-looking sustainability strategy focused on key impact areas such as energy transition, emissions reduction, fleet decarbonisation, circular economy, and resource efficiency. An ESG report is currently in development and is expected to be published in 2026.

Among the key goals, Vertikal plans to increase the use of recycled raw materials in over 50% of its production processes by 2032, along improving the recycling rate of its operational waste to the same level. In parallel, the company aims to scale up its renewable energy capacity to 3MW annually across the group—three times higher than its current production—and develop 2000 kWh of energy storage capacity by 2032.

To support the decarbonisation of its fleet, Vertikal intends to convert 80% of its passenger fleet to green vehicles by 2032 and has committed to fully phasing out the use of natural gas across its service areas by the same year, aligning with its broader climate and energy objectives.

Vertikal holds several ISO certifications

Additional sustainability objectives, including those related to energy use, construction practices, and emissions performance, are detailed in the company's green financing Framework. Vertikal holds ISO certifications 14001, 9001, and 28001, and is working to obtain ISO 50001 to reinforce its environmental and energy management systems.

Vertikal's sustainability strategy score: **Transformative**

Our assessment: Vertikal's sustainability strategy scores a Leaf Score of three leaves as it demonstrates a strong integration of environmental considerations across its core operations and broader value chain. The ambition shown — particularly in scaling renewable energy, transitioning to a fully electric passenger fleet, and phasing out natural gas — reflects a strong alignment with long-term climate goals These targets suggest a clear understanding of the company's material environmental impacts and a commitment to introducing sustainability into operational decision-making.

4.2 Alignment with UN Sustainable Development Goals (SDGs)

Vertikal's project categories tied to six relevant SDGs

The SDGs adopted by all UN member states in 2015 are a collection of 17 global targets comprising an agenda for achieving sustainable development by 2030. We deem the following SDGs to be relevant for Vertikal's project categories:

7. Affordable and clean energy: ensure access to affordable, reliable, sustainable, and modern energy for all.

8. Decent work and economic growth: promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

9. Industry, innovation, and infrastructure: build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.

11. Sustainable cities and communities: make cities and human settlements inclusive, safe, resilient, and sustainable

12. Responsible consumption and production: ensure sustainable consumption and production patterns

13. Climate action: take urgent action to combat climate change and its impacts.

Appendix I lists the relevant indicators for assessing Vertikal's contribution to each SDG. The contribution to the SDGs can be quantified in post-issuance impact reporting. Vertikal did not provide specific indicators for measuring its contribution to each SDG, however we acknowledge that certain indicators from the allocation and impact reporting can be utilised for this purpose.

4.3 EU Taxonomy alignment[1]

The project categories of Vertikal's Framework pertain to the sixteen taxonomy activities outlined in the Appendix II.

Technical screening criteria assessment

Vertikal complies with the majority of relevant TSC

Vertikal's projects are aligned with the majority of the technical screening criteria of the listed sustainable activities. Its renewable energy initiatives align with the electricity generation using solar PV technology and wind power (4.1, 4.3), storage of electricity (4.10), and installation, maintenance, and repair of renewable energy technologies (7.6). Additionally, Vertikal includes biomass projects in its Framework; however, to ensure full alignment with the technical screening criteria (4.8), further supporting details are encouraged, particularly regarding sustainability criteria and life-cycle emissions compliance.

Vertikal's energy efficiency initiatives are aligned with the renovations of buildings (7.2) as it finances major renovations or refurbishments of existing properties (sites or factories) that result in reduced carbon emissions intensity and at least 30% reduction in energy consumption. It also aligns with the installation of energy efficiency equipment (7.3) by upgrading heating and cooling systems, installing LED lighting, and implementing smart energy solutions. Additionally, Vertikal meets the criteria for manufacturing energy efficiency equipment (3.5), ensuring that developed or procured equipment ranks among the 20% most energy-efficient in Hungary.

For clean transportation, Vertikal is aligned with transport by motorbikes, passenger cars and light commercial vehicles (6.5) as it aims to procure electric and plug-in hybrid vehicles, supporting its fleet transition to low-carbon transportation. However, we note that plug-in hybrid vehicles (PHEVs) will only remain eligible until 31 December 2025, after which only zero-emission vehicles (EVs or hydrogen-powered vehicles) will qualify. Furthermore, Vertikal aligns with the freight transport services by road (6.6) as it plans to electrify its fleet of trucks, forklifts, moving devices, special purposes machines, and waste collection vehicles. While CNG special purpose machinery is included in the Framework, it may not remain fully aligned beyond 2026 unless justified as a transitional investment, with strict conditions for substantial lifecycle emissions reductions. Additionally, Vertikal is aligned with infrastructure enabling low-carbon road transport and public transport (6.15) and the installation, maintenance and repair of charging stations for electric vehicles in buildings (7.4) as it aims to install on-site EV charging points to support its fleet transition.

For the construction of buildings (7.1), Vertikal is partially aligned with the technical screening criteria, as it does not provide complete information for full compliance. While the company targets recognized green building certifications such as BREEAM (minimum 'Very Good') and LEED (minimum 'Gold') and aims to meet energy performance standards exceeding the Hungarian EPC (BB or above), these certifications alone do not guarantee full compliance with the EU Taxonomy's requirements for the top 15% most energy-efficient buildings. While these green building certifications are ambitious within the Hungarian market, the EU taxonomy has not explicitly recognised these certifications as a direct means of compliance with the technical screening criteria and further evidence on emissions and energy performance relative to national benchmark would be needed for complete alignment. Therefore, this activity is assessed as partially aligned. However, for the renovation of existing buildings (7.2), Vertikal is aligned as renovations will result in at least a 30% decrease in overall energy consumption. For the acquisition of buildings (7.7), Vertikal is also partially aligned, as it targets buildings that perform at least 10% better than the minimum Hungarian EPC standard (BB or above). However, to demonstrate full alignment with the taxonomy's top 15% efficiency requirement, further evidence may be needed to confirm the actual performance relative to the national building stock. From 2027, it will comply with the updated requirement of investing in buildings with at least an AA rating.

[1] The EU taxonomy regulation was published in the Official Journal of the European Union on 22 June 2020 and entered into force on 12 July 2020. It establishes a basis for the EU taxonomy by setting out four overarching conditions that a particular economic activity must meet to qualify as environmentally sustainable. The taxonomy regulation establishes six environmental objectives: climate change mitigation, climate change adaptation, the sustainable use and protection of water and marine resources, the transition to a circular economy, pollution prevention and control, and the protection and restoration of biodiversity and ecosystems.

Vertikal's circular economy and pollution prevention and control activities align with material recovery from non-hazardous waste (5.9), as it plans to invest in IT systems, monitoring tools, automation, and robotics to improve recycling efficiency. Additionally, the company is focusing on the R&D of producing large-scale products based on recycled material. Vertikal has confirmed its intention to convert at least 50% of non-hazardous waste by weight into secondary raw materials, demonstrating a commitment to improving circular economy. It is also aligned with the collection and transport of non-hazardous waste (5.5), financing waste processing projects such as compost (excluding biowaste composting facilities), tire recovery, and glass treatment plants. These efforts are aimed at producing recyclable and refurbished materials, components, products, and circular tools and services to avoid landfilling.

Do-Not Significant Harm (DNSH)[2]

Waste management, high-quality products, and biodiversity are covered under DNSH criteria

Vertikal is aligned with the DNSH criteria for electricity originated from solar PV and wind (4.1, 4.3), as it enforces supplier requirements regarding product durability, recyclability, and ease of dismantling and refurbishment. Vertikal's procurement strategy prioritises high-quality, long-lasting, and easily recyclable products. This is also aligned with the DNSH criteria for manufacture of energy efficiency equipment (3.5)

Vertikal, as a waste management company, demonstrates compliance with the DNSH criteria in its circular economy-related waste management activities. The company adheres to all legal requirements and integrates circular economy principles into its medium-term strategy, ensuring compliance with DNSH criteria for energy storage (4.10), infrastructure of low-carbon transport (6.15), and manufacture of energy efficiency equipment (3.5).

For the DNSH criteria on the construction (7.1) and renovation (7.2) of buildings, as well as the infrastructure of low-carbon transport (6.15), Vertikal states that it complies with the requirements related to water use, circular economy, pollution prevention, and biodiversity. The company's green committee actively identifies and addresses environmental risks, including water conservation and pollution control, in line with Directive 2000/60/EC. A water use and protection management plan will be developed for any potentially affected water bodies in consultation with stakeholders. Additionally, Vertikal is considering best available techniques for waste management, using selective demolition techniques to safely handle hazardous substances while facilitating the reuse and recycling of sorted materials. While no explicit measures were mentioned, Vertikal has stated that it takes actions to reduce noise, dust and pollutant emissions during construction or maintenance works and ensures that new developments are not built on biodiversity-sensitive areas.

No specific information was provided on DNSH compliance for transportation activities nor the collection and transport of non-hazardous waste (6.15, 6.6, 5.5). However, as a waste management company, Vertikal has relevant experience in collecting, transporting, and managing hazardous and non-hazardous waste also throughout the lifecycle of its products in accordance with the waste hierarchy. Vertikal has mentioned internally that it applies the synergies between the individual areas within the company during the examination of the DNSH criteria. Further details on how this expertise translates into DNSH compliance for transport activities would enhance the assessment.

Minimum social safeguards[3]

Vertikal considers human rights under its Code of Ethics

Vertikal's projects financed under its Framework will be fully placed in Hungary, where adherence to EU labour standards is compulsory. The company has implemented a comprehensive Code of Ethics that outlines detailed regulations regarding employee and management conduct. Some examples of what it covers include a description of the whistleblowing system in place, conflict of

[2] The EU taxonomy defines a 'do not significant harm' (DNSH) assessment. The DNSH assessment ensures that the other environmental objectives are not harmed while a substantial contribution is made to one or more environmental objectives.

[3] The EU taxonomy includes a minimum social safeguards assessment to ensure that entities carrying out environmentally sustainable activities, labelled as taxonomy-aligned, meet certain minimum governance standards and do not violate social norms, including human rights and labour rights. Issuers should align with standards such as the OECD Guidelines for Multinational Enterprises, the UN Guiding Principles of Business and Human Rights, and the International Bill of Human Rights. Additionally, issuers should comply with the ILO's Declaration of the International Labour Organisation on Fundamental Rights and Principles at Work.

interest guidelines, and human rights considerations. The Code specifies the rules for establishing and operating an Ethics Committee which helps oversee all aspects.

Additionally, Vertikal has published internal guidelines regarding an "Equal Opportunities Plan" and "Family-friendly Workplace". Within these guidelines, they aim to be transparent and clear on their position towards hiring, ethical behavior and their commitment to their employees. In addition to Hungarian and international labour standards, it also defines some additional benefits that they are entitled which depending on the circumstances extend from to family support considerations, part-time employment to even financial support.

EU Taxonomy alignment score: **Transformative**

Our assessment: Vertikal demonstrates compliance with EU taxonomy requirements, providing all required information to verify alignment with technical screening criteria, DNSH principles, and minimum social safeguards. The issuer provides robust evidence to support this alignment. We note that three of the seventeen projects do not completely meet DNSH criteria, however we recognise that Vertikal does a DNSH criteria assessment at activity, project, and location level to ensure compliance. In addition, it applies the synergies between the individual areas during the examination of the DNSH criteria to fully comply.

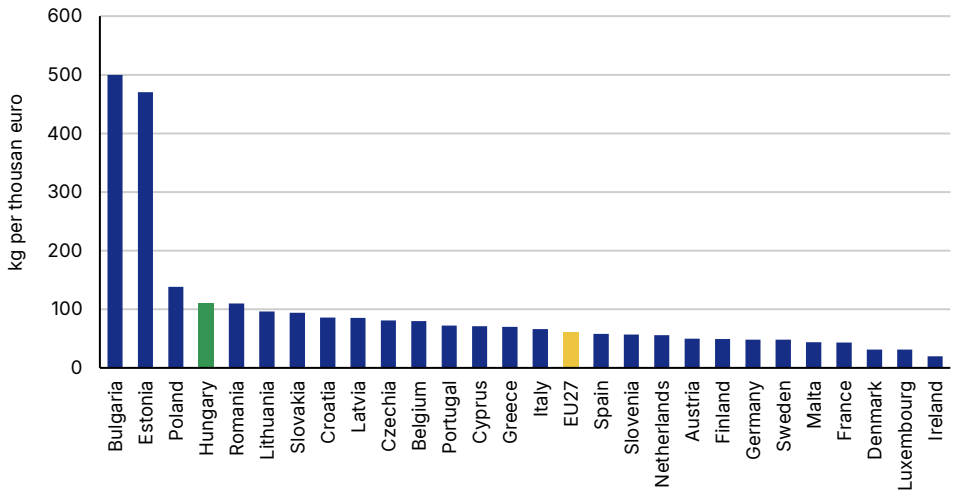
4.4 Impact of proceeds

The waste sector as a contributor to GHG emissions in EU and Hungary

The waste sector accounts for 3% of total GHG emissions in Europe[4], primarily due to methane released from landfills and emissions from waste incineration. In Hungary, the sector contribution is slightly higher, estimated at 6.9% of national GHG emissions in 2023[5]. To reduce these emissions, Hungary aims to decrease municipal waste sent to landfills and enhance separate collection, reuse and recycling of recoverable waste in alignment with the National Waste Management Plan 2021-2027.[6]

The EU generates massive amounts of waste across multiple sectors, including manufacturing, food, construction, electronics, and textiles, and Hungary is in the top 5 of countries generating more waste per GDP unit in the EU (Figure 3). Beyond the loss of valuable resources, improper waste management poses significant risks to human health and the environment, including soil and water contamination, air pollution, and biodiversity loss.

Figure 3: Generation of waste excluding major mineral wastes per GDP unit, 2022



Source: Eurostat, 2025[7]

[4] European Environment Agency, 2024
[5] Hungary's Climate Action Strategy, European Parliament, 2025
[6] Hungary's National Waste Management Plan 2021-2027
[7] Eurostat, 2025

As of 2022, 40.8% of municipal waste in the EU was recycled, while 30.2% was sent to landfills[8]. In Hungary, the municipal waste recycling rate stood at 32.8% in 2022[9], indicating the need for further improvements to meet EU targets. Under the National Waste Management Plan, Hungary aims to increase the preparation for reuse and recycling of all municipal waste to at least 50% by weight by 2025. Additionally, the country has introduced circular economy initiatives under its National Circular Economy Strategy to enhance resource efficiency, minimize environmental externalities and unlock economic value from waste streams.

Hungary is still behind on the recycling rate compared to EU

Effective waste management and the transition to a circular economy play a crucial role in reducing emissions, conserving resources, and mitigating climate change, highlighting their importance in Hungary's sustainability agenda.

The waste sector requires significant investment to drastically reduce landfilling. Reducing landfills, diverging waste flows, and improving waste treatment methods account for around 90% of the emissions reductions of the sector[10]. Vertikal aims to finance several projects related to its activities on waste management, which will contribute to Hungary's and the sector sustainability agenda.

Several initiatives could reduce 90% of the waste emissions

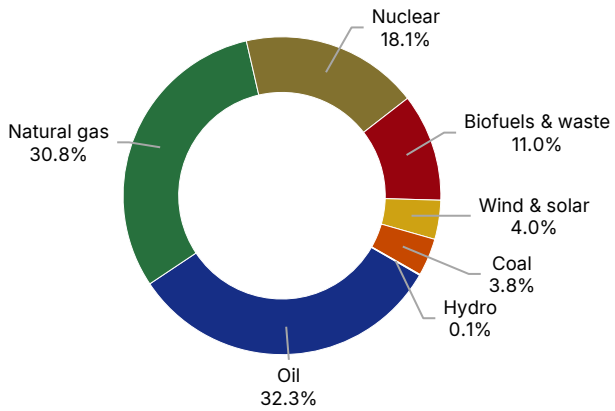
I. Renewable energy

Hungary's transition to renewable energy is crucial for enhancing energy security, reducing reliance on imported fossil fuels, and meeting EU climate targets. The country remains highly dependent on energy imports, making it vulnerable to external supply disruptions. Oil and gas constitute more than two thirds of Hungary's energy mix (Figure 4), with natural gas and petroleum products accounting for the largest share of energy imports due to low domestic production. As of 2023, Hungary imports 62.5% of its total energy supply[11], with Russian oil and gas making up to 75% and 60% of these imports, respectively.[12]

Renewable energy to improve energy security

To reduce CO_2 emissions and energy dependence, Hungary has significantly increased its renewable energy capacity. Renewable sources now generate nearly 22% of the country's electricity, with solar account for an impressive 89% of this share.[13]

Figure 4: Hungary – Total energy supply (%)



Source: International Energy Agency, 2022[14]

The installation of solar PV, wind farms, biomass systems, and energy storage within the waste management sector presents a dual opportunity: decarbonizing operations while advancing circular economy principles.

[8] EU Waste Statistics, Eurostat, 2024
[9] Recycling rate of municipal waste, Eurostat, 2025
[10] World Economic Forum, 2022
[11] International Energy Agency, Hungary, 2023
[12] 2023 Country Report – Hungary, European Commission
[13] International Energy Agency, Renewables Hungary, 2023
[14] International Energy Agency, Energy system of Hungary, 2023

However, a major challenge in expanding renewables is the grid's limited capacity at both the distribution and transmission levels. The inability to handle decentralized, weather-dependent electricity generation on both the demand and supply sides remains a constraint on clean energy development. Energy storage solutions are, therefore, pivotal in enhancing grid stability and supporting Hungary's goal of reaching a 30% renewable energy share by 2030 under its National Energy and Climate Plan.[15]

Energy storage is a key player on decarbonising the energy system

Vertikal's renewable energy projects—including solar power plants, wind farms, and biomass systems—align with Hungary's decarbonization pathway and the company's own ambition to achieve 90% green energy use at its sites by 2032. Additionally, Vertikal aims to finance the purchase and installation of energy storage systems to help ensure the seamless integration of solar and wind shares into the grid. Integrating these technologies can strengthen Vertikal's energy resilience, reduce operational emissions, and contribute to Hungary's broader clean energy transition.

25% of green proceeds to finance renewable energy projects

II. Energy efficiency

Energy-efficient technologies play a crucial role in curbing energy demand growth and reducing fossil fuel consumption and emissions across all sectors of the economy. Minimizing energy consumption and waste—throughout the entire value chain, from production to end-of-life—is a strategic priority for the EU.

Optimizing energy efficiency in the waste management sector

The waste management sector is also increasingly focused on optimizing energy use, such as adopting modern machines with lower energy consumption and energy-saving modes. Advanced manufacturing technologies enable substantial energy savings in machine production while also supporting circular economy principles by recycling waste generated during manufacturing. Solutions like energy-efficient machines and smart manufacturing systems help reduce energy use by operating only when necessary. Vertikal plans to invest in manufacturing and recycling services that lower energy consumption, including replacing outdated machines with electric alternatives, acquiring equipment ranked among the top 20% most energy-efficient in Hungary, and purchasing materials that consume at least 30% less energy than traditional alternatives.

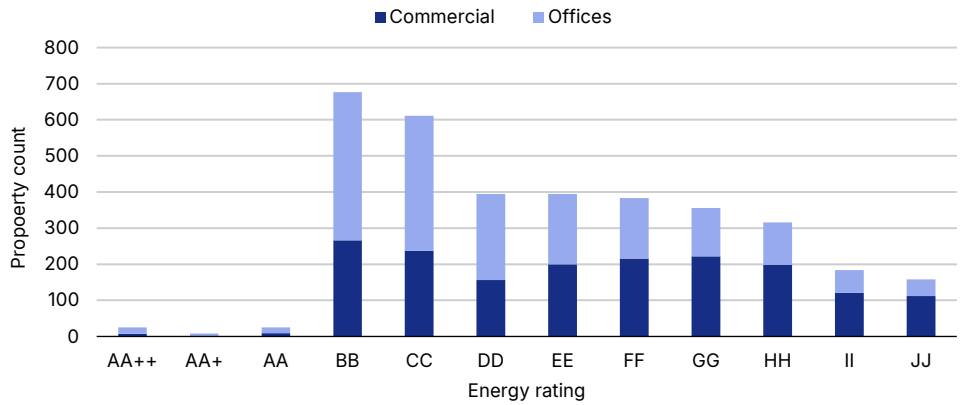
When referring to energy efficiency, the building sector is one of the most relevant to tackle. In Hungary, buildings account for over 40% of total energy consumption, with two-thirds of this energy used for heating and cooling[16]. A large share of the building stock was constructed before 1980 under outdated energy performance standards, and between 70–90% will need renovation to meet the country's 2050 climate targets[17]. While this challenge also relates to the green buildings project in this Framework, Vertikal is addressing energy efficiency by upgrading heating and cooling systems, implementing LED lighting, sensors, and smart solutions, and financing major renovations of existing sites and factories. These efforts aim to significantly reduce natural gas consumption and enhance energy security by lowering dependence on energy imports.

Buildings account for almost half of total energy consumption in Hungary

Renovating the EU's building stock is essential for lowering CO_2 emissions and energy consumption. Comprehensive energy renovations are considered the most effective means of significantly reducing both direct and indirect emissions from the building sector. By upgrading existing buildings, the EU could decrease energy use by 6% and CO_2 emissions by 5%[18].

[15] National Energy and Climate Plan 2021-2030 Hungary
[16] MEHI Hungarian Energy Efficiency Institute
[17] Scaling up energy efficiency investments in buildings in Hungary, European Commission, 2019
[18] Energy-efficient Buildings Key to Hitting Climate Targets, Budapest Business Journal, 2023

Figure 5: Hungary – Energy rating distribution by property type



Source: Ministry of Construction and Transport, 2023[19]

III. Clean transportation

Transportation is the largest source of CO_2 emissions in Hungary

In Hungary, transport is the largest source of CO_2 emissions accounting for 24.38%[20], of the country's total emissions, with approximately two-thirds coming from cars and vans. The sector presents significant opportunities for energy efficiency improvements and emissions reduction, particularly through electrification and the transition to low-carbon transport solutions.

The Hungarian government has made substantial investments to expand the EV charging infrastructure and has launched various incentive programs to promote and subsidise the adoption EVs[21]. As of the first half of 2024, there were more than 5,356 public charging points across the country, with plans to increase this number to meet growing EV demand[22]. Additionally, Hungary has committed to aligning with EU Green Deal objectives, aiming for at least a 55% reduction in emissions by 2030, which includes ambitious targets for the decarbonization of the transport sector.

In line with these efforts, Vertikal aims to increase its electric, hybrid, hydrogen, and passenger cars and vehicles fleet to over 80% by 2032. To support this transition, 20% of the green proceeds will be allocated to the procurement of electric and plug-in hybrid vehicles, accelerating the shift to low-carbon transportation. Beyond passenger vehicles, Vertikal also aims to electrify its fleet of trucks, forklifts, moving devices, special-purpose machines, and waste collection vehicles, reducing its reliance on fossil fuels and enhancing operational sustainability.

To complement these investments, Vertikal will finance charging infrastructure to support its growing EV fleet, including on-site EV charging stations, hydrogen fuelling stations, and other low-carbon infrastructure. Notably, on-site charging stations will be powered by Vertikal's own renewable energy sources, further minimizing the carbon footprint of its fleet. These stations will also be made available to external clients, contributing to the broader development of Hungary's EV ecosystem.

IV. Green buildings

Buildings in the EU are the sector with the highest environmental impact, accounting for 42% of total energy consumption and 35% of GHG emissions[23]. To address these challenges, the EU has implemented comprehensive policies targeting the building sector, focusing on areas such as climate and energy, circular economy, digitalization, nature conservation, and just transition. Key

[19] Ministry of Construction and Transport – National electronic registry of energy certificates
[20] EEA greenhouse gases data viewer
[21] Daily News Hungary- Hungarian government to launch HUF 60 billion scheme to promote EV adoption, 2023
[22] Electric Vehicle Charging Network Sees 7% Growth, Hungary Today, 2024
[23] Building and construction, European Environment Agency, 2024

objectives include achieving a 55% reduction in GHG emissions and attaining a 45% share of renewable energy by 2030[24].

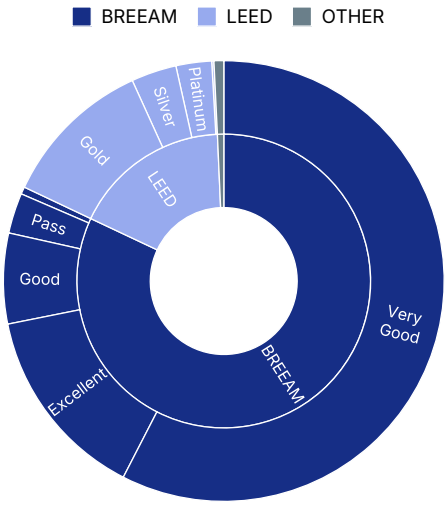
Buildings responsible for fifth of total GHG emissions in Hungary

In Hungary, the building sector represents the largest end-use category, accounting for 47% of the country's final energy consumption, making it the third highest among EU countries[25]. Therefore, renovating existing buildings has become a priority for both the EU and Hungary to reduce energy consumption and CO_2 emissions

Small fraction of Hungary's building stock with green certifications

Minimum energy performance standards and building energy codes are becoming more stringent across Europe, promoting the adoption of efficient and renewable building technologies. In Hungary, as of 2024, there were 550 buildings with green certifications. While this represents progress, it still accounts for a small fraction of Hungary's total building stock. Out of these green certified buildings, around 80% are BREEAM certified (from which 17% classified as "Excellent" and 70% as "Very Good") and around 17% are LEED certified (from which 15% where "Platinum" level and around 65% "Gold") (Figure 6).

Figure 6: Hungary Building certifications by provider and rating



Source: Green Building Information Gateway, 2024[26]

Vertikal plans to allocate 5% of its green proceeds to finance the construction, refurbishment, and acquisition of buildings that meet internationally recognized sustainability standards, such as LEED and BREEAM.

V. Circular economy and pollution prevention and control

EU to achieve climate neutrality by 2030

The EU is committed to transitioning to a circular economy, with a target to reduce GHG emissions by 55% by 2030 and achieve climate neutrality by 2030. The EU Circular Economy Action Plan focuses on reducing resource consumption, promoting recycling and reuse, and ensuring sustainable production processes. It includes specific measures such as the reduction of single-use plastics, the enhancement of waste management systems, and the promotion of eco-design for longer-lasting products. By 2030, the EU aims to achieve a 65% recycling rate for municipal waste and reduce landfill to no more than 10% of total waste. Vertikal, in line with EU regulations, aims to reduce the waste diverted from landfills by 3% to 5% annually by 2030.

In Hungary, the National Circular Economy Strategy aligns with EU goals and focuses on improving waste management practices, promoting sustainable production, and reducing pollution. Hungary has set specific targets such as achieving a 50% recycling rate for municipal waste by 2025 and reducing the share of landfilled waste. The country is also focusing on enhancing waste-to-energy

[24] Addressing the environmental and climate footprint of buildings, European Environment Agency Report 09/2024
[25] The potential for investment in energy efficiency through financial instruments in the EU, Hungary in-depth analysis, European Investment Bank, 2020
[26] Certified buildings in Hungary, GBIG-U.S. Green Building Council, 2024

projects and advancing eco-efficient production systems to lower pollution and reduce reliance on raw materials.

The design stage is the most important on reducing environmental impacts

While more than 80% of the environmental impact of a product is determined at the design stage[27], Vertikal's commitment to develop and design production of components, products, and assets that increase the functionality, durability, modularity, and ease of repair, as well as produce and develop new materials from secondary raw materials, is contributing to improving circular economy.

Retaining the value of products is crucial for circular economy

The waste sector accounts for about 6.9% of Hungary's total GHG emissions, however, better use of waste as a resource can help reduce emissions in other sectors. Waste management and the circular economy hold considerable potential for mitigating climate change. A key aim of the circular economy is to retain the value of products and materials in use for as long as possible. Moreover, while returning waste to the economy as recycled materials is a crucial part of the circular economy, upstream measures such as product design and extended use are harder to quantify but offer substantial environmental benefits.

Waste processing facilities to support goals on pollution and circular economy

Vertikal plans to invest 30% of its green proceeds in circular economy and pollution prevention initiatives, including waste processing facilities, tire recovery projects, and waste-to-energy plants, supporting these national and EU objectives. By investing in these projects, Vertikal contributes to reducing landfill use, improving recycling rates, and lowering GHG emissions, directly supporting Hungary's and the EU's goals to mitigate pollution and foster a sustainable, circular economy.

VI. Upstream impacts

Supply chain's energy dominates upstream impact

Across Vertikal's green projects, both positive and negative upstream environmental impacts can be observed. On the positive side, the projects support a reduction in the use of virgin raw materials, improve energy efficiency, and decrease upstream emissions by promoting more circular and low-carbon processes. At the same time, some upstream impacts arise from the supply chains linked to renewable energy systems and energy-efficient technologies - particularly when components are sourced from countries where electricity grids still rely heavily on fossil fuels. To address this, Vertikal has expressed a clear preference for local and European suppliers and distributors and has shared examples of partners involved in previous projects. The company also applies strict supplier selection criteria, including ISO certifications (9001, 14001, and 45001), along with its own internal sustainability standards.

As part of its procurement strategy, Vertikal takes a proactive approach to managing risks across its supply chain. This includes tools such as supplier diversification, flexible contracting, and regular performance audits - helping to reduce disruptions and ensure long-term reliability.

Vertikal's net environmental impact remains positive

Additional upstream benefits stem from replacing fossil-based energy with renewables, reducing overall energy demand through efficiency upgrades, and minimising the use of virgin materials by recovering, processing, and reusing waste streams. This is especially relevant in Hungary's resource-constrained context. Projects focused on circularity and pollution prevention also reduce future land use pressure and help lower methane emissions by avoiding landfill through more sustainable waste treatment methods.

VII. Downstream impacts

Reduce energy reliance on fossil fuels

Vertikal's green projects are designed to support Hungary's shift toward a circular and low-carbon economy, with clear downstream benefits across several environmental fronts. By investing in renewable energy and energy-efficient technologies, Vertikal helps reduce reliance on fossil fuels, particularly important in Hungary, where the transition to a low-carbon economy is still progressing. These investments contribute to lower carbon emissions and more efficient energy use in buildings and factories. The expansion of electric transportation, including both passenger

[27] How ecodesign can help the environment by making products smarter, 2012

and manufacturing vehicles and the necessary charging infrastructure, also plays a role in decarbonising key sectors within the country.

Projects focused on developing more sustainable products and processes further improve the quality of recovered materials, making them more suitable for reuse in other industries and reducing the need for virgin resource extraction downstream.

That said, some challenges remain. Waste-to-energy solutions, for example, can raise concerns if not carefully managed, especially when compared to material recovery alternatives. However, these projects are expected in the long term, and Vertikal does not plan to implement them in the medium-term. When pursued, their aim will be to replace fossil-fuel based energy sources, rather than displace material recovery. Vertikal's continued emphasis on local partnerships, supplier transparency, and circular economy principles helps mitigate potential negative downstream impacts.

Our assessment: The projects are completely aligned with specific environmental objectives outlined in the Framework and consider the entire value chain. Projects effectively address the most material impacts within the sector and region, making a meaningful contribution to sectoral sustainability goals. Best practices such as the preference for local suppliers are adopted by Vertikal, showing strong commitment to addressing relevant value-chain negative impacts of the defined projects.

Impact of proceeds score: **Transformative**

4.5 Environmental and social risks

Vertikal's projects present a range of environmental and social risks, which are relevant given the scope of the company's activities. While some of these risks have been touched upon in the impact section, this category focuses on the company's approach to risk identification and mitigation. In the context of the defined projects, the most relevant risks are material sourcing, waste management (including e-waste), biodiversity, and human capital.

Vertikal manages business risks through an Enterprise Risk Management (ERM) system, which is supported by internally recognized standards, including relevant ISO-certified management systems. The company seeks to mitigate potential negative environmental and social impacts associated with its business activities by integrating risk considerations into project planning and implementation processes.

Use of ERM systems to identify and monitor business risks

All eligible projects must comply with national environmental and social regulations, as well as Vertikal's internal policies. Furthermore, the company applies a structured due diligence process to assess the environmental and social risks of each project and engages with relevant stakeholders as part of project evaluation and selection.

Our assessment: Vertikal's environmental and social management has a Leaf Score of three leaves. The issuer has a risk management strategy in place that addresses both, direct and indirect, risks associated with the project categories of this debt issuance.

Environmental and social management risk score: **Transformative**

Table 6: Risk mitigation projects and measures

Associated project risks	Vertikal's risk mitigation measures
Material sourcing	Many of Vertikal's projects rely on materials whose extraction and sourcing can carry significant environmental impacts. Renewable energy infrastructure (e.g., solar PV and wind turbines), energy-efficient technologies (e.g., LED lights, smart devices), and green buildings often depend on rare earth metals, concrete, and steel. Unsustainable sourcing of these materials can lead to habitat destruction, pollution, and high emissions. For example, solar panels require silicon, copper, and rare earths, while construction demands steel and cement - both of which are emissions-intensive to produce. Vertikal mitigates these risks by prioritizing local and European suppliers and requiring compliance with ISO certification standards (9001, 14001, 45001), ensuring a controlled and transparent supply chain. In addition, the company assesses material availability and, where feasible, selects equipment and components that are durable, recyclable and easy to dismantle or refurbish. The high-quality, long lifespan, and recyclability of suppliers' products are of utmost importance in Vertikal's procurement decisions.
Waste management (including e-waste)	While Vertikal's activities aim to reduce waste through recycling and circular practices, certain initiatives may generate secondary waste streams. For example, replacing old energy systems and equipment can result in electronic waste (e-waste), while construction and renovation under the green building program may produce construction and demolition debris that is not always recyclable. In circular economy projects, the risk of waste mismanagement - particularly through inefficient sorting or disposal processes - could undermine environmental benefits. As a waste management company, Vertikal mitigates this risk through established internal waste handling protocols and by leveraging its own infrastructure to process and reintegrate materials into production cycles. The company has also identified the end-of-life management of renewable energy and energy efficiency equipment and components as part of its medium-term strategy. Furthermore, waste handling for hazardous and non-hazardous construction and demolition materials in clean transport, renewable energy, and green building projects is carried out in full compliance with national regulations, reinforcing Vertikal's commitment to responsible waste management.
Biodiversity and community concerns	Projects such as solar farms, wind turbines, and biomass facilities can impact biodiversity through land use changes, particularly when large-scale installations require clearing land, potentially disrupting local ecosystems and wildlife habitats. Wind turbines, in particular, can also introduce noise pollution that affects nearby fauna. Additionally, the construction of new buildings and clean transportation infrastructure may present further biodiversity-related risks. Vertikal has internally communicated that biodiversity protection is a key priority across projects involving renewable energy infrastructure, clean transportation, and building construction or renovation. For example, the company plans to install EV charging stations only in areas where biodiversity can be preserved and noise pollution minimized. Additionally, maintaining roadside vegetation and applying biodiversity safeguards are integrated into project planning and execution. To further manage biodiversity risks, Vertikal has committed to conducting on-site assessments in line with the WWF's Biodiversity Impact Assessment Framework. Environmental Impact Assessments (EIAs) will also be carried out according to the EU Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment. For sites located in or near biodiversity-sensitive areas, appropriate assessments will be conducted, and mitigation measures implemented based on their findings. Vertikal also commits to avoiding development on greenfield land of recognized high biodiversity value or on habitats for endangered species listed on the European Red List or the IUCN Red List. The company's preference for smaller-scale, integrated installations further supports the goal of minimizing ecological disruption.
Human capital and health and safety	While not always highlighted in green financing frameworks, human capital is a material risk area, especially in sectors involving manual labour, waste handling, and potential chemical exposure. Workers involved in waste collection, construction, and facility operations may face occupational health and safety risks, including contact with hazardous substances or unsafe working conditions. In addition, Vertikal has identified that one of its key challenges lies in effectively leveraging human capital to adapt to an evolving regulatory landscape. For example, the implementation of intelligent control systems - which rely on real-time data to improve manufacturing efficiency - requires a skilled workforce capable of operating such technologies at optimal levels. To address these risks, Vertikal applies ISO-certified occupational health and safety standards (ISO 45001) and follows internal safety protocols to safeguard worker wellbeing. As the company scales operations through its green financing strategy, ongoing investment in workforce training, protective measures, and stakeholder engagement will be essential to support and enhance its social performance.
Energy source	For both clean transportation and pollution control technologies, the environmental benefit is partly dependent on the energy source. EVs, for example, offer emissions reductions only if the electricity used is renewable. Similarly, pollution control technologies can be energy intensive. Vertikal plans to power its clean transportation infrastructure, including EV charging stations, with on-site renewable energy. In addition, the company's transition strategy - to reach 3 MW of renewable energy generation, store 2000 kWh, and source 90% of energy from green sources by 2032 - shows strong alignment with long-term decarbonization objectives. Continuous monitoring of the carbon intensity of energy inputs will be key to maintaining and improving lifecycle sustainability.

Appendix I: SDG alignment

GBP category	SDG alignment	Indicators to be evaluated
Renewable energy		• Added renewables capacity MW in each year • Total capacity of renewable energy in MW
Energy efficiency		• Annual reduction of energy consumption in % or in MWh (compared to conventional technology, base year 2023) • Amount of stored energy (kWhe) • Renewable share of stored energy (%) • Energy efficiency components produced or procured (m^2, m^3, tonnes or %) • Annual GHG emissions reduced/avoided in tonnes of CO_2eq
Clean transportation		• Number of new EV charging stations per year • Annual CO_2 emissions reduction or avoidance per passenger-km or per t-km or harmful emissions (NOx, Sox, particles…) in mgr. per km. • % of Electric Vehicles on total fleet
Green buildings		• Land remediated/decontaminated/regenerated in ha or m^2 • Certification level and m^2 of internationally and nationally recognized standards for green buildings such as LEED, BREAM, or Energy Performance Certificates (EPCs), or national certification schemes.
Circular economy		• Annual volume of non-hazardous waste collected for reuse or recycling (tonnes) • Prevented, minimised, reused, or recycled waste before and after the project in % of total waste and/or as absolute amount in tonnes p.a. • Prevented, minimised, reused, or recycled waste before and after the project in % of total waste and/or as absolute amount in tonnes p.a.

Pollution prevention and control		• Waste collection and processing projects
		  ○ Industrial waste treated in tonnes
		  ○ Inhabitants served
		• Waste-to-energy projects
		  ○ Total tonnes of waste treated
		  ○ Energy generated from waste

Appendix II: EU Taxonomy activities

					DNSH			
Sector	**Activity**	**Eligible project category**	**Mitigation/ Adaptation**	**TSC**	**Water**	**Circular Economy**	**Pollution prevention**	**Biodiversity**
Manufacturing	3.5 Manufacture of energy efficiency equipment for buildings	Energy efficiency	Mitigation					
Energy	4.1 Electricity generation using solar photovoltaic technology	Renewable energy	Mitigation					
	4.3 Electricity generation from wind power	Renewable energy	Mitigation		N/A			N/A
	4.8 Electricity generation from bioenergy	Renewable energy	Mitigation					
	4.10 Storage of electricity	Renewable energy	Mitigation		N/A			
Waste management	5.5 Collection and transport of non-hazardous waste in source segregated fractions	Circular economy Pollution prevention and control	Mitigation					
	5.9 Material recovery from non-hazardous waste	Circular economy Pollution prevention and control	Mitigation					
Transport	6.5 Transport by motorbikes, passenger cars and light commercial vehicles	Clean transportation	Mitigation					
	6.6 Freight transport services by road	Clean transportation	Mitigation					
	6.15 Infrastructure enabling low-carbon road transport and public transport	Clean transportation	Mitigation					
Real Estate activities	7.1 Construction of new buildings	Green buildings	Mitigation					
	7.2 Renovation of existing buildings	Green buildings Energy efficiency	Mitigation					
	7.3 Installation, maintenance, and repair of energy efficiency equipment	Energy efficiency	Mitigation					
	7.4 Installation, maintenance, and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)	Clean transportation	Mitigation					
	7.5 Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings	Energy efficiency	Mitigation					
	7.6 Installation, maintenance and repair of renewable energy technologies	Renewable energy	Mitigation					
	7.7 Acquisition and ownership of buildings	Green buildings	Mitigation					

Aligned Partially aligned Insufficient information to assess alignment Not aligned

Appendix III: Documents provided by Vertikal and/or public sources

Document category	Document description
Market research on sector/regional standards	EU New Circular Action Plan – European Commission, 2020
	Environmental and climate footprint of buildings – European Environment Agency, 2024
	EU Directive 2023/1791 on energy efficiency and amending Regulation – European Commission, 2023
	Database and information on Hungarian Certified Building – Hungary Green Building Council, 2024
	Global Status Report for Buildings and Construction – United Nations Environment Programme, 2025
	Situation 2023 - Climate indicators in Hungary – Hungarian Central Statistical Office (KSH), 2024
	Energy system of Hungary – International Energy Agency, 2024
	Hungarian National Energy Strategy 2030 – Ministry of National Development, 2024
	Hungarian National Energy and Climate Plan 2030, 2024 update
	EU Waste Framework Directive 2008/98/EC
	Circular economy country profile 2024 Hungary, European Environment Agency
	National Circular Economy Strategy for Hungary, OECD, 2023
	Waste prevention country profile Hungary 2023, European Environment Agency
	Hungary National Waste Management Plan 2021-2027
General information provided by Vertikal	Equal opportunities plan
	Family-friendly environment
Green finance-specific documentation provided by Vertikal	Green Financing Framework
	Information on use of proceeds

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Applied methodologies

Applied Green Bond Principles, ICMA, 2022
Applied Green Loan Principles, LMA, 2023
Applied Scope Green Bond's SPO Guidelines, March 2025

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