2020

GASUM GREEN FUNDING IMPACT REPORT

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Gasum's Green funding impact report highlights our investments into renewable energy and our contribution to the circular economy and climate change mitigation. The green financed loan raised under Gasum's Green Funding Framework is allocated to financing our assets in the biogas segment, which facilitates sustainable growth in the future and contributes to the UN Sustainable Development Goals.

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CLEANER ENERGY

"The company has a single purpose: cleaner energy. Limiting global warming requires far-reaching transitions in energy systems, among other mitigation actions. The role of gas as an energy source will increase further over the longer term as action is taken against climate change and the Nordic countries transit towards carbon-neutral energy production. Both the industrial as well as transport use of gas is projected to grow strongly in the years ahead.

We have prepared for the growth in demand by investing purposefully in the development of the Nordic gas infrastructure for several years already, which creates a good foundation for the increased production and use of biogas. We aim to boost the availability of biogas to 4 TWh by 2024.

Gasum's financing strategy promotes the transition to a low-carbon society. The biogas assets financed under our Green Funding Framework help our customers in road and maritime transport and in industry to reduce their own carbon footprint as well as that of their customers. We are involved in the transformation of the entire society."

Johanna Lamminen
Chief Executive Officer, Gasum

GASUM'S BUSINESS PROMOTES DEVELOPMENT TOWARDS A CARBON-NEUTRAL FUTURE

Responsibility is a key element in Gasum's strategy. We regard sustainability as a comprehensive approach, and take our social, environmental and economic responsibilities into account in our daily operations and decision-making. We promote sustainable development based on the provision of cleaner energy solutions and circular economy principles.

Gasum's commitment to long-term profitability and sustainability is set out in our corporate responsibility program, which steers our work in all operating countries. The program addresses six themes identified as material to Gasum and to our stakeholders: safety and security, climate change mitigation, circular economy, access to energy, responsible business, and people. Objectives are set for each sustainability theme and progress is monitored quarterly and through an annual Corporate Responsibility Report. The Report is prepared in accordance with the Global Reporting Initiative (GRI) framework and has been published since 2010.

Gasum supports the UN Sustainable Development Goals (SDGs). We have defined those goals towards which we contribute the most in our operations:

AFFORDABLE AND CLEAN ENERGY

We offer and develop low-carbon and renewable energy products and energy market services for our customers.

Our investment outlook improves the availability of renewable energy sources, as society's demand for clean energy is growing. We increase access to cleaner fuels by developing the gas infrastructure in the Nordics, above all in the maritime and heavy-duty road transport segments.

INDUSTRY, INNOVATION AND INFRASTRUCTURE

We develop infrastructure for cleaner energy and invest in product and service innovation. We build circular economy and industrial ecosystem partnerships and participate in the activities of various research and development networks advancing innovations related to the circular economy and clean energy. We consider resource-efficient and environmentally sound technologies in our investments.

SUSTAINABLE CITIES AND COMMUNITIES

We continue to invest in the construction of the Nordic gas filling station network. Increased availability and usage of cleaner fuels has a positive impact on local air quality in urban areas. Compared to conventional traffic fuels, combustion of gas produces negligible amounts of sulfur and particulate emissions, significantly lower levels of nitrogen oxides (NOx), which is a precursor of smog.

RESPONSIBLE CONSUMPTION AND PRODUCTION

We offer circular economy solutions and treat a substantial share of society's biodegradable waste and residues as part of making biogas available. We participate in activities promoting the further development of technologies, feedstocks and partnerships in this field.

CLIMATE ACTION

With our low-carbon and renewable products and services, we help our customers to reduce their carbon footprint as well as that of their customers. We minimize the climate impact of our own operations by continuous energy-saving actions and by using 100% renewable electricity in all our operations.

WE STRIVE ACTIVELY TO INCREASE BIOGAS AVAILABILITY

Circular economy is seen as a necessity in supporting climate change mitigation, resource efficiency and sustainable growth. Biogas production represents a model example of the circular economy. Gasum's investments in the Nordic gas ecosystem and in new business functions facilitate growth in the future.

Global, EU-level and national energy and climate policies and targets are strongly committed to a rapid decrease in greenhouse gas emissions. Positive attitudes to cleaner energy are highlighted in the transition to a climate-neutral future. The European Green Deal provides an action plan to boost the efficient use of resources by moving to clean, circular economy, and the EU methane strategy as well as the measures prepared for its implementation will have a positive impact on biogas production, delivery and use. The Nordic countries have imposed a number of national measures to support the development of the biogas sector. Incentives are created to steer waste and side streams to biogas production and increase the use of biogas as a transportation fuel.

Both the transportation and industrial use of gas is projected to grow strongly in the years ahead. The increasing awareness of low-emission alternatives among users helps to speed up growth of gas as fuel. Gas solution is based on proven technology, is already available today and can help to achieve major emission reductions.

Gasum's biogas plant in Nymölla, Sweden, will produce liquefied biogas(LBG) at Stora Enso's pulp and paper mill site, converting the organic material in the mill's wastewater to renewable energy.

BIOGAS IS SUSTAINABLE

Biogas is a completely renewable fuel produced from agricultural, industrial and household waste and residues. Biogas use can help to reduce greenhouse gas emissions by up to 90% compared with fossil fuels. There is potential to reduce emissions even further when manure is used as a feedstock in biogas production.

In the biogas production process, the biodegradable feedstocks are converted into energy and recycled nutrients by anaerobic microbes that feed on the biomass.

The biogas can be used locally as such, or upgraded to biomethane and further liquefied, which enables the transport of the gas over longer distances. Renewable biogas can be used as a fuel for cars, buses, heavy-duty vehicles and maritime transport, as well as in industry and energy production.

Nutrient residues created as a by-product in the biogas process can be returned to the food chain as fertilizers or refined for industrial purposes to replace mineral and fossil nutrients and fertilizers.

WE BOOST AVAILABILITY OF BIOGAS

Gasum has prepared for the growth in gas demand by investing purposefully in the development of the Nordic gas infrastructure. Recent years have seen major leaps forward in the availability of gas for traffic, maritime and industry segments as our network of terminals, traffic filling stations and supply solutions for maritime transport have grown significantly.

Gasum is one the few companies who can offer biogas production and biogas availability on an industrial scale in the Nordics.

> We will make 4 TWh of biogas available through our own production and certified European partners.

WE INTRODUCED AN AMBITIOUS CLIMATE TARGET

Our products help our customers and the society at large to reduce greenhouse gas emissions. We seek to increase the availability of biogas to reduce our customers' greenhouse gas emissions by a million ton of CO_2eq by 2024. We will make 4 TWh of biogas available through our own production and certified European partners during the set timeframe. In addition, we continue to implement energy efficiency measures and reduce emissions in our own operations.

GASUM ESTABLISHED A GREEN FUNDING FRAMEWORK IN 2019 AS PART OF THE COMPANY'S FINANCING STRATEGY

Gasum's Green Funding Framework governs bond issuances as well as green loans as part of the Company's financing strategy.

The Framework has been assessed by an independent third party, CICERO Shades of Green, which is a subsidiary of the Center for International Climate and Environmental Research (CICERO) in Norway.

Based on the review of Gasum's governance framework for selecting and reporting on green eligible assets, as well as of the corporate sustainability policies, CICERO Shades of Green found the Framework to be in alignment with the Green Bond and Green Loan Principles. CICERO gave Gasum's Green Funding Framework the grade of dark green, which is allocated to the most climate-friendly projects or business solutions that promote the long-term vision of the transition to a low-carbon society.

Under the Green Funding Framework, Gasum can finance projects and assets connected to renewable energy and circular economy adapted products, waste management and pollution prevention, and control and energy efficiency - in line with categories by the taxonomies of the Green Bond and Green Loan Principles. Investments in the company's LNG business are excluded.

The CICERO Shades of Green's second opinion and Gasum's Green Funding Framework are available on our website.

ASSETS FINANCED WITH GREEN LOANS IN 2020

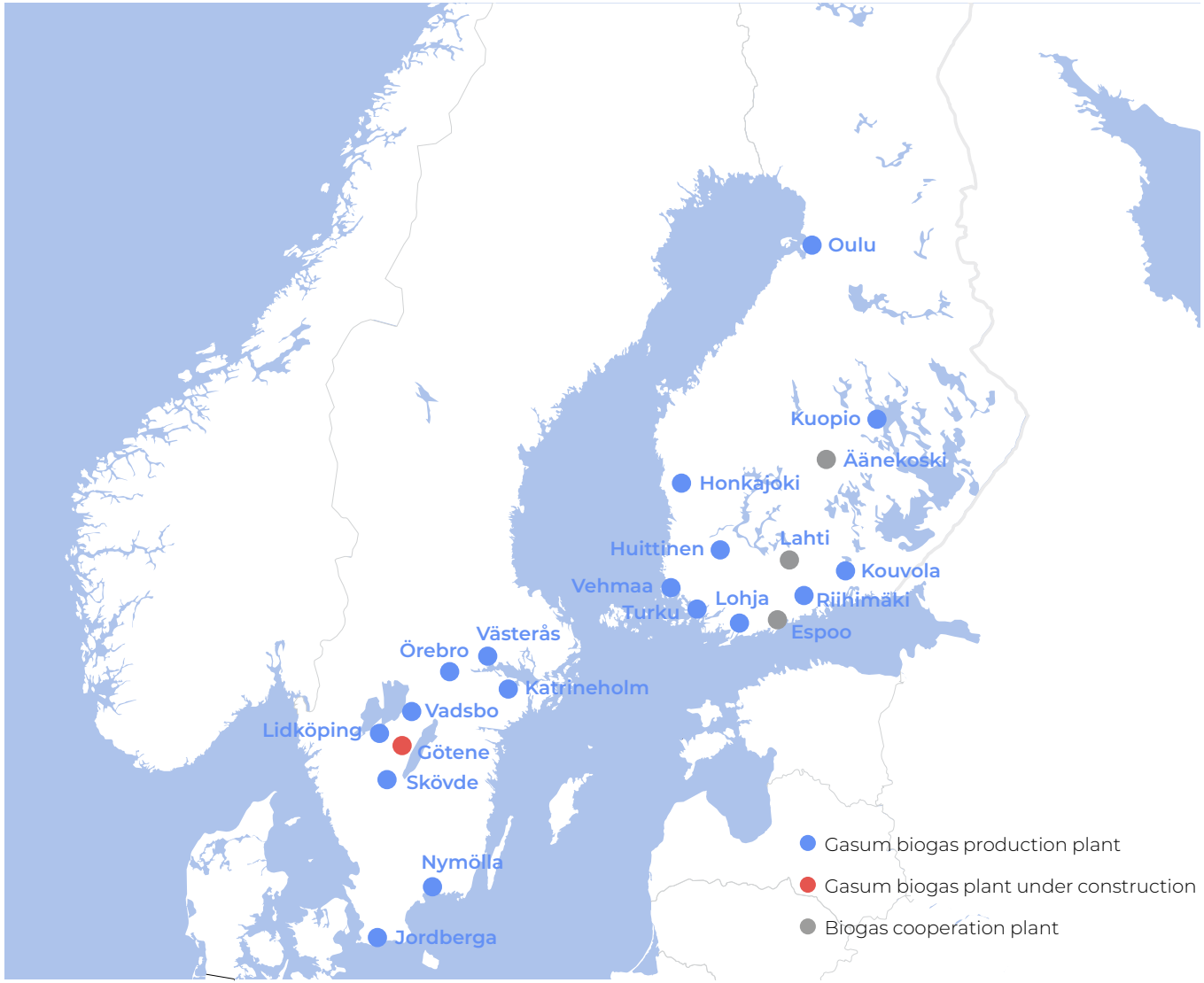
During 2020 no new loans were raised under the Green Funding Framework and thus the amount equal to the net proceeds of Gasum's green funding remained at EUR 152 million.

This is allocated to financing Gasum's assets in the biogas segment. This equals 28.5% of the total amount of loans taken out from the credit facility at end of 2020.

Gasum continued investments in the green biogas assets, which within Gasum's Green Funding Framework are eligible with the criteria of verified asset category 'Renewable or circular economy adapted products'. The ongoing operations spread across 17 locations in both Finland and Sweden

In 2020, 10 projects were ongoing with an aim to further increase the production capacity of biogas while simultaneously improving the efficiency of the plants.

In Turku, Gasum opened Finland's first LBG production plant. In the capital area of Finland, Gasum completed construction of a new biogas plant in Lohja and a biowaste transfer station in Vantaa. In Sweden, we are commissioning our LBG production plant in Nymölla to be in operation during the month of April 2021. In addition Skövde Biogas AB was acquired.



EXAMPLES OF PROJECTS FINANCED WITH GREEN LOANS: TURKU BIOGAS PLANT

CASE

MAJOR EXPANSION AND MODERNIZATION OF GASUM'S BIOGAS PLANT IN TURKU, FINLAND

The major expansion and modernization of Gasum's biogas plant in Topinoja, Turku was completed in 2020. The expansion of the Turku biogas plant was one of the key projects in the Program of Prime Minister Sipilä's Government, Bioeconomy and clean solutions, the objective of which is to increase in a sustainable way the share of renewable energy of the energy used in Finland by, in particular, improving its availability.

Gasum strives actively to increase biogas production capacity by expanding and improving the efficiency of existing biogas plants and by increasing biogas procurement.
The Turku plant processes around 130,000 tonnes of biomass a year, to produce around 60 GWh of liquefied biogas (LBG) a year, which corresponds to the annual fuel consumption of 125 heavy-duty vehicles or 5,000 cars.

The plant will also produce around 4,000 tonnes of ammonia water for use as a recycled nutrient. The Turku biogas plant promotes the realization of the circular economy and the development of the gas market in the Turku region.

Demand for biogas is growing in all segments and Gasum is constantly pursuing new opportunities to increase production capacity.

EXAMPLES OF PROJECTS FINANCED WITH GREEN LOANS: VANTAA BIOWASTE TRANSFER STATION

CASE

START-UP OF GASUM'S BIOWASTE TRANSFER STATION IN VANTAA PROMOTES THE IMPLEMENTATION OF THE CIRCULAR ECONOMY IN THE HELSINKI REGION

Completion in December 2020 of Gasum's biowaste transfer station in Vantaa, Finland, promotes and boosts the implementation of the circular economy in the Helsinki region as the station has the capacity to process large volumes of solid and sludge biomass.

Gasum aims to increase biogas production capacity and to this end requires large volumes of biomass. Encore Ympäristöpalvelut environmental services operates the transfer station together with Gasum. All operators in the Helsinki region can utilize the biowaste transfer station.

The biowaste transfer station has the capacity to receive 34,000 tonnes of solid and sludge biowaste a year. Gasum's biogas plants will process the biowaste into enough biogas for the tanks of around 2,000 gas vehicles and into recycled fertilizers for the use of farmers. Gasum needs different biodegradable waste to increase biogas production.

The biowaste transfer station will help Gasum, in partnership with other operators, to promote the implementation of the circular economy in the Helsinki region. The biowaste transfer station creates an eco-friendly, cost-effective biowaste recycling chain for all operators in the Helsinki region.

EXPECTED ENVIRONMENTAL IMPACT

Renewable energy production financed with green loans promotes positive climate impacts of the company's business.

In 2020, the biogas production financed with green loans totaled about 600 GWh. The corresponding estimated annual greenhouse gas emissions reduction was 130,000 tonnes of CO_2 equivalent.

Biogas produced by Gasum is 100% renewable. During the reporting year, biogas production met fully with the sustainability criteria laid down by the Renewable Energy Directive.

In 2020, the biogas plants utilized a wide base of biomass in biogas production. A total of 850,000 tonnes of biodegradable feedstocks were sourced from the food industry, retail outlets, municipalities and agriculture, consisting of biogradable waste and residues, municipal wastewater sludge, and agricultural by-products and crops . Biogas production enabled the re-use of biodegradable waste material as energy, thereby reducing the energy lost in processes such as waste combustion or composting.

In addition, around 800,000 tonnes of nutrient residues were generated as a by-product in the biogas production process. These are returned either as recycled nutrients for industry, or as recycled fertilizers for agriculture.

Our network of fairly large biogas plants improves economy of scale and efficiency, and allows biomass processing to be optimized between plants depending on, for example, logistics, capacity, market conditions and different feedstocks.

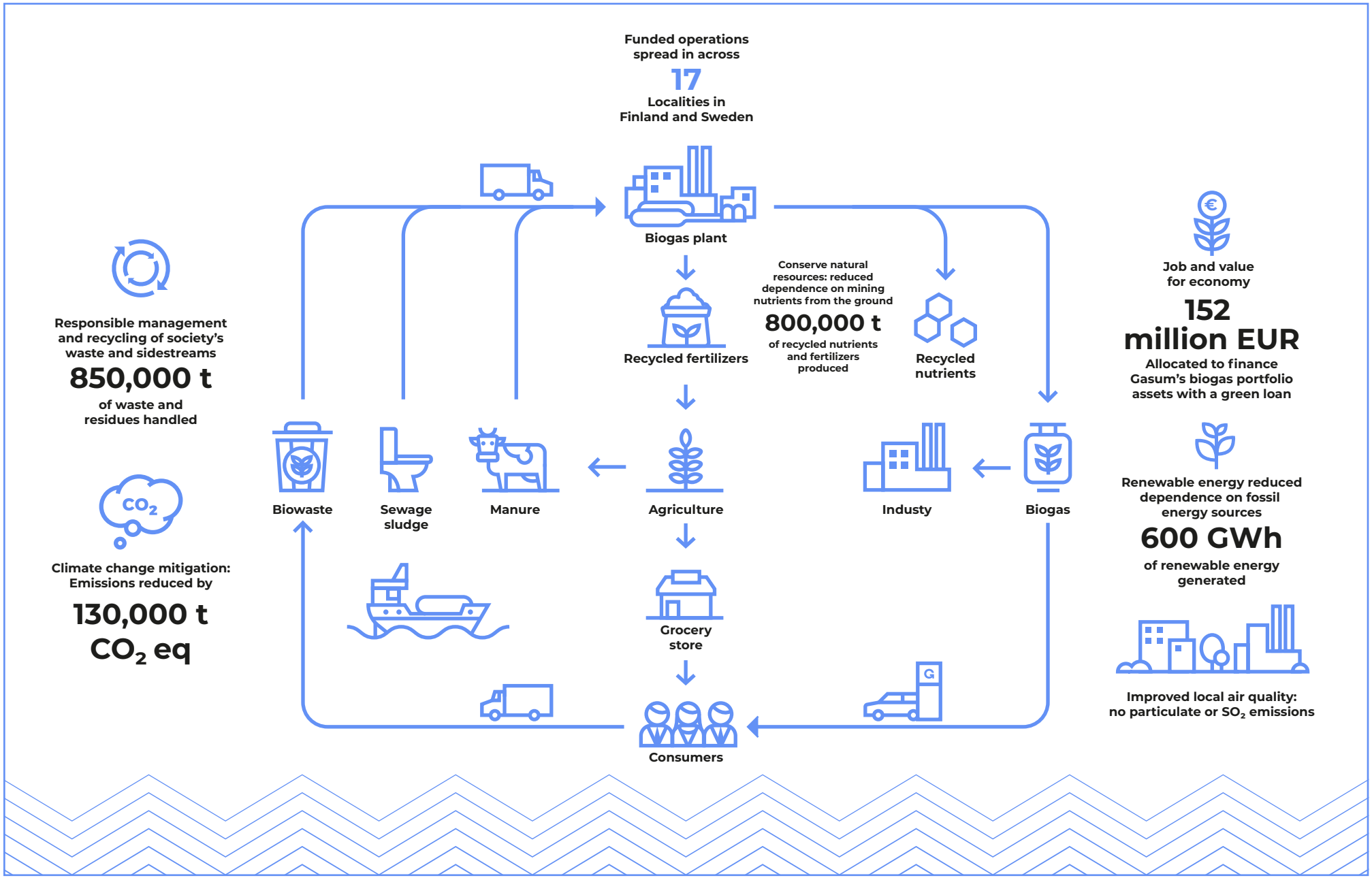
CLIMATE IMPACT CALCULATION PRINCIPLES

The estimated tonnes of CO_2eq emissions avoided as a result of assets to which green funding proceeds have been allocated, have been calculated according to methodologies and assumptions described below.

The evaluation is carried out on the basis of portfolio-based specific emission calculations, based on an annual level analysis for 2020. The determination of emissions is based on the sustainability criteria guidelines provided by the Finnish Energy Authority and Swedish Energy Agency and is in accordance with the Renewable Energy Directive (RED 2009/28/EC), which governed the climate impact calculation rules during the reporting year. Emission calculations have been carried out in the context of Gasum's certified sustainability systems in Finland and Sweden. The sustainability systems and the calculations are verified annually by an independent certification body. The emissions of the Finnish biogas plants that do not belong to Gasum' sustainability system are estimated based on emission data from other plants.

In calculating the greenhouse gas emissions generated by the usage of electricity, grid factors of 106 g CO_2eq/kWh for Finland and 47 g CO_2eq/kWh for Sweden have been applied. In determining emissions reductions, the applied fossil fuel comparators are 83.8 g CO_2 eq/MJ for traffic use, 85 g CO_2eq/MJ for cogeneration, 77 g CO_2eq/MJ for heat production, and 91 g CO_2 eq/MJ for electricity production. Carbon dioxide (CO_2), nitrous oxide (N_2O) and methane emissions (CH_4) are taken into account in the total climate impact. The Finnish and Swedish authorities refer to the GWP100 values defined in the Renewable Energy Directive (2009/28/EY), thus the GWP value of 23 for methane and 296 for N_2O have been applied.

GASUM'S GREEN FUNDING 2020 IN FIGURES



GASUM CONSIDERS HEALTH, SAFETY AND ENVIRONMENTAL ASPECTS WITH CARE

When constructing new and operating the existing biogas plants and related facilities, we consider the health, safety and environmental aspects with care. We believe that all accidents related to people, environment and assets can be prevented.

Process safety starts with the design phase of building facilities and extends throughout their lifecycle, ensuring the facilities are operated safely, are well maintained and inspected regularly to identify and deal with any potential process safety hazards. Every one of us is responsible for following safety and security instructions, making observations and eliminating hazards, and for taking part in safety and security training. Documenting observations helps to prevent damage, accidents and injuries, and to ensure we continuously improve our daily operations. Where risks are identified, we set deadlines and responsibilities for corrective actions in response to them and also monitor these actions.

Our key environmental aspects include air emissions, energy consumption, odor nuisances, and environmental impacts caused during project construction. We continue to invest in maintenance and process improvements to improve our environmental performance. We are committed to improving energy efficiency and favor renewable electricity in all our operations. At many of our biogas plants, efficient recycling means that no wastewaters are produced at all. All sites systematically follow up on any environmental deviations, pro-actively report observations, conduct safety rounds and compile risk assessments. We use reporting tools in the management and reporting of the environment-related actions, which helps us to improve the environmental performance and awareness.

Our certified integrated management system (IMS) supports our work in continuous improvement of energy efficiency and prevention of environmental degradation. The IMS consists of quality, environmental, energy, occupational health and safety management systems (ISO 9001, ISO 14001, ISO 50001 and OHSAS 18001 standards), as well as the sustainability system. We verify our compliance with these standards by annual external audits.

We commit our business partners to our operating practices by providing them with training and continuously assessing our critical suppliers. Our Business Partner Code of Conduct sets the requirements we expect our partners to comply with when doing business with us. We work together in order to maintain high ethical standards and to conduct business in a responsible way. Our fundamental principles include e.g. avoiding bribery and corruption, competing fairly, respecting human rights and the environment, maintaining quality and regulatory excellence, as well as health, safety and security. The Gasum Business Partner Code of Conduct is available on our website.

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Gasum

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