



# Gasum Oy Green Finance Second Opinion

28 June 2023

## Executive Summary

**Gasum Group (“Gasum”)** is a Nordic energy company offering natural gas, biogas, and electricity services. Whilst Gasum’s strategy emphasises the production and distribution of biogas, it is concurrently the region’s largest distributor of liquefied natural gas (LNG) (the split is currently approx. 20-80). The company also produces recycled nutrients for agricultural and industrial uses, as a by-product.

**The Green Finance Framework allows proceeds to be invested in research, production, and distribution of biogas (the dominant category) and bio-fertilisers, energy efficiency measures and pollution prevention and control measures.** LNG-related investments are explicitly excluded, as are any other investments that utilise fossil-based raw materials. The types of eligible projects are the same as in the company’s previous green finance framework (2019).

We rate the framework **Dark Green** and give it a governance score of **Excellent**. Biogas can replace fossil fuels in many sectors, including hard-to-abate sectors, and the company has in place a strategy for scaling biogas production. This reduces greenhouse gas emissions in a lifecycle perspective: According to Gasum, the reduction is currently 88.9% and the aim is for an average of 95% by 2027. Moreover, the company uses waste as a feedstock, meaning that otherwise discarded resources are transformed into a resource and introducing an element of circularity. The company has in place solid procedures for selecting and reporting on eligible projects, but could improve its analysis of climate risks (e.g., through the use of scenarios).

It should be noted that Gasum currently has a long-term contractual agreement with Russia (Gazprom Export) to purchase LNG. According to the issuer, this is legal within the current sanction regime and it should be noted that Gasum terminated its pipeline natural gas supply contract with Gazprom Export and has over the past year decreased its dependence on Russian supplies.

### Strengths

**Explicit exclusion of dual-purpose infrastructure.** Renewable biogas and fossil fuel based natural gas can be used interchangeably in many applications and often make use of the same infrastructure. The issuer has confirmed that proceeds under this green finance framework will exclusively be used for infrastructure related to biogas production and distribution and not for LNG.

**The feedstock is waste based.** Biogas replaces natural gas in many applications, including hard to abate sectors such as heavy transport. It is a strength in this context that Gasum’s biogas is based on waste, thus avoiding potential issues related to competing land use (for crops) and introducing an element of circularity. We are also

## SHADES OF GREEN



CICERO  
Dark Green

## GOVERNANCE ASSESSMENT



## GREEN BOND AND LOAN PRINCIPLES

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



impressed by the company's use of certification schemes on both sourcing and production aspects, its active research agenda, as well as efforts to minimise fugitive emissions – all of which are intended to lower emissions further.

### *Pitfalls*

**Gasum's positioning as a renewable energy producer is to some extent dependent on supply chain and geopolitical factors beyond its control.** Gasum is positioning itself as a biogas producer and tells us that it is investing accordingly, however much of its infrastructure is also suitable for use by natural gas. Hence there is a risk that factors beyond its control such as feedstock supplies and geopolitics may impact and thwart this ambition in the future – even if this is not the intention of the issuer.



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# 1 Gasum's environmental management and green finance framework

## Company description

Gasum Group ("Gasum") is a Nordic energy company. The company offers customers a platform with end-to-end services covering natural gas, biogas and (renewable) electricity. Whilst Gasum's strategy emphasises the production and distribution of biogas, it is concurrently the region's largest distributor of liquefied natural gas (LNG). The biogas and renewable electricity segment currently together cover 21% of sales by volume, while the company is aiming for that share to increase to 45% by 2027. In 2021 and 2022 the share was 4.9% and 10.8% respectively. The company also produces recycled nutrients for agricultural and industrial uses as a by-product.

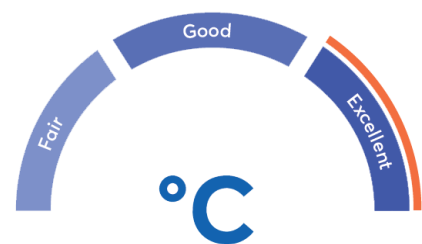
Gasum is the leading producer of biogas in the Nordic countries (some 800 GWh annually). The company has 17 biogas plants, with one more under construction and several others in the planning phase. The plants are exclusively located in Finland and Sweden. The biodegradable waste and residue feedstocks for biogas production are sourced from industry, retail, municipalities, and agriculture. The Company was founded in 1994 and has around 320 employees in Finland, Norway, Sweden, and Germany. Gasum is fully owned by the Finnish state.

This is the company's second green finance framework: In 2019 it issued a green funding framework which received a Dark Green shading from CICERO Shades of Green. Gasum has raised loans totalling EUR 152 million under that framework.

## Governance assessment (TBC)

Sustainability appears to be solidly rooted in Gasum's corporate governance: it has a long history of sustainability reporting and robust processes for emissions reporting and other environmental, social and governance aspects in line with EU legislation and guidelines (the EU Taxonomy; RED2 Directive) and other international standards (e.g. GRI reporting, GHG Protocol, UN SDGs). It is reporting on all material sources of Scope 3 emissions, including downstream sale of products. This and the external annual verification of all GHG calculations is evidence of the company's commitment to robustness and transparency on emissions reporting. The selection process of the framework includes screening of suppliers and feedstock sourcing and lifecycle analysis of partner-sourced biogas.

Aspects which detract from our assessment of the company's governance include the lack of an absolute emissions target (although we recognise that there is an implicit target through planned changes in output composition) and the relatively immature stage of the company's approach to climate risk assessment – currently limited to a mapping of risks but without the use of scenario analysis.





## Sector risk exposure

### *Physical climate risks*

Physical risks exist for production facilities (e.g., flooding), for supply chains (impacts on production and transport of the feedstock), as well as for gas distribution and transportation networks.

### *Transition risks*

Due to the profound changes needed to limit global warming to 2°C, transition risk affects all sectors. Biogas manufacturers are subject to the potential for stricter policies and regulations related to emissions (including methane) to be applied to the sector. On the other hand, the trend towards increased use of sustainable biogas instead of fossil fuels represent a transition opportunity. Since Gasum's feedstock is waste based, there is little risk related to regulation of feedstock use (which could affect e.g. crop-based fuels).

### *Environmental risks*

Suppliers of feedstock to the biogas industry pose several environmental risks to their surroundings, including leakage of pollutants and methane from agriculture, wastewater and sewage. On the other hand, by using waste products and converting them into usable energy, biogas producers are a part of the circular economy and contribute to reducing pollution and runoffs. Methane leakage from biogas production remains a risk but tends to be well managed in the Nordic context.



## Environmental strategies and policies

Scope 3 emissions dominate Gasum's carbon footprint (some 99%, and within this use of sold product dominates with 77% - mostly from LNG use): In 2022, Gasum's Scope 1 emissions were 24,000 t CO<sub>2</sub>eq, its Scope 2 emissions from purchased energy: 4,000 t CO<sub>2</sub>eq, and Scope 3 (indirect emissions from up/downstream supply chain), were 3,800,000 t CO<sub>2</sub>eq. We understand the company has recently expanded and improved its Scope 3 emission reporting (e.g. in 2022, the reporting scope was updated to cover all new operations – including nine new filling stations, and new data was gathered related to purchased goods and services) and continues to assess ways to further improve accuracy and completeness of Scope 3 data. The company's Scope 1 and Scope 2 emissions decreased by between one-third and two-third between 2019 and 2022. It has emissions (and energy) intensity reduction goals for its output (production of LNG and biogas) but no absolute emission reduction goals, although emissions are expected to decrease in practice through the intention to increase the share of biogas vs LNG. Total Scope 3 emissions decreased by 35% year-on-year 2021 vs 2022 due to reduced sales. The company is considering the use of science-based targets and is monitoring the sector-specific methodology under development by the Science Based Targets Initiative (SBTi).

According to the company, in 2022 its biogas production led to emission reductions of 444,000 t CO<sub>2</sub>eq by its customers, a number which has been increasing from 2020 and 2021 (when it was 270,000 and 345,000 t CO<sub>2</sub>eq respectively). It has a (cumulative) reduction goal of 1,800,000 CO<sub>2</sub>e by 2027 (corresponding to bringing 7 terawatt hours (TWh) of biogas to the market annually). The company's main objective is to increase the availability of biogas in the Nordics and in this way reduce GHG emissions for its customers in the traffic, maritime and industry segments.

100% of the electricity used in Gasum's operations is renewable (from hydropower), via the use of Guarantees of Origin. The company works with customers to enable the roll-out of greater use of biogas – for example by building the infrastructure necessary for industry customers to switch from fossil fuels to biogas or filling stations for transportation fuel purposes. Suppliers are screened on a regular basis according to Key Performance Indicators (KPI) which include energy efficiency and environmental aspects (waste sorting), and life cycle assessments are conducted when sourcing biogas from partners. The CEO oversees the implementation of sustainability in the company. Gasum's processes and facilities have a range of ISO certifications, and the company prefers to work with suppliers who are certified as well.

The company participates in a number of industry collaborations and partnerships related to sustainability, as well as research initiatives such as the Biogas Research Center at Linköping University, Gasum collaborates with JAMK University of Applied Sciences on the utilisation of the biogenic carbon produced at Gasum's biogas plants and with LUT University on research related to hydrogen and carbon value chain electrification.

Gasum has been reporting on sustainability issues according to the GRI since 2010. It is following the recommendations of the TCFD on reporting of climate risks and opportunities but has not committed to full alignment. It has been a member of Global Compact since 2021.

Gasum is aware of transition and physical climate risks and provides an overview of these together with mitigation actions in its Sustainability Report.

As a state-owned company, Gasum is expected to support the Finnish government's ambitions – which for climate change include becoming carbon-neutral and the first *fossil-free welfare society* by 2035. The key pillar of the national climate policy is the Climate Change Act where Finland must reduce its greenhouse gas emissions by at least 80% by 2050 from the levels in 1990. Gasum's operations (especially biogas investments in Sweden) also support other Nordic countries' ambitions and targets (Sweden and Norway).



## Green finance framework

Based on this review, this framework is found to be in alignment with the Green Bond Principles and Green Loan Principles. For details on the issuer's framework, please refer to the green finance 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*

The selection of Eligible Assets and Expenditures is managed on an annual basis in a Treasury Committee additionally attended by the Head of Sustainability. Members of the Treasury Committee consist of the CEO, CFO, Group Treasury Manager, and Group Risk Manager. Gasum will make sure that sustainability expertise always resides within the Treasury Committee and Communications & Sustainability team. All decisions are made in consensus, and that applies to the selection process of Eligible Assets and Expenditures as well. A list of Eligible Assets and Expenditures is kept by Group Treasury.

The process for selecting and evaluating Eligible Assets and Expenditures is as follows:

1. Gasum business segments (Industry, Maritime, and Traffic) will propose potential green assets and expenditures related to their solutions and services in Biogas and Power.
2. Treasury Committee together with Communications & Sustainability evaluates eligibility of proposals according to eligibility criteria in above table and removes items that do not meet the criteria.
3. Treasury Committee together with Communications & Sustainability verifies the eligibility of remaining items and presents the potential green assets and expenditures to Gasum Board of Directors for final approval.
4. Gasum's Board of Directors has the final veto right.

### *Management of proceeds*

Net proceeds from Gasum's Green Financing will be tracked through the use of a register where all issued amounts of green debt instruments will be monitored (the "Green Financing Register"). The purpose of the Green Financing Register is to ensure that an amount equal to the Green Financing net proceeds only supports the financing or refinancing of Eligible Assets and Expenditures. The Green Financing Register will contain the list of Eligible Assets and Expenditures and will in turn serve as basis for regular reporting. The list of Eligible Assets and Expenditures is monitored by Group Treasury on a regular basis during the term of any outstanding Green Financing to ensure that the proceeds are sufficiently allocated to Eligible Assets and Expenditures.

Any unallocated proceeds will be held in accordance with Gasum's normal liquidity management policy (placed in short term money market instruments) and are subject to the Exclusions criteria listed in Section 2.

### *Reporting*

The annual sustainability report of Gasum will include reporting on Green Finance ("Green Finance Reporting") and will be made available on the Company's website annually. The Green Finance Reporting will include an allocation report and an impact report. In case Gasum has Green Financing outstanding only in form of bank loans, Gasum may report necessary annual details related to such bank loans directly to its lenders, as may be described in respective loan documentation.

The allocation report will, to the extent feasible, include the following components:

- Total amount of Green Financing outstanding



- Share of proceeds used for financing and re-financing
- Share of unallocated proceeds (if any)
- Allocation of proceeds for each Eligible Asset and Expenditure category
- Types of temporary unallocated funds placements (if any)
- Examples and case studies of the relevant Eligible Assets and Expenditures

The impact report includes the environmental impact of eligible investments and may, to some extent, be aggregated due to a large number of Eligible Assets and Expenditures, and depending on data availability, calculations will be made on a best effort basis. The impact report will include the below listed metrics, and the reporting will include transparency on the methodologies used:

- Environmental impacts (energy savings and/or CO<sub>2</sub> savings/avoidance) financed through Green Finance instruments
- Other relevant environmental impacts

Gasum will ensure an external post-issuance review, in a form of at least limited assurance, on the allocation of net proceeds. The post-issuance review will be made available on Gasum's website. For any Green Financing in a form of bank facilities, Gasum will adhere to the external review requirements and details that are agreed between the parties of such bank facilities.





## 2 Assessment of Gasum’s green finance framework

The eligible projects under Gasum’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 Gasum’s green bond framework

- Both financing and refinancing is permitted. The issuer expects the focus to be on refinancing initially.
- Both CAPEX and OPEX are eligible. OPEX will have a 3-year lookback period while there are no age restrictions on CAPEX.
- The vast majority of proceeds are expected to go towards the Renewable Energy category (90 -100%).
- Green finance proceeds will not be allocated to (re-)finance investments that utilise fossil-based raw materials or that are associated with environmentally negative resource extraction. In addition, nuclear energy generation, weapons and defence industries, gambling and tobacco are excluded.

Category	Eligible project types	Green Shading and considerations
<b>Renewable Energy</b>  	Biogas or liquefied biogas (LBG) for the use of transport on land and at sea, industry and energy production. Expenditures may include, but are not limited to: <ul style="list-style-type: none"> <li>• R&amp;D of renewable and low-carbon feedstocks, products, processes, and technologies</li> <li>• Investments in and maintenance of facilities and equipment used for production or storage of products</li> <li>• Investments in and maintenance of infrastructure used for transporting and delivering products, e.g expansion of fuelling station network and developing marine bunkering infrastructure</li> </ul>	<b>Dark Green</b>  Biogas can replace fossil fuels in many sectors, including hard-to-abate sectors. This reduces greenhouse gas emissions, although how much depends on the sector and geography. According to Gasum, the average greenhouse gas emission reduction of biogas produced by Gasum was 88.9% in 2022 and the aim is for an average of 95% by 2027 <ul style="list-style-type: none"> <li>✓ Using waste to produce the biogas means that otherwise discarded biomass is transformed into a resource, introducing an element of circularity. Gasum’s biowaste feedstock consists of sewage sludge, industrial and agricultural side streams, manure and biowaste from households and municipalities, inedible food waste from retail outlets, food industry spoilt batches, and grease trap sludge.</li> <li>✓ The feedstock is sourced locally thus reducing supply chain emissions related to transport. The principle used by Gasum is to transport the waste to the plant nearest to the waste source. Any emissions related to transport are included in Gasum’s GHG emissions inventory</li> </ul>



- ✓ The issuer has confirmed that all biogas produced and delivered by Gasum has sustainability certifications, either national sustainability systems (based on EU legislation (RED 2)) and /or the ISCC scheme (International Sustainability and Carbon Certification). ISCC is a global sustainability certification system which covers feedstocks such as agricultural and forestry biomass, biogenic wastes and residues, circular materials and renewables. Its aims include zero-deforestation; protection of land with high biodiversity value and high carbon stock, and protection of soil, water and air
  - ✓ According to the issuer, in 2022, 100% of the biomethane and liquefied biomethane (LBG) fulfilled the sustainability criteria laid down in the EU Renewable Energy Directive (RED2, 2018/2001/EU). This includes the biogas sourced from partners as well as the biogas produced by Gasum.
  - ✓ Gasum has also been awarded the Nordic Swan Ecolabel covering most of the Finnish biogas production used as a transport fuel. The label requires: 70% GHG emission reduction (60% for sewage sludge-based biogas) compared to the fossil fuel alternative; no palm oil, soybean oil, sugar cane used as feedstock, and no genetically modified plants used as feedstock
  - ✓ Certification schemes and ecolabels can be useful in providing assurance about many sustainability aspects of a company's operations. However, they are at times subject to criticisms by NGOs for lack of robustness in their requirements and application. Certification schemes are not panaceas and may benefit from additional precautionary measures by their users. We encourage Gasum to continuously monitor the sustainability of their operations to ensure robust environmental performance
  - ✓ Gasum's customers are mainly based in the Nordics. The biogas is used for heat generation and for energy generation in industrial purposes such as the processing of raw materials (e.g. aluminium)
  - ✓ The issuer has confirmed that any infrastructure built under this framework for either storage or transport will be exclusively used for biogas and not for LNG
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- ✓ To the extent that proceeds go towards construction of facilities or pipelines, Gasum should minimise local environmental impacts and GHG emissions related to construction
- ✓ The production of biogas/biomethane produce fugitive emissions which are included in the company’s Scope 1 emissions. We understand that Gasum is monitoring and continuously looking for ways to minimise fugitive emissions, including a recent decision to scan all terminals and Finnish biogas plants with a new imaging technology to detect possible emissions

**Circular economy adapted products, production technologies and processes**



Recycled fertiliser and nutrient products supplied to partners in agriculture or industry. Expenditures may include, but are not limited to:

- Investments that improve availability and access to renewable, low-carbon and eco-efficient products
- R&D of low-carbon products, processes, and technologies

**Dark-Medium Green**

- ✓ Use of recycled fertiliser and nutrient products reduces industrial production of artificial fertilisers – which are fossil fuel intensive in their production. It also reduces dependence on mining nutrients from the ground. According to Gasum, their fertiliser provides a greenhouse gas emission reduction of over 90% compared with mineral fertiliser use – however it should be noted that this considers emissions related to the production stage only which is only responsible for a part of the lifecycle emissions of fertilisers<sup>1</sup>.
- ✓ Indeed, Gasum has clarified that on-field emissions (when the fertiliser is applied) and water pollution issues from use of recycled fertiliser are similar to chemical/ mineral fertilisers
- ✓ The fertilisers are certified through SPCR 120 (a Swedish certification scheme to ensure production comes from clean, source-separated and biodegradable materials) and most of the volume is also certified for ecological use (i.e., certified via “KRAV-märkning” - a Swedish scheme indicating that the product is permitted to be used in KRAV-certified and organic production).
- ✓ Nutrient by-products other than fertilisers are applied in industry for e.g. use in flue gas scrubbers in power plants or in water treatment plants or the forest industry

<sup>1</sup> According to a recent study, use-related emissions of chemical fertilisers account for over 50% (<https://www.nature.com/articles/s41598-022-18773-w>)



- ✓ Note that the sale of this product to power plants or facilities running on and processing fossil fuels is subject to transition risk as these customers move away from fossil fuels to other alternatives

**Pollution prevention and control**



Activities include treatment of a wide feedstock base of bio-degradable fractions of waste and agricultural side-streams and the development of the use of side-streams of biogas production and improving resource efficiency of the process and increasing the use of renewable energy in Gasum’s operations. Expenditures may include, but are not limited to:

- ✓ R&D of waste management and pollution prevention solutions
- ✓ Equipment and management systems for reduction of waste, wastewater, residuals and air emissions
- ✓ Equipment and management systems for improved capacity / efficiency to process feedstocks
- ✓ Developing renewable energy production for use in Gasum operations

**Dark Green**

- ✓ Treatment will entail some emissions (e.g., through energy use, transport, etc.) and discharges to the environment (e.g., plastic pollutants etc.) and should be managed to ensure impacts are minimised.
- ✓ Gasum has clarified that their waste management and pollution prevention equipment does not run on fossil fuels.
- ✓ The issuer has also clarified that investments to increase renewable energy use in own operations relate to efforts to use biogas

**Energy Efficiency**



Overall energy efficiency improvements in issuer or customer operations. Improvements related to management systems. Expenditures may include, but are not limited to:

- Operational energy saving projects

**Medium Green**

- ✓ Energy efficiency upgrades of fossil fuel-based machinery/operations (own or customer) are not eligible, thus avoiding risk of lock-in effects.
- ✓ Energy efficiency improvements are positive for the environment and climate but without a threshold (minimum) level of efficiency improvements, the impacts of any investments are uncertain

Table 1. Eligible project categories







## 3 Terms and methodology

This note provides CICERO 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. CICERO 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

CICERO 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>	 <p>Solar power plants</p>
 <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>	 <p>Energy efficient buildings</p>
 <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>	 <p>Hybrid road vehicles</p>

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. CICERO 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 and Green Loan Principles*

CICERO Shades of Green assesses alignment with the International Capital Markets' Association's (ICMA) Green Bond and Green Loan 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 CICERO Shades of Green's assessment. CICERO 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 CICERO Shades of Green places on the selection process. CICERO 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

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Document Number	DocumentName	Description
1	Gasum Green Finance Framework June 2023 (06/19 version)	Green Finance Framework, dated June 2023
2	2022 Gasum Sustainability Report	Gasum's latest sustainability report
3	Gasum 2022 Green Funding Impact Report	Latest impact report under the 2019 Green Funding Framework
4	Gasum Code of Conduct for business partners	Code of Conduct applicable to suppliers

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# Appendix 2: About CICERO Shades of Green

CICERO Shades of Green, now a part of S&P Global, 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.

CICERO Shades of Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO 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. CICERO 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