°CICERO Shades of Green

Platzer Fastigheter AB

Shades of Green assessment

June 7th, 2021

Sector: Real Estate

Region: Sweden

Platzer Fastigheter AB (hereafter Platzer) was founded in 1969. In 2008 Platzer was established in its current form, with a strong focus on commercial properties in the Gothenburg area. As of 2020, the company owns and operates 69 properties, worth SEK 22.6bn and with total rental revenue of SEK 1,142m. Of the total area, offices and shops account for 61%, while industry/warehouses accounted for 39%.

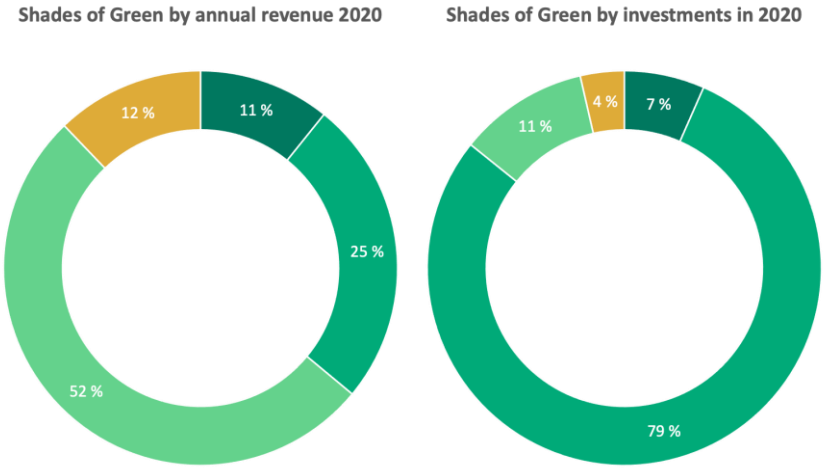

Figure 1 Platzer's 2020 revenue and investments by Shade of Green[2].

In 2020, 88% of the rental revenue, 88 % of operating costs and 96% of investments where from buildings shaded green. The Shade of Green assigned to a property reflects its overall climate risk and environmental impact. We have taken the age distribution of Platzer's portfolio into account. From a climate perspective, it is better to maintain existing buildings rather than build new ones. However, in a 2050 perspective, the average energy intensity of Platzer's portfolio of 83 kW/m^2 needs to improve over time. Buildings that contribute towards this improvement or have other environmental benefits, as demonstrated by a high level of green building certification, are assessed as green.

The Shade of Green assigned to Platzer's properties reflects the energy use of the building and level of environmental certification. Dark Green is assigned to properties with the highest levels of green building certificates and with an energy use less than Platzer's average, or exceptionally energy efficient properties. Medium Green is assigned to properties with high levels of certification and with an energy use less than Platzer's average, or highly energy efficient properties. Light Green is assigned to properties with a high level of certification and for existing older buildings with energy use below average.

Nasdaq Green Designation

Based on this review, Platzer meets the requirements for Nasdaq Green Equity Designation set out in the Nasdaq Green Equity Principles[1].

[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

[2] For the purpose of this assessment, revenue and turnover are used interchangeably, as are operating costs and OPEX, investments and CAPEX

Some Light Green properties have an energy intensity well above average, however, the many environmental benefits associated with the certifications achieved by these buildings, qualify the properties for the shade.

The analysis of properties is based on our assessment of Platzer's governance and management of these key environmental concerns: GHG emissions, Energy use, Building certifications, Materials and waste, Climate Resilience & Transportation solutions. Platzer's key goals are an energy efficiency improvement of 2% per year and a CO_2 target of 0.5 $kgCO_2/m^2$ in an unspecified future year. We note that the energy target falls short of IEA's estimate for Paris agreement alignment (3.2% improvement per year). However, the modest target when it comes to reducing energy can partially be explained by already relatively low energy use and the age structure of the portfolio. Energy intensity and CO_2 emissions (scope 1 +2) are quite low, the last point reflecting the low carbon content in Gothenburg's district heating and grid. Note that energy use is what is called 'property energy', i.e., energy used for running the properties, excluding specific energy used by tenants.

Platzer is exposed to transitional risks and physical risks associated with climate change and more frequent extreme weather. For the Swedish building sector, the most severe physical impacts will likely be increased flooding, heavier snow loads and urban overflow, as well as increased storms and extreme weather. Platzer cooperates with authorities involved in the evaluation of climate risks for city-areas and it is a strength that the company also has conducted an analysis of climate risks for each property in their portfolio.

The relevant EU Taxonomy criteria are Acquisition and ownership of buildings, covering revenue and operating costs, and Construction of new buildings and Renovation, covering investments. CICERO Green assess that Platzer had no fully taxonomy-aligned turnover, OPEX or CAPEX in 2020. This it is likely that 70 % of 2020 CAPEX would be aligned with the mitigation criteria for New construction. However, the assessment of alignment is contingent on Platzer meeting their expected energy efficiency level. CICERO Green is at this point unable to determine alignment of Platzer's activities related to the technical mitigation thresholds for Acquisition and ownership of buildings or Renovation. Platzer appears to be likely aligned with the relevant DNSH criteria on Climate change adaptation, but has gaps related to Sustainable use and protection of water and marine resources and the Transition to a circular economy. CICERO Green considers that Platzer does not currently fulfill all the minimum social safeguards of the EU Taxonomy.

Platzer has high transparency on environmental governance structure and good reporting procedures and standards. The management and follow-up of Platzer's sustainability work is headed by the sustainability and purchasing manager as well as the management team. Platzer has in place some quantitative environmental goals. The reporting is in accordance with the Global Reporting Initiative. Platzer will also report on EU Taxonomy aligned revenues and investments. However, scope 3 emissions from material use is not included and Platzer does not follow TCFD guidelines on use of scenarios and stress testing.

Figure 2 CICERO Green assess Platzer's governance structure and practice to be Good

Platzer is aware of potential social risks related to violations of workers' rights in their supply chain, however, they currently have no formal policy or code of conduct in place to reduce these. However, Platzer has informed us that they have taken some steps to reduce risks, and that they are developing key policies and a whistle blower function, which are important steps to improving social risk management.

Table 1 Measured specific sector metrics for Platzer. Energy is for electricity and heat.

Specific sector metrics	Energy use (kWh/m² Atemp)	Environmentally certified (% of area)	Emission intensity scope 1 + 2 (kg CO_2e/m^2)	Per cent area heated directly by fossil fuels
2020	82.5	48 %	0.7	0%
2019	98.3	49 %	1.0	0%
2018	105.2	48 %	1.1	0%

°CICERO Shades of Green

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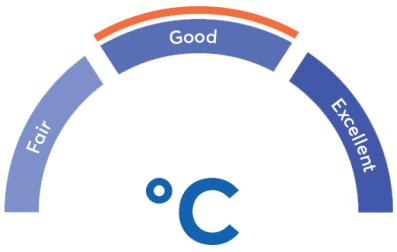
Company description

Platzer Fastigheter AB (Platzer) is a real estate company founded in 1969, but it was not until 2008 that Platzer in its current form was established. Today, Platzer is one of the largest commercial property companies in Gothenburg, primarily in office property. The company's strategy is to participate in the creation, preservation and regeneration of the best locations in Gothenburg. As of 2020, the Company owns and develops 69 properties with a total lettable area of approximately 827,000 m^2, worth SEK 22.6bn and with total rental revenue of SEK 1,142m. Of the total area, offices and shops account for 61%, while industry/warehouses accounted for 39%. The strong focus on both property type and geographical location sets Platzer apart from most other listed real estate companies. In November 2013, Platzer was listed on Nasdaq Stockholm.

Platzer's real estate portfolio has an average age of over 40 years and thus contains many old buildings. 90% of them are environmentally certified with varying certification levels. Also, the average energy use is quite low at 82.5 kWh/m^2 Atemp[3]. This is what is called 'property energy', i.e., energy used for running the properties, but excluding specific energy used by tenants. Energy supply is almost 50/50 between district heating and electricity, with a smaller amount for district cooling for a total of 74,900 MWh in 2020. Greenhouse gas emissions (Scope 1 plus 2) amounted to 546 tCO_2e in 2020, representing 0.7 $kgCO_2e/m^2$ lettable area. This sum is equally distributed among scope 1 emissions (mainly use of cooling media) and scope 2 emissions (mainly from district heating).

Governance Assessment

The overall assessment of Platzer's environmental governance structure gives it a rating of **Good**. Platzer has quantitative targets for CO_2 emissions, however without a specific timeline. The target of an annual energy reduction of 2% is in line with business-as-usual technological progress. The target of environmentally certify all properties is good, but the level of certification remains unclear. Entrepreneurs must account for the materials used in the projects, and Platzer seeks to use the most sustainable materials available. Platzer tracks what material is used in all projects, which makes it easy to, e.g., change material in a building if the material proves to be unsustainable. Platzer has incorporated resilience considerations (for every property) in cooperation with the Swedish Meteorological and Hydrological Institute who delivers data for each property. The report regarding analysis of climate risks for each property is now completed. LCA as bottom-up analysis is also planned for each property. Platzer's properties are all located at hubs around the city with good availability to public transport. Transport related environmental impacts are thus of minor concern.



The planned reporting is good and include elements of impact reporting, however at a portfolio level. We note that Platzer does not carry out climate scenario analysis or risk assessments in alignment with the methodology recommended by TCFD[4], but that is planned for the future.

[3]Measuring heated area only.
[4] https://www.fsb-tcfd.org/publications/final-recommendations-report/

Platzer is aware of potential social risks related to violations of workers' rights in their supply chain. They currently have no formal policy or code of conduct in place to reduce social risks, however, they have informed us that they have taken some steps to reduce risks, including requiring all contracts to go through a review by the procurement team, limiting the number of suppliers and occasionally including contract clauses securing workers similar terms as agreed through collective agreements within its area of operation. Plazter has informed us that they are currently updating their sustainability policy to better include social risks. In addition, the company is planning to implement a Code of conduct including human rights and workers' rights for sub-contractors and a whistle blower function.

Sector risk exposure

The below text box highlights some key risks for the real-estate sector. See Appendix 3 for additional background on the real estate sector more generally.

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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. Platzer 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 increases. In addition, the real estate sector is exposed to changing consumer preference 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 for 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. Corruption can be a challenge in this sector and should be paid extra attention to.

Sustainability Management

Platzer's environmental impact arises both in day-to-day real estate operations and in connection with property and project development. As a locally based property owner, Platzer wants to take responsibility for the sustainable development where they operate, and for the impact property management has on the global environment. The company therefore focuses on the areas where property management has the greatest impact, such as energy use, waste management and the choice of sustainable material in reconstruction and new construction.

Platzer's sustainability efforts and efforts to limit and reduce the environmental impact of its business are based, among other things, on the UN Sustainable Development Goals for 2030 (SDGs) with particular emphasis on 5, 7, 8 and 11 representing gender equality, affordable and clean energy, decent work and economic growth and sustainable cities and communities, respectively. This is implemented in accordance with ISO 14001:2015. As part of its contribution to a sustainable future, Platzer has formulated four environmental objectives:

- All properties must be environmentally certified.

- In the long term, 100% of the rental value should be green leases[5].
- In the long term, Platzer's carbon dioxide emissions should not exceed 0.5 kg CO_2/m^2 lettable area.
- Every year, Platzer aims to reduce its energy consumption by 2% (i.e., "landlord energy").

As of 2020 the status with respect to these goals were that (2019 numbers in parenthesis):

- 90% (92%) of the properties have been certified.
- 58,3% (49%) of the leases were green leases.
- CO_2 emissions represented 0.7 $kgCO_2/m^2$ lettable area (1.0 $kgCO_2/m^2$). (Emissions have been reduced by almost 90% since 2010).
- Energy use was reduced by 6.6% (9.7%) from 2019 to 2020 and by more than 50% over the last ten years.

Platzer has informed us that they have set a target to research net-zero by 2030. The company is planning to further specify this goal during fall 2021.

Governance structure

Platzer's Board of Directors has adopted a sustainability policy and a business plan that governs Platzer's sustainability work and sustainability goals. The CEO is ultimately responsible for the sustainability work. The management and follow-up of Platzer's sustainability work is headed by the sustainability and purchasing manager as well as the management team. External auditors examine the sustainability report. In the daily work and in the relationship with different stakeholders, the company has developed a number of policies and other governing documents which outlines the company's commitment to operate business in a sustainable way. Sub-contractors need to fill in a form prior to being hired. Additionally, there is always a physical meeting in beforehand where Platzer and the sub-contractor agree on common ambitions.

Risk assessment

During 2019 Platzer carried out a materiality analysis based on stakeholder dialogue, which ranked sustainability issues based on a) Platzer's possibility for impact, and b) how important these issues are for securing a sustainable future. Minimizing emissions of greenhouse gases came out as most important, together with the issues of fighting corruption and securing diversity and gender equality. Of these, greenhouse gas mitigation was seen as the hardest to achieve.

Reporting

Platzer reports the sustainability work according to the Global Reporting Initiative, GRI Core. Platzer's annual sustainability report (included in the annual report) contains among other things the number of new units with classification, use of energy, waste handling and CO_2 emissions (scope 1 and 2). Platzer's sustainability report is reviewed by the company's auditors Öhrlings PricewaterhouseCoopers AB. The review is conducted in accordance with FAR's auditing standard RevR 12 *The auditor's opinion regarding the statutory sustainability report*. This implies a limited scope, and the auditor's opinion is limited to a statement confirming that a sustainability report has been prepared.

Platzer has informed us that they will strive to report consistent with definitions of sustainable activities available in the EU Taxonomy at every point of time. Platzer plans to follow the TCFD guidelines in the future. Platzer is

[5] Green leases facilitate joint environmental investments as Platzer and their tenants agree on a common ambition to improve the environmental work in the building. Once a year, Platzer and their tenants meet to discuss environmental issues and update their agreement and associated environmental ambitions.

also planning to publish a green finance report. This reporting will be published at the Platzer's homepage and will include the below information for the total property portfolio:

- Total rental revenue whereof rental revenue related to environmentally certified buildings as well as buildings that have undergone energy saving renovations.
- Total investments whereof investments related to environmentally certified buildings as well as investments in energy saving renovations.
- Type of certification and degree of certification, energy performance per m^2 and/or estimated annual greenhouse gas emissions reduced or avoided for buildings (tCO_2e).

Key issues

GHG Emissions

Total emissions in 2020 (with 2019 numbers in parenthesis) was 546 tons CO_2 (795 tons CO_2) (scope 1 and 2). This sum is distributed among scope 1 emissions (mainly use of cooling media) and scope 2 emissions (mainly from district heating). Scope 3 emissions, related to upstream and downstream activities is not reported by Platzer. Specific emissions were 0.7 $kgCO_2/m^2$ (1.0 $kgCO_2/m^2$) in 2020. Development over the last three years shows a reduction in total emission of almost 43%, while specific emissions have been reduced by 36%. In the long term, Platzer has as a target that CO_2 emissions should not exceed 0.5 kg/m^2 lettable area.

Table 2 Summary of Platzer's CO_2-emissions and main emission reduction targets.

Emissions	Total (Tons CO_2)	Scope 1 (Tons CO_2)	Scope 2 (Tons CO_2)	Specific emissions (emissions intensity) ($kgCO_2/m^2$)
Main targets				0.5
2020	546	238	309	0.7
2019	795	299	396	1.0
Change 2019-2020	-30%	-20%	-22%	-36%
Main sources		Cooling	District heating	

Energy

In 2020 (with 2019 figures in parenthesis), total energy use[6] was 74.9 GWh (86.2 GWh), corresponding to a specific measured energy use of 82.5 kWh/m^2 (98.3 kWh/m^2). No direct fossil fuel was used, but district heating contains some fossil fuel elements (1% in 2020) through use of natural gas. District heating had an emission factor of 45 gCO_2e/kWh (67 gCO_2e/kWh) in 2020. The below table provides information on the energy mix.

Table 3 Platzer energy mix

Energy type	Amount	Percent of total
District heating and cooling	District heating (39,850 MWh) District cooling (2,900 MWh)	57 %
Electricity	32,150 MWh	43 %

[6] This is 'landlord energy', i.e. energy used for running the properties, but excluding specific energy used by tenants.

Total energy use has decreased by 22% over the last three years (2018-2020), as has energy use per square meter. Platzer has as an energy target to reduce demand for energy by 2% per year. This is probably not enough to be aligned with the Paris agreement according to IEA[7].

Table 4 Summary of Platzer's energy use and main target.

Energy use ('landlord energy')	Total (GWh)	District heating and cooling (GWh)	Electricity (GWh)	Specific energy use (kWh/m^2)
Main targets	-2% p.a.			
2020	74.9	42.8	32.2	82.5
2019	86.2	44.0	42.2	98.3
Change 2019-2020	-13%	-3%	-24%	-16%

Building Certifications

Platzer was early in the process of having a large proportion of its properties environmentally certified. It is a way of reducing its environmental impact, and a way of securing properties in the future. At the end of 2020 a total of 90% of the property portfolio were environmentally certified according to Green Building, BREEAM, LEED, or Miljöbyggnad. The share is 48 % when measured by area.

Materials and waste

Platzer has a list of materials they have approved to use in their projects, and the list is constantly under development. Environmental considerations are key in evaluating which materials make it on the list. In Platzer's projects, the end-clients only get a few alternatives when customizing the building. These alternatives are carefully picked out by Platzer with focus on ensuring that the materials used are the most sustainable options available.

Platzer works closely with its tenants to e.g., reduce waste through reuse and recycling. Currently the recycling rate is above 50%.

Climate Resilience

Platzer does cooperate with authorities involved in the evaluation of climate risks for entire city-areas which has consequences both for Platzer and other property owners. Moreover, Platzer has incorporated resilience considerations (for every property) in cooperation with the Swedish Meteorological and Hydrological Institute who delivers data for each property. The report regarding analysis of climate risks for each property is now completed. LCA as bottom-up analysis is also planned for each property. Thus, Platzer is well aware of the physical risks to their portfolio. It is more uncertain whether risks to their supply chain is focused in planning processes.

Transportation solutions

Platzer's properties are all located at hubs around the city with good availability to public transport. Transport related environmental impacts are thus of minor concern.

Key social issues

Platzer is aware of the risk for violations of workers' rights in their supply chain. They currently have no formal policy or code of conduct in place to reduce social risks, however, they have informed us that they have taken

[7] https://www.iea.org/reports/building-envelopes

some steps to reduce risks, including requiring all contracts to go through the procurement department and process. The company has further informed that the procurement team in this process typically reviews hourly rates screening for rates below the market standard for serious firms. Some supplier contracts also include clauses securing workers similar terms as agreed through collective agreements within its area of operation. Platzer has also informed us that they limit the number of suppliers and collaborate with recurring contractors. The framework agreements are evaluated on an ongoing basis by their sustainability and purchasing personnel.

Plazter has informed us that they are currently updating their sustainability policy to better include social risks. A Code of conduct including human rights and workers' rights for sub-contractors is under way and a whistle blower function will be implemented during Q4 2021. The company has informed us that they will require that all demands they place on their suppliers and subcontractors will be passed on to these companies' suppliers and subcontractors.

Table 5 CICERO Green assessment of Plazer's management of key environmental issues.

Key issue	CICERO Green comments
GHG emissions	✓ Platzer's portfolio of properties are mostly characterized as low energy and low emission properties, despite having an average age of over 40 years. This is a strength, not least because renovation of old buildings is usually far more climate friendly than new construction. This is reflected in the shading of the revenues for 2020. However, it is unclear to us whether Platzer optimize (from a climate perspective) the choice between new construction versus refurbishments. ✓ Through its strategic framework and other policies, Platzer is committed to contribute to a green transition towards a low carbon society in the longer run. The CO_2 emission target is good, but unclear when it comes to target year. Platzer's insistence of environmentally certifying all properties will secure a continued reduction in climate footprint and other environmental impacts as long as the national building standards improve over time, but this will depend on what other acquisitions are made to the portfolio.
Energy use	✓ Platzer has clear but modest target when it comes to reducing energy consumption further in the shorter term. This can partially be explained by already relatively low energy use and the age structure of the portfolio.
Building certifications	✓ Some of the buildings in the portfolio have a good environmental rating (through certification levels) while not showing energy use below today's regulation. This is probably at least partly due to the age structure of Platzer's portfolio which is quite old and relatively energy efficient when the age structure is taken into account. Preserving older buildings may reflect a conscious policy on Platzer's behalf to minimise the overall climate footprint of the portfolio
Materials and waste	✓ Platzer has a list of materials they have approved for use in their projects. Environmental considerations are key in evaluating which materials make it on the list. In Platzer's projects, the end-clients only get a few alternatives when customizing the building. These alternatives are carefully picked out by Platzer with focus on ensuring that the materials used are the most sustainable options available.

	✓ Platzer works closely with its tenants to e.g., reduce waste through reuse and recycling. Currently the recycling rate is above 50%.
Climate Resilience	✓ It is a strength that Platzer reports detailed physical climate risks for each property and that they will use this to guide investment plans going forward ✓ We note that Platzer does not carry out scenario analysis whether or not formally in alignment with the TCFD recommendations. ✓ It is also unclear whether the climate risk of sub-contractors and utilities are explicitly taken into account during project planning.
Transportation solutions	✓ Platzer's properties are all located at hubs around the city with good availability to public transport. Transport related environmental impacts are thus of minor concern.

2 Assessment of Platzer's revenues and investments

Shading of Platzer's revenue, operating expenses and investments[8]

Figure 2 shows our shading of Platzer's revenue and investments in 2020. The figures are aligned with Platzer's financial reporting; however, some small discrepancies may occur as our analysis requires allocating revenue, operating expenses, and investments to specific projects.

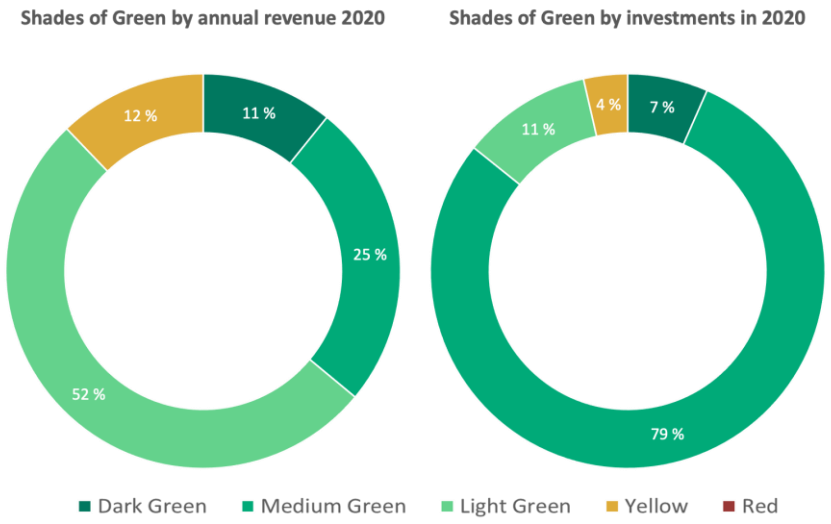

Figure 2 Platzer's 2020 revenue and investments by Shade of Green.

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. Our analysis of the properties is positively influenced by our assessment of Platzer's Governance Score of Good and the company's management of some key environmental concerns, specifically Platzer work to reduce emissions, understand and mitigate the climate risk of its portfolio and the closeness to public transport of most of the properties.

Given Platzer's governance and management of key environmental issues, we have assigned a shade to each property based on the energy use of buildings and environmental certification schemes. We have taken the age distribution of Platzer's portfolio into account. Platzer's real estate portfolio has an average age of over 40 years, and the oldest building in the portfolio is from 1729 (refurbished in 1960). From a climate perspective, it is better to maintain existing buildings rather than build new properties, especially in regions with a large share of renewables in the electricity grid. Higher demands on energy efficiency would therefore be required for a portfolio consisting of newer building. The average energy intensity of Platzer's portfolio is 83 kW/m^2. From a 2050 perspective, this needs to improve over time. Buildings that contribute towards this improvement or have other environmental benefits, as demonstrated by a high level of green building certification, are assessed as green.

[8] For the purpose of this assessment, revenue and turnover are used interchangeably, as are operating costs and OPEX, investments and CAPEX

Dark Green is assigned to properties with an environmental certificate of BREEAM Outstanding, BREEAM Excellent or LEED Platinum and with an energy use less than the Platzer average of 83 kWh/m^2. Without certification, the energy performance certificate needs to have an EPC-label of A or the property should have an energy use below 35 kWh/m^2 (roughly corresponding to 50% of the current Boverket's building regulations (BBR)).

Medium Green is assigned to properties with an environmental certificate of Green Building, Miljöbyggnad Silver, BREEAM Very Good or LEED Gold with an energy use of less than 83 kWh/m^2. Properties without an environmental certificate will need as a minimum to have an energy use below 50 kWh/m^2 (roughly corresponding to 20% of current BBR) or an energy performance certificate of B.

Light Green is assigned to properties with an environmental certification of Green Building, BREEAM Very Good, LEED Gold or Miljöbyggnad Silver, and for existing older buildings[9] with energy use below 83 kWh/m^2. Finally, wooden buildings following the Do-No-Significant-Harm criteria for sourcing of the wood could qualify as light green. Some of the properties shaded Light Green have an energy intensity well above 83 kWh/m2. However, the many environmental benefits associated with the high level of BREEAM, LEED and Miljöbyggnad certification systems qualify the properties for the Light Green shade. The Green Building certification is focused on energy efficiency[10] alone. The criteria for certification is to either reduce energy efficiency in existing building by 25 % or to the level of current BBR (which is below the average energy intensity in the Platzer portfolio). The buildings in Platzer's portfolio certified by Green Building have therefore demonstrated the considerable energy efficiency improvements required for the Light Green shade.

This basic shading can be upgraded or downgraded based on additional information related to access to electrical vehicle charging stations and access to public transport, etc.

For properties not fulfilling any of the above criteria, a shade of **Yellow** is allocated based on energy use and year of construction or last major renovation. In all cases, measured (actual) energy use is preferred, but if lacking, design values will be used. No properties with direct fossil fuel heating are green.

With these provisions, we find that for 2020 11% of rental revenue came from assets considered Dark Green, 25% from assets shaded Medium Green, 52% from assets shaded Light Green, and 12% from non-green assets shaded Yellow. Thus, almost 90% of the rental revenue came from assets with some shade of green.

Investments was in 2020 7% Dark Green, 79% Medium Green, 11% Light Green and 4% was assigned a Yellow shade. The shading is partially based on expected future certification levels, which may be uncertain. According to Platzer, all new building projects will be environemtally certified.

When it comes to operating costs in 2020, these were distributed somewhat similar to the revenues with 10% shaded Dark Green, 26% Medium Green, 52% Light Green and 12% Yellow. Thus, 88% of operating costs were associated with assets with some shade of green.

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 investments, however there is typically not

[9] Interpreted as at least 10 years old.
[10] Green Building started in 2004 as an EU initiative to improve energy efficiency and is now managed by the Swedish Green Building Council. https://www.sgbc.se/certifiering/greenbuilding/vad-ar-greenbuilding/

an explicit link between sustainability and financial data[11]. 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.

Nasdaq Green Designation

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

In 2020, 88% of Platzer's revenue or turn-over 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 95%. Exceeding the 50% threshold for investments, defined as the sum of CAPEX and OPEX. In 2020, Platzer 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.

EU Taxonomy

The mitigation criteria in the EU taxonomy includes specific thresholds and do no significant harm (DNSH) criteria for activities relevant for the company[12]. The relevant activity for this Company Assessment is Acquisition and ownership of buildings, Construction of New Buildings and Renovation. Comments on alignment are given below, and detailed thresholds, NACE-codes and likely alignment with DNSH criteria are given in Appendix 2. Input on our methodology is given in part 3.

CICERO Green assess that Platzer had no fully taxonomy-aligned turnover, OPEX or CAPEX in 2020. This it is likely that 70 % of 2020 CAPEX would be aligned with the mitigation criteria for New construction. However, the assessment of alignment is contingent on Platzer meeting their expected energy efficiency level. CICERO Green is at this point unable to determine alignment of Platzer's activities related to the technical mitigation thresholds for Acquisition and ownership of buildings or Renovation. Platzer appears to be likely aligned with the relevant DNSH criteria on Climate change adaptation, but has gaps related to Sustainable use and protection of water and marine resources and the Transition to a circular economy. CICERO Green considers that Platzer does not currently fulfill all the minimum social safeguards of the EU Taxonomy.

CICERO Green is at this point unable to determine alignment of Platzer's activities related to Acquisition and ownership of buildings to the technical mitigation threshold. The key requirement is that properties are within the top 15 % of energy performance for national or regional building stock. CICERO Green recognizes that Platzer has worked on improving energy performance over time and that vast majority of Platzer's properties are connected to district heating and cooling systems which have low Primary Energy Demand. However, the criteria for top 15% has not yet been determined for the Swedish property and there is not enough publicly available data to make this assessment to date.

CICERO Green assesses it as likely that Platzer will meet the criteria for new construction, for the two properties currently being built. While the energy usage of these has not yet been determined, Platzer has informed us that

[11] 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
[12] taxonomy-regulation-delegated-act-2021-2800-annex-1_en.pdf (europa.eu)

they plan to meet the NZEB –10% threshold and will take this into consideration in the planning and construction process. This implies that it is likely that 70 % of 2020 investments would be aligned with the mitigation criteria for New construction.

CICERO Green in not able to assess alignment of Platzer activities related to renovation of building to the technical mitigation criteria. At this time, it was not possible for Platzer to calculate the reduction in primary energy demand resulting from the renovations.

Platzer appears to be likely aligned with the relevant DNSH criteria on Climate change adaptation. There are no other DNSH criteria specified for acquisition and ownership of buildings.

Key DNSH gaps New Construction and Renovation:

- Sustainable use and protection of water and marine resources: Platzer har informed us that they typically choose water efficient appliances when building new properties to achieve points towards building certifications. However, it is currently unclear to what extent the criteria in green building standards overlap with the taxonomy requirements.

- Transition to a circular economy: Platzer has not yet implemented circular economy thinking into their design or construction techniques.

CICERO Green considers that Platzer does not currently fulfill all the minimum social safeguards of the EU Taxonomy. However, the company has an understanding of key social risks and has taken steps to reduce these. In addition, Platzer is currently developing key policies including a Code of conduct for sub-contractors and a whistle blower function, which are important steps to improving social risk management.

3 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.

SHADES OF GREEN	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 energy projects
Medium green is allocated to projects and solutions that represent steps towards the long-term vision but are not quite there yet.	Green buildings with a high level of certification and energy efficiency
Light green is allocated to transition activities. These projects and solutions could have lower emissions, but do not by themselves represent or contribute to the long-term vision.	Substantially more efficient manufacturing of fossil fuel intensive materials
Yellow is allocated to projects and activities that do not contribute to transition. These activities could have some emissions and be exposed to climate risks. This category also includes activities with too little information to assess.	Efficiency in fossil fuel infrastructure
Red is allocated to projects and activities that have no role to play in a low-carbon and climate resilient future. These are heaviest emitting assets, with the most potential for lock-in of investments and risk of stranded assets.	New infrastructure for coal

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 Platzer, 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[13]. 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. The mitigation criteria in the EU taxonomy includes specific thresholds for real estate sector activities relevant for the company[14].

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[15]. 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.

[13] Taxonomy: Final report of the Technical Expert Group on Sustainable Finance, March 2020. TEG final report on the EU taxonomy (europa.eu)
[14] taxonomy-regulation-delegated-act-2021-2800-annex-1_en.pdf (europa.eu)
[15] 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	Company assessment Platzer 20May2021 draft	Platzer's Green Equity Framework dated May 2021
2	Web site: https://Platzer.se	
3	Annual report 2019	Platzer's 2019 Annual report, including sustainability reporting.
4	202102248618-1	Platzer's 2020 Annual report, including sustainability reporting.
5	Miljövärden för fjärrvärme 2017	Environmental report from Göteborg Energi 2017
6	Miljövärden för fjärrvärme 2018 Preliminär	Preliminary Environmental report from Göteborg Energi 2018
7	Miljövärden för fjärrvärme 2019 Prel	Preliminary Environmental report from Göteborg Energi 2019
8	17.05.2021 Platzer 2020 bedömningsmatris per fastighet(inkl OPEX)	Excel sheet with data on single properties
9	Miljövärden för fjärrvärme 2020 Slutliga	Environmental report from Göteborg Energi 2020

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)

Acquisition and ownership of buildings (7.7)

Framework activity	**Green buildings**		
Taxonomy activity	**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.	• Platzer has worked on improving energy performance over time and asses that many existing buildings will be within the top 15% of the national or regional stock. The vast majority of Platzer's properties are connected to district heating and cooling systems which have low Primary Energy Demand used for EPC that supports this assessment. However, the criteria for top 15% has not yet been fully examined by the property sector as a whole. • All of Platzer revenue in revenue was related to acquisition and ownership of buildings. • For upcoming new construction projects Platzer aims to meet the NZEB –10% threshold and will take this into consideration in the planning and construction process. Note that the use of BBR as a proxy for NZEB for the Swedish market should be clarified by the Swedish authorities.	**Unable to determine alignment to energy efficiency criteria** **Likely aligned to energy management criteria**

	The energy performance is certified using an Energy Performance Certificate (EPC).		
	EU Taxonomy DNSH-criteria	**Comments on alignment**	**Alignment**
Climate change adaptation	• Physical climate risks material to the activity should be identified (chronic and acute, related to temperature, wind, water, and soil) by performing a robust climate risk and vulnerability assessment. • The assessment should be proportionate to the scale of the activity and its expected lifespan, such that: a) for investments into activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections; b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments. The economic operator has developed a plan to implement adaptation solutions to reduce material physical climate risks to the activity. The adaptation solutions identified need to be implemented within five years from the start of the activity. These adaptation solutions do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities and are consistent with local, sectoral, regional or national adaptation efforts.	Platzer has commissioned a climate risk and natural hazard screening of all the assets in their portfolio from SMHI, (the Swedish Meteorological and Hydrological Institute). The study will form the basis for Platzer's future work and investment needs on this matter, and the company will develop plans for buildings at risk. The City of Gothenburg has previously conducted a thorough analysis of the city's vulnerability to climate change, especially concerning rising sea levels close to the ocean. This analysis has been input to the city's overall planning process. As a result of previous analysis Platzer has invested in flooding protection in two properties. The protections are kept in the properties and are easily assembled if a flooding alarm goes off.	**Likely aligned**

Construction of new buildings (7.1)

Framework activity	Green buildings		
Taxonomy activity	**Construction of new buildings (NACE Code F41.1, F41.2)**		
	EU Technical mitigation criteria	**Comments on alignment**	**Alignment**
Technical screening 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 as built Energy Performance Certificate (EPC). • For buildings larger than 5000 m2, 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 m2, the life cycle Global Warming Potential 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.	• In 2020, Platzer had investments related to 2 properties that are under construction. Both of these are planned to be certified according to BREEAM Excellent. The energy usage of these has not yet been determined, however, Platzer has informed us that they plan to meet the NZEB –10% threshold and will take this into consideration in the planning and construction process. Note that the the use of BBR as a proxy for NZEB for the Swedish market should be clarified by the Swedish authorities. • The total value of investments related to new construction was 695 MSEK. • Both properties are over 5000m2, Platzer has confirmed that they preform testing for air-tightness and thermal integrity • In Sweden, climate calculations establishing the GWP for the construction phase are a regulatory requirement from 1. January 2022[16]. The requirement is only valid for properties seeking a construction permit after January 1, 2022.	**Likely aligned (70 % of CAPEX)** **Likely aligned to criteria on air-tightness and thermal integrity** **Likely not fully aligned to criteria on GWP**

[16] https://www.boverket.se/en/start/building-in-sweden/contractor/tendering-process/climate-declaration/

	EU Taxonomy DNSH-criteria	Comments on alignment	Alignment
Climate change adaptation	• Please refer to Acquisition and ownership of buildings	• See comments under Acquisition and ownership of buildings	**Likely aligned**
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[17] 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[18]. Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU[19] and includes an assessment of the impact on water in accordance with the Water Framework Directive, no additional assessment of impact on water is required, provided the risks identified have been addressed.	• Plazter properties under construction are to be certified according to BREEAM, where it is possible to obtain points for meeting requirements on maximum water use for water appliances. Platzer har informed us that they typically choose water efficient appliances when building new properties. • It is currently unclear to what extent the criteria in green building standards overlap with the taxonomy requirements. Most green building standards are made up of a mix of mandatory and voluntary criteria (points), and a specific certification level does therefore not guarantee a level of water efficiency performance across all certified buildings. • 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.	**Likely not fully aligned.**
Transition to a circular economy (circular economy)	• At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material[20]) 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 in accordance with the EU	• Platzer has confirmed that less than 30 % of construction waste is landfilled.	**Likely aligned to criteria on waste management**

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

[18] 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

[19] 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.

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

	Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate reuse and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste. • Building designs and construction techniques support circularity and in particular demonstrate how they are designed to be more resource efficient (with reference to ISO 208872[21]), adaptable, flexible and dismantlable to enable reuse and recycling.	• Platzer has not yet implemented circular economy thinking into their design or construction techniques	**Likely not aligned to criteria on circular economy**
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. • For building components and materials used in the construction that may come into contact with occupiers formaldehyde emissions are within relevant limits[22]. • Where the new construction is located on a potentially contaminated site (brownfield site), the site has been subject to an investigation for potential contaminants[23]. • Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.	• Platzer has a list of materials they have approved for use in their projects. Environmental considerations are key in evaluating which materials make it on the list. In Platzer's projects, the end-clients only get a few alternatives when customizing the building. These alternatives are carefully picked out by Platzer with focus on ensuring that the materials used are the most sustainable options available. Platzer uses Byggvarubedömningen to support this process. • Platzer has confirmed that they would investigate brownfield sites and preform decontamination if needed. • Platzer confirms that they take appropriate measures to reduce noise, dust and pollutant emissions during construction or maintenance works.	**Likely aligned**
Protection and restoration of biodiversity and ecosystems	• An Environmental Impact Assessment (EIA) or screening should be completed in accordance with national provisions[24].	• 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 Act	**Likely aligned**

[21] ISO 20887:2020, Sustainability in buildings and civil engineering works - Design for disassembly and adaptability - Principles, requirements and guidance (version of [adoption date]: https://www.iso.org/standard/69370.html).
[22] 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.
[23] Standard ISO 18400 can be used.
[24] The Taxonomy is referring to Appendix D in the Taxonomy Annex 1.

	• 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[25].	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. • Before construction on new land is permitted, the builder needs to prepare a detailed plan and receive a building permit. • The company has confirmed that they have no properties on arable land.	

Renovation of existing buildings (7.2)

Framework activity	**Green buildings**		
Taxonomy activity	**Renovation of existing buidlings (NACE code F41 and F43)**		
	EU Technical mitigation criteria	**Comments on alignment**	**Alignment**
Technical screening 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 %.	• In 2020, Platzer undertook renovation projects in several properties. At this time, it was not possible for Platzer to calculate the reduction in primary energy demand resulting from the renovations. • The total value of investments related to renovation was 300 MSEK.	**Unable to determine alignment to energy efficiency criteria**
	EU Taxonomy DNSH-criteria	**Comments on alignment**	**Alignment**

[25] 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.(version of [adoption date]: http://www.fao.org/3/I8661EN/i8661en.pdf).

Climate change adaptation	• Please refer to Acquisition and ownership of buildings.	See comments under Acquisition and ownership of buildings	**Likely aligned**
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[26] 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.	• Plazter properties under construction are to be certified according to BREEAM, where it is possible to obtain points for meeting requirements on maximum water use for water appliances. Platzer har informed us that they typically choose water efficient appliances when building new properties. • It is currently unclear to what extent the criteria in green building standards overlap with the taxonomy requirements. Most green building standards are made up of a mix of mandatory and voluntary criteria (points), and a specific certification level does therefore not guarantee a level of water efficiency performance across all certified buildings.	**Likely not fully aligned.**
Transition to a circular economy (circular economy)	• Please refer to Construction of new buildings.	• Please refer to Construction of new buildings.	**Likely aligned to criteria on waste management** **Likely not aligned to criteria on circular economy**
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	• Platzer has a list of materials they have approved for use in their projects. Environmental considerations are key in evaluating which materials make it on the list. In Platzer's projects, the end-clients only get a few alternatives when customizing the building. These alternatives are carefully picked out by	**Likely aligned**

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

	formaldehyde per m³ of material or component and less than 0,001 mg of carcinogenic volatiles[27]. • Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.	Platzer with focus on ensuring that the materials used are the most sustainable options available. Platzer uses Byggvarubedömningen to support this process. • Platzer has confirmed that their material screening process covers the requirements on formaldehyde and carcinogenic volatiles. • Platzer confirms that they take appropriate measures to reduce noise, dust and pollutant emissions during construction or maintenance works.	

[27] 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 standakkkkrdised test conditions and determination method.

Appendix 3: Background

According to the International Energy Agency (IEA), the buildings and buildings construction sectors combined are responsible for 36% of global final energy consumption in 2018 and nearly 40% of total direct and indirect CO_2 emissions. Appliances (excluding heating, cooking and cooling appliances) are responsible for around 17% of final electricity use by buildings.

Emissions from heating of buildings in Sweden have decreased from 9.3 million tonnes CO_2e to 0.8 million tonnes over the period from 1990 to 2019. In 2019, the sector accounted for less than 2% of Sweden's total emissions[28]. Emissions from production of materials, construction and demolition of the buildings constitute additional emission[29]. These (scope 3) emissions become increasingly important as buildings are built more energy efficient and the electricity and heat supply is converted to 'greener' sources, reducing scope 1 and 2 emissions. Around half of all life cycle greenhouse gas emissions in new buildings comes from heat and energy use[30], while approximately 40% comes from use of materials. Emissions associated with construction and demolition accounts for 2-5%.

The construction and real estate sector have a major impact on our common environment. According to the National Board of Housing, Building and Planning's environmental indicators, it accounts for 32% of Sweden's energy use, 31% of waste and 19% of domestic greenhouse gas emissions. Calculations from Sveriges Byggindustrier indicate that the climate impact of new production of a house is as great as the operation of the house for 50 years.

As members of the EU, Sweden, Denmark and Finland are subject to the EU's climate targets of reducing collective EU greenhouse gas emissions 40% by 2030 compared to 1990 levels, increasing the share of renewable energy to 32% and improving energy efficiency by at least 32.5%.[31] The European Green Deal aims for carbon neutrality in 2050.[32] Sweden has developed a National Energy and Climate Plan (NECP) in which it outlines the targets and strategies in all sectors.[33] These strategies include measures such as increasing renewable energy capacity, improving energy efficiency, facilitating the large scale implementation of clean transportation alternatives, and implementing carbon sinks through reforestation and the LULUCF sector. Non-ETS emissions, of which public buildings and households are a part, must decrease by 63% by 2030. In February 2020, Norway released updated targets for 2030 to cut GHG emissions by 50-55% from 1990 levels[34].

The building sector accounts for a large share of primary energy consumption in most countries, and the IEA reports that the efficiency of building envelopes needs to improve by 30% by 2025 to keep pace with increased building size and energy demand – in addition to improvements in lighting and appliances and increased renewable

[28] Naturvårdsverket: https://www.naturvardsverket.se
[29] https://www.miljostatus.no/tema/klima/norske-klimagassutslipp/klimagassutslipp-bygg/
[30] Asplan Viak AS (2018): Utredning av livsløpsbaserte miljøkrav i TEK, https://dibk.no/globalassets/02.-om-oss/rapporter-og-publikasjoner/utredning_av_livslopsbaserte_miljokrav_i_tek_asplan_viak_2018.pdf
[31] https://ec.europa.eu/clima/policies/strategies/2030_en
[32] https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en
[33] https://ec.europa.eu/energy/topics/energy-strategy/national-energy-climate-plans_en
[34] https://www.regjeringen.no/no/aktuelt/norge-forsterker-klimamalet-for-2030-til-minst-50-prosent-og-opp-mot-55-prosent/id2689679/

heat sources.[35] The energy efficiency of buildings is dependent on multiple factors including increasing affluence and expectations of larger living areas, growth in population and unpredictability of weather, and greater appliance ownership and use. Additionally, approximately half of life-cycle emissions from buildings stem from materials/construction. The other half stems from energy use, which becomes less important over time with the increasing adoption of off-grid solutions such as geothermal and solar. All of these factors should therefore be considered in the project selection process. In addition, voluntary environmental certifications such as LEED and BREEAM or equivalents measure or estimate the environmental footprint of buildings and raise awareness of environmental issues. These points-based certifications, however, fall short of guaranteeing a low-climate impact building, as they may not ensure compliance with all relevant factors e.g., energy efficiency, access to public transport, climate resilience, sustainable building materials. Many of these factors are covered under the World Green Building Council's recommendations for best practices for developing green buildings.[36] CICERO Shades of Green assesses all of these factors when evaluating the climate impact of buildings.

The Exponential Roadmap[37] lays out a trajectory for reducing emissions by 50% by 2030 and requires that emissions reduction strategies within the buildings sector be rapidly scaled up. The roadmap advocates for standardised strategies that are globally scalable within areas such as new procurement practices for construction and renovation that require dramatically improved energy and carbon emission standards, developing new low-carbon business models for sharing space and smart buildings to achieve economies of scale, and allocating green bond funding for sustainable retrofitting and construction.

A large number of LCA studies show that wood-frame building results in lower primary energy and GHG emission compared to non-wood alternatives including concrete and steel. Less energy, in particular fossil fuels, is needed to manufacture wood-based building materials compared with alternative non-wood materials. Wood-based materials use primarily biomass residues for processing energy. Wooden materials also store carbon during their lifetime, temporarily sequestering carbon from the atmosphere. Large amounts of biomass residues are produced during the manufacture and end-of-life of wood products, and these can be used to replace fossil fuels. Hence, wood-based buildings are appropriate for long-term strategies for reducing fossil fuel use and GHG emissions when combined with sustainable forestry[38]. Quantitative estimates are imprecise, but some studies indicate energy savings in the order of one third in the construction phase of wood buildings compared to buildings using mainly other materials.

[35] https://www.iea.org/reports/building-envelopes
[36] https://www.worldgbc.org/how-can-we-make-our-buildings-green
[37] https://exponentialroadmap.org/wp-content/uploads/2020/03/ExponentialRoadmap_1.5.1_216x279_08_AW_Download_Singles_Small.pdf
[38] R&D Fund for public real estate, The Swedish Association of Local Authorities and Regions (2016): Climate impacts of wood vs. non-wood buildings. https://webbutik.skl.se/bilder/artiklar/epub/7585-377-2.epub

Appendix 4: 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 provides second opinions on institutions' frameworks and guidance for assessing and selecting eligible projects for green, sustainability and sustainability-linked bond investments. CICERO Green also provides Company Assessments, providing an assessment and shading of a company's revenues and investments as well as assessing the governance structure to indicate the greenness of a company. 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 entity issuing the bond, 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 second opinions.

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 and the International Institute for Sustainable Development (IISD).