



# Arwidsro

## Green Finance Second Opinion

4<sup>th</sup> July 2023

### Executive Summary

**Arwidsro is a Swedish real estate company active in property development, management, and acquisition of properties.** Properties are geographically distributed but concentrated in 26 municipalities, primarily in central and southern Sweden. The portfolio consists of community properties, housing and grocery-anchored retail.

**Arwidsro expects the biggest share of financing to be allocated to existing buildings, with an expectation of a majority to refinancing.** The framework considered here is an update of Arwidsro's framework dated August 2020. Historically, green buildings have received all financing. Key changes in the updated framework are to remove multiple project categories, reflecting that all financing previously has been allocated to green buildings. The updated framework's project categories are green buildings and energy efficiency. Further, the green building eligibility criteria has been updated to reflect the EU Taxonomy, and Arwidsro has introduced additional framework criteria covering other considerations than energy use to reflect its current sustainability work.

We rate the framework **Medium Green** and give it a governance score of **Excellent**. The last years Arwidsro has taken steps to improve its environmental governance. It has set short-term and long-term emission reduction targets and has developed a roadmap to identify actions needed throughout the organization to deliver on its ambition. While there are Dark Green elements in the framework, the Medium Green shading reflects that key aspects such as energy use, embodied emissions, and physical climate risk are addressed, while financed buildings are not yet fully aligned with a low carbon future.

### Strengths

**Beyond green building certification level and energy use, the framework defines seven additional sustainability criteria, where financed projects need to adhere to at least three.** The seven additional criteria reflect important considerations within real estate, such as access to renewable energy, biodiversity, a transition to circularity solutions, water use, proximity to public transport and mitigation of physical climate risks. The framework therefore encourages considerations beyond energy use and facilitate a holistic analysis of projects. However, since projects do not need to fulfill all the additional criteria set out in the framework, the environmental considerations will depend on the project. While the overall ambition level of financed green buildings is strengthened, as additional criteria are qualitative, it is somewhat unclear what is needed to adhere to the different criteria, and it is difficult to quantify the impact implemented measures will have.

### SHADES OF GREEN



\*CICERO  
Medium Green

### GOVERNANCE ASSESSMENT



### GREEN BOND AND LOAN PRINCIPLES

Based on this review, this framework is found aligned with the principles.



**Arwidsro has taken steps to improve its environmental governance.** In 2022, Arwidsro established a long-term sustainability plan with goals until 2030 to speed up and ensure the direction of its sustainability work. The sustainability plan includes 22 goals for 2030, with activities and related KPIs. As a part of this work, Arwidsro will calculate buildings' emissions, which include relevant emission sources such as transport, waste, energy (scope 1-3), and set emission reduction targets for all financed buildings. Targets will not depend on offsets and the ambition is to reach targets with implementing emission reduction measures. Arwidsro works actively with its tenants on important sustainability issues such as energy, refrigerants (for grocery anchored retail) and waste.

### *Pitfalls*

**It is an industry challenge that methodologies and data regarding embodied emission in construction projects still need more knowledge and development.** While we view positively that Arwidsro is aware of the climate impact of new construction and is using the NollCO<sub>2</sub> certification to reduce embodied emissions, new construction may still be associated with high emissions, as knowledge and methodologies tackling this industry challenge are just starting to evolve.

**The criteria for existing buildings being within the top 15% of similar building stock do not guarantee that buildings have energy performance that is in line or better than current regulations.** Arwidsro will use top 15% of national or regional building stock as assessed by Fastighetsägarna. How ambitious the top 15% threshold is, depends on the type of building, but generally they are less ambitious than current regulations for energy demand. Arwidsro believes the top 15% to be an ambitious threshold especially for older buildings.



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## Sector risk exposure

**Physical climate risks.** In a Nordic context, climate risks such as increased flooding, urban overflow, increased storms and extreme weather are expected to increase. The location of the buildings in Arwidsro's portfolio can affect the attractiveness and value of individual buildings as property damage and operational costs increase as a result of climate change. Further, events of heat stress and extreme heat can continue to increase, creating further cooling needs for buildings, consequently increasing operational costs.

**Transition risks.** Due to the profound changes needed to limit global warming to well below 2°C, transition risk affects all sectors. Arwidsro is exposed to transition risks from stricter climate policies such as introducing new energy efficiency requirements for both new and existing buildings. In a Nordic context, regulations are expected to develop to include limit values for the global warming potential (GWP) of development projects, making it mandatory to also address the embodied emissions of buildings for construction projects. Arwidsro may be affected by shifting market preferences as a result of higher awareness of climate change, which can result in shifting preferences towards zero carbon buildings. Further, as a growing number of investors are aligning their portfolios to climate goals, climate change considerations may be included in property investment decisions. This could favour real estate assets with a low climate impact, making buildings with a higher climate impact (buildings with a high energy use and / or using emission-intensive materials) at risk of struggling to find financing.

**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

# 1 Arwidsro's environmental management and green finance framework

## Company description

Arwidsro ("the issuer" or "Arwidsro") is a real estate company founded in 1979. Arwidsro focuses on properties in stable markets with positive population growth in southern and central Sweden. The business concept is to own, manage and develop community properties, housing and grocery-anchored retail. Arwidsro continues to grow through acquisitions as well as property development and new production.

As of 31 December 2022, the value of the property portfolio amounted to SEK 4.2bn, of which SEK 3.6bn (86%) related to grocery-anchored retail and SEK 0.6bn (14%) related to community properties (e.g. elderly care homes, pre-schools, etc). During 2022, rental income for the total portfolio amounted to SEK 269.9m. Properties are geographically distributed but concentrated in 26 municipalities, primarily in central and southern Sweden.

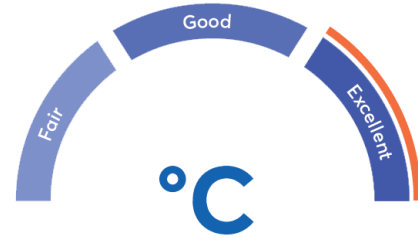
The current framework is an update from a framework dated August 2020. The value of the green financing under the previous framework was 3 193 million SEK with approximately 98% going to existing buildings and 2% going to new construction in 2022.



### Governance assessment

The last years Arwidsro has taken steps to improve its environmental governance. It has set short-term and long-term emission reduction targets and has developed a roadmap to identify actions needed throughout the organization to deliver on its ambition. As Arwidsro's key business segment is to own and manage its property portfolio, it is positive that it is monitoring total energy use, and is working with its technical team and tenants to reduce both landlord and tenant energy use. Further, it is positive that when building new, it has chosen to follow the NollCO<sub>2</sub> certification to reduce the impact, both embodied and operational emissions, for its construction projects.

Arwidsro's selection process includes environmental competence and consensus decision making. It is especially positive that the screening process includes considerations beyond energy use, as implementing additional framework criteria allows for a holistic analysis of projects. However, it should be noted as projects do not need to fulfill all the criteria set out in the framework, the environmental considerations will depend on the project.



Arwidsro is committed to reporting on allocation and impact: it has specified impact indicators in its framework and will disclose impact calculation methodologies. It will report on a portfolio basis and not on a project-by-project basis, however, reporting will highlight relevant examples. While it is positive that Arwidsro has introduced new impact indicators since its last framework, such as reporting on the carbon footprint of projects (scope 1-3) and saved energy use, they will be used on a best effort basis and might therefore not be included in reporting beyond the highlighted examples in the report. According to Arwidsro, the impact indicators that continuously will be used for green building projects are i) the level of EPC and ii) the environmental certification of the building. It currently does not plan to include the individual emission reduction targets nor progress that is required in the framework criteria for green buildings as a part of impact reporting.

The overall assessment of Arwidsro's governance structure and processes gives it a rating of **Excellent**.

### Environmental strategies and policies

In 2022, Arwidsro established a long-term sustainability plan with goals until 2030 to speed up and ensure the direction of its sustainability work. The sustainability plan includes 22 long-term goals for 2030, with activities and related KPIs. Arwidsro's ambition is to be transparent to its stakeholders on the progress and starting in 2023 all KPIs will be reported on.

In its annual report, Arwidsro reports emission in line with the GHG Protocol on all three scopes. In 2022, it reported a total of 4 042 tonnes CO<sub>2</sub>e. What often constitutes the biggest emission sources for the sector, new construction (including the materials used in projects) and tenant energy use, is included in reporting. Scope 3 emission constituted 83% of total emissions, where tenant emissions represented the biggest emission source. In its annual report, Arwidsro indicates that it strives to use actual data to the greatest extent possible, and that it is in dialogue with external partners to collect information for reporting. Scope 1 and scope 2 emission constituted 3% and 15% respectively. By 2030, Arwidsro targets to reduce scope 1 and 2 emissions with 50% compared to 2022, and by 2050 it targets to reduce scope 1, 2 and 3 emissions with 90%.

Arwidso has carried out a voluntary reporting of the taxonomy for 2022, where it only reports on the category 7.7 ownership and acquisition of properties as there are still some ambiguity regarding the interpretation of criteria and the Do-No-Significant-Harms for other activities. In 2022, it reported a low percentage of its economic activities (7,6% of turnover, 8,3% of opex, and 0,1% of capex) to be fully aligned to the taxonomy. It states that it



has chosen to interpret the criteria with caution but assesses that it will likely reach a higher percentage in 2023. According to Arwidsro, it has more properties that fulfill energy performance thresholds therefore once climate risk assessments are done these properties will most likely be aligned.

In 2021, Arwidsro began work to identify climate-related risks and opportunities, and in 2022, the recommendations from the Task Force on Climate-Related Financial Disclosures (TCFD) were for the first time addressed in its annual report. It has the ambition to fully follow the recommendations in the TCFD, and will implement these gradually. It has also started to screen its portfolio for physical climate risks on a property level. Together with external consultants, it has currently performed a physical climate risk assessment on two properties, and is planning to gradually carry out the assessments on all properties within its portfolio (estimated completed during 2024). The assessment also includes a plan on how to mitigate risks if they are identified. These plans are then included in the “30 year property management plans.” The assessment is based on the DNSH criterion i for climate change adaptation of the EU Taxonomy.

Arwidsro uses Mestro to follow up and compare tenants energy use. Regarding waste management, Arwidsro works hands-on to centralize waste management and implementing circular principles. Arwidsro also collaborates with tenants to improve overall energy performance. Arwidsro conducts regular ESG dialogues with tenants.

### **Green bond framework**

Based on this review, this framework is found to be aligned with the Green Bond Principles and Green Loan Principles. For details on the issuer’s framework, please refer to the green bond framework dated June 2023.

### *Use of proceeds*

For a description of the framework’s use of proceeds criteria, and an assessment of the categories’ environmental impacts and risks, please refer to section 2.

### *Selection*

Arwidsro has established a Green Finance Committee (“GFC”) that meets on a regular basis. The GFC consists of the Chairman, CEO, CFO, Head of Sustainability, and the Head of Transactions. All decisions are made in consensus. A list of eligible projects is kept by the Finance Department who is responsible for keeping this list up to date.

The GFC is responsible for evaluating the compliance of the proposed eligible projects with the eligibility criteria as well as replacing investments that no longer meet the eligibility criteria. The GFC will also approve the Green Finance Report. Further, the GFC will ensure that eligible projects adhere to applicable laws and regulations as well as Arwidsro’s environmental policy and sustainability policy. Further, the GFC will also monitor internal processes to identify environmental and/or social risks associated with the eligible projects. The list of eligible projects is monitored by the GFC on a regular basis during the term of the green financing instruments to ensure that the proceeds are sufficiently allocated to eligible projects.

### *Management of proceeds*

Green bond proceeds are tracked by the issuer. All green financing instruments issued by Arwidsro will be managed on a portfolio level. This means that a green financing instrument will not be linked directly to any pre-determined eligible projects. Arwidsro will keep track and ensure there are sufficient eligible projects in the portfolio. Projects can, whenever needed, be removed or added to/from the portfolio.



Any unallocated proceeds may temporarily be placed in the liquidity reserve or any other treasury business and managed accordingly by Arwidsro. Should there be any unallocated proceeds, Arwidsro strives to allocate them within one year.

### *Reporting*

Arwidsro will publish an annual Green Finance Report that will include an allocation and impact report, which will be made available on its website. It will report as long as there are green financing instruments outstanding. In the case Arwidsro would have other green financing instruments than bonds outstanding, the issuer may choose to report, in relation to these other financial instruments, directly and non-publicly, to the lenders or counterparties. Allocation of proceeds and impact reporting will be subject to an annual review by an independent party. The verification report provided by the independent party will be published on Arwidsro's website.

### **Allocation reporting**

The allocation report will be done on a portfolio level and include the following information:

- Total amount of green financing instruments issued
- Share of proceeds used for financing/re-financing as well as share of proceeds used for different project categories
- Share of unallocated proceeds (if any)
- Examples of the relevant eligible projects
- On a best effort basis, information on EU Taxonomy alignment (%) of the underlying eligible projects financed by green financing instruments

The impact report aims to disclose the climate-related impact of the eligible projects financed under the Framework. Note that if all data cannot be collected, the impact assessment/calculations will be on a best effort basis. Arwidsro will be transparent on methodologies and baselines used in reporting. Arwidsro intends to align, on a best effort basis, the reporting with the portfolio approach described in ICMA's "Handbook – Harmonised Framework for Impact Reporting (June 2022)". The impact assessment will include some of the following impact indicators:

- EPC A or B
- Type of certification including level, if any (e.g. Miljöbyggnad iDrift Silver)
- Information on average primary energy demand (if available)
- Estimated annual greenhouse gas emissions reduced or avoided per sqm (CO<sub>2</sub> kg/sqm)
- Amount of energy saved per sqm (kWh/sqm)

Arwidsro has published green bond investor reports with its previous 2020 framework. These reports have included the total amount of allocated proceeds, a list of properties receiving financing with the environmental certifications and emissions associated with the assets.



## 2 Assessment of Arwidsro’s green finance framework

The eligible projects under Arwidsro’s green finance framework are shaded based on their environmental impacts and risks, based on the “Shades of Green” methodology.

### Shading of eligible projects under Arwidsro’s green finance framework

- Arwidsro expects that the majority of financing will be refinancing. Refinancing refers to eligible projects that have been finalized 12 months prior to the reporting year.
- Arwidsro expect that the majority (over 90%) of financing will be allocated to refinancing of existing buildings, mostly within the segment of grocery-anchored retail. The green finance framework is applicable for the issuance of green bonds and other types of debt instruments such as loans, revolving credit facilities, hybrid bonds and commercial papers.
- Eligible projects are both capital expenditures/CAPEX (could either be reported in the income statement or capitalized on the balance sheet) and operational expenditures/OPEX. CAPEX does not have any requirement for look-back period, while OPEX does have a requirement of maximum three-year look-back period from the time of issuance.
- Under the previous framework, the vast majority of green financing went to existing buildings with minor shares being allocated to new construction.
- The net proceeds of Arwidsro’s Green Financing will not be used to finance fossil fuel energy generation, nuclear energy generation, the weapons and defence industries, potentially environmentally negative resource extraction, gambling or tobacco.

Category	Eligible project types	Green Shading and considerations
Green buildings	<p><b>New buildings (built after 31 December 2020) that either have or will receive:</b></p> <p><i>Own production</i></p> <ul style="list-style-type: none"> <li>• Minimum certification of Miljöbyggnad Silver, BREEAM Very Good or an equivalent level from a certification scheme in combination with a NollCO2 certification and a Primary Energy Demand (PED) at least 20% lower than threshold set for Nearly Zero-Energy Building (NZEB) according to national building regulations, or</li> <li>• PED at least 20% lower than threshold set for NZEB according to national building regulations, or</li> <li>• EPC A or B, and</li> </ul>	<p><b>Medium Green</b></p> <ul style="list-style-type: none"> <li>✓ The project category is allocated a Medium Green shading because of solid framework criteria focusing on energy use, green building certifications, and other environmental considerations. Yet, the majority of eligible buildings fall short of fully corresponding to a low carbon and climate resilient future, as new construction and existing buildings’ operations still are associated with significant emissions and not yet net zero.</li> <li>✓ Arwidsro will calculate buildings’ emissions (scope 1-3), and set emission reduction targets for all financed buildings. Targets are based on the Science Based Targets</li> </ul>







- For buildings larger than 5000m<sup>2</sup>:
  - The building undergoes testing for air-tightness and thermal integrity, upon completion; and
  - The life-cycle Global Warming Potential (GWP) of the building resulting from the construction has been calculated for each stage in the life cycle

*Acquired buildings*

- Minimum certification of Miljöbyggnad Silver, Miljöbyggnad iDrift Silver, BREEAM Very Good, BREEAM In-Use Very Good or an equivalent level from a certification scheme in combination with a PED at least 10% lower than threshold set for NZEB according to national building regulations

**Existing buildings (built before 31 December 2020) that either have or will receive:**

- Minimum certification of Miljöbyggnad Silver, Miljöbyggnad iDrift Silver, BREEAM Very Good, BREEAM In-Use Very Good or an equivalent level from a certification scheme in combination with EPC A or B or within top 15% of the national or regional building stock expressed as operational PED and demonstrated by adequate evidence

**Major renovations**

- Major renovations and re-construction leading to primary energy savings of at least 30%

**In addition to the criteria mentioned above, Arwidsro will i) calculate the building's emissions and ii) set emission reduction targets for 2030 as well as fulfil a minimum 3 of the following criteria:**

- Installation of solar panels on the roof
- Green roof and/or carbon sinks

initiative (SBTi) roadmap, and the issuer expects to be done with the target setting in October. These targets will be used by Arwidsro internally and will be used in the work to reach its emission reduction targets. There are currently no plans to include such calculations, progress, nor targets in impact reporting.

✓ The framework criteria include considerations beyond certification level and energy use, as Arwidsro has defined seven additional criteria were financed projects need to adhere to at least three. Both new buildings, existing buildings and major renovation projects need to adhere to the additional criteria. Implementing additional framework criteria allows for a holistic analysis of projects. However, it should be noted as projects do not need to fulfill all the criteria set out in the framework, the environmental considerations will depend on the project.

✓ The seven additional criteria reflect important considerations within real estate, such as biodiversity, a transition to circularity solutions, water use, proximity to public transport and mitigation of physical climate risks. While the overall ambition level of financed green buildings is strengthened, as additional criteria are qualitative, it is somewhat unclear what is needed to adhere to the different criteria, and it is difficult to assess the impact implemented measures will have.

✓ For physical climate risks, Arwidsro has considered the requirements of Appendix A of the EU Taxonomy DNSH criteria for climate adaptation and, with help from external consultants, has started to perform assessments on a property level. Further, it has set up a plan on how to mitigate risks if they are identified, which will be included in the “30 year property management plans.” Having implemented solutions to reduce the most important physical climate risks is not mandatory for all projects but is one of the seven additional criteria.

✓ Whether a building meets the energy requirement thresholds will depend, among other, on its energy source, where different sources are weighed differently in the calculation of its PED. The weighting favors district heating over electricity,



- The building participated in Arwidsro's re-use and recycling of materials initiative
- Infrastructure for sustainable transportation i.e., close proximity to public transportation, chargers for electric vehicles, bicycles and/or pedestrian lanes
- Testing of innovative technology on how to reduce water usage and/or waste-water recovery
- Climate adaptation solutions have been implemented to reduce most important physical climate risks
- Implementation of biodiversity measures to ensure that there is at least an equal amount of biodiversity upon completion of the project as there was before the building was constructed. Measures include planting of flora and preservation of water course

meaning that, all else equal, it will be easier for a building connected to district heating to meet the energy requirements than for a building with electric heating.

*Existing buildings:*

- ✓ Arwidsro expects that mostly buildings with the certifications Miljöbyggnad Silver and Miljöbyggnad iDrift Silver will be financed. Green building certification standards cover a broad set of issues that are important to sustainable development. At the same time, they differ considerably in their requirements. Their considerations of physical climate risks and climate impact vary depending on the certification type, certification level and the version of the certification that has been used. For the certification types and levels listed in the framework, all do not have minimum energy requirements. This is counteracted by requirements of an EPC A or B or to be within the top 15% of the building stock expressed as Primary Energy Demand.
- ✓ Financing existing buildings with an EPC of A or B show a solid ambition and will likely represent highly energy efficient buildings, representing a decrease in PED compared with the regulation of the time of issuance of the EPC with minimum 50% or 25%.
- ✓ Arwidsro will use top 15% of national or regional building stock as assessed by Fastighetsägarna, as an official definition is yet to be defined. How ambitious the top 15% threshold is, depends on the type of building, but generally they are less ambitious than current regulations for energy demand when building new. Arwidsro believes the top 15% to be an ambitious threshold especially for older buildings.

*Own production:*

- ✓ For eligible projects under the sub-category own production, Arwidsro expects to rely on the framework criterion "Minimum certification of Miljöbyggnad Silver, BREEAM Very Good or an equivalent level from a certification scheme in



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combination with a NollCO2 certification and a Primary Energy Demand (PED) at least 20% lower than threshold set for Nearly Zero-Energy Building (NZEB) according to national building regulations”

- ✓ For construction projects, it is crucial to reduce embodied emissions from the construction phase (including materials) compared to the norm, as embodied emissions heavily influence buildings climate impact. For its development projects, Arwidsro will follow the NollCO2 standard. The NollCO2<sup>1</sup> standard requires that buildings’ GHG emissions are greatly reduced by setting limit values for greenhouse gas emissions from the construction phase, including both emissions linked to materials and from machines used in the construction. Further, the certification target reducing operational emissions for the building’s lifetime. The ambitious is that all new construction projects will be certified according to NollCO2, however projects that are not certified will still follow the standard.
- ✓ While we view positively that Arwidsro is aware of the climate impact of new construction and is using the NollCO2 certification to reduce embodied emissions, new construction may still be associated with high emissions, as knowledge and methodologies tackling this industry challenge are just starting to evolve.
- ✓ The energy criteria that the PED will be at least 20% lower than NZEB for new buildings is a solid ambition, that goes beyond the criteria set by the EU taxonomy. Further, buildings with an EPC of A or B goes beyond this ambition representing a decrease in PED with minimum 50% or 25% respectively.

*Major renovations:*

- ✓ In the transition to a low-carbon society, it is vital to renovate and improve existing properties. Renovations leading to primary energy savings of at least 30% shows a solid ambition.

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<sup>1</sup> [Vad är NollCO2? - Sweden Green Building Council \(sgbc.se\)](https://www.sgbc.se)



- ✓ For major renovation projects, reducing embodied emissions from the construction and materials used should be a priority to reduce emissions in the renovation process.

Energy efficiency



**Energy efficiency measures**

Direct costs such as installation of onsite solar panels, converting to LED lighting, heat pumps, improvements in ventilation systems, extension of district heating and cooling systems, installation of infrastructure for electric cars (electric charging points)

**Medium Green**

- ✓ Focusing on improving the energy performance of existing buildings, instead of demolishing the existing building to build new, is essential to decrease the climate footprint of the real estate sector.
- ✓ According to Arwidsro, the achieved energy reduction for different measures greatly varies depending on the project, and often has little impact on the total PED of the building.

Table 1. Eligible project categories









## 3 Terms and methodology

This note provides Shades of Green’s second opinion of the client’s framework dated June 2023. This second opinion remains relevant to all green bonds and/or loans issued under this framework for the duration of three years from publication of this second opinion, as long as the framework remains unchanged. Any amendments or updates to the framework require a revised second opinion. Shades of Green encourages the client to make this second opinion publicly available. If any part of the second opinion is quoted, the full report must be made available.

The second opinion is based on a review of the framework and documentation of the client’s policies and processes, as well as information gathered during meetings, teleconferences and email correspondence.

### ‘Shades of Green’ methodology

Shades of Green second opinions are graded dark green, medium green or light green, reflecting a broad, qualitative review of the climate and environmental risks and ambitions. The shading methodology aims to provide transparency to investors that seek to understand and act upon potential exposure to climate risks and impacts. Investments in all shades of green projects are necessary in order to successfully implement the ambition of the Paris agreement. The shades are intended to communicate the following:

Shading	Examples
 <p><b>Dark Green</b> is allocated to projects and solutions that correspond to the long-term vision of a low-carbon and climate resilient future.</p>	 Solar power plants
 <p><b>Medium Green</b> is allocated to projects and solutions that represent significant steps towards the long-term vision but are not quite there yet.</p>	 Energy efficient buildings
 <p><b>Light Green</b> is allocated to transition activities that do not lock in emissions. These projects reduce emissions or have other environmental benefits in the near term rather than representing low carbon and climate resilient long-term solutions.</p>	 Hybrid road vehicles

The “Shades of Green” methodology considers the strengths, weaknesses and pitfalls of the project categories and their criteria. The strengths of an investment framework with respect to environmental impact are areas where it clearly supports low-carbon projects; weaknesses are typically areas that are unclear or too general. Pitfalls are also raised, including potential macro-level impacts of investment projects.

Sound governance and transparency processes facilitate delivery of the client’s climate and environmental ambitions laid out in the framework. Hence, key governance aspects that can influence the implementation of the green bond are carefully considered and reflected in the overall shading. Shades of Green considers four factors in its review of the client’s governance processes: 1) the policies and goals of relevance to the green bond framework; 2) the selection process used to identify and approve eligible projects under the framework, 3) the management of proceeds and 4) the reporting on the projects to investors. Based on these factors, we assign an overall governance grade: 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.



### *Assessment of alignment with Green Bond Principles*

Shades of Green assesses alignment with the International Capital Markets' Association's (ICMA) Green Bond Principles. We review whether the framework is in line with the four core components of the GBP (use of proceeds, selection, management of proceeds and reporting). We assess whether project categories have clear environmental benefits with defined eligibility criteria. The Green Bonds Principles (GBP) state that the "overall environmental profile" of a project should be assessed. The selection process is a key governance factor to consider in Shades of Green's assessment. Shades of Green typically looks at how climate and environmental considerations are considered when evaluating whether projects can qualify for green finance funding. The broader the project categories, the more importance Shades of Green places on the selection process. Shades of Green assesses whether net proceeds or an equivalent amount are tracked by the issuer in an appropriate manner and provides transparency on the intended types of temporary placement for unallocated proceeds. Transparency, reporting, and verification of impacts are key to enable investors to follow the implementation of green finance programs.



# Appendix 1: Referenced Documents List

Document Number	Document Name	Description
1	Arwidsro Green Financing Framework 2023	
2	Arwidsro Årsredovisning 2022	Annual and sustainability report from 2022
3	Arwidsro INVESTERARRAPPORT GRÖN OBLIGATION 2022	Green bond impact and allocation report for the financial year 2022
4	Arwidsro INVESTERARRAPPORT GRÖN OBLIGATION 2021	Green bond impact and allocation report for the financial year 2021
5	Arwidsro INVESTERARRAPPORT GRÖN OBLIGATION 2020	Green bond impact and allocation report for the financial year 2020



# Appendix 2: About Shades of Green

Shades of Green, now a part of S&P Global and formerly part of CICERO, provides independent, research-based second party opinions (SPOs) of green financing frameworks as well as climate risk and impact reporting reviews of companies. At the heart of all our SPOs is the multi-award-winning Shades of Green methodology, which assigns shadings to investments and activities to reflect the extent to which they contribute to the transition to a low carbon and climate resilient future.

Shades of Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. Shades of 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. Shades of Green operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.

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- ★ **2021 Largest External Reviewer**, Climate Bonds Initiative Awards
  - ★ **2020 External Assessment Provider Of The Year**, Environmental Finance Green Bond Awards
  - ★ **2020 Largest External Review Provider In Number Of Deals**, Climate Bonds Initiative Awards
  - ★ **2019 External Assessment Provider Of The Year**, Environmental Finance Green Bond Awards
  - ★ **2019 Largest Green Bond SPO Provider**, Climate Bonds Initiative Awards
  - ★ **2018 External Assessment Provider Of The Year**, Environmental Finance Green Bond Awards
  - ★ **2018 Largest External Reviewer**, Climate Bonds Initiative Awards
  - ★ **2017 Best External Assessment Provider**, Environmental Finance Green Bond Awards
  - ★ **2016 Most Second Opinions**, Climate Bonds Initiative Awards