



Fabege Fastigheter AB

Shades of Green assessment



Sector: Real Estate



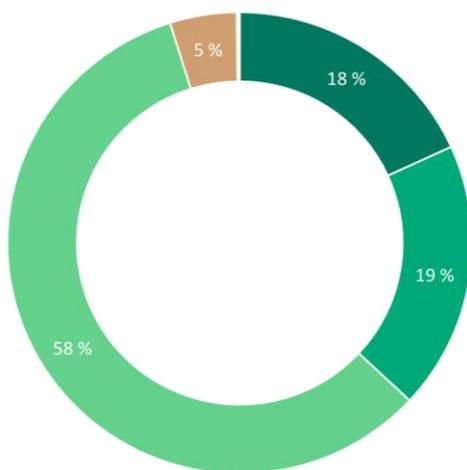
Region: Sweden

January 5th, 2021

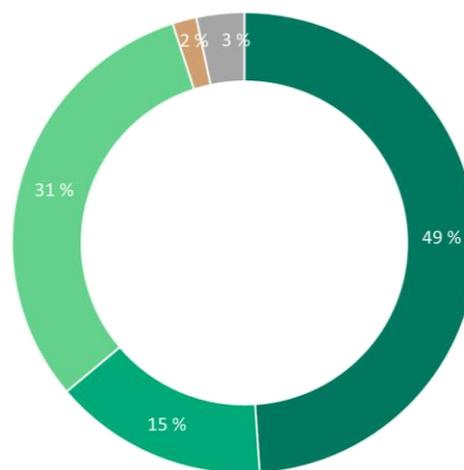
Executive summary

Fabege is a Swedish real estate company focused on developing office space in Stockholm. The company strategy is to own buildings in concentrated areas and it aims to be a driving force behind development of these districts. In 2020, rental income totaled 2,8 bn SEK on properties valued at 75, 2 bn SEK.

Shades of Green by annual revenue 2020



Shades of Green by investments in 2020



■ Dark Green ■ Medium Green ■ Light Green ■ Light Brown ■ Medium Brown ■ Dark Brown

Figure 1 Shading based on rental revenue 2020 (left) and investments 2020 (right).

In 2020, 95% of the rental revenue and 95% of investments were from buildings shaded green, see Figure 1¹. In total, 18% of revenue and 49% of investments in 2020 went to buildings shaded Dark green. The above assessment allocates a shade based on a combination of energy use and building certification level, taking into account resilience, transportation and other environmental considerations. A grey shading indicates lack of data. See Section 3 for more details.

As a real estate company, Fabege is exposed to transition 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. Fabege has conducted an assessment of climate-related risks to their business and has taken some steps to mitigate these, including a crisis management plan for natural hazards. To further understanding of risks and

¹ The analysis for 2020 is based on financial reporting from Q1 – Q3 and projected revenue and investment figures for Q4



opportunities, the company has conducted scenario analysis with Stockholm Environmental Institute (SEI), municipalities and other partners.

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 CO₂ emissions. The materials, construction and demolition phase of the building lifecycle constitute additional emissions and are becoming increasingly important as buildings becomes more energy efficient and the electricity and heat supply becomes ‘greener’. A little over half of all life cycle greenhouse gas emissions in new offices or residential apartment building in the Nordics comes from heat and energy use, while approximately 40% comes from use of materials. Emissions associated with construction and demolition accounts for around 2-5%.

Fabege has ambitious climate targets. The company’s overarching climate goal is to have a climate neutral property management in 2030, e.g. not including building construction and supply chain. The company has been working systematically with reducing their climate impact, the total emissions has decreased by approximately 95% since 2002. This target does not include supply chain emissions, but Fabege is taking steps to understand these. 2019 is the first year Fabege includes Scope 3, in their emissions accounting.

The company also has ambitious targets for energy efficiency, especially for new buildings. From 2020, the Fabege targets that all new buildings will have an energy use of 35 kWh/m². The company has already exceeded the Swedish government target of increasing energy efficiency in buildings by 50% in 2030.

Fabege has a comprehensive sustainability strategy. The company has targets and strategies in place to systematically manage the impact of their operations through energy efficiency, transportation consideration, waste management, supplier- and customer engagement. The company has excellent stakeholder management. Fabege has identified key stakeholder groups and regularly engages in dialogue with these groups. In the course of 2020, Fabege completed a new materiality analysis with input from stakeholders. The company has come far in understanding and managing supply chain sustainability. This includes a sustainable sourcing strategy, inspections and dialogue with suppliers. Fabege has comprehensive sustainability reporting and key sustainability metrics are also included in the company’s financial reporting. In 2020 Fabege prepared its first TCFD reporting.

Figure 2 Fabege governance score as assessed by CICERO Green



CICERO Green assess Fabege’s governance structure and practice to be **Excellent**.

Table 1 Measured specific sector metrics for Fabege. Energy is for electricity, heating and cooling.

<i>Specific sector metrics</i>	Energy use (kWh/m² Atemp)	Environmentally certified (% of area)	Emission intensity scope 1 + 2 (kg CO₂e/m²)	Per cent area heated directly by fossil fuels
2019	81	83%	1,53	0%
2018	98		2,03	0%
2017	110 ²			

² The figure for 2017 is based on a different calculation method, there is no official kWh/m² Atemp for this year. 2020 figures were not available at the date of publication.



Contents

1	Terms and methodology	4
	Shading corporate revenue and investments	4
2	Brief description of Fabege’s activities, strategies and related policies	5
	Company description	5
	Climate risk exposure	5
	Key statistics & background figures	6
	<i>Energy use</i>	6
	<i>Emissions of CO₂</i>	7
	<i>Certifications</i>	7
	Environmental Strategies and Policies	8
	Reporting	9
3	Assessment of Fabege’s green activities and policies	10
	Governance Assessment	12
	EU Taxonomy	12
	Strengths	14
	Weaknesses	14
	Pitfalls	15
	Appendix 1: Source List	16
	Appendix 2: Background	17
	Appendix 3: About CICERO Shades of Green	19



1 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. This assessment is based on a review of documentation of the client’s policies and processes, as well as information gathered during meetings, teleconferences and email correspondence.

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. Shaded investments add a forward-looking element and provide insight into future revenue streams and corporate strategy in relation to the green transformation.

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. To encompass the full scale of potential projects, we have added three “brown” categories. While some projects with fossil fuel elements might be accepted, we are careful to avoid projects that increase the capacity or longevity of fossil fuel infrastructure.

SHADES OF GREEN AND BROWN	EXAMPLES
 Dark green is allocated to projects and solutions that correspond to the long-term vision of a low carbon and climate resilient future.	 Wind energy projects with a governance structure that integrates environmental concerns.
 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 projects and solutions that are environmentally friendly but do not by themselves represent or contribute to the long-term vision.	 Hybrid personal vehicles
 Light brown for efficiency improvements in projects that are associated with fossil fuel use but do not necessarily promote locking-in of emissions. Changes in the way assets are used may position them in the light green category.	 Efficient fossil fuel cargo vessels
 Medium brown projects can be lower emissions, but still represent risk of locking-in fossil fuel infrastructure and are exposed to risk of stranded assets.	 Efficiency in fossil fuel infrastructure
 Dark brown for the heaviest emitting projects, with the most potential for lock-in of emissions and risk of stranded assets.	 New infrastructure for coal

In addition to shading from dark green via light green to dark brown, CICERO Shades of Green also includes a governance score to show the robustness of the governance structure. The company assessment also provides investors and lenders with information on possible alignment to the EU taxonomy as well as companies’ environmental governance structure, including an assessment of how companies respond to the TCFD recommendations on climate-related risk disclosure. We have only shaded revenue or investments to the extent we were able to find sufficient information. The amount of “unshaded” revenue and investments is noted.



2 Brief description of Fabege's activities, strategies and related policies

Company description

Fabège is a Swedish real estate company focused on developing office space in Stockholm. The company strategy is to own buildings in concentrated areas and it aims to be a driving force behind development of these districts. They own and operate 88 premises, with 1.2 million square meters of lettable space. Fabège has 190 employees³.

In 2019, Fabège had 3.2 bn SEK of rental income on properties valued at 73.6 bn SEK. In 2020, rental income totaled 2.8 bn SEK on properties valued at 75.2 bn SEK.

Fabège has a goal of 100% green financing and has issued several green bonds which are listed on Nasdaq Stockholm under the ticker FABG.

Climate risk exposure

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 CO₂ 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 CO₂e to 0.88 million tonnes over the period from 1990 to 2018. In 2018, the sector accounted for approximately 2% of Sweden's total emissions⁴. Emissions from production of materials, construction and demolition of the buildings constitute additional emission⁵. These (scope 3) emissions become increasingly important as buildings become more energy efficient and the electricity and heat supply becomes 'greener', reducing scope 1 and 2 emissions. According to a report from Asplan Viak⁶, a little over half of all life cycle greenhouse gas emissions in new



Figure 3 Life cycle and source of emissions. This shows the value chain of Fabège's operations. Emissions are connected to the construction, operation, and demolition of buildings.

³ <https://www.fabege.se/en/about-fabege/>

⁴ Naturvårdsverket: <https://www.naturvardsverket.se/Sa-mar-miljon/Statistik-A-O/Vaxthusgaser-utslapp-fran-uppvarmning-av-bostader-och-lokaler/>

⁵ <https://www.miljostatus.no/tema/klima/norske-klimagassutslipp/klimagassutslipp-bygg/>

⁶ 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



buildings comes from heat and energy use, while approximately 40% comes from use of materials. Emissions associated with construction and demolition accounts for 2-5%.

Physical climate change such as extreme events and flooding are affecting all sectors and regions already. Due to historical emissions, we are de facto already locked in for approximately 1.5°C global warming.⁷ Given today's policy ambition, the world is most likely heading toward 3°C warming in 2100 which implies accelerated physical climate impacts, including more extreme storms, accelerated sea level rise, droughts and flooding.⁸ For near-term physical risk, investors and companies must consider the probabilities of physical events and resiliency measures to plan for and protect against the worst impacts. 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.

In addition to the physical risks, Fabege is also exposed to transition risks from stricter climate policies, associated with e.g. mandatory efficiency upgrades, liability risks due to e.g. legal challenges if preventable damages from climate change increases or technology risks if consumers prefer climate smart buildings and demand for low efficiency buildings decrease.

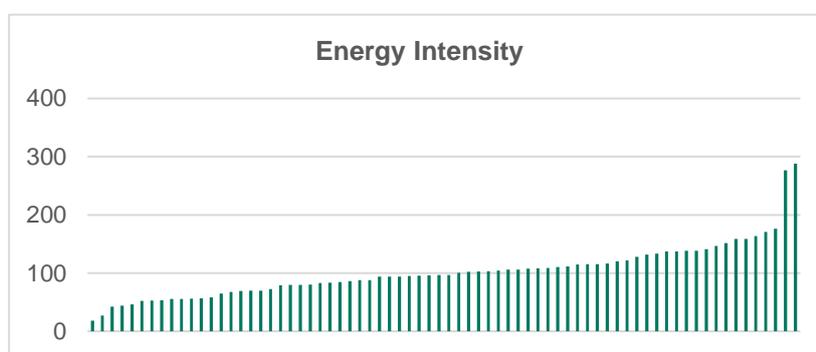
Key statistics & background figures

Energy use

In 2019, total energy use was 131.87 GWh, electricity stood for 55 GWh and district heating 76 GWh. These figures include both shared services (Fastighets energi) and sub-metered energy use by tenants. Total energy use decreased by 1.4% from 2018 to 2019, while the number of buildings in the portfolio increased. Energy intensity, energy use per square meter, decreased by 17% over the same period. Fabege has as a target that the average energy usage should be 77 kWh/m² by 2023. This target represents more than a halving compared to the baseline of 2005. From 2020, the Fabege targets that all new buildings will have an energy use of 35 kWh/m². The company has already exceeded the Swedish government target of increasing energy efficiency in buildings by 50% in 2030⁹.

No direct fossil fuel was used, but district heating contains some fossil fuel elements. In 2019, 9% of district heating was based on natural gas¹⁰.

The overall energy intensity was 81 kWh/m². Fabege has buildings with a range of energy intensities, see chart. The median energy intensity among all buildings was 97 kWh/m².



⁷ <https://www.cicero.oslo.no/en/posts/news/scientists-demystify-climate-scenarios-for-investors>

⁸ https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full_wcover.pdf

⁹ The government target has a baseline of energy usage in 2005. In 2005, Fabege energy usage was 194 kWh/m² and 2019 it was 81 kWh/m².

¹⁰ The power provider was unable to deliver 100% renewable energy. Fabege has purchased offsets for the 9% share of fossil fuel in the electricity mix.



Emissions of CO₂

Fabege estimates and reports both direct and indirect emissions (Scope 1, 2 and 3). Total emissions in 2019 was 2516 tons CO₂e¹¹. Scope 1 is negligible, at 22 tons CO₂e. The majority of emissions (1933 tons CO₂e) stem from Scope 2, with district heating and cooling being the main driver of emissions. 2019 is the first year Fabege partly includes Scope 3, supply chain emissions, in their emissions accounting. The company has estimated emissions from waste handling and business travel to be 561 tons of CO₂e. Fabege is working on developing a more comprehensive methodology for this scope.

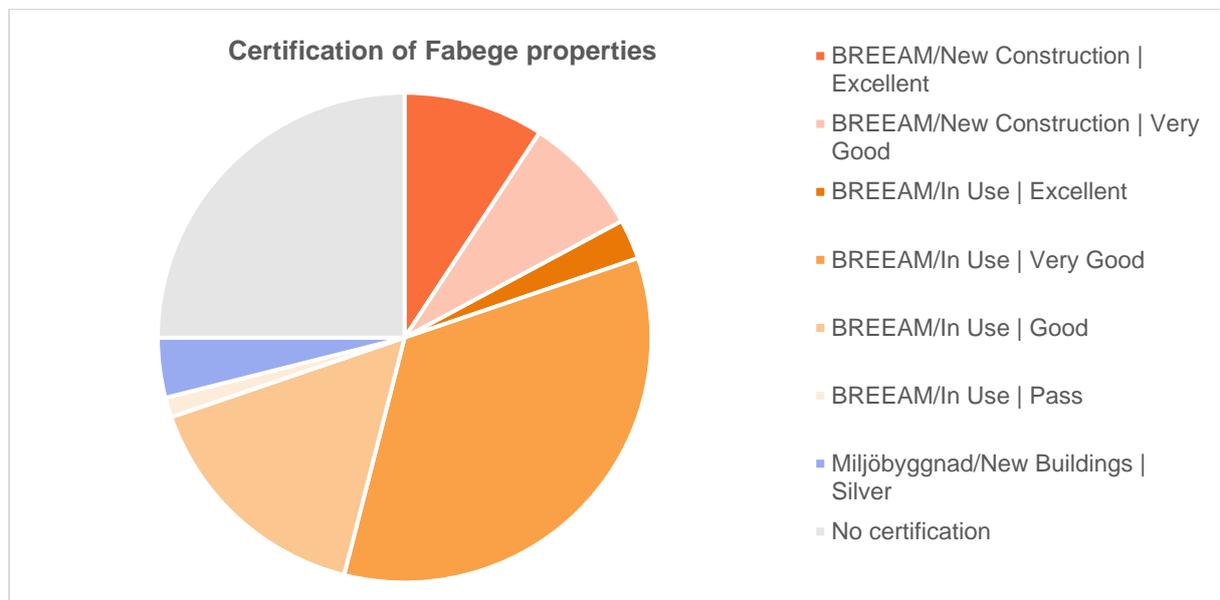
Scope 2 emissions decreased by 23 percent from 2018 to 2019. This increase is related to reduced energy usage in the portfolio, and an improved emission factor from the energy provider implying a change in the energy mix used by Fabege towards more renewable energy sources.

Fabege has a target to become climate neutral and is developing a science-based targets strategy. The company committed to the Science Based Targets Initiative in 2019. The initiative is a partnership between CDP, the United Nations Global Compact (UNGC), World Resources Institute (WRI), and the World Wide Fund for Nature (WWF) working to facilitate corporate target-setting aligned with goals of the Paris agreement¹².

Emission intensity (limited to scope 1 and 2) was 1.53 kg CO₂/m² in 2019. This is considerably lower the emission intensity in 2018.

Certifications

Fabege targets that all of its properties will have an environmental certification. Their policies stipulate that new properties should be certified according to BREEAM-SE (new construction) and existing properties according to BREEAM-in-use. At the end of 2019, 59 properties were environmentally certified, the majority of them with an in-use certification. The certified share of the portfolio is 83% when measured by area.



¹¹ CO₂e, carbon dioxide equivalent is a measurement term for greenhouse gas accounting

¹² <https://sciencebasedtargets.org/about-the-science-based-targets-initiative/>



Environmental Strategies and Policies

Fabege has a comprehensive sustainability strategy. The company's overarching climate goal is to have a climate neutral property management in 2030, e.g. not including building construction and supply chain. The company has been working systematically with reducing their climate impact, the total emissions has decreased by approximately 95% since 2002.

Fabege works systematically to manage the impact of their operations through energy efficiency, transportation consideration, waste management, supplier, and customer engagement, and evaluates the impact of climate change on their business through scenario analysis.

The company has identified key stakeholder groups and regularly engages in dialogue with these groups. Highlights from this dialog is presented on their website. In the course of 2020, Fabege completed a new materiality analysis. The process was focused on the SDGs and used input from all key stakeholder groups to identify the most materials SDGs for the company.

Fabege has identified climate related risks and opportunities to their business and is using scenario analysis to "futureproof" their business. In 2019, the company partnered with Stockholm Environmental Institute (SEI), municipalities and other partners to develop scenarios. Four descriptive scenarios have been developed and Fabege has used these to analyse the impact on sustainable urban development in Stockholm. For each scenario Fabege has identified risks and opportunities to their business model.

Fabege has as a target that the average energy usage should be 77 kWh/m² by 2023. To support this goal, the company targets installing rooftop solar on all appropriate roofs by 2030, producing solar energy equivalent to 2.5 kW/m². This at least four rooftop solar installations each year, with an average projected energy production of 80MWh per year.

The company has taken steps to facilitate low carbon transportation options. Fabege's office buildings are always in in locations with rail connections. They have also installed charging stations for electric vehicles at several locations. Fabege is also participating in project to reduce goods transport in the Arenastaden district. Their own service fleet consists of 100% electric vehicles.

Fabege tracks waste streams for 69 of their properties and requires that waste is sorted. Approximately half the waste is incinerated, and the other half is recycled, with only 0.2% being landfilled. The company is working to increase the share of recycling.

The company has a sustainable sourcing strategy and conducts sustainability inspections of suppliers. Their target is to have conducted inspections of all strategic suppliers and increase the share of approved sustainability assessed suppliers. In 2019, 98% of all strategic suppliers have been assessed according to environmental criteria. Strategic suppliers represent 75% of the total purchased volume value. Fabege is engaged in dialogue with strategic suppliers on environmental performance, they support improvement programs and confirms that it will cease to use contractors that fail to improve their sustainability performance. The company has updated their supplier code of conduct in 2019, the edits include enhanced waste management and reporting for buildings contractors. The code of conduct also requires supplier to transfer the same sustainability requests to their sub-contractors. The assessment of supplier value chains is a part of the sustainability assessment conducted through a third party.

Fabege offers green leases to its clients and targets that 100% of new leases will be green. Green leases are agreements between Fabege and the tenant of an office building on a joint environmental agenda for the efficient use of resources and sustainable property management. Such a lease agreement may include commitments regarding materials selection, renewable electricity, flexible building design, energy efficiency enhancements or



sorting of waste. In 2019, 75% of lettable area was managed under green leases. The vast majority of new leases signed in 2019 were green leases.

Reporting

Fabege has comprehensive sustainability reporting and key sustainability metrics are also included in the company's financial reporting.

The annual sustainability report is prepared according to the Global Reporting Initiative (GRI) and is verified by a third-party. Fabege has conducted a materiality analysis which guides the key sustainability issues they focus on. The company also reports on their stakeholder dialogue, which is considered best-practise. During September and October 2020, a new stakeholder dialogue and materiality analysis was conducted in cooperation with Stockholm Environment Institute.

The environmental reporting includes relevant metrics linked to the company targets on emissions, energy use, waste, water, building certifications, green leases, supplier assessments and green financing. Fabege estimates and reports greenhouse gas emissions from their direct operations and indirect emissions from electricity, heating and cooling, as well as, their supply chain (scope 1, 2 and 3). The company follows the Greenhouse Gas Protocol, and is transparent on the methodology and inclusions in their GHG accounting. This is especially important as they currently have limited scope 3 reporting, 2019 being the first year the company included scope 3.

Fabege reports to GRESB, which requires detailed environmental information for each property.

In 2020, Fabege prepared its first reporting in line with the TCFD recommendation. This reporting will be included in the 2021 annual reporting.



3 Assessment of Fabege's green activities and policies

According to CICERO Green's methodology shades of green or brown should be allocated 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. (See notes and methodology page for further details on shading).

Information on some qualities of Fabege's portfolio includes information on some or all of the following aspects¹³: Environmental certification schemes and levels, energy performance categories, and specific energy use and CO₂ emissions. The most common certification scheme is BREEAM (new construction and in-use), three buildings are certified with Miljöbyggnad. Based on this information, we assign a basic shading to each property according to the following scheme:

Dark Green is assigned to properties with an environmental certificate of BREEAM Outstanding (new construction) or BREEAM Excellent (new construction) and with an energy use less than 100 kWh/m². Without certification, the energy performance certificate needs to be labelled A or the property should have an energy use below 50% of current regulation¹⁴.

Medium Green is assigned to existing properties with an environmental certificate of Miljöbyggnad Silver and BREEAM Very Good (new construction) with an energy use of less than 100 kWh/m².¹⁵ Properties without an environmental certificate will need as a minimum to be aligned with the proposed EU taxonomy thresholds of energy use 20% below regulations¹⁶ or an energy performance certificate of B.

Light Green is assigned to properties with an environmental certification without additional energy thresholds, or older existing buildings with energy use below 100 kWh/m². The exception being that BREEAM in-use pass does not automatically qualify as green. Actual verified energy use is preferred over design values.

For properties not fulfilling any of the above criteria, a shade of brown is allocated based on actual energy use and year of construction or last major renovation. No properties with direct fossil fuel heating are green. The light brown category also includes properties classified as parking, one garage and one building that is scheduled for demolition. The grey category is assets classified as land with no information on the current or intended usage of the plots.

This basic shading can be upgraded or downgraded based on additional information related to resilience measures, access to electrical vehicle charging stations and access to public transport, etc. The criteria above must be seen in

¹³ Latest available data is used. For most properties, all data is from 2019, some properties have updated certifications or other aspects in 2020 and we have taken this into account.

¹⁴ Interpreted by us as currently of the order of 35 kWh/m² not temperature corrected. Actual verified energy use is preferred for design values.

¹⁵ Preliminary criteria. Used until better data become available, will be strengthened over time.

¹⁶ This threshold is thus currently of the order of 56 kWh/m². It is yet unclear how this will be applied, i.e from the EU taxonomy: "The TEG recognises that more work needs to be done to collect and analyse data in order to define absolute thresholds corresponding to the performance of the top 15% of each local stock, such as data showing the distribution of EPCs across the stock and the thresholds used to define EPC ratings".



context of Fabège’s overall governance structure and ambitious sustainability targets that guide all company operations. E.g., Fabège works systematically to improve energy efficiency and all buildings have energy management through the building management systems (BMS), there is a thoughtful approach to transportation systems around the buildings, no buildings are directly heated with fossil fuels, and the company has a strategic approach to climate resilience. Fabège would need to continue to improve the performance of the assets in order to maintain the same level of green shadings in the future.

With these provisions, we find that in 2020¹⁷ 18% of rental revenue came from assets considered Dark green, 19% from assets shaded Medium green, 58% from assets shaded Light green, and 5% from Light brown assets, see Figure 4. Thus, 95% of the rental revenue came from assets with some shade of green.

In 2020, 49% of investments were in properties shaded Dark Green, 15% in Medium Green properties, 31% in Light Green properties and 2% of the investments are characterised as Light brown, see Figure 5. 95% of investments went to properties with some shade of green, and investments were more focused on the dark green assets.

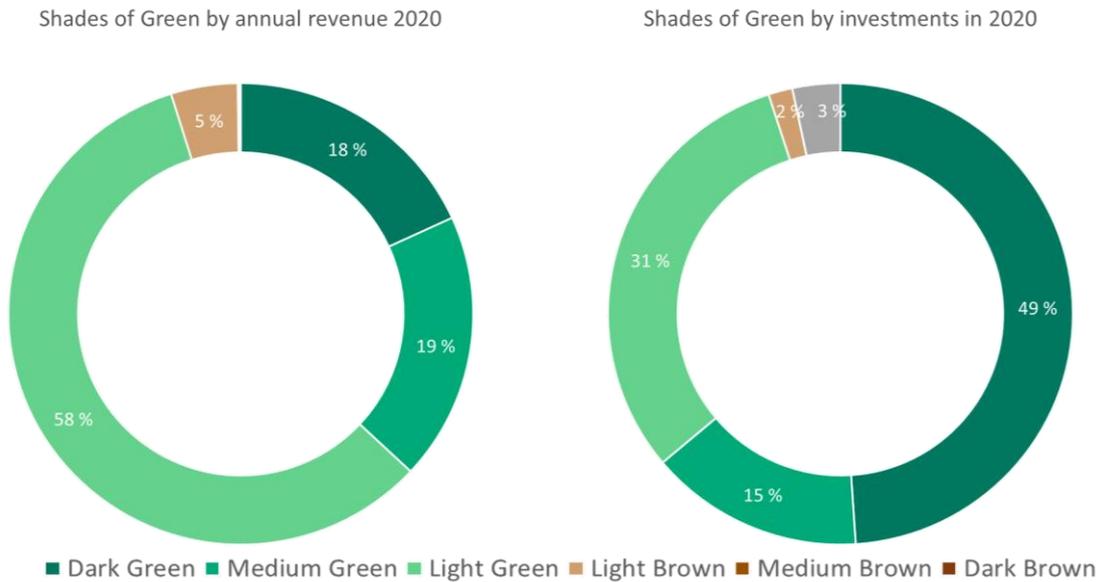


Figure 4 Shading based on rental revenue 2020.

Figure 5 Shading based on investments 2020.

Compared to 2019, the share of revenue from and investments to green assets is has remained stable. However, more investments were made in dark green properties in 2020. Investments in Dark Green assets was 38% in 2019, with 18% going to Medium Green assets and 43% in Light Green properties.

Our assessment is based on data reported by the company and has not always been verified by a third party. In addition, there are numerous ways to estimate, measure, verify and report e.g. data on energy use, which may make direct comparisons between companies or regulatory criteria difficult and somewhat uncertain. Finally, when it comes to assessing older buildings, the energy implication of environmental certificates is not always clear.

¹⁷ The analysis for 2020 is based on financial reporting from Q1 – Q3 and projected revenue and investment figures for Q4



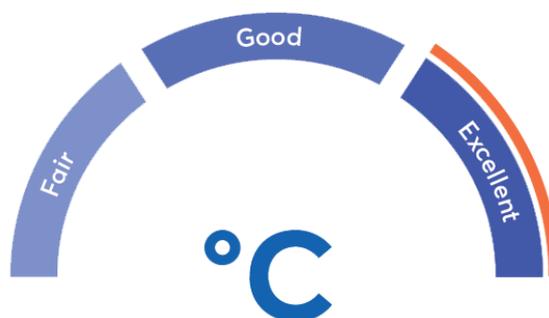
Governance Assessment

When assessing the governance of Fabege, CICERO Green looks at four elements: 1) Strategy, goals, and targets 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; and 4) 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.

Fabège has a comprehensive environmental strategy with appropriate and relevant targets. These targets cover the key environmental impacts and risks to the company's business. Targets especially for new buildings are ambitious. Fabège is working on designing science-based targets, further strengthening its ambitions. The company performs environmental screenings of its strategic contractors and suppliers, and reports on supplier engagement. To further strengthen the work on supply chain sustainability, Fabège should consider setting a target for supply chain emission.

In 2020 Fabège prepared its first TCFD reporting. This reporting includes a screening for climate related risks and opportunities. The company has also conducted scenario analysis, which is considered best-practise.

The overall assessment of Fabège's environmental governance structure gives it a rating of **Excellent**.



EU Taxonomy

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 activities¹⁸. In November 2020, EU published its draft delegated act to outline its proposed technical screening criteria for climate adaptation and mitigation objectives, respectively, which it was tasked to develop after the Taxonomy entered into law in July¹⁹. CICERO Green has conducted a preliminary assessment of Fabège's portfolio²⁰ against the EU taxonomy, we cannot at this point verify activities against the full EU taxonomy.

The EU Taxonomy has specified mitigation criteria and “do no significant harm” (DNSH) criteria for the building sector. Our review covers both aspects, we first cover the energy focused mitigation criteria and the broad DNSH criteria separately, then we provide an overview of our combined assessment. The mitigation criteria in the EU taxonomy includes specific thresholds for real estate sector activities relevant for the company (ownership and renovations)²¹:

¹⁸ Taxonomy: Final report of the Technical Expert Group on Sustainable Finance, March 2020.

https://ec.europa.eu/knowledge4policy/publication/sustainable-finance-teg-final-report-eu-taxonomy_en

¹⁹ https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12302-Climate-change-mitigation-and-adaptation-taxonomy#ISC_WORKFLOW

²⁰ Note that we have only included buildings in this analysis, Fabège also owns some real estate classified as parking, garage and land.

²¹ [EU Taxonomy: Annex to the Commission Delegated Regulation, supplementing Regulation \(EU\) 2020/852, November 2020. https://ec.europa.eu/finance/docs/level-2-measures/taxonomy-regulation-da-2020-annex-1_en.pdf](https://ec.europa.eu/finance/docs/level-2-measures/taxonomy-regulation-da-2020-annex-1_en.pdf)



1. Ownership or acquisition of buildings built before 2021 should have an Energy Performance Certificate label A.
2. Renovations should deliver 30% primary energy savings.
3. Where the building is a large non-residential building it is efficiently operated through energy performance monitoring and assessment

The Fabege portfolio currency includes two buildings with an EPC label A. In 2020, 11% of revenue was derived from these buildings. It is unclear what share of investments would be aligned. In 2020, Fabege has invested in several properties with high environmental ambitions (e.g. targeting BREEAM/New Construction | Excellent), however, the EPC labels are not confirmed. In addition, the company is investing in a major renovation expected to reduce energy intensity by approximately 60%. Fabege is also investing in existing properties with EPC label A. These investments combined total 60% of 2020 investments.

Note that Fabege has stated that they prefer to rely on energy use over the EPC labels, referring to Swedish regulation (Boverket), which states that energy labels issued before and after 1. January 2019 are not necessarily comparable. The company has also informed us of their opinion that the threshold will exclude most existing buildings in Sweden.

Most of Fabege's portfolio could qualify as large non-residential buildings and be required to meet the criteria for energy performance monitoring. All of Fabege's buildings have energy management through the building management systems (BMS), and the company has a track record of working systematically on energy efficiency. Our assessment is therefore that all buildings in the portfolio would meet this criterion.

The proposed EU taxonomy for sustainable finance includes a number of principles including a "do-no-harm clause" and safety thresholds for various types of activities.²² 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. The below summarizes our current approach to assessing DNSH:

- Resilience and adaptation measures: we consider if the company has an understanding of the key physical risks impacting their business. We also consider for the major relevant risks specifically. For the Fabege portfolio, we have considered if the company has screened for flood risk and has a management plan for natural hazards. Fabege has identified climate-related risks to their business and is managing and reporting on these in line with the TCFD recommendations²³. Fabege has a crisis management plan for natural hazards. Some buildings have also undergone a flood risk assessment as a part of the certification process.
- Water and marine resources: we check for inefficient water appliances in the cases of new construction and major renovation. For existing buildings, we consider the company's focus on water efficiency, for example if the issuer measures water use and has reduction targets. Fabege tracks water usage as a part of their EPRA Performance Measures.
- Circular economy, waste prevention and recycling: we consider the company's waste management and recycling rate. For new buildings and renovation, we consider construction waste. Fabege works systematically with waste management, only 0.2 percent of waste from operations is landfilled.

²² Taxonomy: Final report of the Technical Expert Group on Sustainable Finance, March 2020.

https://ec.europa.eu/knowledge4policy/publication/sustainable-finance-teg-final-report-eu-taxonomy_en

²³ A summary is presented here: <https://www.fabega.se/investerare/risker-mojligheter/miljo/>



- **Pollution:** we consider the issuers management of hazardous materials. For this portfolio, the presence of asbestos could be an issue. We consider if the company has screened for the substance and is aware of which properties are impacted. For major renovation and new construction, proper handling of hazardous materials is required.
- **Ecosystems:** We consider if any buildings are in inappropriate areas, such as areas of high biodiversity value. As all of Fabège's buildings are in an urban environment, an extensive screening for biodiversity is more relevant for other contexts. For new construction and major renovation, we screen for indirect damage to forest ecosystems due to the use of timber products originating from forests that are not sustainably managed. Fabège sources FSC certified wood.

CICERO Green has assessed the Fabège portfolio against the DNSH principles as described above. It appears that the buildings in the portfolio will likely meet the DNSH criteria, based on Fabège's solid governance structure.

Strengths

Fabège is committed to contributing to a green transition towards a low carbon society. The company's portfolio includes all shades of green and light brown properties²⁴. Most of the revenue in 2019 and 2020 came from properties with some shade of green. The majority of revenue stemming from Light Green assets. Almost half of investments in 2020 were in Dark Green assets, an increase from 2019.

The company has ambitious climate and energy efficiency targets. The company's overarching climate goal is to have a climate neutral property management in 2030. This target does not include supply chain emissions, but Fabège is taking steps to understand these. 2019 is the first year Fabège includes Scope 3, in their emissions accounting. Setting a climate target for supply chain (scope 3) would further strengthen environmental governance.

Fabège has integrated environmental issues into core business practises and works strategically to meet environmental targets. The company has been working systematically with reducing their climate impact and improving energy efficiency. Both energy intensity and emissions (scope 1 and 2) decreased from 2018 to 2019.

Fabège has identified climate related risks and opportunities to their business and is using scenario analysis to "futureproof" their business. In 2019, the company partnered with Stockholm Environmental Institute (SEI), municipalities and other partners to develop scenarios. In 2020, the company prepared their first TCFD aligned reporting. For publication in the 2021 annual report.

The company has implemented many best-practises in sustainable supply chain management. Fabège is engaged in dialogue with strategic suppliers to improve environmental performance. The company has updated their supplier code of conduct in 2019, and this code of conduct also requires supplier to transfer the same sustainability requests to their sub-contractors.

Fabège's commitment to sustainability and specifically its work to certify all properties and reduce energy usage will secure a continued reduction in climate footprint and other environmental impacts over time, but this will depend on what other acquisitions are made to the portfolio.

Weaknesses

Our assessment has not uncovered any weaknesses.

²⁴ The portfolio also includes some assets to which we could not assign a shade, see part 3 for more details.



Pitfalls

Our assessment is based on data reported by the company and has not always been verified by a third party. In addition, there are numerous ways to estimate, measure, verify and report e.g. data on energy use, which may make direct comparisons between companies or regulatory criteria difficult and somewhat uncertain. Finally, when it comes to assessing older buildings, the energy implication of environmental certificates is not always clear.

In a low carbon 2050 perspective the energy performance of buildings is expected to be improved, with passive and plus house technologies becoming mainstream and the energy performance of existing buildings greatly improved through refurbishments. Fabege is not there yet but is taking valuable steps towards this long-term vision, and their targets for new buildings are particularly ambitious.

Fabega has worked systematically to reduce the energy usage of their portfolio. This is reflected in the energy intensity figures. However, there are few buildings in the portfolio with the highest EPC label. The company has informed us that they prefer to rely on energy use over the EPC labels. However, this is a potential issue given the current EU taxonomy singular focus on EPC labels.

Environmental certification schemes include many important environmental aspects. However, these certifications alone do not necessarily ensure that energy and resilience aspects are taken into considerations to a high enough degree. 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 Fabega'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 Fabega's behalf to minimise the overall climate footprint of the portfolio.



Appendix 1: Source List

Document Number	Document Name	Description
1	Fabege Energistrategi 2020	Energy strategy updated in 2020
2	Fabege_hallbarhetsrapport_2019	2019 Sustainability report
3	Fabege Uppförandekod leverantörer	Supplier code of conduct
4	Fabege Hållbarhetsmål 2020-2030	Sustainability targets 2020 – 2030
5	Fabege Q2 2020	Q2 filing
6	Fabege Uppförandekod	Code of conduct
7	Fabege Skattepolicy	Tax policy
8	fabege Miljöpolicy	Environmental policy
9	Fabege Upphandlings- och inköbspolicy 2020	Supply chain and procurement policy from 2020
10	Gresb data	Data submitted to GRESB
11	BREEAM & Miljöbyggnad certificates	Individual building certifications



Appendix 2: Background

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 is subject to the EU's climate targets of reducing collective EU greenhouse gas emissions by 40% by 2030 compared to 1990 levels, increasing the share of renewable energy to 32% and improving energy efficiency by at least 32.5%.²⁵ The European Green Deal aims for carbon neutrality in 2050.²⁶ Sweden has developed a National Energy and Climate Plan (NECP) in which it outlines the targets and strategies in all sectors.²⁷ These strategies include measures such as increasing renewable energy capacity, increasing energy efficiency, facilitating the large scale implementation of clean transportation alternatives, and increasing 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.

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 heat sources.²⁸ 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.²⁹ CICERO Shades of Green assesses all of these factors when evaluating the climate impact of buildings.

The Exponential Roadmap³⁰ lays out a trajectory for reducing emissions by 50% by 2030 and requires that emissions reductions 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.

²⁵ https://ec.europa.eu/clima/policies/strategies/2030_en

²⁶ https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

²⁷ https://ec.europa.eu/energy/topics/energy-strategy/national-energy-climate-plans_en

²⁸ <https://www.iea.org/reports/building-envelopes>

²⁹ <https://www.worldgbc.org/how-can-we-make-our-buildings-green>

³⁰ https://exponentialroadmap.org/wp-content/uploads/2020/03/ExponentialRoadmap_1.5.1_216x279_08_AW_Download_Singles_Small.pdf



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, temporary 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 forestry³¹. Quantitative estimates are imprecise, but some studies indicate energy savings of the order of one third in the construction phase of wood buildings compared to buildings using mainly other materials.

³¹ 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 3: About CICERO Shades of Green

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

CICERO Green provides second opinions on institutions' frameworks and guidance for assessing and selecting eligible projects for green bond investments. CICERO Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Green is independent of the 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).

