

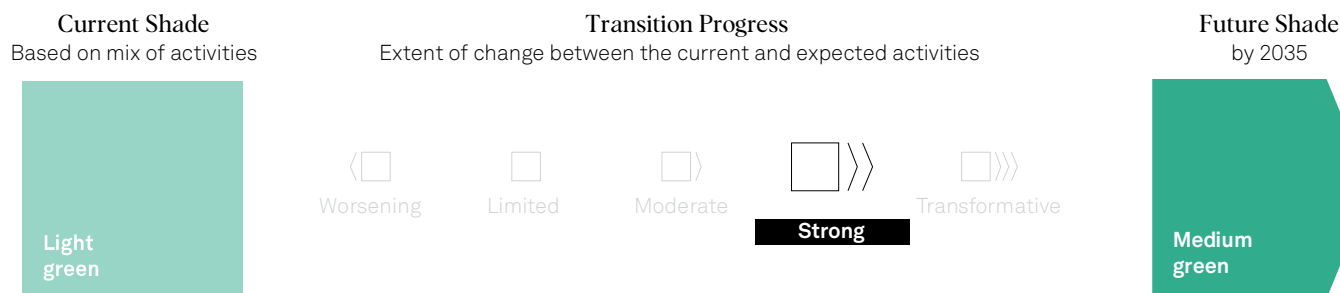
## Climate Transition Assessment

# Castellum Climate Transition Assessment

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### Climate Transition Summary

**S&P Global Ratings expects Castellum's green revenue as a share of total revenue to rise by 2035 and a significant share of yellow revenue from nongreen buildings to shift to green.** Our current shade of Light green reflects Castellum's diverse building portfolio, with 56% of revenue from energy-efficient buildings. In 2024, key investments included construction and renovation projects that were assigned a shade of green.

**We believe continuous investments in energy efficiency will help Castellum deliver on its climate targets.** Castellum aims to achieve net-zero emissions by 2040, targeting all significant emissions. Castellum does not have a fixed capital expenditure (capex) plan for green investments, but typically invests Swedish krona (SEK) 250 million-SEK400 million in energy efficiency projects annually. Such investments should drive progress toward its long-term target for all properties to achieve energy efficiency better than 50 kilowatt hours (kWh) per square meter per year, shifting more assets to a shade of green. A potential rise in capex for sustainable new construction is unlikely to materially alter the future revenue mix, but Castellum's commitment to high sustainability standards will help meaningfully reduce its overall emissions and puts it ahead of international peers in terms of climate ambition.

**Castellum's strong governance mechanisms will help it deliver on its transition strategy.** Furthermore, sustainability legislation in Sweden is advanced and Castellum's progress in this area positions it well to mitigate transition risks associated with Europe's evolving regulatory landscape. Castellum is ahead of the median of its peers in the share of certified buildings in its portfolio and of EU Taxonomy-aligned revenue, which we view as key indicators for the shade of green for real estate.



### Strengths

#### **A strong sustainability focus and a broad range of measures to deliver on targets.**

Castellum is committed to reducing the energy intensity of its portfolio and is making progress to manage embodied emissions. It is increasing the use of reused materials and is engaging with stakeholders such as district heating suppliers and its tenants.

### Weaknesses

No weaknesses to report.

### Areas to watch

#### **New construction may entail high emissions and biodiversity risks.**

Castellum has strategies to significantly reduce emissions; however, absolute embodied emissions may rise in the medium term due to favourable credit conditions allowing more new construction projects, as their targets are intensity-based. For biodiversity, Castellum aims for a net positive increase in ecosystem services in its major projects.

#### **Energy performance requirements for a green shade will likely be higher in 2035.**

There is some uncertainty about the extent to which the building sector will decarbonize over the next decade. This will influence which buildings are considered within the top 15% of energy efficiency locally.

A Climate Transition Assessment (CTA) is our qualitative opinion on the expected alignment of a company's activities with a low carbon climate resilient future once its planned transition changes are realized, considering implementation actions and risks. It is a point-in-time opinion, reflecting the information provided to us at the time the CTA was created and published, and is not surveilled. We assume no obligation to update or supplement the CTA to reflect any facts or circumstances that may come to our attention in the future. A CTA is not a credit rating and does not consider credit quality or factor into our credit ratings. See our [Analytical Approach: Climate Transition Assessment](#) and our [Analytical Approach: Shades of Green](#).

## Company Description

<b>Location:</b> Sweden	<b>Sector:</b> Real estate
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Castellum is one of the Nordic region’s largest commercial property companies, headquartered in Sweden. Its business operations include property development, management, and acquisition, as well as the sale of commercial premises.

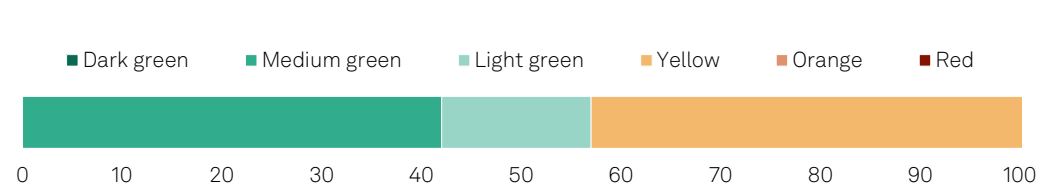
At the end of 2024, the value of its property portfolio was approximately SEK155 billion and the total leasable area was about 5.3 million square meters. Approximately 80% of the company’s property holdings are in Sweden, while Finland and Denmark each account for 4%. 13% of the property holdings are held through its associated company Entra in Norway.

Castellum’s asset portfolio has tenants in various industries, with the office segment accounting for 60% of total portfolio value at the end of 2024, while public-sector properties accounted for 17%, warehouse/light industry 14%, and retail 5%. About 4% of the portfolio value was attributable to land.

Castellum is listed on the Nasdaq Stockholm Large Cap and it has a diversified investor base. At the end of 2024, investors with the largest shareholdings in the company were Akelius--through both Akelius Residential Property and Akelius Apartments--(13.5%), BlackRock (5.1%), and Gösta Welandson (4.0%). Akelius has since increased its stake in the company to over 25%.

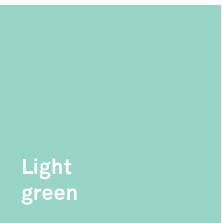
## Current Activity

Current activities mix by shade (2024 % of total revenue)



Source: S&P Global Ratings.

Current Shade  
Based on activities mix



Activity breakdown by shade (2024 % of total)

Shade	Revenue	Opex	Capex
<div>Dark green</div>	0	0	0
<b>Activities:</b> None			
<b>2035 future revenue estimate: not applicable.</b>			
<div>Medium green</div>	41%	38%	61%

**Activities:** Existing buildings within the top 15% of similar stock and newer buildings (built after 2020) that are 10% better than nearly-zero energy buildings (NZEBs), have been screened for physical risks, and are not heated by fossil fuels; certified new construction projects with energy performance that is at least 30% better than regulatory requirements, with embodied emissions aligning with ambition set in relevant green building certifications, and that are not heated with fossil fuels; and renovation projects leading to high energy savings.

**2035 future revenue estimate:** After energy efficiency improvements on its existing buildings, it is expected that a share of Yellow and Light green buildings may shift to Medium green.

<div></div> Light green	15%	15%	11%
<p><b>Activities:</b> Existing buildings with green building certifications that qualify for the top 30% of a similar stock of buildings and have been screened for physical climate risks; and new construction projects with energy performance that is at least 30% better than regulatory requirements, with green building certifications and that are not heated with fossil fuels.</p> <p><b>2035 future revenue estimate:</b> The share of Light green is expected to remain stable following energy efficiency improvements in existing buildings. A portion of Yellow buildings may transition to Light green, while some Light green buildings may shift to Medium green. As a result, the overall share of Light green is anticipated to be stable.</p>			

<div></div> Yellow	44%	47%	38%
<p><b>Activities:</b> Existing buildings that do not meet the green criteria above, but have been screened for physical climate risks and are not heated with fossil fuels; and funds dedicated to projects and developments that are not tied to specific properties.</p> <p><b>2035 future revenue estimate:</b> The share of Yellow is expected to decrease.</p>			

<div></div> Orange	0.3%	0	0
<p><b>Activities:</b> Existing buildings that do not meet the green criteria above and are heated with fossil fuels.</p> <p><b>2035 future revenue estimate:</b> The share of Orange is expected to become zero as Castellum upgrades heating systems to phase out fossil fuels.</p>			

<div></div> Red	0	0	0
<p><b>Activities:</b> None</p> <p><b>2035 future revenue estimate:</b> not applicable.</p>			

As of 2024. Most accounting systems do typically not provide a breakdown of revenue and investments by environmental impact, and the analysis may therefore not be directly comparable with annual reporting. Opex--Operational expenditure. Capex--Capital expenditure. Source: S&P Global Ratings.

## Shade Rationale

Castellum is allocated a current shade of Light green reflecting diverse revenue sources, including 56% from buildings that are energy efficient. In 2024, key investments included construction projects and renovations, all assigned a shade of green, and improvements in the energy efficiency of its existing portfolio.

**Most of Castellum's properties are connected to district heating or low carbon heating, which limits transition risk from direct fossil fuel heating.** The exposure to climate-related risks in the real estate sector in Castellum's main geographic markets could be reduced relative to other jurisdictions by the inclusion of sustainability considerations in national building regulations. Most buildings in Castellum's portfolio are connected to district heating and the company aims to procure green contracts from low carbon sources. 100% of the company's district heating contracts are green in Finland and 50% are green in Sweden. In 2022, most energy used in Sweden for district heating came from renewable and recovery (waste-to-energy) sources, with a minimal share from fossil fuels. This has led to the country's carbon intensity being below the EU average. A small proportion of Castellum's portfolio is heated with fossil fuels, though the phase out of fossil fuel sources is ongoing. Three of its 672 buildings at the end of 2024 were directly connected to fossil fuel heating--two with an oil furnace, and one using natural gas.

**Castellum has assessed its property portfolio for physical climate risk and includes these considerations in its yearly survey of overall risks and its investment decision process.** In 2022 the company conducted a climate risk assessment that entailed the use of scenario analysis, namely RCP 2.6 (meeting Paris Agreement objectives) and RCP 8.5 (business-as-usual), with a long-term time horizon of 2100. It found that 7% of its total property value faced high climate risks. For new construction projects, it additionally used an intermediate scenario where emissions increase up to 2040 and taper off thereafter, focused on assessing precipitation, extreme weather, and flood risks. Given the fixed nature of buildings, these assessments support our green shading assessment.

**All of Castellum's revenue and operating expenditure (opex) and 77% of its capex relate to existing properties, where over 56% of revenue was generated from energy-efficient assets and is therefore viewed as green.**

- We consider the revenue, opex, and capex related to highly energy-efficient buildings with no direct fossil fuel heating to be Medium green. This includes buildings that qualify for the top 15% of a stock of similar buildings, as well as those that exceed the requirements for NZEB by 10%.
- We assess as Light green the revenue, opex, and capex associated with two buildings that, though meeting other Medium green requirements, are directly connected to fossil fuel heating.
- We assign a Light green shade to the revenue, opex, and capex related to buildings with an energy performance that is equivalent to the top 30% of a stock of similar buildings and that have obtained solid green building certifications. Such schemes may contribute to the mitigation of environmental issues that are material for the real estate sector, namely energy efficiency, biodiversity, and waste management. However, their robustness and ambition depend on the version used and the points obtained during the certification process. This is because they do not always apply stringent energy efficiency criteria.
- We assign a Yellow shade to Castellum's buildings that do not have high energy performance or green building certifications, as well as to funds dedicated to projects and developments not tied to specific properties.
- We consider Orange the one building in Castellum's portfolio that has below average energy performance and is directly connected to fossil fuel heating.

**Castellum also has additional capex tied to five new construction projects, with stringent requirements in place for the energy efficiency of new buildings as well as detailed plans to manage embodied emissions from construction.**

- We view as positive that the company's new construction projects have an energy performance at least 30% better than regulatory requirements, with no direct connections to fossil fuel heating, and that have obtained a green building certification. In this way, Castellum has implemented mitigants to address the most material environmental impacts associated with buildings.

- For any new construction projects, the largest sources of emissions are the materials and equipment used. As such, we view it as a strength that the company has calculated and reduced the embodied emissions to a reasonable level of ambition for three of its new construction projects. We consider them to be in line with a Medium green shade.
- Any new construction activity can result in negative impacts on biodiversity and climate, especially when on greenfield land. We view as positive that none of Castellum's new construction activities took place on arable and crop land, nor on land with high biodiversity value. Swedish building regulations somewhat mitigate this risk by requiring environmental impact assessments for large projects and the implementation of compensation, conservation, and monitoring efforts. However, all deforestation has a negative climate impacts and current practices might not be sufficient to fully mitigate these risks, even in stringent regulatory environments. Castellum works to go beyond legal requirements by setting internal criteria and utilizing work tools to strengthen biodiversity, with the aim of a net positive increase in ecosystem services in its major projects.

**About 23% of Castellum's 2024 capex was used to renovate buildings, which will help to improve their energy efficiency.** In the transition to a low carbon society, renovating, and improving existing properties is important because these activities reduce energy use without creating embodied emissions that are inherent to new construction. Therefore, we see Castellum's renovation projects focused on achieving energy performance certificate A or B as Medium green because they will result in buildings with high energy efficiency. Furthermore, we view as positive that the company has started to calculate the embodied emissions associated with construction activities in renovation projects and that it has started to integrate circularity into its projects.

## Climate Transition Plan

### Future Shade

**We assign Castellum a future shade of Medium green by 2035, reflecting our expectation that the vast majority of revenue will be from buildings shaded Medium green by that date.**

Castellum has strong sustainability targets which address all important emissions in its value chain. These are followed up with systematic actions, which include continuous investments to improve the energy efficiency of its portfolio. The future time horizon of 2035 extends beyond the company's interim targets for 2030 due to its strong track record managing its climate impact, including increasing the energy performance of its buildings. In 2024, the company's energy consumption for heating, cooling, and electricity had decreased by 33% compared to 2017. As such, we expect Castellum to continue to focus on these actions beyond their 2030 interim targets. The company has also committed to manage embodied emissions including by increasing the use of reused materials. We believe the actions planned by Castellum should shift a higher share of its revenue to green, particularly from Yellow to Light green and Medium green. In addition, the company is taking steps to reduce emissions across its supply chain, including by engaging with stakeholders such as district heating suppliers and its tenants.

Future Shade  
by 2035



## Transition Progress

Castellum’s transition progress of Strong reflects the expected shift in its business model toward a larger share of green assets, supported by a clear track record of improving activities to be more aligned with a low-carbon climate-resilient future. While the potential increase in capex for sustainable new construction is unlikely to significantly alter the company's future revenue mix, its strong commitment to high sustainability standards is expected to meaningfully reduce overall emissions.

### Transition Progress

Extent of change between the current and expected activities



Strong

## Transition plan summary

The below table summarizes the key targets, actions and investments supportive of Castellum’s overarching target to achieve net zero by 2040, as well as their expected impact on revenue.

Key targets	→	Actions and investments	→	Expected impact on revenue
100% of properties to have an annual energy performance lower than 50 kWh per square meter.		Investments in the energy efficiency of existing portfolio.  Requirements for new construction that primary energy demand (PED) should be 40% lower than local regulation.		An increase in the share of revenue from Medium green and Light green assets, at the expense of yellow.
Reduce operational emissions of owned and leased buildings.		Investments in the energy efficiency of existing portfolio.  Engagement with tenants to improve their energy efficiency.  Increase the number of installed on site solar PVs to 200 by 2030.		An increase in the share of revenue from Medium green and Light green assets, at the expense of yellow.
Reduce value chain emissions.		Increase the proportion of materials that are reused across projects.  Purchase of low carbon materials.		An increase in the shade of revenue from Medium green properties.

Source: S&P Global Ratings.

## Metrics And Targets

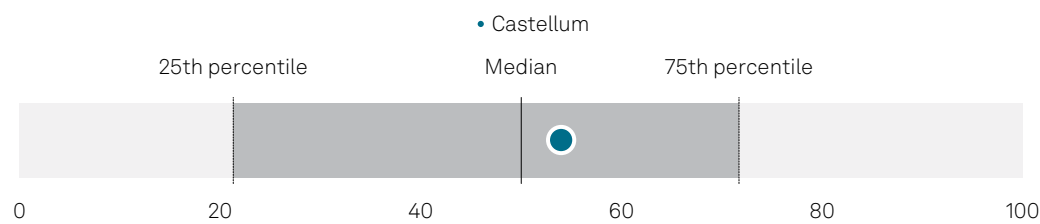
### Peer comparison

Castellum is somewhat ahead of its peers’ median in terms of both share of certified buildings and share of EU Taxonomy aligned revenue, which we view as key indicators of the shade of green for real estate. Although not explicitly covered by either of the indicators, Castellum’s future shade of Medium green also reflects that its efforts to manage embodied emissions, , are more advanced than global peers. Despite their limitations, green building certifications cover a broad set of environmental issues and can be a good indicator of the overall environmental performance of a building. Castellum’s relatively high share of floor area covered by certifications (54%), in part reflects its strong focus on the sustainability and climate performance of its portfolio, such as through work to increase its energy efficiency and setting requirements for new buildings to have an energy efficiency better than local regulation. Castellum is aiming for 75% of its portfolio to be certified by 2030 and we expect its performance on this key performance indicator (KPI) to gradually improve. However, using the share of certified buildings as a proxy to

compare the energy efficiency of Castellum’s portfolio with that of peers is somewhat limited due to different methodologies and considerations for each certification, with many also reflecting the non-environmental performance of buildings such as social factors.

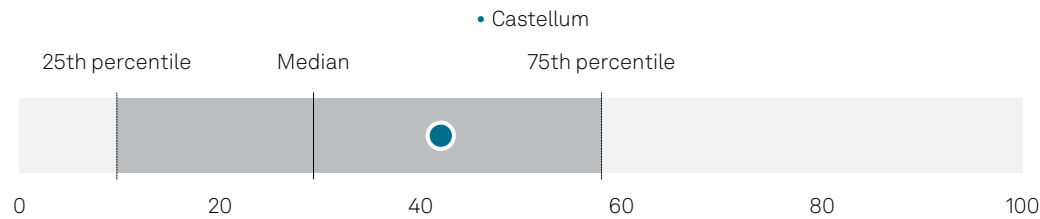
**Castellum’s investments to improve the energy efficiency of its portfolio and work to screen for physical climate risk have resulted in a relatively high share (42%) of revenue that is aligned with the EU Taxonomy.** We expect Castellum to increase the share of its revenue aligned with the EU Taxonomy as it continues investments in the energy efficiency of its portfolio.

Floor area covered by sustainability certifications, % (2023/4)



Source: S&P Global Sustainable1, S&P Global Ratings. Notes: Sustainability certifications are those accepted by GRESB Reference Guide Appendix, including LEED, BREEAM and a range of other schemes. Data was collected for the latest year of either 2023 or 2024--based on a sample of 48 European real estate companies representing at least 50% of sector revenue in 2023. Data in the chart represents 23 companies for which there were public disclosures.

EU Taxonomy Aligned Revenue, % (2023/4)



Source: S&P Global Ratings. Notes: Based on public disclosures of EU Taxonomy-aligned revenue. Data was collected for the latest year of either 2023 or 2024--based on a sample of 32 EU-based real estate companies representing at least 50% of sector revenue in 2023. Data in the chart represents 26 companies for which there were public disclosures.

Transition targets

**Castellum has set an ambitious climate target to achieve net-zero emissions by 2040, covering all significant emissions and supported by interim goals and strategies.** Although the company recently extended its timeline from 2030 to 2040, we believe this new target is at least equally ambitious. The adjustment was made in response to an update of its Science Based Targets initiative (SBTi) targets, following a strengthening of SBTi’s methodology for real estate actors, which made new SBTi targets more robust. Castellum will reduce its emissions by 90% from a new baseline year of 2023, updated from 2017. Since Castellum has already made significant reductions, the overall reduction needed by 2030 remains similar for both targets. The long-term SBTi-validated target includes interim goals for 2030, specifically addressing scope 3 emissions, which encompass downstream leased assets, embodied emissions, and purchased goods and services.

**The company aims for all properties to achieve an energy efficiency of better than 50 kWh per square meter per year.** While this is a long-term goal without a specific deadline, Castellum has set an interim target for 70% of its properties to perform better than 100 kWh per square meter each year by 2025, and it is currently on track to meet this goal (69% as of the first quarter in

2025). Additionally, Castellum is in the process of establishing a target for 2030 that aligns with the energy efficiency improvements needed to reach its updated SBTi target.

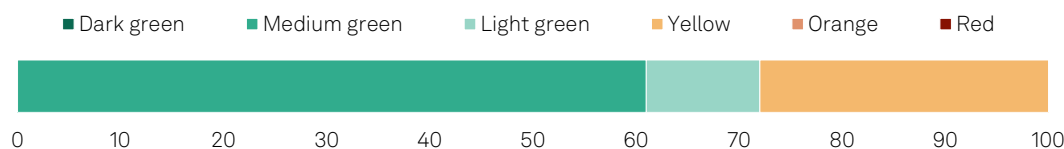
## Target time frames

Transition metrics	Baseline metric	2024	2025	2030	2040
Scope 1, 2, and 3 emissions (absolute)	105,665 tons (2023) Previous baseline: 332,061 tons in 2017	73,215 tons	-	-	Net zero
Energy intensity of portfolio (intensity)	101 kWh/m <sup>2</sup> /year (2021)	91 kWh/m <sup>2</sup> /year	90 kWh/m <sup>2</sup> /year and 70% of properties to be below 100 kWh/m <sup>2</sup> /year	Updated target in progress	Long term goal for all buildings to be below 50 kWh/m <sup>2</sup> /year
In-use greenhouse gas emissions (scope 1, 2 and 3.13, except own cars) (intensity)	4.56 kg CO <sub>2</sub> eq/m <sup>2</sup> /year (2023)	4.50 CO <sub>2</sub> eq/m <sup>2</sup> /year	4.50 CO <sub>2</sub> eq/m <sup>2</sup> /year	3.96 CO <sub>2</sub> eq/m <sup>2</sup> /year	2.46 CO <sub>2</sub> eq/m <sup>2</sup> /year
Embodied greenhouse gas emissions (scope 3.2) (intensity)	428 CO <sub>2</sub> eq/m <sup>2</sup> /year (2023)	346 CO <sub>2</sub> eq/m <sup>2</sup> /year	346 CO <sub>2</sub> eq/m <sup>2</sup> /year	373 CO <sub>2</sub> eq/m <sup>2</sup> /year	234 CO <sub>2</sub> eq/m <sup>2</sup> /year
Greenhouse gas emissions from other purchases (scope 3 except 3.2 and 3.13) (intensity)	8.3 CO <sub>2</sub> eq/m <sup>2</sup> /year (2023)	6.1 CO <sub>2</sub> eq/m <sup>2</sup> /year	6.1 CO <sub>2</sub> eq/m <sup>2</sup> /year	7.2 CO <sub>2</sub> eq/m <sup>2</sup> /year	4.5 CO <sub>2</sub> eq/m <sup>2</sup> /year
Number of on-site solar PVs	106 (2023)	116	100 (achieved)	200	-

Source: Company Reporting and S&P Global Sustainable1. CO<sub>2</sub>eq/m<sup>2</sup>/year--carbon dioxide equivalent per square meter per year. kWh/m<sup>2</sup>/year--kilowatt hour per square meter per year.

## Actions And Investments

### 2024 Capex breakdown by shade (% of total)



Source: S&P Global Ratings.

**We believe Castellum is well positioned to increase its share of green revenue by addressing material sustainability factors such as energy efficiency and the value chain.** To do so, it sets targets and actions such as reducing embodied carbon for its construction projects. Castellum has set an ambitious climate target to achieve net-zero emissions by 2040, covering all significant emissions and supported by interim goals and strategies, which is supported by planned actions.

**Castellum expects to focus investments on increasing the efficiency of its existing portfolio and acquired assets as well as, to a lesser extent, the construction of energy efficient buildings.** The company does not expect to make significant changes to its property portfolio to achieve its greenhouse gas emission reduction targets, however an improvement in credit



conditions could lead to an increase in capex directed towards new developments, which could result in greenhouse gas emissions.

**We believe that Castellum's continuous investments in its existing portfolio will help increase its energy efficiency and should shift a higher share of its revenue to green.** Although Castellum does not have a fixed annual capex plan for green investments, it typically invests SEK250 million-SEK400 million (representing 5%-8% of 2024 capex) in energy efficiency projects annually. Castellum has consistently invested in renovation projects, which represented 15% of capex in the company's 2024 taxonomy reporting. The company does not expect to dispose assets in order to achieve its climate goals, and will focus on renovations--with renovation projects typically required to achieve at least a 30% improvement in PED. Continuous investments in energy efficiency and renovations should allow Castellum to progress on its long-term target for all properties to achieve an energy efficiency of better than 50 kWh per meter squared per year, which consequently would shift more assets to a shade of green.

**While the potential increase in capex for sustainable new construction is unlikely to significantly alter the company's future revenue mix, its strong commitment to high sustainability standards should meaningfully reduce overall emissions.** Castellum has strict requirements for its buildings' environmental performance. For example, it sets strict requirements on energy performance, requiring new construction projects to have an energy performance that is at least 30% better than regulatory requirements and requires strong green building certifications. Furthermore, there are additional requirements on embodied emissions to support its SBTi target. Castellum's threshold for embodied emissions in its new projects is more ambitious than what it typically required by strict green building certifications (e.g. Miljöbyggnad "Gold") as it includes a larger number of emissions categories, as is indicated by its adoption of the NollCO<sub>2</sub> calculation methodology. As new construction is associated with high emissions, Castellum's performance on reducing emissions from such projects will be vital to meet its net-zero target.

**The company's strong focus on increasing reuse and renewable materials across its projects will help it to manage scope 3 embodied emissions related to construction and renovation.** In 2023, Castellum introduced reuse procedures across all projects that aim to ensure materials are reused as much as possible, prioritizing material preservation on-site with disposal only used as a last resort. To help support the increase in reuse, Castellum has established reuse hubs at different sites, aiming to facilitate greater availability of reused materials.

**Castellum employs a range of measures to deliver on its net-zero target, including engaging stakeholders, installing on-site solar, and on-site charging stations for electric vehicles.** While many of these measures may not heavily influence future revenue, they will result in climate benefits and help the company to deliver on its climate targets. Castellum wants to have installed 200 solar PVs on site by 2030. As at end 2024, 116 had been installed, corresponding to 21.2 gigawatt hours of generation on a full-year basis and covering about 21% of 2024 electricity requirements, although this does not include tenant-obtained electricity. The company also engages with district heating providers to help reduce greenhouse gas emissions associated with district heating providers' fuel mix. By the end of 2024, the percentage of district heating providers supplying green district heating powered by renewable fuels increased to 50% (45% in 2023). The company currently has four properties that rely on direct fossil fuel heating, although it plans to transition to more sustainable sources of energy for these properties in the future. Castellum aims to help address emissions related to its customers through green leases. Although 27% of rental revenue in 2024 was covered by green leases, from 2023 all new leases are green leases, which enables Castellum to gain better access to environmental data and work more closely with its tenants to help them reduce their emissions.

**Castellum does not expect to need to invest significantly in adaptation measures.** The company's assessment of its property portfolio considered multiple forward-looking climate scenarios (RCP 4.5 and RCP 8.5), with results showing that climate risks are likely to have a relatively low impact on Castellum's portfolio. Potential costs mainly related to flooding. We expect that investments to support the resilience of Castellum's buildings will require the support of local stakeholders.

## Implementation Drivers

**We believe Castellum has sufficient governance mechanisms to execute on its transition strategy.** The company's clearly outlined governance mechanisms support its sustainability and climate objectives. The board of directors are ultimately responsible for monitoring sustainability matters. Each year, they conduct an analysis on sustainability risks, including climate risks. The board has also created a sustainability working group, which comprises of members of the board and the executive management team and the chief sustainability officer. The CEO has strategic responsibility for sustainability initiatives, with operational responsibility delegated to the chief sustainability officer. The chief sustainability officer and employees within the sustainability function supervise climate-related impacts, risks, and opportunities and monitor compliance with the sustainability policy. 15% of executive variable remuneration depends on achievement of SBTi-validated targets, which could help to incentivize emission reductions.

**Castellum does not expect to shift its financing strategy to meet decarbonization objectives.** Castellum typically finances through a mix of debt and equity to maintain its leverage ratio. Green financing remains a relatively low percentage of total financing, comprising 24% of bonds outstanding at end of 2024, however in recent years Castellum has been increasing this portion.

**As a Swedish company with an energy-efficient real estate portfolio, Castellum is strategically positioned to mitigate transition risks associated with an evolving regulatory landscape and rising operational costs.** Sustainability legislation is already comparatively advanced in Sweden and the country has stronger track record of enforcing stringent building regulations compared to other countries. In 2021, Sweden started to require all new buildings to have a climate declaration that covers emissions from at least raw materials extraction to the operational use of the building. In addition, the country complies with EU regulations, such as the Energy Efficiency Directive, which aims to support the transition to greener buildings. This, as well as Castellum's progress on sustainability, positions the company well to mitigate transition risks associated with the evolving European regulatory landscape. Companies that proactively invest in energy-efficient buildings not only comply with these regulations but may also benefit from lower energy costs, enhanced tenant satisfaction, and improved asset value. In contrast, companies with energy-intensive portfolios face escalating operational costs and potential regulatory penalties, increasing their exposure to transition risks.

**The regulatory landscape is not advancing at the pace needed to meet net-zero targets and could hinder the reduction of emissions in the buildings sector.** In turn, this could hinder Castellum's ability to implement its scope 3 threshold in its new office buildings. For instance, the adoption of circularity principles in using construction materials is needed to reduce real estate emissions. However, Sweden's building codes set high technical functionality and documentation requirements for equipment and materials, which could prevent reused and recycled components from being used and for these markets to develop at scale.

**The lack of and/or cost constraints of sustainable building materials could negatively affect the ability of all real estate developers to reach net zero.** Castellum's transition plans could also be hindered by a failure of district heating and electricity providers to meet climate targets and transition to renewable and low-carbon feedstocks. To help manage this risk, Castellum holds discussions annually with district heating providers to discuss their decarbonization plans.

# Nasdaq Green Designation

## Nasdaq Green Equity Designation

S&P Global Ratings confirms that Castellum meets the requirements for Nasdaq Green Equity Designation set out in the Nasdaq Green Equity Principles.

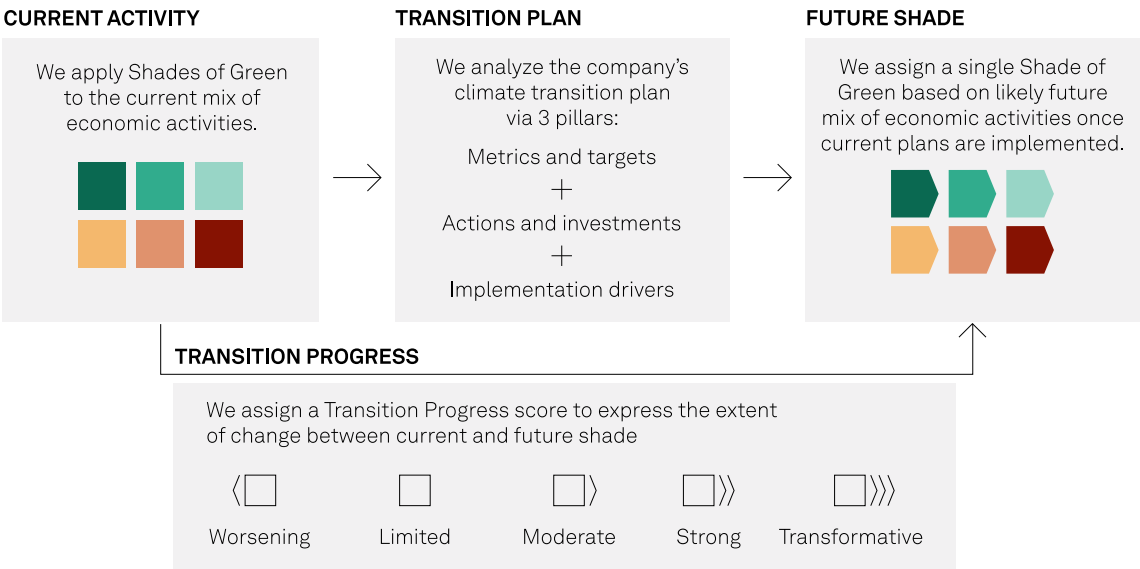
In 2024, 56% of Castellum’s turnover came from assets with some Shade of Green, exceeding the 50% threshold for green activities for company turnover. The sum of opex and capex allocated a Shade of Green is 93%. This exceeds the 50% threshold for investments, defined as the sum of capex and opex. In 2024, Castellum had 0% turnover derived from fossil fuel activities, meeting the threshold of less than 5% of the company’s turnover being derived from fossil fuel activities.

In addition, Castellum meets Nasdaq's transparency requirements on EU Taxonomy alignment and environmental targets and KPIs. The company has reported its EU Taxonomy data publicly in its annual report and through the Nasdaq ESG portal. It reported environmental targets and KPIs data publicly in its annual report and through the Nasdaq ESG portal.

Investors should note that the statements above are the results of S&P Global Ratings' assessment.















## Assigning a Shade for S&P Global Ratings' Climate Transition Assessment



Source: S&P Global Ratings.

## S&P Global Ratings' Shades of Green

Assessments					
 <b>Dark green</b>	 <b>Medium green</b>	 <b>Light green</b>	 <b>Yellow</b>	 <b>Orange</b>	 <b>Red</b>
<b>Description</b>					
Activities that correspond to the long-term vision of an LCCR future.	Activities that represent significant steps toward an LCCR future but will require further improvements to be long-term LCCR solutions.	Activities representing transition steps in the near-term that avoid emissions lock-in but do not represent long-term LCCR solutions.	Activities that do not have a material impact on the transition to an LCCR future, or, Activities that have some potential inconsistency with the transition to an LCCR future, albeit tempered by existing transition measures.	Activities that are not currently consistent with the transition to an LCCR future. These include activities with moderate potential for emissions lock-in and risk of stranded assets.	Activities that are inconsistent with, and likely to impede, the transition required to achieve the long-term LCCR future. These activities have the highest emissions intensity, with the most potential for emissions lock-in and risk of stranded assets.
<b>Example projects</b>					
 Solar power plants	 Energy efficient buildings	 Hybrid road vehicles	 Health care services	 Conventional steel production	 New oil exploration

Note: For us to consider use of proceeds aligned with ICMA Principles for a green project, we require project categories directly funded by the financing to be assigned one of the three green Shades. LCCR--Low-carbon climate resilient. An LCCR future is a future aligned with the Paris Agreement; where the global average temperature increase is held below 2 degrees Celsius (2 C), with efforts to limit it to 1.5 C, above pre-industrial levels, while building resilience to the adverse impact of climate change and achieving sustainable outcomes across both climate and non-climate environmental objectives. Long term and near term--For the purpose of this analysis, we consider the long term to be beyond the middle of the 21st century and the near term to be within the next decade. Emissions lock-in--Where an activity delays or prevents the transition to low-carbon alternatives by perpetuating assets or processes (often fossil fuel use and its corresponding greenhouse gas emissions) that are not aligned with, or cannot adapt to, an LCCR future. Stranded assets--Assets that have suffered from unanticipated or premature write-downs, devaluations, or conversion to liabilities (as defined by the University of Oxford).

## Related Research

- [Analytical Approach: Climate Transition Assessments](#), May 29, 2025
- [FAQ: Applying Our Integrated Analytical Approach For Climate Transition Assessments](#), May 29, 2025
- [Analytical Approach: Shades Of Green Assessments](#), July 27, 2023
- [S&P Global Ratings ESG Materiality Maps: Real Estate](#), July 20, 2022

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