°CICERO Shades of Green

Castellum
Shades of Green assessment

23 August 2022

Sector: Real estate

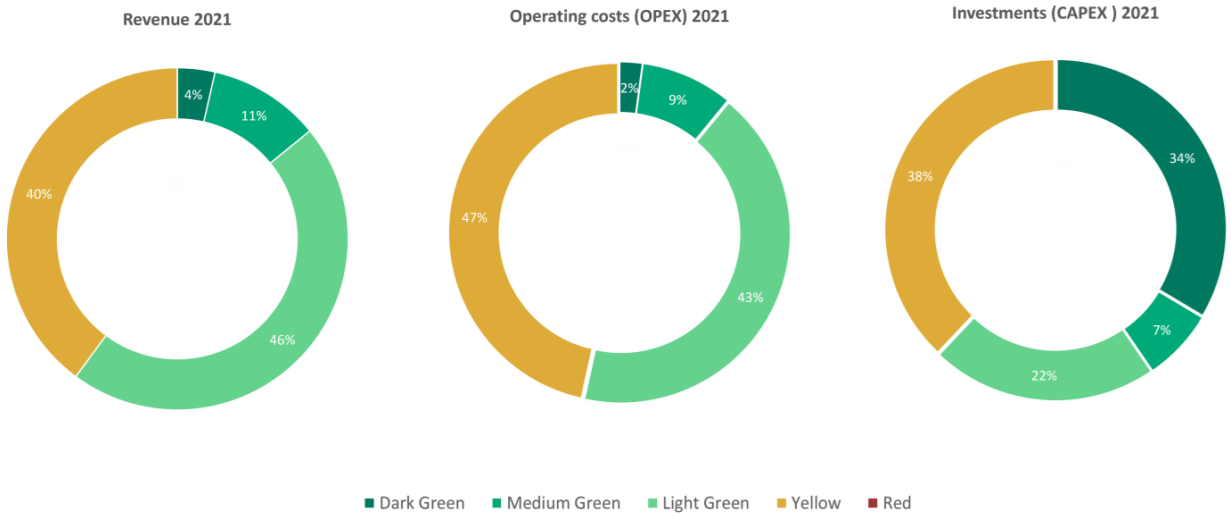
Region: Nordics

Executive Summary

Castellum is a real estate company in the Nordic region. Business operations concern property development, management, acquisition, and sale of commercial premises. At the end of 2021, its property value was approximately 176 billion SEK and total lettable area was 6,333,000 square meters. The company is active throughout Sweden, in Copenhagen and the Helsinki area, and in Norway through its associated company Entra.

Shading of Castellum's 2021 revenue, operating expenses, and capital expenditures

Figure 1: Shading of revenue, operating costs and capital expenditures for Castellum.



In 2021, 60% of rental revenue, 53% of operating costs (opex), and 62% of investments (capex), came from assets with some Shade of Green. The Shade of Green assigned to a property reflects its overall climate risk and environmental impact, where we take into account if it is new construction, a major redevelopment or an existing building. From a climate perspective, it is better to renovate existing buildings rather than build new ones, especially in the Nordic context where embodied emissions in building materials typically make up for 50% of total lifecycle emissions.

The Shade of Green assigned to Castellum's properties reflects the energy use of the building, the level of environmental certifications and the focus on sustainable materials. Dark Green is allocated to existing properties that have an EPC A or B, has onsite renewables, and have the highest level of certifications. Having participated in Castellum's re-use and recycling of materials initiative in combination with the other stated criteria can also allocate a Dark Green shading. For new construction, it is crucial to reduce embodied emissions from materials compared to the norm, and therefore new properties also need to focus on material choices to qualify for a Dark Green shading.

Nasdaq Green Designation Annual Renewal[1]

Based on this review, CICERO Green assesses that Castellum meets the Nasdaq Green Equity Designation requirements for annual renewal as set out in the Nasdaq Green Equity Principles.

[1] CICERO Shades of Green is an approved reviewer to assess alignment with the Nasdaq Green Equity Principles, Nasdaq.com/Solutions/Nasdaq-Nordic-Green-Designations

Medium Green is allocated to properties that perform either with its energy performance or through its focus on reducing embodied emissions in the real estate sector. This includes existing properties with a high level of certifications accompanied with an EPC-label of A or B, properties that have participated in Castellum's re-use and recycling of materials initiative and have an EPC of C or better, as well as new buildings that have an energy performance that is at least 20% better than current regulations and has a high-level certification. Light Green is allocated to transition activities. This shade is allocated to existing properties within the top 15% of similar stock. While these buildings are energy efficient compared to the average building stock, they do not necessarily go beyond what is required. New properties that have a 10-20% improved energy use compared to regulations also qualify for a Light Green Shading. Two of the properties that have received a light green shading are linked to fossil fuel heating, however there are plans to phase this out. These properties constitute less than 1% of the portfolio that have received a green shading. Properties that do not fulfil any of these criteria are allocated a shade of Yellow.

Governance Assessment

Castellum has a solid sustainability strategy and the business structure facilitates sustainable business decisions. Targets are quantified and are dependent on finding the best solutions and future innovation. Castellum's net-zero target is positive, especially since the target does not include an offset strategy but is planned to be achieved through actual reduction activities. It is especially encouraging that all of Castellum's new developments have started to include re-used/circular materials, where materials that are new must be able to be re-used when demolished. Also, its policies, procedures and reporting follow well-established standards, and climate targets are integrated into decision-making processes. CICERO Green encourages Castellum to continue to develop how it reports on scope 3 emissions, especially linked to embodied emissions from materials. We also encourage Castellum to continue to reduce the total energy performance of its portfolio.

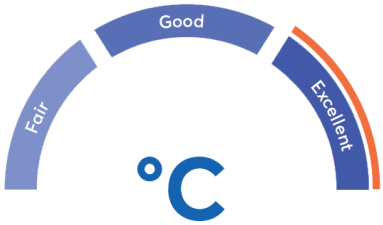


Figure 2: CICERO Green assess Castellum's governance structure and practice to be Excellent.

EU taxonomy

The relevant EU taxonomy activities for Castellum are the construction of new buildings, the renovation of existing buildings, and the acquisition and ownership of buildings. CICERO Green assesses that 52% of revenue, 43,6% of OPEX and 53,1% of CAPEX are likely aligned to the acquisition and ownership of buildings category. For the renovation of existing buildings, Castellum does not have a policy that ensures a 30% improvement of Primary Energy Demand (PED), and therefore all renovations are likely not aligned. For the category construction of new buildings, we have assessed all of the developments that took place in 2021, where 16/19 properties are likely aligned. Castellum appears to be aligned to the DNSH criteria. Castellum states that it assesses the actual and potential risks for human rights violations in its own operations, in the operations of its business partners and before it enter into new business relationships. The assessment encompasses the human rights of the following groups: own employees, women, children, indigenous populations, migrant workers, outside contract labour force and local communities. Castellum states that it implements its Code of Conduct for suppliers in their business relationships, and monitors this in its annual risk assessment. Major suppliers are required to sign the Code. CICERO Green concludes that Castellum appears to fulfil the requirements of the minimum social safeguards.

Table 1: Sector specific metrics

	Energy use (kWh/m^2)	Environmentally certified (% of area)	Emissions intensity scope 1, 2 and 3 (kg CO_2e/m^2)	Heated directly by fossil fuels (% of area)
2021	91	48	26.8	1
2020	75	39	69.6	1

2019	88	36	72.3	1

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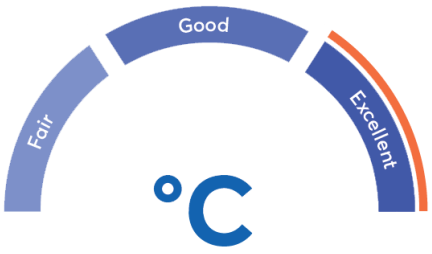
Company description

Castellum is a real estate company in the Nordic region. Business operations concern property development, management, acquisition, and sale of commercial premises. At the end of 2021, its property value was approximately 176 billion SEK and total lettable area was 6,333,000 square meters. The company is active throughout Sweden, in Copenhagen and the Helsinki area, as well as in Norway through its associated company Entra. Castellum's asset portfolio has tenants in various industries, where nearly one-quarter of its rental income comes from public companies and government agencies.

Governance Assessment

Castellum has a business structure that facilitates sustainable business decisions, having solid procedures in place and senior management involved in both the sustainability strategy and implementation. Targets are quantified and are dependent on finding the best solutions and future innovation. Its strategy to be carbon neutral by 2030 is accompanied by sub-targets for the years to come to make it easier to measure how it is performing on its main target. Castellum's net-zero target is encouraging, especially since the target does not include an offset strategy but is planned to be achieved through actual reduction activities. Although the methodology on how to implement this reduction is not yet defined it is positive that Castellum has set ambitious targets. Castellum has set policies based on best practices, for example by having its climate resilience strategy include looking at future climate scenarios.

It is especially positive that all Castellum's new developments have now started to include re-used/circular materials, where materials that are new have to be able to be re-used when demolished.



Its policies, procedures and reporting follow well-established standards, where targets are set with guidelines from Science Based Targets and reporting includes TCFD. The reporting is transparent on the methodologies and assumptions that are used. Climate targets are integrated into decision-making processes.

The overall assessment of Castellums's governance structure and processes gives it a rating of **Excellent.** To improve, Castellum could continue to develop how it reports on scope 3 emissions, especially linked to embodied emissions from materials. We also encourage Castellum to continue to reduce the total energy performance of its portfolio as it targets.

Key strategies, policies, and targets

Castellum's target is to be the most sustainable property company in Europe. The company states that it will actively promote sustainable development and that sustainability goals should be integrated into business operations and yield tangible results. The long-term goal of Castellum's environmental and climate efforts is to achieve net-zero carbon emissions by 2030 at the latest. Castellum's strategy is to adapt its portfolio to be more energy efficient, take life cycle perspectives into account in investments, assume responsibility for natural resources and biological diversity, increase the share of renewable energy and adapt operations to the consequence of climate change.

In 2017, the board of directors at Castellum adopted a sustainability strategy it has called "The sustainable city 2030", with 22 measurable targets and actions. The strategy is revised and updated annually. "The sustainable city 2030" consists of four areas of focus: the planet, future-proofing, well-being, and social responsibility.

Highlighted objectives are:

- To decrease the direct and indirect carbon emissions in scopes 1,2 and 3 to reach its net zero target by 2030.
- Use natural resources responsibly and efficiently
- Build and manage from a service life perspective, and promote circular models
- Promote increased biological diversity and limit the use and spread of environmentally hazardous products
- Create conditions for responsible waste management through minimising waste, guarding against pollutants, and regarding waste as a resource for use and recycling.

Castellum's sustainability strategy also entails setting requirements for construction projects. Generally, the following requirements are imposed by the company: i) follow the code of conduct, ii) follow the sustainability policy, iii) have an environmental management system and waste plan, iv) have an environmental project manager in every project, v) choose energy efficient products, and vi) select sustainable building materials from both an environmental and health perspective, reducing emissions with minimum 15% relative to a reference project.

Castellum's sustainability initiatives are based on external initiatives such as the GRI Standards, UN Sustainable Development Goals, The Paris Agreement, Sweden's road map to fossil-free Sweden, UN global compact, OECD guidelines for multinational enterprises, TCFD, ISO 14001, Science Based Targets, sustainability certifications, and local sustainability programs and climate adaption plans. Castellum was named the world's most sustainable company in the office and industrial sector according to the Global Real Estate Sustainability Benchmark (GRESB).

Governance structure

According to Castellum's sustainability report, the head of sustainability and the sustainability managers are responsible for supervising climate-related risks and opportunities, monitoring compliance with the company's sustainability policy, realising the sustainability strategy, and achieving the sustainability goals. Before investing, the head of sustainability assesses the investment from a sustainability perspective, where climate risks are evaluated. Castellum's board of directors, together with executive management, are responsible for adopting Castellum's sustainability goals. The CEO is ultimately responsible for all sustainability initiatives. The board of directors and CEO together approve Castellum's sustainability report on an annual basis. All Castellum employees undergo mandatory web-based training in sustainability, diversity, and codes of conduct, which is also a part of the onboarding of new employees. The sustainability policy and codes of conduct are updated annually.

Supply chain

The company has a code of conduct that applies to all procurements and partnerships with suppliers. According to its sustainability report, sustainability is an assessment criterion and is weighted into the choice of partners. The company has identified its suppliers, where the vast majority consists of contractors, followed by construction carpentry firms and electricity grid and distribution owners. The company conducts systematic risk analyses of all its partners to identify high-risk suppliers. To date, no high-risk suppliers have been identified. The company states that this is likely because it has chosen local suppliers with well-developed sustainability initiatives. According to its sustainability report, for every procurement, the supplier must affirm that they work systematically on sustainability. If a supplier violates the code of conduct or sustainability requirements Castellum can cancel the agreement.

Environmental risk management

Through regular surveys and dialogues with stakeholders, Castellum has identified the sustainability issues that stakeholders consider to be most important with a materiality analysis. Castellum has identified that its customers, board of directors, suppliers, and employees are central to its operations, and they have therefore been given priority to participate in its materiality analysis. According to the company, additional input was obtained from business intelligence and from discussions with in-house and external experts. The identified issues are i) to minimise climate impact, ii) create more sustainable building materials and installations, and iii) partner with customers for increased sustainability performance.

Social risk awareness

Castellum is aware of the risk of violations of workers' rights in its supply chain. Its code of conducts complies with existing international standards such as the UN global impact, the UN guiding principles on business and human rights, and the OECD Guidelines for Multinational Enterprises. The code of conduct describes the company's position on human rights, working conditions, and business ethics. According to its sustainability report, Castellum will over the coming years further develop the way it reviews its operations to ensure that no violation of human rights occurs in its value chain. Regarding social risks, it has identified ensuring sustainable supply chains through the evaluation of suppliers regarding environmental impact and social criteria as the main issue.

Reporting

Castellum reports sustainability work according to the Global Reporting Initiative (GRI) through its annual report. The reporting is extensive and includes its long-term goals and commitments, its materiality analysis, and impact reporting. The impact reporting includes its energy consumption, emissions (scope 1,2, and 3), water use, waste, and the number of sustainability-certified buildings in its portfolio. Reporting is done by property type for most categories. An external consultant conducts a limited assurance of the sustainability reporting. Castellum provides climate reporting in accordance with the TCFD.

Sector risk exposure

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Physical climate risks. For the Nordic building sector, the most severe physical impacts will likely be increased flooding, snow loads, and urban overflow, as well as increased storms and extreme weather. Developing projects with climate resilience in mind is critical for this sector. The real estate sector is also exposed to climate risks through links to the construction industry and the utilities sector.

Transition risks. Castellum is exposed to transition risks from stricter climate policies e.g., mandatory efficiency upgrades. The company is also exposed to liability risks due to e.g., legal challenges if preventable damages from climate change increase. In addition, the real estate sector is exposed to changing consumer preferences for more climate-smart and energy-efficient buildings.

Environmental risks. The construction sector is at risk of polluting the local environment during the erection of the properties, e.g. from poor waste handling. There are also risks related to impacts on local biodiversity/habitats as well as the use of un-sustainably sourced material like tropical wood.

Social risks. The social risks related to the real estate and construction sector include risks of human rights violations primarily in the supply chain in the sourcing of materials and services. Risks in relation to workers' rights are particularly linked to health and safety for the issuers'/the companies' own employees as well as those of subcontractors.

Assessment of Castellum's activities

Key issues and metrics

Regarding data from 2020 and 2021, one should be cautious about the fact that COVID-19 caused irregularities in how properties were used, therefore data might not give an accurate description of sustainability performance. When assessing data from the construction industry, real estate companies often cannot provide information linked to all its properties because of limitations to where they can measure for example energy use. Castellum has confirmed that this does not affect the results as it calculates asset by asset and calculates intensity only on properties where data can be measured. Castellum is also transparent on the number of properties it does not have enough data to include in its calculations. Nevertheless, one must be cautious that calculated intensities do not necessarily reflect the totality of Castellum's portfolio. One should also note that total consumption and total calculated emissions therefore can provide an inaccurate description of reality. 2021 does not include Kungsleden assets, which will most likely influence results for the next year.

GHG Emissions

Total emissions in 2021 (with 2020 in parenthesis), measured with the location-based method, was 102,914 tons CO_2 (308,857 tons CO_2). in 2021, the database for scope 3 emissions was replaced with a newer database. The company states that it is now using the database that is the most reliable and has updated emissions factors that better take economic activities into account with improved sectoral granularity. The substantial reduction in scope 3 emissions (70% reduction) is linked to the change of the database. Total emissions in 2021 (with 2020 in parenthesis), measured with the market-based method, were 91,899 tons CO_2 (294,450 tons CO_2). Specific emissions were in 2021 26.8kgCO_2/m^2 (69.6 kgCO_2/m^2). The company targets having net-zero carbon emissions by 2030. This target does not include an offset strategy and is planned to be achieved through actual reduction activities. The methodology on how to implement this reduction is not yet defined. In 2021, Castellum had achieved a 77% reduction in carbon emissions in scopes 1 and 2 compared to 2007. The company's carbon emissions come primarily from the manufacture of materials. Currently, material emissions are mainly calculated with emission factors and are based on spending data. However, when the methodology is developed, Castellum aims to report material linked emissions on more precise data based on the specific material use.

Table 2: The table summarises GHG emissions (evaluated with the location-based method) and main emission reduction targets.

	Total (tons CO_2eq)	**Scope 1 emissions**	**Scope 2 emissions**	**Scope 3 emissions**	**Specific emissions (emissions intensity) (kgCO_2/m^2)**
Main targets	Carbon neutral by 2030				
2021	102,914	322	16418	86,174	26.8
2020	308,857	284	18128	290,175	69.6
Change 2021- 2020	-67%	+1%	-11%	-70%	-61%
Main Sources		Refrigerants, business travel, natural gas, and oil	Electricity and district heating and cooling	Construction, waste, lease assets downstream and ither fuel and energy related emissions in scope 3.	

Energy

In 2021 (with 2020 figures in parenthesis), total energy use was 257 GWh (226 GWh), corresponding to a measured energy intensity of 91kWh/m2 (80 kWh/m2). Castellum targets a 22% reduction in energy consumption (average intensity of the total portfolio) in 2025 compared with 2015, where it in 2021 had an 11% reduction compared to 2015. Regarding the portfolio energy intensity, the short-term target is for 75% of the portfolio to have an energy intensity lower than 100kWh/m2 by 2025, and the long-term target is for all properties to have an energy intensity lower than 50kWh/m2. The company also targets to have 100% non-fossil fuel energy by 2030 at the latest. In 2021, it had 95% (95%) non-fossil fuel energy. The below table provides information on the energy mix.

Table 3: The table summarises energy mix by energy source

Energy source	Percent of total
Electricity (Renewable)	21%
Geothermal	1%
District heating	71%

Table 4: The table summarises energy use and main target

	Total [MWh]	Intensity [kWh/m2]
Main Targets		- By 2025, 75% of the portfolio will have an energy consumption lower than 100kWh/m2 - Long-term goal is for the whole portfolio to have an energy consumption lower than 50kWh/m2
2021	256,911	91
2020	226,249	80
Change 2021- 2020	+14%	+14%

Waste handling and circular economy

In 2021, the total waste generated by tenants where there was data available was 2959 tons. Data is currently obtained from 53% of the waste management contractors, and Castellum is working to increase the amount of data. Wasting sorting is offered at all properties that are managed by Castellum. The table below provides information on how waste was handled. Construction waste is not included in the table. For construction projects, contractors must follow certain requirements, for example, having waste plans in projects. Project-specific targets are also set, such as the maximum proportion of waste that can comprise hazardous waste. Another requirement is that there must be clear guidelines regarding how waste is to be sorted. In 2021 Castellum set a target that all developments should include re-used/circular materials to some extent. The company also targets that by 2030, re-use and renewable materials will be a significant element in all projects. Castellum has implemented guidelines for all its developments on how to do this. Part of the process is to locate re-used material that can be used in developments. This is followed up quarterly in all its major developments.

	Non-hazardous waste sorting rate [%]	Waste [tons]

	Landfill	Recycling	Incineration	Hazardous waste	Non-Hazardous waste
2021	0,7%	42%	57,3%	34	2925

Table 5: The table summarises how reported waste from tenants was handled in 2021

Water consumption

Castellum targets to reduce water conservation with 1% per year, in the like-for-like portfolio. The company has implemented measures to reduce water use, including installing low-flow toilets, leak detectors and installation of tap aerators. Smaller scale measures such as collection rainwater for flushing toilets is also being implemented.

Building certifications

Castellum aims to have 50% of the asset portfolio (in sqm) environmentally certified by 2025. In 2021, 48% of the asset portfolio had a green building certification, equivalent to 206 certifications. Further certifications are in progress, equivalent to 4% of the asset portfolio. Examples of certifications used are EU Green Building, Miljobyggnad, BREEAM, LEED and WELL, where BREEAM is the most used. The company strategy is that new office buildings in Sweden must be certified to Miljobyggnad Gold, whereas new office buildings outside of Sweden are to be certified to the BREEAM Excellent. New production of logistics buildings are to be certified Miljobyggnad Silver.

Climate Resilience

Castellum has identified that flooding, land erosion, and vulnerability to extreme weather are the most material physical risks for its operations. Therefore, the company has implemented specific risk analysis processes for all investments, both for existing properties and new developments. All properties in its portfolio have gone through a portfolio analysis. Castellum has provided us with its risk analysis procedure document, and it is based on:

- A climate analysis provided by The Swedish Meteorological and Hydrological Institute (SMHI), who has used the IPCC scenario to make a country-specific analysis that describes current and future climate, based on a limited emission scenario (RCP4.5) and a high emission scenario (RCP8.5).
- A risk assessment made by Myndigheten for samhallsskydd och beredskap (MSB), that has mapped the most vulnerable areas in Sweden regarding rising water levels.

Biodiversity

Regarding biodiversity, Castellum has a policy to ensure that it is at least an equal amount of biodiversity upon completion of the projects as there was before a building was constructed. To ensure this the company has created a tool that is adapted to Castellum's operations with Sweco. Early in the development Castellum analyse all ecosystems on the property. This is measured and scored in the tool with "eco points". Then a target is set to improve the "eco points" during the development. When the project is completed, a second, follow up analysis is made with the same tool.

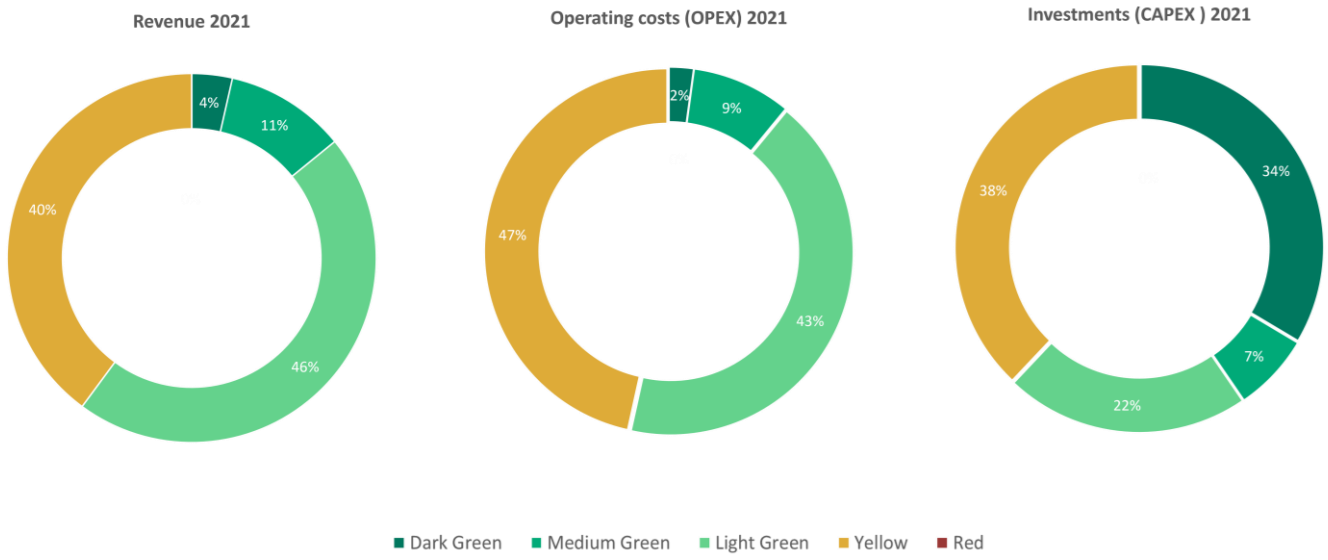
Table 6: CICERO Green assessment of Castellum's management of key environmental issues

Key issue	CICERO Green comments
GHG emissions	✓ Castellum reports on all three scopes. When a better methodology is developed, its ambition is to strengthen its scope 3 emission reporting. Today it is still challenging to report on embodied emissions linked to material use, and the current practice is to calculate material-linked emissions with emission factors and base the calculation on spending data. However, Castellum aims to report material linked emissions on more precise data based on the specific material used in the future. ✓ It is challenging to compare Castellum's emissions to others in the sector because the methodology on how to measure and calculate emissions is still under development and there is no sector standard yet. However, it is a strength that Castellum is transparent in its reporting, has set quantified targets and is looking at how to strengthen the methodology. ✓ Castellum's net-zero target by 2030 is encouraging, especially since the target does not include an offset strategy but is planned to be achieved through actual reduction activities. Although the methodology on how to implement this reduction is not yet fully defined, the company has two roadmaps to guide it toward the 2030-target. One for management of existing properties and one for development projects. It is positive that Castellum has set ambitious targets to push innovation and new technology.
Energy	✓ It is positive that Castellum has both short-term and long-term targets linked to energy use, where its long-term target is far below current regulations. ✓ The energy intensities in Castellum's portfolio varies. Therefore, it is positive that Castellum targets to reduce the energy intensity of the like-for-like portfolio.
Waste handling and circular economy	✓ Castellum has appropriate procedures regarding waste management and focuses on project-specific targets as well as general targets. It is a strength that the percentage of waste that ends up at landfills is minuscule. ✓ For the low carbon transition, it is essential that the real estate sector starts to reuse and recycle more. Therefore, Castellum's reuse and recycling initiative is encouraging.
Water consumption	✓ Reducing water consumption also reduces the energy use tied to a property, and it makes water available for other purposes. Even though the Nordics have not had problems with water shortage in general, climate change can lead to unexpected drought periods. ✓ Castellum is looking at new technology to reduce its water usage. One example is that it is looking at collecting rainwater that falls down on its properties. The rainwater is then collected and used to flush toilets in the buildings. This saves fresh water, which is normally used in Sweden and the Nordics.
Sustainability certifications	✓ For future developments, Castellum aims to achieve Miljöbyggnad "Guld", BREEAM "Excellent" or LEED "Gold" for new construction and Miljöbyggnad "Silver", BREEAM "Very Good", LEED "Gold for major refurbishments. While certification standards cover a broad set of issues that are important to sustainable development, they differ considerably in their requirements for energy efficiency, embodied emissions of construction materials, transportation emissions, and resiliency. ✓ In general "in-use" certifications offer fewer environmental considerations than certifications for new developments. While certification schemes like BREEAM In-Use

	secure some environmental qualities, the point-based system do not guarantee a low carbon building and have no requirements on energy efficiency other than that energy use shall be monitored. ✓ However, targeting sustainability certifications shows that the company has environmental development in mind, and used correctly they can be used as tools to lower a building's carbon footprint and energy use.
Climate Resilience	✓ Castellum has a solid risk analysis process that captures the most material physical risks it has identified for its operations. ✓ It is a strength that the IPCC scenarios are included in its risk analysis procedure, as it enhances the possibility that its portfolio will be more resilient to future climate change.
Biodiversity	✓ It is positive that Castellum has a focus on biodiversity and is trying to implement procedures to increase biodiversity in its projects. We have not received any examples from properties where this has been implemented, but Castellum informs us that the tool is developed and implemented. It states that it has been successfully applied to several projects. CICERO is encouraged by Castellum's focus on biodiversity.

Shading of Castellum's revenue, operating expenses and capital expenditures

Figure 2 Castellum's 2021 revenue, operating costs and investments by Shade of Green



The Shade of Green assigned to a property reflects its overall climate risk and environmental impact. We have assessed and allocated a shade of green to each property in the portfolio. The assessment has been positively influenced by our assessment of Castellum's Governance Score of Excellent and the company's ambitious sustainability strategy that is quantified and covers multiple important themes such as implementing re-use and recyclable materials in development projects.

Given Castellum's governance and management of key issues, we have assigned a shade to each property, taking into account if it is new construction, a major redevelopment or an existing building. From a climate perspective,

it is better to renovate existing buildings rather than build new ones, especially in the Nordic context where embodied emissions in building materials typically make up for 50% of total lifecycle emissions. Therefore, to qualify as green for newer buildings, the requirements for energy efficiency are higher than for existing buildings. For new buildings, we also assess material choices and how embodied emissions linked to the project are considered.

Dark Green is allocated to energy efficient properties with the highest levels of certifications or reused materials in renovations. For new construction, it is crucial to reduce embodied emissions from materials compared to the norm, and therefore new properties also need to focus on materials. Properties that qualify for Dark Green are:

- Existing properties that have an EPC of A and the highest level of certifications such as Miljöbyggnad "Guld" or LEED Platinum, and
- Existing properties with an EPC of A that also has reused materials in renovations.
- Existing properties with an EPC of B, that have onsite renewables, a high level of certifications or has been part of the reused materials initiative can also qualify for a Dark Green shading.
- New properties that have an EPC of A and can demonstrate an energy performance that is 30% better than regulation. They also have the highest level of certification, solar panels and are using low impact materials.
- There are a few properties that are not 30% better than regulation criteria that still have been allocated a Dark Green shading. These projects have an energy performance that is above 20% better than regulation and have been allocated a Dark Green shading because they are testing innovative technology such as waste-water recovery.
- For renovation projects, we shade the renovation activity itself to be dark green if the PED reduction is above 30%

Medium Green is allocated to properties that perform either with its energy performance or through its focus on reducing embodied emissions in the real estate sector. Properties that qualify for a Medium Green shading are:

- Existing properties with a high level of certifications accompanied with an EPC-label of B
- Properties with an EPC-label of A, that doesn't meet any of the other Dark Green criteria.
- Properties with an EPC-label of B or C, that have participated in Castellum's re-use and recycling of materials initiative.
- New buildings that have an energy performance that is at least 20% better than current regulations, and a high level of certification.

Light Green is allocated to transition activities. Buildings need to meet the EU mitigation criteria to qualify for a Shade of Green. This shade is allocated to existing properties within the top 15% of similar stock. We consider a report from Fastighetsägarna to provide adequate evidence for the energy efficiency of the top 15% of the national building stock. This report defines that buildings with an EPC of A, B or C qualifies. There are also some D buildings. We assess the energy intensity for buildings with EPC D and evaluate if it's below the set threshold. New properties that have a 10-20% improved energy use compared to regulations also qualify for a Light Green shading. We consider renovation activities that improve the energy performance to be Light Green. Two of the properties that have received a light green shading are linked to fossil fuel heating, however there are plans to phase this out. These properties constitute less than 1% of the portfolio that have received a green shading.

Yellow is allocated for properties that do not fulfil any of the criteria above

No assets in Castellum's portfolio have been shaded Red, the shade allocated to projects and solutions that have no role to play in a low-carbon and climate resilient future. These are the heaviest emitting assets, with the most potential for lock in of emissions and is generally not applicable to Nordic real estate.

With these provisions, we find that for 2021 4% of rental revenue came from assets considered Dark Green, 11% from assets shaded Medium Green, 45% from assets shaded Light Green, and 48% from non-green assets shaded Yellow. Thus, 40% of the rental revenue came from assets with some shade of green.

Operating costs in 2021 were 2% Dark Green, 9% Medium Green, 43% Light Green and 47% was shaded Yellow. Thus, 60% of operating costs were associated with some shade of green.

Investments in 2021 were 34% Dark Green, 7% Medium Green, 22% Light Green and 38% was shaded Yellow.

Investors should note that our assessment is based on data reported or estimated by the company and has not always been verified by a third party. We analyse revenue, operating costs and capital expenditures, however there is typically not an explicit link between sustainability and financial data[2]. Our shading often requires allocating line items in financial statements to projects or products, for this we rely on the company's internal allocation methods. In addition, there are numerous ways to estimate, measure, verify and report e.g. data on emissions, which may make direct comparisons between companies or regulatory criteria difficult and somewhat uncertain.

[2] Most accounting systems do typically not provide a break-down of revenue and investments by environmental impact, and the analysis may therefore include imprecisions and may not be directly comparable with figures in the annual reporting

EU Taxonomy

The mitigation criteria in the EU taxonomy includes specific thresholds and do no significant harm (DNSH) criteria construction of new buildings, as well as acquisition and ownership of existing buildings [3]. Comments on alignment are given in the table below, and detailed thresholds, NACE-codes and likely alignment with DNSH criteria are given in Appendix 2.

Table 7: Overall EU Taxonomy alignment

Overall EU Taxonomy alignment (Substantial contribution + DNSH + minimum safeguards)	Revenue	OPEX	CAPEX
Total share eligible (activities covered by criteria)	100%	100%	100%
Total share likely aligned to all criteria	52%	43,6%	53,1%
Total share likely aligned to substantial contribution criteria	52%	43,6%	53,1%

Alignment with minimum social safeguards

To qualify as a sustainable activity under the EU regulation certain minimum social safeguards must be complied with. CICERO Green has assessed the company's social safeguards with a focus on human and labor rights. We take the sectoral, regional and judicial context into account and focus on the risks likely to be the most material social risks. Castellum states that it assesses the actual and potential risks for human rights violations in their own operations, in the operations of their business partners and before they enter into new business relationships. The assessment encompasses the human rights of the following groups: own employees, women, children, indigenous populations, migrant workers, outside contract labour force and local communities. Castellum states that it implements its Code of Conduct for suppliers in their business relationships, and monitor this in their annual risk assessment. Major suppliers are required to sign the Code. CICERO Green concludes that Castellum appears to fulfil the requirements of the minimum social safeguards.

Table 8: Summary of alignment to 7.1 Construction of new buildings (NACE Code F41.1, F41.2)

Eligibility	**2021 share**
Activities covered	0% Revenue, 0% OPEX, 36,1% CAPEX
Substantial contribution	**Summary of assessment**
Mitigation Criteria	✓ Castellum has provided information about 19 new construction developments. We assess that 16 of the properties are likely aligned with the mitigation criteria. 34,2% of CAPEX is therefore likely aligned.
DNSH-criteria	**Summary of assessment**
Climate Change Adaptation	✓ Likely aligned
Sustainable use and protection of water and marine resources	✓ Likely aligned
Transition to a circular economy (circular economy)	✓ Likely aligned
Pollution prevention and control	✓ Likely aligned

[3] taxonomy-regulation-delegated-act-2021-2800-annex-1_en.pdf (europa.eu)

Protection and restoration of biodiversity and ecosystems	✓ Likely aligned

Table 9: Summary of alignment to 7.2 Renovation of existing buildings (NACE code F41 and F43)

Eligibility	**2021 share**
Activities covered	0% Revenue, 0% OPEX, 8,9% CAPEX
Substantial contribution	**Summary of assessment**
Mitigation Criteria	✓ Castellum has provided information about 13 renovation projects, where we have assessed that two of the projects are likely aligned to the mitigation criteria. 0.5% of CAPEX is therefore likely aligned.
DNSH-criteria	**Summary of assessment**
Climate Change Adaptation	✓ Likely aligned
Sustainable use and protection of water and marine resources	✓ Likely aligned
Transition to a circular economy (circular economy)	✓ Likely aligned
Pollution prevention and control	✓ Likely aligned

Table 10: Summary of alignment to 7.7 Acquisition and ownership of buildings (NACE Code L68)

Eligibility	**2021 share**
Activities covered	100% Revenue, 100% OPEX, 55% CAPEX
Substantial contribution	**Summary of assessment**
Mitigation Criteria	✓ Likely partly aligned. Buildings with an energy label of A, B or C in Sweden are likely aligned with the criteria to be within the top 15% of the building stock, based on currently available evidence. For buildings located in Finland and Denmark there is currently no information about the top 15% of building stock, and therefore for properties located here, we cannot assess alignment. 52% of revenue, 43,6% of OPEX and 18,4% of CAPEX are likely aligned to the mitigation criteria.
DNSH-criteria	**Summary of assessment**
Climate Change Adaptation	✓ Likely aligned

Nasdaq Green Designation

CICERO Green confirms that Castellum meets the requirements for Nasdaq Green Equity Designation set out in the Nasdaq Green Equity Principles.

In 2021, 60% of Castellum's turnover came from assets with some Shade of Green, exceeding the 50% threshold for green activities for company turnover. The sum of OPEX and CAPEX allocated a Shade of Green is 61%. This exceeds the 50 % threshold for investments, defined as the sum of CAPEX and OPEX. In 2021, Castellum had no turnover assessed shaded Red, meeting the threshold of less than 5% of the company's turnover being derived from fossil fuel activities.

In addition, this report provides transparency on alignment of the company's activities with the EU Taxonomy and transparency on the company's environmental targets and KPIs is provided.

Terms and methodology

The aim of this analysis is to be a practical tool for investors, lenders and public authorities for understanding climate risk. CICERO Green encourages the client to make this assessment publicly available. If any part of the assessment is quoted, the full report must be made available. Our assessment, including on governance, is relevant for the reporting year covered by the analysis. This assessment is based on a review of documentation of the client's policies and processes, as well as information provided to us by the client during meetings, teleconferences and email correspondence. In our review we have relied on the correctness and completeness of the information made available to us by the company.

Shading corporate revenue and investments

Our view is that the green transformation must be financially sustainable to be lasting at the corporate level. We have therefore shaded the company's current revenue generating activities, as well as investments and operating expenses.

The approach is an adaptation of the CICERO Shades of Green methodology for the green bond market. The Shade of Green allocated to a green bond framework reflects how aligned the likely implementation of the framework is to a low carbon and climate resilient future, and we have rated investments and revenue streams in this assessment similarly. We allocate a shade of green to the revenue stream and investments according to how these streams reflect alignment of the underlying activities to a low carbon and climate resilient future and taking into account governance issues.

Shading	Examples
Dark Green is allocated to projects and solutions that correspond to the long-term vision of a low-carbon and climate resilient future.	Solar power plants
Medium Green is allocated to projects and solutions that represent significant steps towards the long-term vision but are not quite there yet.	Energy efficient buildings
Light Green is allocated to transition activities that do not lock in emissions. These projects reduce emissions or have other environmental benefits in the near term rather than representing low carbon and climate resilient long-term solutions.	Hybrid road vehicles
Yellow is allocated to projects and solutions that do not explicitly contribute to the transition to a low carbon and climate resilient future. This category also includes activities with too little information to assess.	Healthcare services
Red is allocated to projects and solutions that have no role to play in a low-carbon and climate resilient future. These are the heaviest emitting assets, with the most potential for lock in of emissions and highest risk of stranded assets.	New oil exploration

In addition to shading from dark green to red, CICERO Shades of Green also includes a governance score to show the robustness of the environmental governance structure. When assessing the governance of the company, CICERO Green looks at five elements: 1) strategy, policies and governance structure; 2) lifecycle considerations including supply chain policies and environmental considerations towards customers; 3) the integration of climate

considerations into their business and the handling of resilience issues; 4) the awareness of social risks and the management of these; and 5) reporting. Based on these aspects, an overall grading is given on governance strength falling into one of three classes: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.

In March 2020, a technical expert group (TEG) proposed an EU taxonomy for sustainable finance that included a number of principles including "do-no-significant-harm (DNSH)-criteria" and safety thresholds for various types of activities[4]. In April 2021, EU published its delegated act to outline proposed criteria for climate mitigation and adaptation, which it was tasked to develop after the EU Taxonomy Regulation entered into law in July 2020. CICERO Green has assessed the mitigation criteria in the EU taxonomy that includes specific thresholds for activities relevant for the company[5].

Do-No-Significant-Harm criteria include measures such as ensuring resistance and resilience to extreme weather events, preventing excessive water consumption from inefficient water appliances, ensuring recycling and reuse of construction and demolition waste and limiting pollution and chemical contamination of the local environment, as well as restriction on the type of land used for construction (no arable or forested land).

CICERO Green has assessed potential alignment against the mitigation thresholds and the DNSH criteria in the delegated acts published in April 2021.

In order to qualify as a sustainable activity under the EU regulation 2020/852 certain minimum safeguards must be complied with. The safeguards entail alignment with the OECD Guidelines for Multinational Enterprises and UN Guiding Principles on Business and Human Rights, including the International Labour Organisation's ('ILO') declaration on Fundamental Rights and Principles at Work, the eight ILO core conventions and the International Bill of Human Rights. CICERO Green has completed a light touch assessment of the above social safeguards with a focus on human rights and labor rights risks[6]. We take the sectoral, regional and judicial context into account and focus on the risks likely to be the most material social risk.

Our assessment of alignment against the EU Taxonomy is based on a desk review of the listed source documents against the Taxonomy Delegate Act and following our own shading methodology.

[4] Taxonomy: Final report of the Technical Expert Group on Sustainable Finance, March 2020. TEG final report on the EU taxonomy (europa.eu)
[5] taxonomy-regulation-delegated-act-2021-2800-annex-1_en.pdf (europa.eu)
[6] CICERO Green is in the process of further developing its assessment method to ensure that it encompasses the object and purpose of the minimum safeguards.

Appendix 1: Referenced documents list

Document Number	Document Name	Description
1	Castellum annual and sustainability report 2021	
2	Real estate data collection sheet 2022	Data collection sheet filled out by Castellum with data on single properties
3	New_sustainability-goals-2021	Castellum's sustainability goals summarised.
4	Klimatrisker vid inversteringsarenden	Example of Castellum's risk procedure
5	Analys av Primarenergital for de 15% basta byggnaderna i Sverige	Fastighetsägarna has made a report to determine the top 15% building stock in Sweden. Fastighetsägarna is a Swedish trade association for real estate companies.

Appendix 2: EU Taxonomy criteria and alignment

Complete details of the EU taxonomy criteria are given in taxonomy-regulation-delegated-act-2021-2800-annex-1_en.pdf (europa.eu)

7.1 Construction of new buildings

Framework activity	**Green buildings**		
Taxonomy activity	**7.1 Construction of new buildings (NACE Code F41.1, F41.2)**		
	EU Technical mitigation criteria	**Comments on alignment**	**Alignment**
Mitigation criteria	• Substantial contribution to climate change mitigation **Constructions of new building, eligible if:** • The Primary Energy Demand is at least 10 % lower than the threshold set for the nearly zero-energy building (NZEB) requirements in national regulation. The energy performance is certified using an Energy Performance Certificate (EPC). • For buildings larger than 5000 m^2, upon completion, the building resulting from the construction undergoes testing for air-tightness and thermal integrity, and any deviation in the levels of performance set at the design stage or defects in the building envelope are disclosed to investors and clients. As an alternative; where robust and traceable quality control processes are in place during the construction process this is acceptable as an alternative to thermal integrity testing. • For buildings larger than 5000 m^2, the life cycle Global Warming Potential (GWP) of the building resulting from the construction has been calculated for each stage in the life cycle and is disclosed to investors and clients on demand.	**Contextual information** • The use of current regulations as a proxy for NZEB is done in the absence of an officially determined NZEB. However, the use of BBR as a proxy for NZEB for the Swedish market should be clarified by the Swedish authorities. • In Sweden, climate calculations establishing the GWP for the construction phase are a regulatory requirement from 1. January 2022. The requirement is only valid for properties seeking a construction permit after January 1, 2022. **Information provided by the issuer**	34,2% of CAPEX is likely aligned

		• For upcoming construction projects, Castellum aims to meet the NZEB[7]-10% threshold and will take this into consideration in the planning and construction projects • Castellum has confirmed that all its developments undergo testing for air-tightness and thermal integrity. • For buildings over 5000m2, the Global Warming Potential (GWP) of the building will be calculated.	
	EU Taxonomy DNSH-criteria	**Comments on alignment**	**Alignment**
Climate change adaptation	The physical climate risks that are material to the activity have been identified (chronic and acute, related to temperature, wind, water, and soil) by performing a robust climate risk and vulnerability assessment with the following steps[8]: **(a)** screening of the activity to identify which physical climate risks from the list in Section II of this Appendix may affect the performance of the economic activity during its expected lifetime; **(b)** where the activity is assessed to be exposed to physical climate risks, a climate risk and vulnerability assessment to assess the materiality of the physical climate risks on the economic activity; **(c)** an assessment of adaptation solutions that can reduce the identified physical climate risk. The climate projections and assessment of impacts are based on best practice and available guidance and take into account the state-of-the-art science for vulnerability and risk analysis and related methodologies in line with the most recent Intergovernmental Panel on Climate Change reports, scientific peer-reviewed publications, and open source or paying models. For existing activities and new activities using existing physical assets, the economic operator implements physical and non-physical solutions	**<u>Information provided by the issuer</u>** • Castellum has identified that flooding, land erosion, and vulnerability to extreme weather are the most material physical risks for its operations. The company has implemented specific risk analysis processes for all investments, where the IPCC scenarios are used. • The company report following the recommendation of the Task Force on Climate-Related Financial Disclosures (TCFD) through its annual report.	Likely aligned

• [7] Note that the the use of BBR as a proxy for NZEB for the Swedish market should be clarified by the Swedish authorities

[8] The Taxonomy is referring to Appendix A in the Taxonomy Annex 1.

	('adaptation solutions'), over a period of time of up to five years, that reduce the most important identified physical climate risks that are material to that activity. An adaptation plan for the implementation of those solutions is drawn up accordingly. For new activities and existing activities using newly-built physical assets, the economic operator integrates the adaptation solutions that reduce the most important identified physical climate risks that are material to that activity at the time of design and construction and has implemented them before the start of operations. The adaptation solutions implemented do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of cultural heritage, of assets and of other economic activities; are consistent with local, sectoral, regional or national adaptation strategies and plans; and consider the use of nature-based solutions or rely on blue or green infrastructure to the extent possible.		
Sustainable use and protection of water and marine resources	Where installed, except for installations in residential building units, the specified water use for the following water appliances are attested by product datasheets, a building certification or an existing product label[9] in the Union, in accordance with the technical specifications: (a) wash hand basin taps and kitchen taps have a maximum water flow of 6 litres/min; (b) showers have a maximum water flow of 8 litres/min; (c) WCs, including suites, bowls and flushing cisterns, have a full flush volume of a maximum of 6 litres and a maximum average flush volume of 3,5 litres; (d) urinals use a maximum of 2 litres/bowl/hour. Flushing urinals have a maximum full flush volume of 1 litre. To avoid impact from the construction site, the activity complies with the criteria in the EU Water Framework Directive[10]. Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU[11] and includes an assessment of the impact on water in accordance with the Water Framework Directive,	**<u>Contextual information</u>** • General planning is the responsibility of the municipality and EIAs will be carried out on municipality level where required by national law. This includes a plan for impacts on water sources. **<u>Information provided by the issuer</u>** • Castellum has informed us that the technical specifications for water appliances will be implemented for all its developments moving forward.	Likely aligned

[9] The Taxonomy is referring to Appendix E in the Taxonomy Annex 1.
[10] Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy
[11] DIRECTIVE 2011/92/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the assessment of the effects of certain public and private projects on the environment.

	no additional assessment of impact on water is required, provided the risks identified have been addressed.		
Transition to a circular economy (circular economy)	• At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material[12]) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials. • Operators limit waste generation in processes related to construction and demolition. • Building designs and construction techniques support circularity and in particular demonstrate how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.	**Information provided by the issuer** • The company sets requirements for the contractors, for example making it mandatory having waste plans in projects. Specific targets for each individual project is also set. • Castellum has a set threshold regarding landfilling of waste. Maximum 5% is sent for landgilling and there can be max 20kg/BTA waste for its developments. Castellum has confirmed that at least 70% of waste is prepared for re-use, recycling or other material recovery. • It also informed us that it sets demands for new construction materials so that they can be re-used when demolished and also demand the use of re-used materials during the construction phase. • Castellum informed us it follows the NollCO2 standard for our major developments, which it states is the gold standard at the moment. It has set up guidelines on how to calculate the carbon emissions and uses OneClick. In an early stage it calculate emissions for a reference building based on what it is going to construct and then it set up targets according to its net zero pathway its development.	Likely aligned
Pollution prevention and control	• Building components and materials used in the construction comply with the criteria set out in Appendix C to the Taxonomy Annex 1.	**Information provided by the issuer** - Castellum use Byggvarubedömningen and only use recommended or accepted product.	Likely aligned

[12] Refer to the European List of Waste established by Commission Decision 2000/532/EC

	• For building components and materials used in the construction that may come into contact with occupiers' formaldehyde emissions are within relevant limits[13]. • Where the new construction is located on a potentially contaminated site (brownfield site), the site has been subject to an investigation for potential contaminants[14]. • Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.		

[13] Emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516522 and ISO 16000-3 523 or other comparable standardised test conditions and determination method.

[14] Standard ISO 18400 can be used.

Protection and restoration of biodiversity and ecosystems	• An Environmental Impact Assessment (EIA) or screening should be completed in accordance with national provisions[15]. • Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. • For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment where applicable, has been conducted and based on its conclusions the necessary mitigation measures are implemented. • The new construction should not be built on one of the following: a) arable land and crop land; b) greenfield land of recognised high biodiversity value and land that serves as habitat of endangered species (flora and fauna) listed on the European Red List or the IUCN Red List. c) land matching the definition of forest as set out in national law used in the national greenhouse gas inventory, or where not available, is in accordance with the FAO definition of forest[16].	• In Sweden, general planning is the responsibility of the municipality and EIAs will be carried out on municipality level. Land that is covered by area protection according to the Planning and Building Acts is Natura 2000, nature reserves and animal and plant protection areas, and construction is not permitted. This is stated in the general and detailed plan for each municipality. The company has confirmed that no new construction is built on these areas. • Before construction on new land is permitted, the builder needs to prepare a detailed plan and receive a building permit.	Likely aligned

[15] The Taxonomy is referring to Appendix D in the Taxonomy Annex 1.

[16] Land spanning more than 0,5 hectares with trees higher than five meters and a canopy cover of more than 10 %, or trees able to reach those thresholds in situ. It does not include land that is predominantly under agricultural or urban land use, FAO Global Resources Assessment 2020. Terms and definitions: http://www.fao.org/3/I8661EN/i8661en.pdf).

7.2 Renovation of existing buildings

Framework activity	**Green buildings**		
Taxonomy activity	**7.2 Renovation of existing buildings (NACE code F41 and F43)**		
	EU Technical mitigation criteria	**Comments on alignment**	**Alignment**
Mitigation criteria	• Substantial contribution to climate change mitigation **Renovation of existing buildings, eligible if:** • The reduction of primary energy demand (PED) must be at least 30 %.	Castellum has not confirmed that it expects a 30% reduction of PED for its renovation projects.	Likely partly aligned 0.5% of capex is likely aligned Since the company hasn't targeted a 30% reduction of PED, it can be true for some of its renovations but not all.
	EU Taxonomy DNSH-criteria		**Alignment**
Climate change adaptation	• Please refer to Construction of new buildings.	Please refer to Construction of new buildings.	Likely aligned
Sustainable use and protection of water	• Where installed, except for installations in residential building units, the specified water use for the following water appliances are attested by	Please refer to Construction of new buildings.	Likely aligned

and marine resources	product datasheets, a building certification or an existing product label[17] in the Union, in accordance with the technical specifications: (e) wash hand basin taps and kitchen taps have a maximum water flow of 6 litres/min; (f) showers have a maximum water flow of 8 litres/min; (g) WCs, including suites, bowls and flushing cisterns, have a full flush volume of a maximum of 6 litres and a maximum average flush volume of 3,5 litres; (h) urinals use a maximum of 2 litres/bowl/hour. Flushing urinals have a maximum full flush volume of 1 litre.		
Transition to a circular economy (circular economy)	Please refer to Construction of new buildings.	Please refer to Construction of new buildings.	Likely aligned
Pollution prevention and control	• Building components and materials used in the construction comply with the criteria set out in Appendix C to the Taxonomy Annex 1. • Building components and materials used in the construction that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of carcinogenic volatiles[18]. • Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.		Likely aligned

7.7 Acquisition and ownership of buildings

Framework activity	**Green buildings**

[17] The Taxonomy is referring to Appendix E in the Taxonomy Annex 1.

[18] Categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516522 and ISO 16000-3 523 or other comparable standardised test conditions and determination method.

Taxonomy activity	**7.7 Acquisition and ownership of buildings (NACE Code L68)**		
	EU Technical mitigation criteria	**Comments on alignment**	**Alignment**
Mitigation criteria	• Substantial contribution to climate change mitigation **Acquisition and ownership of buildings, eligible if:** • For buildings built before 31 December 2020, the building has at least Energy Performance Certificate (EPC) class A. As an alternative, the building is within the top 15% of the national or regional building stock expressed as operational Primary Energy Demand (PED) and demonstrated by adequate evidence, which at least compares the performance of the relevant asset to the performance of the national or regional stock built before 31 December 2020 and at least distinguishes between residential and non-residential buildings. • For buildings built after 31 December 2020, the building meets the criteria set out for the activity 'construction of new buildings'. • Where the building is a large non-residential building it is efficiently operated through energy performance monitoring and assessment. For buildings built after 31 December 2020, buildings are eligible if: • The Primary Energy Demand is at least 10 % lower than the threshold set for the nearly zero-energy building (NZEB) requirements in national regulation. The energy performance is certified using an Energy Performance Certificate (EPC).	• We consider a report from Fastighetsägarna to provide adequate evidence for the energy efficiency of the top 15% of the national building stock. This report defines that buildings with an EPC of A, B or C qualify to be in the top 15%. There are also some D buildings within the set threshold for energy performance. We assess the energy intensity for buildings with an EPC D and evaluate if it's below the set threshold. There are some uncertainties to this data, therefore the assessment might change if better data is provided at a later stage. • Castellum has an overarching energy target for 2025, where it want 75% of its properties to be under 100kwh/m2, and by 2030 under 50 Kwh/m2.	52% of revenue, 43,6% of opex and 18,4% of capex is likely aligned There is currently no information about the top 15% of the building stock in Finland and Denmark, therefore we can not assess properties located in these countries.
	EU Taxonomy DNSH-criteria	**Comments on alignment**	**Alignment**

Climate change adaptation	Please refer to Construction of new buildings.	Please refer to Construction of new buildings.	Likely aligned.

°CICERO
Shades of
Green

Appendix 3: About CICERO Shades of Green

CICERO Green is a subsidiary of the climate research institute CICERO. CICERO is Norway's foremost institute for interdisciplinary climate research. We deliver new insight that helps solve the climate challenge and strengthen international cooperation. CICERO has garnered attention for its work on the effects of manmade emissions on the climate and has played an active role in the UN's IPCC since 1995. CICERO staff provide quality control and methodological development for CICERO Green.

CICERO Green Company Assessments indicate the greenness of a company by providing a shading of revenues, operating costs and capital expenditures, as well as an assessment the company's governance structure. CICERO Green also provides second opinions on institutions' frameworks and guidance for assessing and selecting eligible projects for green, sustainability and sustainability-linked bond investments. CICERO Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Green is independent of the company being assessed, its directors, senior management and advisers, and is remunerated in a way that prevents any conflicts of interests arising as a result of the fee structure. CICERO Green operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of assessments.

We work with both international and domestic issuers, drawing on the global expertise of the Expert Network on Second Opinions (ENSO). Led by CICERO Green, ENSO contributes expertise to the second opinions, and is comprised of a network of trusted, independent research institutions and reputable experts on climate change and other environmental issues, including the Basque Center for Climate Change (BC3), the Stockholm Environment Institute, the Institute of Energy, Environment and Economy at Tsinghua University, the International Institute for Sustainable Development (IISD) and the School for Environment and Sustainability (SEAS) at the University of Michigan.

Environmental Finance
Bond Awards
2022
Winner
External assessment provider of the year

★ **2020** External Assessment Provider Of The Year, Environmental Finance Green Bond Awards
★ **2020** Largest External Review Provider In Number Of Deals, Climate Bonds Initiative Awards
★ **2019** External Assessment Provider Of The Year, Environmental Finance Green Bond Awards
★ **2019** Largest Green Bond SPO Provider, Climate Bonds Initiative Awards
★ **2018** External Assessment Provider Of The Year, Environmental Finance Green Bond Awards
★ **2018** Largest External Reviewer, Climate Bonds Initiative Awards
★ **2017** Best External Assessment Provider, Environmental Finance Green Bond Awards
★ **2016** Most Second Opinions, Climate Bonds Initiative Awards