



**Sustainable Bonds
Impact Report
2020**

MuniFin



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MuniFin's sustainable finance responds to the challenges of sustainable development

We are committed to building a better and more sustainable future with our customers. Responsibility is a key part of our strategy and operations. In 2020, we expanded our sustainable finance product offering by launching social finance alongside green finance, which we introduced in 2016. We source the funding for our sustainable finance products by issuing green and social bonds. These sustainable bonds are an integral part of our funding strategy. Both of our sustainable finance products have their own frameworks and project portfolios, and the impacts of green and social finance are individually examined in this report as well.

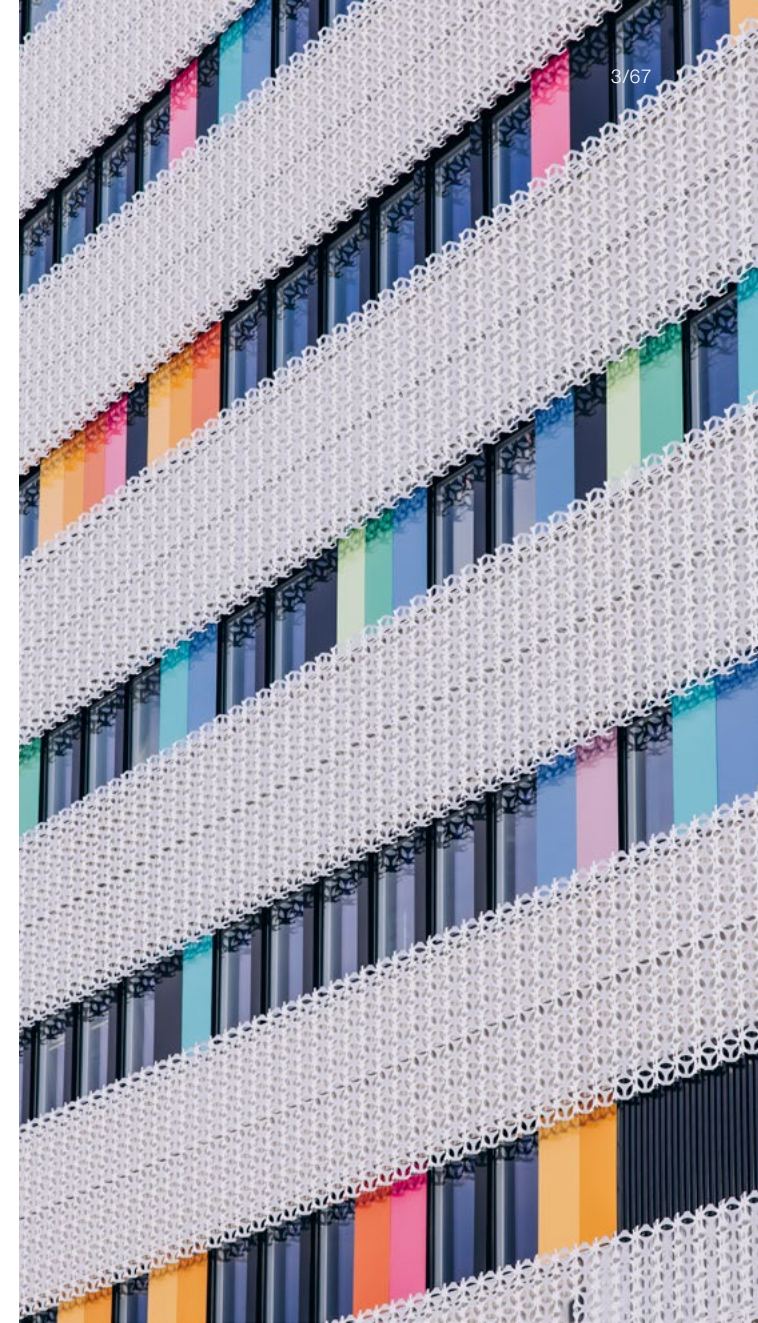
Promoting the United Nations Sustainable Development Goals (SDGs) has been an important aspect of planning our sustainable finance product offering. As a public sector entity, we wish to address the national challenges of sustainable development highlighted in Finland's Voluntary National Review on the Implementation of the 2030 Agenda¹, such as greenhouse gas emissions and the growing inequality and social exclusion.

Our sustainable finance products are also designed to promote the strategic themes of the Finnish Government Programme², which is based on sustainable development. One of these themes strives for a carbon neutral Finland that protects biodiversity. The theme includes the goal of achieving carbon neutrality in Finland by 2035. Another

important strategic theme is to reach a fair, equal and inclusive Finland. The investments of the Finnish municipal and social housing sector – MuniFin's customers – play a key role in advancing solutions designed to promote the achievement of the SDGs and the strategic goals of the Finnish Government Programme. Municipalities are highly committed to sustainable development: 45% of Finns live in a municipality that aims to achieve carbon neutrality by 2030, which is an even more ambitious climate goal than that of the Finnish Government¹.

¹ <https://julkaisut.valtioneuvosto.fi/handle/10024/162268>

² <https://valtioneuvosto.fi/en/marin/government-programme>





Green finance and bonds

MuniFin



Yesterday's solutions no longer cut it

Built environment projects have far-reaching effects into the future. The solutions they use must be sustainable throughout their entire life cycle.

Our green finance has been growing steadily: at the end of 2020, we had committed to finance our customers' green projects with more than two billion euros. Our goal is for sustainable finance to account for 20% of our long-term customer finance by 2024. This goal is challenging, but possible to achieve.

Projects in the sustainable buildings category held their ground in our green finance portfolio, with the share of new social housing buildings continuing to grow rapidly in the portfolio. This indicates that our non-profit housing production customers are both willing and able to achieve current climate goals as well as future requirements. New requirements are not only dictated by regulators, but increasingly also by residents.

A total of 40% of all carbon dioxide emissions are caused by buildings and construction. The life cycle of these projects may span 100 years or more, carrying the impacts of today's decisions long into the future. It is therefore vital that these projects take particular heed of energy efficiency, materials

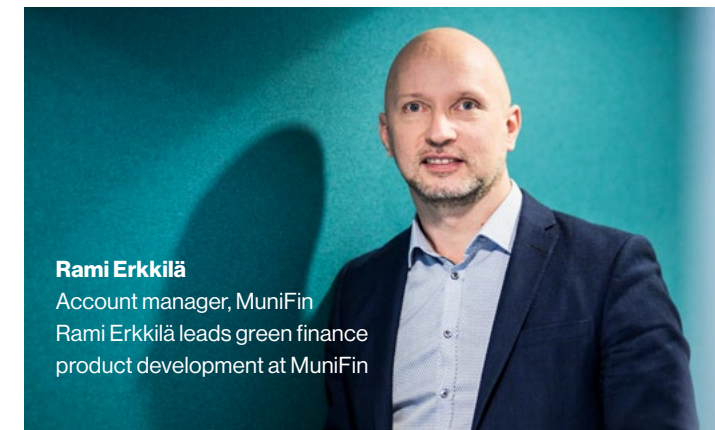
and life cycle solutions. Efficient technological choices also help reduce lifetime costs. We simply cannot afford to use outdated technology.

Carrying out major changes, adopting new technological solutions and reinventing operating practices takes will and skill, both of which our customers clearly have. Rental apartments in energy efficiency class A are becoming more common among our customers, but they continue to remain a rarity among non-subsidised apartments. Our customers are leading the way, but involving the entire industry would require incentives and appropriate regulation that involves industry insight and leaves room for experimenting.

Our customers have what it takes to adopt innovations and develop new operating models. This is the background against which we actively follow the development of the EU Taxonomy, a classification system for environmentally sustainable economic activities. MuniFin welcomes the EU Taxonomy as a positive and necessary development, however ignoring national differences could also be harmful. The proposed burdensome reporting requirements might cause especially owners of small projects to choose traditional sources of finance over sustainable ones, which could reduce the number of green investment projects offered in the market and also slow down the green transition.

Green stimulus and the Sustainable Growth Programme for Finland enable our customers to accelerate the development of sustainable projects and thus also make a positive impact on the economy hit by COVID-19. Staying up to date and finding the right channels for finance and subsidies requires resources, which are already scarce in municipalities. If municipalities work together and coordinate project planning and implementation, they can potentially increase the project's attractiveness, find synergies and even cut costs.

Our customers have been more than ready to share their experiences of past projects. In my opinion, the main value in green finance is that it acts as a showcase for sustainable investments and a means of sharing and learning from best practices. I encourage our customers to make bold experiments and collaborate even more closely. We can only preserve the environment if we work together.



Rami Erkkilä

Account manager, MuniFin
Rami Erkkilä leads green finance product development at MuniFin

Green finance enables environmental investments across Finland

For five years now, MuniFin has offered its customers green finance, financing environmental investments across Finland. We source the funding from international capital markets by issuing green bonds, which are bonds allocated for the financing of environmental projects.

When we issued our first green bond in 2016, we were the first-ever Finnish issuer of green bonds. The popularity of green bonds has grown rapidly in the market as investors are increasingly looking for sustainable investments. Our green bonds have been highly sought after.

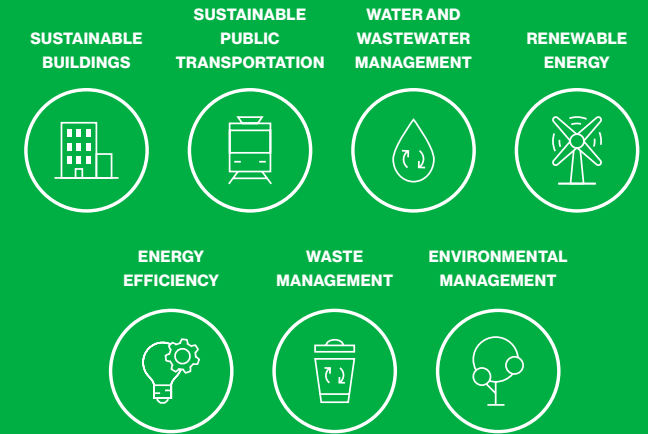
Projects eligible for MuniFin's green finance include projects that have verifiable positive impacts on the environment and are in line with our Green Bonds Framework. The final assessment of the project's suitability for the green finance portfolio is made by an independent expert group. We give a margin discount of 0–10 basis points to approved green finance projects, which is exceptional in the green finance market.

Our Green Bonds Framework has been drafted according to the Green Bond Principles of the International Capital Markets Association (ICMA). The framework has been evaluated by CICERO in cooperation with the Stockholm Environment Institute (SEI), and it has received CICERO Shades of Green's second-best rating of "Medium Green". The framework has seven different project categories. The waste management and environmental management categories did not have any projects yet at the moment of reporting.

MuniFin is involved in developing Nordic recommendations on green bonds impact reporting as part of the Nordic issuer group, who has jointly published the Position Paper on Green Bonds Impact Reporting. In 2020, the Nordic group also analysed the EU Green Bond Standard and the EU Taxonomy, which is the EU classification system for environmentally sustainable economic activities.

MuniFin's green finance has numerous positive environmental impacts and economic and social benefits. This report primarily focuses on the estimated direct environmental impact, but other broader benefits are also discussed.

MuniFin's Green Bonds Framework has seven project categories:



EU Action Plan on Financing Sustainable Growth

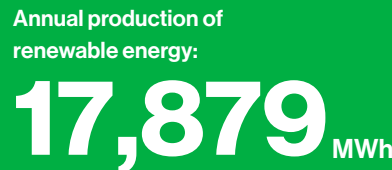
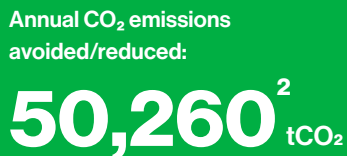
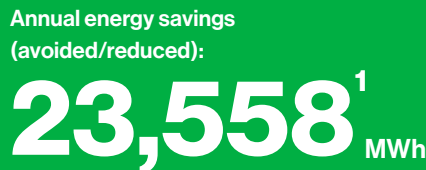
MuniFin closely follows the progress of the European Commission's Action Plan on Financing Sustainable Growth, especially the EU Green Bond Standard and the EU Taxonomy for Sustainable Activities. We responded to the Commission's consultation on the Green Bond Standard in October 2020 and on the EU Taxonomy in December 2020. We consider both initiatives very welcome. The definitions of environmentally sustainable activities need to be harmonised, and investments to such activities need to be increased. At present, we are analysing the effects of the EU Green Bond Standard and the EU Taxonomy on our own green bonds programme.

Green finance in figures

Municipality Finance Plc • Sustainable Bonds Impact Report 2020



Average remaining maturity of green projects: **24 years**



Figures based on the outstanding amount of green finance on 31 December 2020

¹) 23,558 MWh: Equals the annual consumption of about 1,170 electrically heated single-family houses (Source: Motiva)

²) 50,260 tCO₂: Equals the average annual carbon footprint of about 4,800 Finns (Source: Sitra)



New projects

100%

Our green finance portfolio is comprised entirely of new projects. In accordance with our Green Bonds Framework, new projects are ones that have been completed less than 12 months before the Green Evaluation Team has approved them for our green finance portfolio. Our portfolio does not include refinanced projects, i.e. projects completed more than one year before their approval.



**Outstanding amount of
green bonds, EUR million**

1,978



**Outstanding amount of
green finance, EUR million**

1,786

At the time of reporting, MuniFin's outstanding amount of green finance stood at EUR 1,786 million and the outstanding amount of green bonds was EUR 1,978 million. The difference will remain in our liquidity investments until we direct the funds to new projects approved for green finance. The funds are managed in line with our responsibility policy.



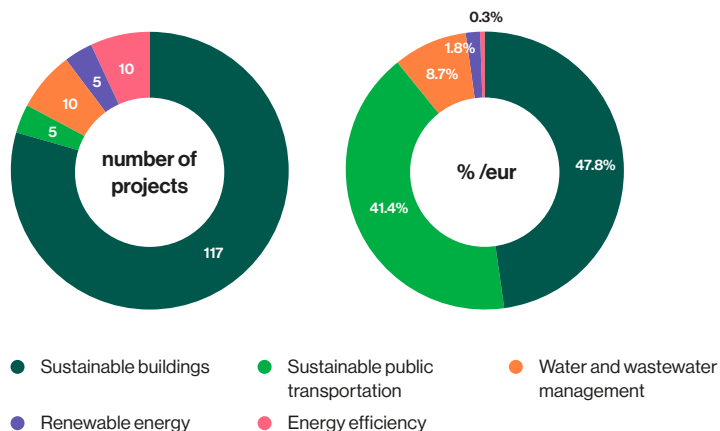
**In liquidity investments,
EUR million**

192

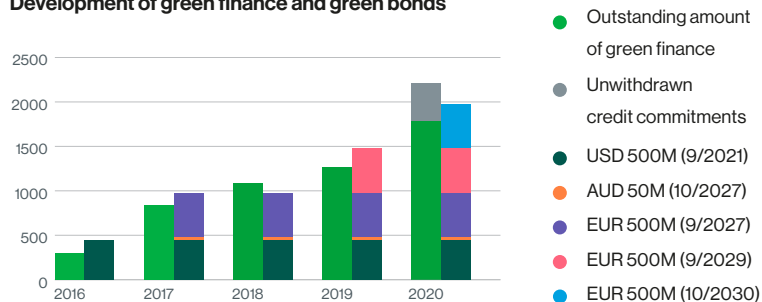
**Nordic Public Sector Issuers: Position Paper on Green Bonds Impact Reporting (2020) recommends reporting the financing/refinancing share as per the EU Green Bond Standard that is currently being prepared. MuniFin does not report this figure because the EU Green Bond Standard is not yet valid.*

Executive summary

Green finance project breakdown



Development of green finance and green bonds



Project category	Outstanding amount, EUR million	Annual CO ₂ emissions avoided/reduced, tCO ₂	Impact, tCO ₂ per EUR million
Sustainable buildings	853	4,706	6
Sustainable public transportation	740	6,865	9
Water and wastewater management	156	n/a	n/a
Renewable energy	31	37,512	1,192
Energy efficiency	6	1,176	207
Total	1786	50,260	n/a

Other impact indicators

Annual energy savings (avoided / reduced MWh)	23,558
Annual production of renewable energy (MWh)	17,879
Renewable energy production capacity (MW)	35
Annual amount of treated wastewater in existing plants immediately after project completion (m ³)	19,499,714
Annual amount of treated wastewater with increased capacity in the future (m ³)	17,746,667

Impact attributable to green bond investors

100%

Outstanding amount of green bonds divided by outstanding amount of green finance (in EUR) as of 31 Dec 2020. Capped at 100%

Amount	ISIN	Issue date	Maturity date	
500m EUR	XS2242924491	14 Oct 2020	14 Oct 2030	25,3%
500m EUR	XS2023679843	10 July 2019	6 Sept 2029	25,3%
500m EUR	XS1692485912	3 Oct 2017	7 Sept 2027	25,3%
500m USD	XS1498532271/US62630CAH43	4 Oct 2016	2 Sept 2021	22,5%
50m AUD	XS1706174015	25 Oct 2017	25 Oct 2027	1,7%

Basic information

Green Bond Frameworks applied to the green finance portfolio	Green bonds frameworks as of May 2019, November 2018, August 2017 and February 2016
Reporting period	The reporting is based on the green finance portfolio as at 31 Dec 2020
Report publication date	4 March 2021
Frequency of reporting	Annual
Next reporting planned for	March/April 2022
Reporting approach	Portfolio-based and project-by-project reporting
Reporting framework	Nordic Public Sector Issuers: Position Paper on Green Bonds Impact Reporting (February 2020)

MuniFin has consolidated its position as a green bond issuer

At the end of 2020, MuniFin had five outstanding green bonds in the market, including the inaugural green bond we issued in 2016. Most of the investors of these bonds were banks. European investors had the highest representation.

We issued one green bond in 2020, which was MuniFin's fifth green bond. The ten-year EUR 500 million bond, issued in October, brought the combined amount of MuniFin's green bond issuance to approximately EUR 2 billion. The bond was quickly almost seven times oversubscribed at EUR 3.4 billion. The amount of ESG-focused investors grew to 55%, which is the highest allocation to this investor group seen in MuniFin's green bonds.

Outstanding amount of green bonds, EUR million



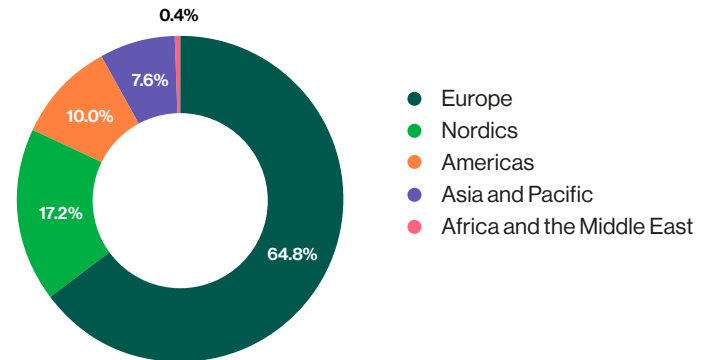
1,978

Foreign currencies in euros

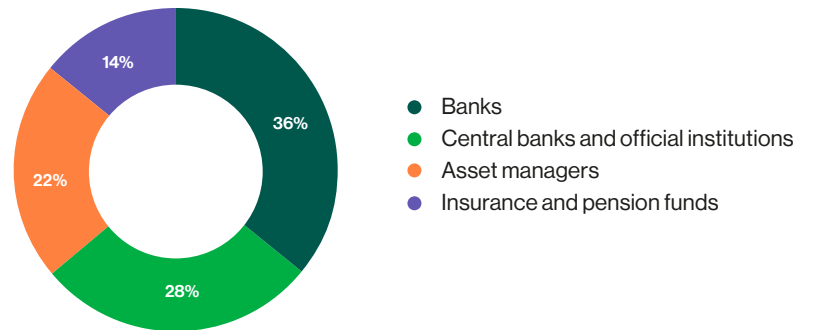
Outstanding green bonds

- EUR 500m 10/2030
- EUR 500m 9/2029
- EUR 500m 9/2027
- USD 500m 9/2021
- AUD 50m 10/2027

Investor breakdown by geography of outstanding green bonds



Investor breakdown by investor type of outstanding green bonds



Figures as at 31 December 2020

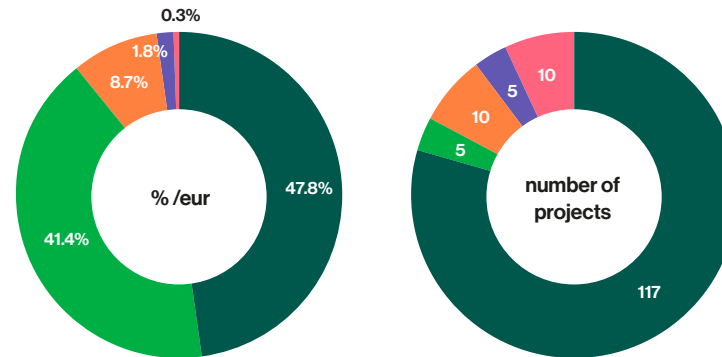
Green finance portfolio

At the end of 2020, the number of projects approved to the green finance portfolio was 147, out of which 135 projects had begun to withdraw finance. The outstanding amount of green finance, which means the amount of finance disbursed minus repayments, totalled EUR 1,786 million (EUR 1,263 million) at the moment of reporting. Total committed finance was EUR 2,206 million, which is the sum of the outstanding amount and the amount of unwithdrawn credit commitments. The green finance projects in the portfolio are located in 62 different regions across Finland. A summary of our green finance portfolio's impacts can be found on page 23 and a detailed list of our green finance projects can be found on pages 34–40.

In 2020, a total of 41 new projects were approved into the green portfolio, out of which 30 projects had begun to withdraw finance at the moment of reporting. The outstanding amount of green finance for projects approved in 2020 was EUR 220 million at the end of the year. The total committed finance of these projects was EUR 475 million.

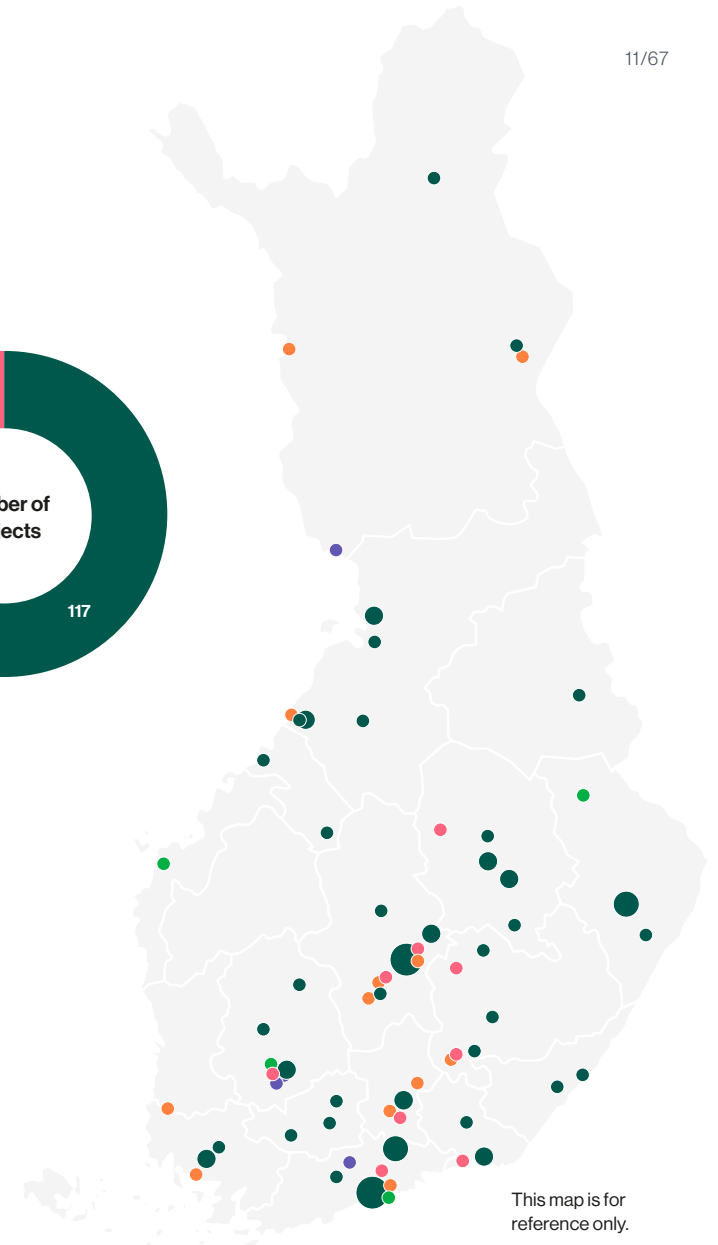
The largest project category of projects approved in 2020, both in terms of euros and the number of projects, was sustainable buildings with 36 approved projects. In addition, we granted green finance to one renewable energy project, one public transportation project, and three water and wastewater management projects.

Green finance project breakdown



- Sustainable buildings
- Sustainable public transportation
- Water and wastewater management
- Renewable energy
- Energy efficiency

Outstanding amount of green finance
EUR million



This map is for reference only.

Fossil fuels in the projects

At the end of 2020, the green finance portfolio had two projects which involve a fossil fuel component at the commissioning stage of the investment. The two projects are the Kvarken Archipelago car and passenger ferry in the public transportation category, and the Energy Self-Sufficient Lempäälä project by Lempäälään Energia Oy in the renewable energy category. Both projects aim at substituting natural gas with biogas once the availability of biogas capacity is sufficient. Project documentation suggests that the environmental impact of the projects will be significantly improved compared to prior technology, even using natural gas. This positive effect will grow even more pronounced when the availability of biogas capacity becomes technically and economically reasonable.

The fossil fuel component cannot be entirely avoided in some biomass heating plant projects, because small amounts may be required during the start-up of the plant and to ensure security of energy in the event that renewable fuel is unavailable. MuniFin's green finance portfolio included two biomass heating plant projects, Kangasalan Lämpö Oy and Kemin Energia ja Vesi Oy, at the end of 2020.

Experimental project

In the sustainable buildings category, the construction of apartment building for Kiinteistö Oy Oulun Tarve at Pohjantankkuja 4 (energy class C, 2018) by TA-Yhtymä Oy has been approved into the green finance portfolio, due to its value as an interesting pilot project, even though it doesn't fulfil the energy efficiency criteria of MuniFin's Green Bonds Framework. The intent of the project is to prove that by utilising brick construction and traditional architectural engineering, the original energy efficiency calculations of the project can be overturned once the building is commissioned in use. If the project successfully reaches its goals, it should fulfil the energy efficiency criteria of MuniFin's Green Bonds Framework. Moreover, on the basis of the initial energy certificate, the project does not currently have any effect on the presented impact calculations.

We commit to monitoring and reporting on use-phase experiences and measurement results from each of the aforementioned five projects, as well as to making sure that the original aims of the projects are fulfilled and in line with MuniFin's Green Bonds Framework. We will give out further information on the projects, if requested.



The Green Evaluation Team approves projects

Projects eligible for MuniFin's green finance must fit the Green Bonds Framework at the time of their approval. MuniFin's Customer Solutions division conducts preliminary assessment on the projects and submits potential loan and lease applications for review to MuniFin's Green Evaluation Team. Projects are approved by MuniFin's Green Evaluation Team, which consists of independent experts. Each project is reviewed independently and only approved if its long-term environmental effect is positive.

To make environmentally friendly investments more attractive to our customers, we grant approved green finance projects a margin discount of 0–10 basis points. The discount is based on the project's estimated environmental benefits, which are assessed and scored on a scale of 0 to 10 points by the Green Evaluation Team. Dark green projects are granted 7–10 points, medium green 4–6 points, and light green 1–3 points.

Members of the Green Evaluation Team:



"The energy and climate work of municipalities is at its most effective in the construction of new buildings and their renovations – in other words, especially in the largest green finance category. Combined with investments in transportation and energy production, we have gathered excellent examples every year of how energy and material efficiency as well as renewable energy is voluntarily advanced across Finland."

Vesa Peltola, Energy Adviser,
Association of Finnish Local and Regional Authorities

"Green finance is a key way to reward municipalities for the essential work they do for the climate and the environment. One not only creates new opportunities for oneself in the future but also acts as an example and enabler for others. This increases know-how and domestic demand and turns the sustainability transition into a success factor for Finland"



Jyri Seppälä, Professor, Director of the Centre for Sustainable Consumption and Production, Finnish Environment Institute (SYKE)



"Public procurement has an important role in implementing sustainable solutions and generating new sustainable business. Green finance is a great way to encourage and inspire, and also to reward the forerunners – They are needed!"

Päivi Sieppi, Environmental Advisory Manager,
City of Lahti

Reporting principles

Our Green Bonds Framework defines the contents of this green finance and bonds section of the annually published Sustainable Bonds Impact Report. Our impact reporting is based on the recommendations of the Nordic Position Paper on Green Bonds Impact Reporting¹. The primary purpose of this report is to describe the impacts of the financed projects based on the available facts.

Our approach to impact evaluation

Our reporting applies a bond-programme-based approach, which is also known as the portfolio approach. In this approach, one dynamic portfolio consisting of green bonds is used to finance one dynamic portfolio of green finance projects. We do not allocate green bond proceeds to single projects within the project portfolio.

According to the portfolio approach, we may refinance a green bond at maturity in order to maintain an appropriate balance between the green bonds portfolio and the green finance project portfolio.

We carry out our impact reporting in accordance with the following principles:

- The reporting is based on the situation at the end of 2020, taking into account new withdrawals, repayments and redemptions.
- The project's impacts have been calculated based on our estimated share of the project's total finance. Our estimated share of the project's total finance refers to MuniFin's outstanding amount of green finance for a particular project in relation to the project's estimated total finance. If MuniFin is the project's only financier, the project's estimated total finance equals MuniFin's granted finance. If the project has other financiers as well, the estimated total finance is the project's total liabilities based on information from the customer and public sources. This figure does not include self-financing or grants.

- Some projects in the green portfolio have not yet withdrawn any finance. Their impact is therefore not included in the impact assessment, and the outstanding amount of their finance is EUR 0. Previously approved projects that began to withdraw finance in 2020 are included in the whole portfolio's figures.
- Our reporting is based on ex-ante evaluation conducted prior to project implementation. These calculations are made once and are not updated annually.
- Our impact assessment includes both quantitative and qualitative impacts.
- We develop our reporting continuously and welcome development proposals.

Terms used in this report:

- Outstanding amount = disbursed amount minus repayments
- Unwithdrawn credit commitment = amount of finance granted to the customer but not yet withdrawn
- Total committed finance = outstanding amount + unwithdrawn credit commitment

The UN 2030 SDGs in this report have been selected based on the direct impact of the projects. All projects may also have indirect impacts on the environment, individuals and society at large, but such impacts fall outside the scope of this report. The SDGs and related targets are reported by project category in this report.

¹Nordic Public Sector Issuers: Position Paper on Green Bonds Impact Reporting (2017, 2019, 2020)

Changes to impact evaluation

We carried out our first green bonds impact evaluation in 2016 and have published the Green Bonds Impact Report annually ever since. In the 2016 and 2017 reports, the estimated impact was presented per year for projects financed during that year. The 2018 report was the first in which we discussed the impact of the entire green finance portfolio. The developments in reporting are driven by the harmonisation of the calculation principles that took place after our first evaluation.

This report shows the status of our green finance portfolio at the end of 2020. We have updated the impact of our portfolio to reflect our estimated share of the project's total finance at the end of the year. This figure represents MuniFin's share of the estimated impact of the entire project, explained in more detail on page 14.

New indicators in the water and wastewater category

Our 2020 impact assessment introduced two new indicators that replace the previous indicator *amount of treated wastewater* in the water and wastewater management category. The projects implemented at existing wastewater treatment plants improve treatment efficiency and add to the capacity of the plants for the future, thus influencing both new indicators. In both indicators, the amount of treated wastewater refers to the average flow of incoming water.

The new indicators are:

- Annual amount of treated wastewater in existing plants immediately after project completion (m³)
- Annual amount of treated wastewater with increased capacity in the future (m³)

This first new indicator represents existing wastewater treatment plants. It indicates the amount of wastewater that is treated more efficiently immediately after the project's implementation.

The indicator also covers expansions which result in an immediate increase in the amount of treated wastewater; for example, directing new sources of wastewater to the plant.

This second new indicator represents an estimate of how much wastewater can be treated in

the future as a result of the construction of new plants and expansion of old plants. The time span on which the amount of treated wastewater in the future is estimated varies between individual projects, but most commonly falls in the year 2030 or 2040. It is worth noting that new wastewater treatment plant projects typically utilise new technology, and their treatment efficiency clearly surpasses the minimum requirements.

Changes to impact calculations

The 2019 impact evaluation included two key changes compared to impact evaluation done in previous years, specified below, and these same principles are observed in the impact evaluation for 2020. These changes have been implemented for impact calculations done in 2019 and 2020 as described below. Calculations done in previous years are not affected.

The changes are as follows:

Tightening of E-value limits for new buildings:

- The impact calculations for 2019 and 2020 have been significantly influenced by the Decree of the Ministry of the Environment on the energy efficiency of new buildings (1010/2017), which came into effect in 2018. With the tightening of E-value limits, the relative impact of the sustainable buildings project category is now considerably lower than in previous years. We use the E-value to determine a reference building, and the lower value therefore affects the calculated benefit. The impact of projects which applied for building permit before the E-value limits were tightened, but whose impact assessment has been conducted later, is calculated using an E-value limit, which is in line with the Finnish regulation mentioned in the building's energy certificate. We primarily refer to the energy certificate drawn up during the building permit phase or, if available, the energy certificate procured by the customer when the building was commissioned.

Updated electricity emission factor:

- In the Nordic Position Paper on Green Bonds Impact Reporting (2020), the recommendation for the electricity emission factor to be applied was updated in early 2020. The emission factor was reduced from the previously applied 380 g CO₂/kWh to 315 g CO₂/kWh. The updated emission factor has been applied for projects for which impact calculation was done in 2019 and 2020.

Changes to terms used in this report

- In our 2019 Green Bonds Impact Report, we reported a figure called *disbursed amount*, which is referred to in this report as *outstanding amount of green finance*. These terms are directly comparable and the same. In our 2016–2018 Green Bonds Impact Reports, we reported a figure called *disbursed amount*, which did not account for repayments. Therefore these figures from the 2016–2018 reports cannot be compared with the *disbursed amount* presented in the 2019 report and the *outstanding amount of green finance* presented in this report.
- In our previous Green Bonds Impact Reports, we reported a term called *committed amount*, which meant the contractual granted amount of finance. Instead of this figure, in this report we report the *total committed finance*, which is the granted amount of finance deducted with repayments. These two figures are not comparable.



Calculation principles

The calculations presented in this report are based on the Position Paper on Green Bonds Impact Reporting drawn up jointly by Nordic public sector issuers in 2020.

The consultancy firm Deloitte has carried out the environmental impact calculations of MuniFin's green finance for the years 2016–2020. The analysis is based on data on the financed projects and on calculation assumptions agreed upon together.

We have used information from public sources (e.g. the emission factors) as well as data and reports directly related to the projects (e.g. project-specific environmental calculations) in the calculations. Where necessary, we have requested further information from the project owners.

In accordance with the Greenhouse Gas Protocol, the reported impacts cover scope 1 and scope 2 emissions, and in some cases possibly the carbon handprint impact. Scope 1 emissions are direct emissions from the project's activities, and scope 2 emissions are the project's indirect emissions from purchased energy.

The weighted impact has been calculated based on our estimated share of the project's total finance. This is explained in more detail on page 14. Our estimated share of finance has been calculated based on the outstanding amount of green finance on 31 December 2020. The calculations present the status of the outstanding portfolio as at 31 December 2020. The calculations for years 2016–2019 have only been updated with our estimated share of finance and to correct any errors.

In some projects, the estimated impact of a project is based on calculations presented in project-specific environmental impact assessments or other preparatory documents. In these cases, the emission factors applied are those used in the original calculations of these documents. In all other cases, the emission factors are as presented on the right.

Emission source	Emission factor	Source
Consumption electricity (projects for which impact calculation was done in 2019 and 2020)	315 g CO ₂ /kWh	Nordic Public Sector Issuers: Position Paper on Green Bonds Impact Reporting, 2020
Consumption electricity (projects for which impact calculation was done in 2016–2018)	380 g CO ₂ /kWh	Nordic Public Sector Issuers: Position Paper on Green Bonds Impact Reporting, 2020
Cogeneration of district heating (CHP)*	154 g CO ₂ /kWh (projects for which impact calculation was done in 2020; for previous years the most recent available value was used)	Motiva.fi; Nordic Public Sector Issuers have not published an emission factor for district heating, so the national emission factor is used instead. District heating production is a regional/local operation.
Separate generation of district heating*	20–450 g CO ₂ /kWh depending on the project location (projects for which impact calculation was done in 2020; for previous years the most recent available value was used)	Motiva.fi; Nordic Public Sector Issuers have not published an emission factor for district heating, so the national emission factor is used instead. District heating production is a regional/local operation.

* Regions with separate generation of district heating include 1) regions specified as such by Motiva and 2) regions where separate generation of district heating is the primary method based on district heating statistics by Finnish Energy and other public information. The emission factor for separate generation of district heating is applied for these regions, while the emission factor for cogeneration of district heating is used for other regions.

Specific calculation principles for each project type are listed in the table below.

The emission factors for electricity and district heating referred to in the table below are the ones presented in the table on the previous page.

Project type	Indicator	Energy or CO ₂ emissions avoided/ reduced compared to reference scenario	Methodology	Situation after project implementation	Reference scenario
Sustainable buildings	Annual energy savings (avoided / reduced), MWh	Avoided (new buildings) or reduced (renovation)	<p>New buildings Difference in energy consumption between reference scenario and situation after project implementation (see a more detailed description below the table)</p> <p>Renovation projects Difference in energy consumption between reference scenario and situation after project implementation</p>	<p>New buildings Consumption of electricity and district heating according to the building's energy certificate. We primarily refer to the energy certificate drawn up during the building permit phase or, if available, the energy certificate procured by the customer when the building was commissioned</p> <p>Renovation projects Estimated new consumption of electricity and heating after the renovation, according to the project plans</p>	<p>New buildings E-value limit, which is in line with the Finnish regulation mentioned in the building's energy certificate. We primarily refer to the energy certificate drawn up during the building permit phase or, if available, the energy certificate procured by the customer when the building was commissioned. The share of electricity and district heating are calculated according to the building's energy certificate</p> <p>Renovation projects Consumption of electricity and heating prior to the project, based on the building's energy certificate</p>
	Annual CO ₂ emissions avoided/reduced, tCO ₂	Avoided (new buildings) or reduced (renovation)	Difference in CO ₂ emissions between reference scenario and situation after project implementation	CO ₂ emissions equivalent to energy consumption after project implementation calculated using emission factors for electricity and district heating	CO ₂ emissions equivalent to energy consumption in reference scenario calculated using emission factors for electricity and district heating

Sustainable buildings – new construction: We assess annual energy efficiency improvements and the amount of CO₂ emissions avoided in relation to applicable energy efficiency regulation in Finland. The energy efficiency of a building is presented as an E-value. The National Building Code of Finland determines maximum E-values for different building types, which a new building cannot exceed in order to gain a building permit. We use the maximum E-value allowed for a new building as the basis for calculating the energy efficiency of buildings. With the new Ministry of the Environment decree (1010/2017), the limit values for E-value were tightened at the beginning of 2018. In the calculations, we use the E-value limit, which is in line with the Finnish regulation mentioned in the building's energy certificate. We primarily refer to the energy certificate drawn up during the building permit phase or, if available, the energy certificate procured by the customer when the building was commissioned.

The E-value represents a building's calculated annual consumption of purchased energy per the heated net area (kWh/m²/a) based on the usage default values of the building's intended use category and weighted by energy source coefficients. In our calculations, solar or wind energy generated on the property is treated as a reduction in the demand for purchased energy.

The estimated emission avoidance impact is calculated by using the emission factors for electricity and district heating production. Different forms of energy are weighted according to how their proportions are presented in the building's energy certificate.

In special cases where no E-value limit have been defined for a building category, energy savings are calculated compared to a theoretical reference building. We have used one of the following two possible methods for this calculation. The first method is based on assessing the environmental impact from using renewable energy sources. An example of this is Proavera's ice hockey arena in Äänekoski, which uses its own solar energy and geothermal heat. In such cases, we assume that the reference building has the same energy consumption as the building being examined, but that it only uses purchased energy. The second method is based on the environmental impact of new or unusual energy efficiency technology, which can for example be a more energy efficient cooling solution like in the ice hockey arena in Mäntsälä. In such cases, we assume that the reference building has the same energy consumption as the building being examined, but that it does not employ this new or unusual technology.

Project type	Indicator	Energy or CO ₂ emissions avoided/ reduced compared to reference scenario	Methodology	Situation after project implementation	Reference scenario
Sustainable public transportation	Annual CO ₂ emissions avoided/reduced, tCO ₂	Avoided or reduced depending on the project	Public transportation projects: calculations included in project plans	N/A	N/A
	Annual CO ₂ emissions avoided/reduced, tCO ₂	Avoided or reduced depending on the project	Purchase of electric cars: difference in CO ₂ emissions between electric car and comparable car with internal combustion engine	Standardised electricity consumption as specified by manufacturer, with emission factor for electricity accounted for	Standardised CO ₂ emissions of comparable car with internal combustion engine
Water and wastewater management	Annual amount of treated wastewater in existing plants immediately after project completion, m ³	N/A	Current average inflow of wastewater before possible expansions or after expansions, if they result in an immediate increase in the amount of water treated. The calculations are based on the actual flow rate when it is available and on the rated value when actual flow rate is not available.	N/A	N/A
	Annual amount of treated wastewater with increased capacity in the future, m ³	N/A	<p><u>New purification plant</u> The rated value of the average inflow of wastewater in the future (review year depends on project plan and may vary between projects)</p> <p><u>Expansion of existing purification plant</u> Difference in average inflow after project completion compared to the reference scenario</p>	<p><u>New purification plant</u> N/A</p> <p><u>Expansion of existing purification plant</u> Future rated value of the average flow of wastewater after expansion measures (review year depends on the project plan and may vary between projects)</p>	<p><u>New purification plant</u> N/A</p> <p><u>Expansion of existing purification plant</u> Average flow of wastewater before expansion. The calculations are based on the actual flow rate when it is available and on the rated value when actual flow rate is not available</p>
	Annual production of renewable energy, MWh	N/A	Project plans and other project information	N/A	N/A

Project type	Indicator	Energy or CO ₂ emissions avoided/ reduced compared to reference scenario	Methodology	Situation after project implementation	Reference scenario
Renewable energy	Annual production of renewable energy, MWh	N/A	Project plans and other project information	N/A	N/A
	Annual CO ₂ emissions avoided/reduced, tCO ₂	Avoided or reduced depending on the project	CO ₂ emissions from generating the same amount of energy calculated using emission factors for electricity and district heating	N/A	CO ₂ emissions from generating the same amount of energy calculated using emission factors for electricity and district heating
	Renewable energy production capacity, MW	N/A	Project plans and other project information	N/A	N/A
Energy efficiency	Annual energy savings (avoided / reduced), MWh	Avoided or reduced depending on the project	<u>Renovation projects</u> Difference in energy consumption between reference scenario and situation after project implementation <u>Other measures for improving energy efficiency</u> Reports written in project planning, and/or information requested directly from the project owner	New consumption of electricity and/ or heating after renovation project or other measures for improving energy efficiency, according to the project plan	Consumption of electricity and heating prior to the project, based on the building's energy certificate or the project plan
	Annual CO ₂ emissions avoided/reduced, tCO ₂	Avoided or reduced depending on the project	CO ₂ emissions equivalent to the production of the amount of avoided or reduced energy calculated using emission factors for electricity and district heating	CO ₂ emissions equivalent to energy consumption after project implementation calculated using emission factors for electricity and district heating	CO ₂ emissions equivalent to energy consumption in reference scenario calculated using emission factors for electricity and district heating

Nordic recommendations

MuniFin is one of ten Nordic public sector issuers who have jointly published the Position Paper on Green Bonds Impact Reporting. The position paper was first published in October 2017 and most recently updated in February 2020.

The recommendations were drawn up by Nordic green bond issuers specialising in the public sector, with MuniFin as the only Finnish issuer in the group. Other participants include two of MuniFin's counterparts – Kommunalbanken in Norway and Kommuninvest in Sweden – as well as several Swedish public sector entities who have issued green bonds. The aim of the Nordic issuers' guide on green bonds impact reporting is to facilitate the work of green finance applicants, lower the threshold for new issuers to enter the green bond market and provide investors with a tool for evaluating green portfolios.

The Nordic guidelines are based on the ICMA Green Bond Principles and the recommendations of multilateral development banks, but they complement these with an interpretation of impact indicators for projects focusing on issues such as public transportation and sustainable buildings. The Norwegian research institute CICERO, the Nordic Investment Bank, SEB, Cr dit Agricole CIB and a group of investors also took part in preparing the guidelines with the group of public sector issuers.



The impacts of green finance

SUSTAINABLE
BUILDINGS



SUSTAINABLE
PUBLIC
TRANSPORTATION



WATER AND
WASTEWATER
MANAGEMENT








RENEWABLE
ENERGY



ENERGY
EFFICIENCY



Green finance and bonds | The impacts of green finance

Project category	Number of projects	Outstanding amount 31 Dec 2020	Annual energy savings (avoided / reduced MWh)	Annual CO ₂ emissions avoided / reduced (tCO ₂)	Annual amount of treated wastewater in existing plants immediately after project completion (m ³)	Annual amount of treated wastewater with increased capacity in the future (m ³)	Annual production of renewable energy (MWh)	Renewable energy production capacity (MW)
 Sustainable buildings	117	852,911,967 €	18,076	4,706	-	-	-	-
 Sustainable public transportation	5	740,027,621 €	-	6,865	-	-	-	-
 Water and wastewater management	10	156,067,178 €	-	-	19,499,714	17,746,667	608	-
 Renewable energy	5	31,474,329 €	-	37,512	-	-	17,271	35
 Energy efficiency	10	5,680,046 €	5,482	1,176	-	-	-	-
Entire portfolio	147	1,786,161,141 €	23,558	50,260	19,499,714	17,746,667	17,879	35

Sustainable buildings

Buildings have a significant impact on Finland's emissions and the carbon footprint per resident, mainly through their use of energy. Sustainable construction takes into account environmental impacts already in the design stage, for example by leveraging new energy solutions, and environmentally friendly, low-carbon building materials such as wood. Our green project buildings use solutions such as local renewable energy production, life cycle thinking and the use of smart control systems.

Sustainable building projects include both the construction of new housing buildings and public buildings and the renovation of such buildings. One of the projects we approved into the portfolio in 2020 was the new education centre in Ivalo.

As per our current Green Bonds Framework, projects eligible for green finance must primarily meet the requirements for class A (2018) in the Finnish energy efficiency classification for buildings. We may also accept only the best buildings in terms of energy efficiency in class B (2018) if the project employs a combination of environmentally sustainable solutions. We may also grant finance to projects that improve an existing building's energy efficiency by at least 30%. We have approved one experimental project; this project is described in more detail on page 12.

Sustainable building projects promote the following EU environmental objectives:

1. Climate change mitigation
2. Climate change adaptation



These projects promote the following UN Sustainable Development Goals:

Goal 7

7.3 By 2030, double the global rate of improvement in energy efficiency.

Goal 9

9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.

Goal 11

11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.

Goal 12

12.2 By 2030, achieve the sustainable management and efficient use of natural resources.



Entire portfolio		Projects approved in 2020	
Number of projects	117	Number of projects	36
Total committed finance	MEUR 1,243	Annual energy savings (avoided/reduced)	1,503 MWh
Outstanding amount	MEUR 853	Annual CO ₂ emissions avoided/reduced	356 tCO ₂
Annual energy savings (avoided/reduced)	18,076 MWh		
Annual CO ₂ emissions avoided/reduced	4,706 tCO ₂		

The world's first zero-energy ice hockey arena built in Äänekoski

The Suolahti Arena, completed in Äänekoski in summer 2020, is probably the most energy-efficient ice hockey arena in the world. It even generates enough excess energy to heat the nearby school and swimming hall. The arena replaced a decades-old tarpaulin hall and brought high-quality sports facilities within everyone's reach.

Not only does the zero-energy arena store and make use of the condensing heat it produces, but it also requires less than half the energy that similar halls do. Attention has been given to details as well: the ice resurfacers are electricity-powered, electricity is only bought from renewable sources, and the refrigerant used is carbon dioxide, which is more environmentally friendly than other options. The next goal is to increase the arena's degree of self-sufficiency by installing solar panels on its roof.

The initial investment was larger compared to a 'regular' hall, but only by a relatively small amount. The aim is to run the venue with minimal operational economy and eventually turn a profit by selling energy. This pioneering project was financed by MuniFin's green finance.



Photo: Raami Arkkitehdit



Ivalo's new education centre is MuniFin's northernmost green finance project

In August 2022, a new education centre will open in Ivalo, the largest population centre in Inari, where the modern school complex is being built amid the rugged northern landscape along the Ivalo River. The building will cover about 9,000 square metres and provide premises for a total of 500 pupils all the way from pre-schoolers to upper secondary school students.

Consolidating operations in the modern premises will achieve clear cost benefits, while also guaranteeing children and young people first-class teaching facilities that are safe and, above all, healthy. The centre will also have a top-of-the-range auditorium, a central kitchen and a full-size sports hall that will serve the entire community. The centre's design is inspired by Lapland's stunning nature and the location's riverside views.

The education centre is the largest public investment in the municipality's history. Thanks to its energy efficiency, the building was approved for MuniFin's green finance, and it is currently MuniFin's northernmost green finance project.



Sustainable public transportation

Sustainable public transportation projects include public transportation projects that reduce traffic emissions and the need for private cars. Such projects include the West Metro Extension in the Helsinki metropolitan area and the Tampere Tramway. The estimated total number of users for the West Metro and Tampere Tramway combined is 225,000 people a day. In addition to reducing emissions, modern public transportation solutions often have wide-reaching indirect impacts: for example, they can allow a denser and safer urban environment and thus make the city more welcoming for its residents. In addition to public transportation projects, we have also financed the acquisition of one electric van.

In 2020, we began financing the Kvarken Archipelago car and passenger ferry. The ferry will employ a hybrid power generation system, making it much more environmentally friendly than its predecessor.

Sustainable public transportation projects promote the following EU environmental objectives:

1. Climate change mitigation
5. Pollution prevention and control



These projects promote the following UN Sustainable Development Goals:

Goal 9

9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.

9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.

Goal 11

11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.

11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.



Entire portfolio		Projects approved in 2020	
Number of projects	5	Number of projects	1
Total committed finance	MEUR 765	Annual CO ₂ emissions avoided/reduced	1,950 tCO ₂
Outstanding amount	MEUR 740		
Annual CO ₂ emissions avoided/reduced	6,865 tCO ₂		

Tramway takes Tampere towards carbon neutrality

Tampere Tramway will be open to trial traffic from 1 April 2021 and to regular scheduled service from 9 August 2021. The tramway is designed to make everyday life easier and enable the city to grow and develop, serving the most crowded public transport routes and growing districts.

The tramway will also play a key role in the City of Tampere's goal to become carbon neutral by 2030. Road traffic currently generates roughly one third of the total emissions in the city. To achieve carbon neutrality, the road traffic emissions must be at least halved by 2030 – and the tramway is vital in succeeding in this.

The tramway will also reduce emissions indirectly by allowing a denser city structure, improving public transport services and making them available to more people. In 2025, the tramway is estimated to carry 65,000 passengers a day, making up for 40% of all public transport in Tampere. In 2040, the figures are expected to reach 145,000 and 65% respectively. The Tampere Tramway project is partly funded by MuniFin's green finance.



Water and wastewater management

Green finance promotes projects that ensure the availability of safe and clean drinking water and effective wastewater treatment across Finland. Climate change and migration trends pose new challenges to water and wastewater management, and preparing for them requires investments. Water purification is used to maintain high wastewater quality, prevent the eutrophication of waterways and enable the reuse of nutrients, such as phosphorus and nitrogen. In addition, sludge separated from wastewater can be composted and utilised in biogas production.

Since 2016, we have financed ten projects in the water and wastewater management category, all of which were part of our portfolio on 31 December 2020. These projects support the water treatment capacity extensions of old water purification plants, the introduction of more efficient purification technologies and methods, and the construction of new water purification plants. In 2020, we granted three loans to the Blominmäki wastewater treatment plant in Espoo, which will serve the needs of the rapidly growing population in the area.

Water and wastewater treatment projects promote the following EU environmental objectives:

3. The sustainable use and protection of water and marine resources

1. Climate change mitigation
2. Climate change adaptation
5. Pollution prevention and control



These projects promote the following UN Sustainable Development Goals:

Goal 6

6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all.

6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.

6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.

Goal 14

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.



Entire portfolio		Projects approved in 2020	
Number of projects	10	Number of projects	3
Total committed finance	MEUR 157	Annual amount of treated wastewater in existing plants immediately after project completion	1,806,112 m ³
Outstanding amount	MEUR 156	Annual amount of treated wastewater with increased capacity in the future	10,770,184 m ³
Annual amount of treated wastewater in existing plants immediately after project completion	19,499,714 m ³	Annual production of renewable energy	0 MWh
Annual amount of treated wastewater with increased capacity in the future	17,746,667 m ³		
Annual production of renewable energy	608 MWh		

The most powerful wastewater treatment plant in the Nordic countries built partly on MuniFin's green finance

To be completed in 2022, the wastewater treatment plant being built in Blominmäki, Espoo, will replace the current Suomenoja treatment plant from 1963, whose capacity is no longer sufficient to meet future needs.

The treatment goals set for the Blominmäki plant will be stricter than the EU requirements and the Helsinki Commission recommendations. The goal is to remove more than 98% of the phosphorus and more than 90% of the nitrogen from the wastewater.

Environmental considerations have been acknowledged at all stages of the planning process. The Blominmäki plant will be mainly built deep inside bedrock, leaving the land area on top of the caves mostly unchanged and allowing its continued use as a recreational area. The treatment plant will also achieve almost full energy independence: it will generate more than half of its electricity needs and exceed its heating energy needs.

The Blominmäki wastewater treatment plant is the largest ever investment of the Helsinki Region Environmental Services Authority HSY. The project has received MuniFin's green financing.



Renewable energy

Renewable energy production plays a key role in combatting global climate change. Renewable energy generates zero or close to zero greenhouse gas emissions at the production stage, and it directly cuts down greenhouse gas emissions by reducing fossil fuel use. Moreover, energy can be produced locally, reducing the number of deliveries as well as distribution and transmission losses. This has both environmental and economic implications for society. By financing renewable energy projects, we promote Finland's long-term goal of becoming a carbon-neutral society by 2035.

Our renewable energy projects include the Kangasalan Lämpö Oy biomass heating plant, which produces thermal energy from forest industry side streams, the Kemin Energia ja Vesi Oy bioheating plant and the Energy Self-Sufficient Lempäälä project. In 2020, we also granted green finance to one new renewable energy project: the installation of solar panels in the Municipality of Vihti.

Renewable energy projects promote the following EU environmental objective:

- 1. Climate change mitigation**



These projects promote the following UN Sustainable Development Goals:

Goal 7

7.2 By 2030, increase substantially the share of renewable energy in the global energy mix.



Entire portfolio		Projects approved in 2020	
Number of projects	5	Number of projects	1
Total committed finance	MEUR 32	Annual CO ₂ emissions avoided/reduced	29 tCO ₂
Outstanding amount	MEUR 31	Annual production of renewable energy	211 MWh
Annual CO ₂ emissions avoided/reduced	37,512 tCO ₂	Renewable energy production capacity	0.25 MW
Annual production of renewable energy	17,271 MWh		
Renewable energy production capacity	35 MW		



Energy efficiency

The amount of energy required for the use of existing buildings and other infrastructure can be reduced by various energy-efficiency improvement measures, such as upgrading equipment. Improving the energy efficiency of buildings is often a cost-effective way of reducing CO₂ emissions: small actions can help achieve significant energy savings even in the short term. Energy-efficiency projects also offer municipalities an effective way of making cost savings, enabling them to use the saved money for other purposes – while promoting the sustainability of their economy.

The projects in this category also seek to improve the indoor air quality of buildings. Indoor air quality plays a key role from the perspective of users of buildings such as schools, sports facilities and libraries. Successful solutions therefore indirectly improve the wellbeing of many people.

Our green finance has been granted to several ESCO (*Energy Service Company*) projects in different municipalities and to other projects, including the replacement of streetlights with new ones. In 2020, we did not approve any new energy efficiency projects.

Energy efficiency projects promote the following EU environmental objective:

- 1. Climate change mitigation**

These projects promote the following UN Sustainable Development Goals:

Goal 7

7.3 By 2030, double the global rate of improvement in energy efficiency.

Goal 9

9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.

9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.



Entire portfolio		Projects approved in 2020
Number of projects	10	No new projects approved in 2020
Total committed finance	MEUR 8	
Outstanding amount	MEUR 6	
Annual energy savings (avoided/reduced)	5,482 MWh	
Annual CO ₂ emissions avoided/reduced	1,176 tCO ₂	

Other impacts of our projects

Besides the quantitative benefits discussed in this report, our green finance projects also have other wide-ranging impacts. In addition to environmental benefits, all projects include various social and economic impacts, both locally and regionally.

Through our finance, we support regional vitality and attractiveness. We enable projects aimed at improving individual wellbeing and promoting the introduction of new, more environmentally friendly technologies and materials. For example, our green portfolio includes several wooden schools, which have fewer indoor air problems.

All categories

- Climate change mitigation and adaptation
- Regional vitality and attractiveness
- Support for finding employment
- Innovativeness, new environmental technologies and piloting
- Wide-ranging cooperation with stakeholders



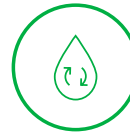
Sustainable buildings

- Support for early education and teaching
- Welcoming, green and communal urban spaces
- Flexible and varied use of premises and consideration of diverse population groups
- Security, healthy premises and renewal of old premises in poor condition
- Pilots for sustainable buildings



Sustainable public transportation

- More pleasant and welcoming urban environment
- Accessibility of services and fluency of everyday life
- Denser city structure
- Reduced noise pollution



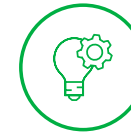
Water and wastewater management

- Recovery of bioenergy for energy production use
- Improved water quality
- Adaptation to a changing climate



Renewable energy

- Piloting new environmental technologies and making their deployment possible
- Impact of better air quality on human health
- Regional competitiveness
- Finnish energy self-sufficiency and minimisation of energy distribution and transfer losses



Energy efficiency

- Piloting and reference value of new technologies
- Financial savings for local governments and enabling of new investments
- Better indoor air quality in public buildings

Green finance projects and impacts

Sustainable buildings								
Customer	Project	Year of approval	Outstanding amount 31 Dec 2020	Unwithdrawn credit commitment 31 Dec 2020	Total committed finance 31 Dec 2020	MuniFin's estimated share of finance 31 Dec 2020	Annual energy savings (avoided / reduced MWh)	Annual CO ₂ emissions avoided / reduced (tCO ₂)
A-Kruunu Oy	Construction of apartment building Syvänsalmenkatu 5 b	2020	-	9,262,500	9,262,500	0 %	-	-
Asuntosäätiön Asumisoikeus Oy	Construction of apartment building with Nordic Ecolabel, Karakalliontie 1	2020	-	7,332,950	7,332,950	0 %	-	-
City of Forssa	Community centre Monikylä	2019	10,000,000	-	10,000,000	100 %	125	28
City of Haapavesi	Haapavesi secondary school and high school	2020	12,000,000	-	12,000,000	100 %	78	17
City of Hämeenlinna	Nummi service centre	2016	22,895,307	-	22,895,307	93 %	760	204
City of Imatra	School campus of Mansikkala	2018	45,000,000	-	45,000,000	100 %	1,060	293
City of Joensuu	Daycare center Hukanhauta	2018	3,859,408	-	3,859,408	93 %	135	31
City of Joensuu	Daycare center of Hammaslahti	2018	2,880,511	-	2,880,511	90 %	106	24
City of Joensuu	Heinävaara middle school, modular unit	2018	3,881,498	-	3,881,498	90 %	106	25
City of Joensuu	Karhumäki school	2016	8,390,121	-	8,390,121	89 %	343	84
City of Joensuu	Rantakylä school	2018	13,098,706	-	13,098,706	94 %	521	134
City of Joensuu	School of Nepenmäki	2016	19,299,229	-	19,299,229	95 %	759	208
City of Jyväskylä	School of Keljonkangas	2018	23,000,000	-	23,000,000	100 %	95	22
City of Jämsä	Comprehensive school of Jämsänkoski	2017	9,407,318	-	9,407,318	95 %	247	57
City of Kaarina	Main library, Kaarinatalo	2017	7,875,000	-	7,875,000	88 %	256	81
City of Kalajoki	Fire station of Kalajoki	2017	2,100,000	-	2,100,000	70 %	40	7
City of Kalajoki	School of Merenoja	2019	22,035,511	2,964,489	25,000,000	88 %	170	34
City of Kokkola	School of Chydenius	2018	11,390,676	-	11,390,676	98 %	230	64
City of Kouvola	Daycare center of Lehtomäki	2018	1,750,000	-	1,750,000	50 %	62	24
City of Kuhmo	Green wooden school of Kuhmo	2016	9,600,000	-	9,600,000	80 %	222	55
City of Mikkeli	Daycare center of Kalevankangas	2019	4,200,000	-	4,200,000	100 %	20	4

Green finance and bonds | Green finance projects and impacts

Sustainable buildings								
Customer	Project	Year of approval	Outstanding amount 31 Dec 2020	Unwithdrawn credit commitment 31 Dec 2020	Total committed finance 31 Dec 2020	MuniFin's estimated share of finance 31 Dec 2020	Annual energy savings (avoided / reduced MWh)	Annual CO ₂ emissions avoided / reduced (tCO ₂)
City of Parkano	School campus of Parkano	2017	14,598,786	-	14,598,786	94 %	478	193
City of Saarijärvi	Saarijärvi school and culture centre, phase 1	2019	11,297,785	-	11,297,785	99 %	253	84
City of Virrat	Comprehensive school	2019	4,871,795	-	4,871,795	97 %	182	30
EAI Vuokra-asunnot Oy	Construction of apartment building Asunto Oy Helsingin Vetonaula	2020	3,500,000	3,500,000	7,000,000	50 %	34	11
Heinävesi Municipality	Heinävesi middle school	2020	1,702,930	7,297,070	9,000,000	19 %	17	3
Helsingin Asumisoikeus Oy	Construction of apartment building HASO Koskelantie, Koskelantie 66b	2020	3,011,125	27,100,125	30,111,250	10 %	10	2
Helsingin Asumisoikeus Oy	Construction of apartment building HASO Veturi, Lavakatu 12/Veturitie 58	2020	2,000,000	16,547,000	18,547,000	11 %	16	4
Helsingin Asumisoikeus Oy	Construction of apartment building, Jamaika	2019	8,900,000	6,304,970	15,204,970	59 %	18	4
Helsingin Asumisoikeus Oy	Construction of apartment building, Postiiljooni	2019	8,312,660	12,468,990	20,781,650	40 %	51	12
Helsingin Asumisoikeus Oy	Construction of apartment building, Postimies	2019	6,934,400	10,401,585	17,335,985	40 %	41	10
Helsingin Asumisoikeus Oy	Fannynkallio apartment building ja townhouse	2017	16,304,151	-	16,304,151	99 %	257	64
Helsingin kaupungin asunnot Oy	Construction of apartment building HEKA Koskela, Koskelantie 66	2020	2,943,096	26,487,863	29,430,959	10 %	8	2
Helsingin kaupungin asunnot Oy	Construction of apartment building HEKA, Lavakatu 10	2020	2,661,366	23,952,289	26,613,655	10 %	17	4
Helsingin kaupungin asunnot Oy	Construction of apartment building, Haakoninlahdenkatu 5-7	2019	15,273,150	10,184,000	25,457,150	60 %	58	13
Helsingin kaupungin asunnot Oy	Construction of apartment building, Isonnevanukuja 1	2019	7,342,000	820,000	8,162,000	90 %	14	3
Helsingin kaupungin asunnot Oy	Construction of apartment building, Kanariankatu 3	2019	9,806,750	6,538,000	16,344,750	60 %	35	8
Helsingin kaupungin asunnot Oy	Construction of apartment building, Kaupinmäenpolku 15	2019	5,454,000	610,000	6,064,000	90 %	21	4
Helsingin kaupungin asunnot Oy	Construction of apartment building, Kustinpolku 7	2019	7,041,700	16,429,000	23,470,700	30 %	41	10
Helsingin kaupungin asunnot Oy	Construction of apartment building, Kyösti Kallion tie 1a	2019	9,271,050	-	9,271,050	100 %	47	10
Helsingin kaupungin asunnot Oy	Construction of apartment building, Pyhätunturintie 2	2019	13,680,000	9,117,150	22,797,150	60 %	55	12
Helsingin kaupungin asunnot Oy	Construction of apartment building, Tullivuorentie 22	2019	10,313,000	2,550,800	12,863,800	80 %	61	14
Helsingin kaupungin asunnot Oy	Construction of apartment buildings, Sienakuja 4	2017	9,529,693	-	9,529,693	99 %	143	36
Helsingin kaupungin asunnot Oy	Construction of Taidemaalariinkatu 2	2017	14,094,751	-	14,094,751	99 %	221	54
Helsinki City Housing Company (HEKA)	Renovation of apartment building HEKA Puotila, Rusthollarintie 10	2020	-	19,486,400	19,486,400	0 %	-	-

Green finance and bonds | Green finance projects and impacts

Sustainable buildings								
Customer	Project	Year of approval	Outstanding amount 31 Dec 2020	Unwithdrawn credit commitment 31 Dec 2020	Total committed finance 31 Dec 2020	MuniFin's estimated share of finance 31 Dec 2020	Annual energy savings (avoided / reduced MWh)	Annual CO ₂ emissions avoided / reduced (tCO ₂)
Helsinki City Housing Company (HEKA)	Renovation of apartment building Jollaksentie 87	2020	-	7,162,400	7,162,400	0 %	-	-
Hollola Municipality	Heinsuo school	2016	15,663,262	-	15,663,262	47 %	430	109
Hollola Municipality	Kalliola school	2016	14,819,848	-	14,819,848	45 %	407	104
Hämeenkyrö Municipality	Environmental school of Mahnala	2017	5,366,669	-	5,366,669	77 %	186	45
Inari Municipality	Ivalo education centre	2020	6,997,133	20,002,867	27,000,000	26 %	53	12
Janakkala Municipality	Janakkala fire department	2016	6,068,564	-	6,068,564	94 %	133	50
Janakkala Municipality	Tervakoski sports hall	2019	5,082,500	-	5,082,500	95 %	60	19
Joensuun Kodit Oy	Renovation of apartment building Latolankatu 3	2020	2,619,530	-	2,619,530	100 %	328	156
Joensuun Kodit Oy	Renovation of apartment building Äkkivääriä 10	2020	-	2,929,551	2,929,551	0 %	-	-
Jyväskylän Yliopiston Ylioppilaskunta	Renovation of apartment building Taitoniekantie 9 d	2020	3,400,000	5,167,466	8,567,466	40 %	182	28
Jyväskylän Yliopiston Ylioppilaskunta	Renovation of apartment building, Taitoniekantie 9	2018	7,864,600	-	7,864,600	100 %	189	41
Jyväskylän Yliopiston Ylioppilaskunta	Renovation project, Taitoniekantie 9 c	2019	7,715,100	-	7,715,100	100 %	446	75
Keski-Suomen opiskelija-asuntosäätiö sr	Multi-generation block, Kankaan Ilona, Ailakinkatu 10	2019	3,050,000	5,686,553	8,736,553	35 %	48	10
Kiinteistö Oy Kuopion Koulutilat	School of Karttula	2016	11,282,240	-	11,282,240	42 %	346	116
Kiinteistö Oy Kuopion Koulutilat	School of Jynkkä	2016	12,109,331	-	12,109,331	46 %	371	124
Kiinteistö Oy M2-Kodit	Construction of apartment building Postiljooninkatu 1	2020	7,325,000	3,651,400	10,976,400	67 %	39	8
Kiinteistö Oy M2-Kodit	Construction of apartment building KOY Tampereen Jallukka	2020	4,640,000	1,551,150	6,191,150	75 %	30	7
Kiinteistö Oy Turun Syvälahden koulu	Syvälahti school	2017	20,000,000	-	20,000,000	100 %	743	163
Kiinteistö-KYS Oy	Construction of apartment building Kuopio Puijonlaakso	2017	9,609,305	-	9,609,305	99 %	110	26
Kirkkonummen Vuokra-asunnot Oy	Construction of apartment building Masalan Tinapuisto, Masalantie 338	2020	-	15,481,955	15,481,955	0 %	-	-
Koulutuskeskus Salpaus -kuntayhtymä	School campus of Vipusenkatu	2016	3,788,688	-	3,788,688	47 %	289	85
Kuopion Opiskelija-asunnot Oy	Construction of apartment building for students, Ahkio	2019	3,350,000	2,194,000	5,544,000	60 %	25	5
Kuopion Opiskelija-asunnot Oy	Construction of apartment building for students, Taivaanpankko	2019	4,600,000	2,555,000	7,155,000	64 %	63	13
Kuopion Opiskelija-asunnot Oy	Construction of apartment building Minari, Minna Canthin katu 27	2019	-	3,944,000	3,944,000	0 %	-	-

Green finance and bonds | Green finance projects and impacts

Sustainable buildings								
Customer	Project	Year of approval	Outstanding amount 31 Dec 2020	Unwithdrawn credit commitment 31 Dec 2020	Total committed finance 31 Dec 2020	MuniFin's estimated share of finance 31 Dec 2020	Annual energy savings (avoided / reduced MWh)	Annual CO ₂ emissions avoided / reduced (tCO ₂)
Lahden Asunnot Oy	Building for elderly	2017	8,244,662	-	8,244,662	99 %	92	23
Lahden Asunnot Oy	Construction of apartment building Asunto Oy lahden iisakki	2017	3,465,872	-	3,465,872	99 %	53	13
Lahden Asunnot Oy	Construction of apartment building Asunto Oy lahden valteri	2017	5,592,412	-	5,592,412	99 %	84	21
Lahden Asunnot Oy	Construction of apartment building Kivakatu 2	2020	2,724,000	6,354,515	9,078,515	30 %	20	4
Lahden Asunnot Oy	Construction of apartment building Vanhatie 53	2017	3,420,216	-	3,420,216	41 %	26	6
Lahden Asunnot Oy	Construction of apartment building, Laatikotehtaankatu 5 c	2019	11,615,152	-	11,615,152	99 %	52	11
Lahden Asunnot Oy	Construction of apartment building, Vasarantie 2 ja 4	2019	12,103,619	-	12,103,619	99 %	128	28
Lahden vanhusen asuntosäätiö	Construction of senior home Saimaankatu 29	2019	4,410,000	3,196,407	7,606,407	58 %	30	7
Lapinlahti Municipality	Matti & Liisa school	2020	3,900,000	-	3,900,000	98 %	52	8
Lappeenrannan Asuntopalvelu Oy	Construction of apartment building Kiviharjunkatu 2	2020	-	4,563,000	4,563,000	0 %	-	-
Laukaa Municipality	Eco-school of Laukaa	2017	5,000,000	-	5,000,000	100 %	135	22
Laukaa Municipality	School of Lievestuore	2017	11,969,714	-	11,969,714	95 %	221	48
Leppävirta Municipality	New primary school	2017	8,226,637	-	8,226,637	96 %	163	36
Liminka Municipality	School of Linnukka	2017	3,500,000	-	3,500,000	70 %	195	49
Luksia, Länsi-Uudenmaan koulutuskuntayhtymä	Construction and renovation of Toivonkatu campus	2020	12,000,000	-	12,000,000	100 %	37	6
Mangrove Oy	Construction of apartment buildings, Lipunkantajankatu 3	2019	5,510,000	-	5,510,000	100 %	41	13
Mangrove Oy	Construction of apartment building Asunto Oy Turun Viridi	2020	-	5,253,500	5,253,500	0 %	-	-
Mäntsälä Municipality	Indoor ice rink of Mäntsälä	2018	5,673,914	-	5,673,914	98 %	416	131
Mäntsälä Municipality	School of Ehnroos	2019	5,918,518	15,081,482	21,000,000	28 %	27	6
Mäntsälä Municipality	Schools of Hyökännummi and Riihenmäki & Daycare center of Hyökännummi	2016	13,529,295	-	13,529,295	46 %	307	104
Nemoy Rakennuttaja Oy	Construction of apartment building Asunto Oy Tuusulan Oiva	2020	4,964,000	1,568,654	6,532,654	76 %	42	13
Niiralan Kulma Oy	Construction of apartment building Hatsalankatu 37	2020	7,162,396	-	7,162,396	100 %	47	15
Niiralan Kulma Oy	Construction of apartment building Raviradantie 8	2020	6,384,313	-	6,384,313	100 %	63	14

Green finance and bonds | Green finance projects and impacts

Sustainable buildings								
Customer	Project	Year of approval	Outstanding amount 31 Dec 2020	Unwithdrawn credit commitment 31 Dec 2020	Total committed finance 31 Dec 2020	MuniFin's estimated share of finance 31 Dec 2020	Annual energy savings (avoided / reduced MWh)	Annual CO ₂ emissions avoided / reduced (tCO ₂)
Oulun Sivakka Oy	Construction of apartment building Hiirihaukantie 12 a	2020	-	6,749,681	6,749,681	0 %	-	-
Oulun Sivakka Oy	Construction of apartment building Jalohaukantie 5	2020	2,349,160	3,523,740	5,872,900	40 %	36	8
Oulun Sivakka Oy	Construction of apartment building Kiilankatu 5	2020	-	8,269,750	8,269,750	0 %	-	-
Oulun Sivakka Oy	Renovation of apartment building Makasininkatu 6	2020	1,890,000	-	1,890,000	100 %	308	12
Perho Municipality	Day-care centre	2020	3,200,000	-	3,200,000	100 %	16	4
Pielavesi Municipality	Building for elderly and renovation of the central commercial kitchen	2017	5,002,644	-	5,002,644	99 %	317	90
Pirkan Opiskelija-asunnot Oy	Construction of apartment building, Vaahterakuja 3	2019	6,355,177	-	6,355,177	100 %	46	14
Premico Group Oy	Construction of apartment building, Asunto Oy Vantaan Metsäkissa	2020	9,714,818	3,894,882	13,609,700	71 %	15	3
Proavera Oy	Ice hockey arena	2018	4,441,559	-	4,441,559	99 %	1,772	469
Savukoski Municipality	Savukoski school	2019	3,588,730	311,270	3,900,000	92 %	24	7
TA- Asumisoikeus Oy	Construction of apartment building KOY Heikinketo, Kanslerintie 17	2020	300,000	4,267,050	4,567,050	7 %	3	1
TA-Asumisoikeus Oy	Construction of apartment building Lohjan Sahapiha, Sahapiha 6	2020	3,400,000	2,961,400	6,361,400	53 %	25	5
TA-Asumisoikeus Oy	Construction of apartment building Pasilan Porttipuisto, Metsäläntie 6 b	2019	7,500,000	7,394,550	14,894,550	50 %	50	16
TA-Asumisoikeus Oy	Construction of apartment building, Pellonreuna 7	2019	7,200,000	1,099,550	8,299,550	87 %	11	3
Tampereen Kotiinnasäätö	Construction of apartment building Pappilannrinne, Kourutalankatu 8	2020	-	8,543,915	8,543,915	0 %	-	-
TA-Yhtymä Oy	Construction of apartment building, KOY Oulun Tarve, Paraatikatu 10	2017	5,836,188	-	5,836,188	99 %	92	23
TA-Yhtymä Oy	Construction of apartment building, KOY Oulun Tarve, Pohjantankkuja 4	2019	7,306,500	-	7,306,500	100 %	-	-
Tohmajärvi Municipality	Daycare center of Tikkala	2018	1,750,000	-	1,750,000	88 %	44	17
Toivo Group Oy	Construction of apartment building Asunto Oy Nokian Fabriikki	2020	4,497,107	1,578,143	6,075,250	74 %	28	9
Tyrnävä Municipality	School of Rantarousti	2016	11,268,296	-	11,268,296	80 %	344	99
Varttuneiden asumisoikeusyhdistys Jaso	Multi-generation block, Kankaan Ilona, Ailakinkatu 10	2019	9,000,000	1,097,300	10,097,300	89 %	121	26
VAV Asunnot Oy	Construction of apartment building with Nordic Ecolabel, Kaskelantie 1	2018	18,727,286	-	18,727,286	98 %	415	106
VAV Yhtymä Oy	Construction of apartment building with Nordic Ecolabel, Veturikuja 8	2019	8,262,720	11,113,280	19,376,000	43 %	50	11
Vesanto Municipality	School campus	2019	3,621,853	3,878,147	7,500,000	48 %	16	3
Ääneseudun Asunnot Oy	Renovation project, Lönnrotinkatu 1	2019	5,525,967	-	5,525,967	99 %	219	24

Green finance and bonds | Green finance projects and impacts

Sustainable public transportation							
Customer	Project	Year of approval	Outstanding amount 31 Dec 2020	Unwithdrawn credit commitment 31 Dec 2020	Total committed finance 31 Dec 2020	MuniFin's estimated share of finance 31 Dec 2020	Annual CO ₂ emissions avoided / reduced (tCO ₂)
City of Nurmes	Nissan e-nv200 electric van	2017	12,068	-	12,068	43 %	0.2
City of Vaasa	Kvarken Archipelago car and passenger ferry, M/S Aurora Botnia	2020	25,000,000	-	25,000,000	21% ¹	1,950
Länsimetro Oy	Western Metro extension, Phase 1 Ruoholahti-Matinkylä ²	2016	435,015,553	-	435,015,553	37% ¹	2,495
Länsimetro Oy	Western Metro extension, Phase 2 Matinkylä-Kivenlahti ²	2018	125,000,000	25,000,000	150,000,000	11% ¹	162
Tampereen Raitiotie Oy	City of Tampere tramway	2017	155,000,000	-	155,000,000	50% ¹	2,259

Water and wastewater management									
Customer	Project	Year of approval	Outstanding amount 31 Dec 2020	Unwithdrawn credit commitment 31 Dec 2020	Total committed finance 31 Dec 2020	MuniFin's estimated share of finance 31 Dec 2020	Annual amount of treated wastewater in existing plants immediately after project completion (m ³)	Annual amount of treated wastewater with increased capacity in the future (m ³)	Annual production of renewable energy (MWh)
City of Heinola	Wastewater treatment plant of Sahaniemi	2018	6,400,000	-	6,400,000	80 %	1,854,200	-	-
City of Jämsä	Central purification plant of Jämsä	2020	3,800,000	-	3,800,000	95 %	1,786,109	241,338	-
City of Mikkeli	Water and wastewater treatment plant of Metsä-sairila	2016	19,666,668	-	19,666,668	34% ¹	-	1,915,873	-
City of Uusikaupunki	Wastewater purification plant of Hápönniemi	2018	1,582,760	-	1,582,760	93 %	2,613,276	275,261	-
Helsinki Region Environmental Services HSY	Wastewater treatment plant of Blominmäki	2020	75,000,000	-	75,000,000	19% ¹	-	10,528,846	-
Jyväskylän Seudun Puhdistamo Oy	Purification plant center of Jyväskylä region	2016	9,545,456	-	9,545,456	95 %	12,969,530	2,502,274	-
Savukoski Municipality	Wastewater treatment plant of Mukkavaara	2020	747,294	602,706	1,350,000	55 %	20,003	-	-
Tunturi-Lapin Vesi Oy	Central purification plant of Ylläs	2018	5,200,000	-	5,200,000	100 %	256,595	65,700	-
Turun Seudun Puhdistamo Oy	Wastewater purification plant of Kakolanmäki	2018	24,000,000	-	24,000,000	80 %	-	-	-
Vesikolmio Oy	Central purification plant of Kalajokilaakso	2016	10,125,000	-	10,125,000	68 %	-	2,217,375	608

¹ In these projects, the project's total liabilities have been used to represent the project's total finance when calculating MuniFin's estimated share of the project's total finance. The full definition of MuniFin's estimated share of finance is available on page 14.

² The finance for the Western Metro extension, Phase 1 Ruoholahti-Matinkylä has been approved into the green finance portfolio in 2016 and 2017. The finance for the Western Metro extension, Phase 2 Matinkylä-Kivenlahti has been approved into the green finance portfolio in 2018 and 2020.

Green finance and bonds | Green finance projects and impacts

Renewable energy									
Customer	Project	Year of approval	Outstanding amount 31 Dec 2020	Unwithdrawn credit commitment 31 Dec 2020	Total committed finance 31 Dec 2020	MuniFin's estimated share of finance 31 Dec 2020	Annual CO ₂ emissions avoided / reduced (tCO ₂)	Annual production of renewable energy (MWh)	Renewable energy production capacity (MW)
Kangasalan Lämpö Oy	Bioenergy heating plant	2018	9,655,173	-	9,655,173	97 %	11,586	-	12
Kemin Energia ja Vesi Oy	Cental bioheating plant	2019	8,000,000	1,000,000	9,000,000	89 %	21,636	-	16
Lempäälän Energia Oy	Energy self-sufficiency project of Lempäälä	2017	9,161,112	-	9,161,112	94 %	4,261	17,060	8
Lempäälän Energia Oy	Viialantie heating plant, fuel storing and unloading concept	2017	4,457,144	-	4,457,144	86 %	-	-	-
Vihti Municipality	Solar panels of Vihti	2020	200,900	-	200,900	100 %	29	211	0

Energy efficiency									
Customer	Project	Year of approval	Outstanding amount 31 Dec 2020	Unwithdrawn credit commitment 31 Dec 2020	Total committed finance 31 Dec 2020	MuniFin's estimated share of finance 31 Dec 2020	Annual energy savings (avoided / reduced MWh)	Annual CO ₂ emissions avoided / reduced (tCO ₂)	
City of Jyväskylä	ESCO-project ³	2018	1,298,710	401,290	1,700,000	32 %	1,158	270	
City of Kotka	Otsola street lighting	2017	200,667	-	200,667	72 %	183	69	
City of Kotka	Rauhala street lighting	2018	416,458	-	416,458	83 %	242	92	
City of Kotka	Ristikallio street lighting	2016	207,276	-	207,276	63 %	140	53	
City of Pieksämäki	Renovation of lighting along Uhomäki fitness track	2019	160,770	-	160,770	88 %	44	14	
City of Tampere	ESCO-project ³	2017	898,121	1,101,880	2,000,000	45 %	1,478	316	
City of Vantaa	ESCO-project ³	2017	389,575	1,160,426	1,550,000	25 %	1,296	116	
Koulutuskeskus Salpaus -kuntayhtymä	Renovation of education center, Ståhlberginkatu 8-10	2018	1,684,211	-	1,684,211	84 %	684	160	
Mäntyharju Municipality	Street lighting	2019	330,000	-	330,000	100 %	185	58	
Pielavesi Municipality	Street lighting	2018	94,258	-	94,258	78 %	72	27	

³ An energy saving project (ESCO) concerning several buildings. An ESCO (Energy Service Company) is a procedure in which an ESCO assumes operational responsibility for an investment to be made to an end customer so that the investment can be financed in whole or in part by the savings it generates.



Social finance and bonds

MuniFin



Welfare is the measure of our success

Through social finance, we build welfare and wellbeing together with our customers. Many of the projects prevent loneliness and social exclusion as part of their multifaceted approach to responsibility.

It is a great honour and pleasure to write the editorial for our very first social bonds impact report. After several years of careful preparation, 2020 was finally the year of action: the year when we financed our first social finance projects and issued our first social bond.

With social finance, we aim to promote equality and support the wellbeing of both individuals and communities – goals that are all too often overridden by numbers and financial objectives. Our social projects have a particularly strong emphasis on preventing loneliness and exclusion.

Our first year of social finance was a pleasant surprise. Our customers welcomed the new product with open arms and considered social finance to be a natural extension of the green finance we launched five years ago. So far, we have granted social finance to about 30 projects, most of which are related to housing. I am pleased to see projects approved in the other two categories, welfare and education,

as well. These projects include hospitals and other massive investments that have wide-ranging impacts for hundreds of thousands of Finns. Our portfolio also includes small-scale projects that have a major impact on the lives of individuals or the community they live in.

Many of the projects focused on creating a sense of communality and making the facilities adaptable right from the design stage. Residential building projects put great consideration on shared spaces, highly functional facilities and the promotion of communal activities. In schools, emphasis is on flexibility, multifunctionality and the use of facilities for other purposes in addition to teaching. The design of modern hospitals is patient-driven, with a priority on patient safety, recovery and family attendance. Social finance projects also tend to be environmentally friendly: they typically approach responsibility from various angles.

The world changes through action. Social finance is one of MuniFin's ways of creating and maintaining welfare in our society, of making people's everyday life better in collaboration with our customers. It is also a way of helping municipalities and Finland as a country achieve the UN Sustainable Development Goals.



Päivi Petäjäniemi is responsible for social finance product development at MuniFin

I encourage our customers bring their exciting plans and projects forward even more boldly and not be afraid to try out new things. This may inspire others to follow their example or set the bar even higher. Our goal is a future in which social finance is no longer necessary – because all the projects that we finance automatically meet its criteria.

Päivi Petäjäniemi
Account manager
MuniFin

MuniFin is the first Nordic SSA public sector credit institution to offer social finance

MuniFin social finance is available to our customers: municipal sector entities and state-subsidised housing production companies. Our social finance promotes investments that produce widespread social benefits and serve the needs of their users in an exemplary way. We grant social finance to pioneering projects that have a wide-ranging positive impact for individuals and the society in the long term. Our social finance projects promote equality, communality, safety, welfare, or regional vitality.

We source our funding from international capital markets by issuing social bonds. We are the first Finnish social bond issuer and also the first Nordic issuer in the SSA (Sovereigns, Supranationals, Agencies) category to offer social bonds.

Our Social Bonds Framework details the use of proceeds, project selection, management of proceeds as well as reporting commitments. ISS ESG, the responsible investment arm of Institutional Shareholder Services Inc, has provided a second opinion on our Social Bonds Framework. In its evaluation, ISS ESG confirmed that the MuniFin framework is in line with ICMA's principles. Assessed with ISS ESG key performance indicators, the example projects were

confirmed to have a positive impact on society and promote the selected UN SDGs. The final assessment about whether a project is eligible is made by an evaluation team of social experts that includes two independent members and one MuniFin member.

We offer two basis point margin discount for our social projects to spur the growth of social investments and to make the evaluation of the widespread impacts of projects more common. Impact investment and responsible investment are trends that attract considerable investor attention, and those who finance their investments sustainably are profiled as pioneers in impact investment.

We are also committed to reporting on the widespread benefits produced by the social finance projects, which our customers can then use when communicating to their residents, customers, decision-makers and other important stakeholders.

MuniFin's Social Bond Framework has three eligible project categories: welfare, social housing and education.

WELFARE



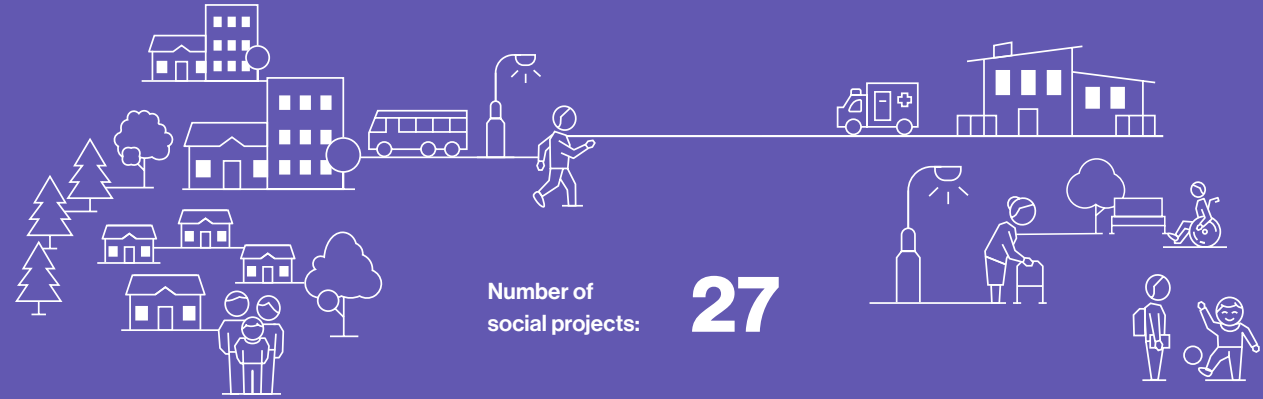
SOCIAL HOUSING



EDUCATION



Social finance in figures



Outstanding amount
of social finance:

589

EUR million

Number of
social projects:

27

Municipality Finance Plc • Sustainable Bonds Impact Report 2020

Total committed social finance:

€ **768**
EUR million

Average remaining maturity of social
projects: **19** years



Welfare:

Number of patient visits:

665,966

Number of welfare service
users reached:

1,641,290



Social housing:

Number of apartments:

922

Of which housing for the most vulnerable
population: **922**

Number of residents:

1,079



Education:

Number of students, pupils
and children reached:

136

Average class size:

17



New projects

100 %



Outstanding amount of social bonds
EUR million

600



Outstanding amount of social finance
EUR million

589



In liquidity investments
EUR million

11

Our social finance portfolio is comprised entirely of new projects. In accordance with our Social Bonds Framework, new projects are ones that have been completed less than 12 months before the Social Evaluation Team has approved them for our social finance portfolio. Our portfolio does not include refinanced projects, i.e. projects completed more than one year before their approval.

At the time of reporting, MuniFin's outstanding amount of social finance stood at EUR 589 million and the outstanding amount of social bonds was EUR 600 million. The difference will remain in our liquidity investments until the funds are directed to new projects approved for social finance. The funds are managed in line with our responsibility policy.

First Finnish social bond issuance was highly successful

The year 2020 was unprecedented in the social bonds market. With the COVID-19 crisis pushing the market to evolve, many issuers released new social bonds to cover the costs of pandemic.

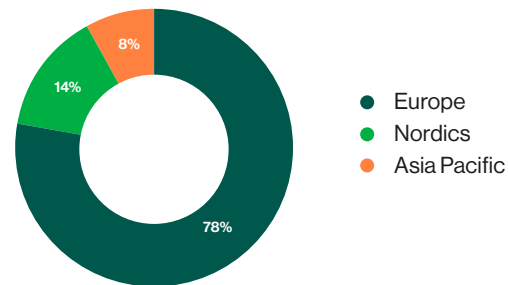
MuniFin was the first Nordic SSA public sector credit institution to issue a social bond. Our pioneering social finance projects are financed with the inaugural social bond that was issued in September 2020.

The high investor demand for our first social bond proved that there is a place for social bonds in the sustainable bonds market. The 15-year EUR 500 million bond was almost four times oversubscribed in less than three hours.

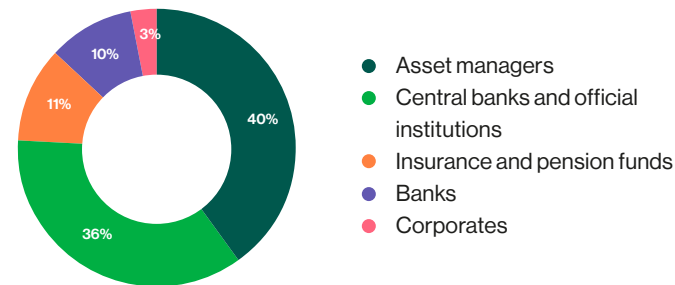
We allocated 92% of the bond to European investors: roughly one third to German-speaking countries and one fifth to the Nordic countries. By investor type, 40% of the allocations were to asset managers, and about half of the investors had a clear sustainable investment mandate.

We tapped the bond in the amount of EUR 100 million in November 2020. At the time of reporting, the total amount of the social bond stood at EUR 600 million.

Investor breakdown by geography of outstanding social bonds



Investor breakdown by investor type of outstanding social bonds



Outstanding amount of social bonds
EUR million



Outstanding social bonds

EUR 600m 09/2035

Social finance portfolio

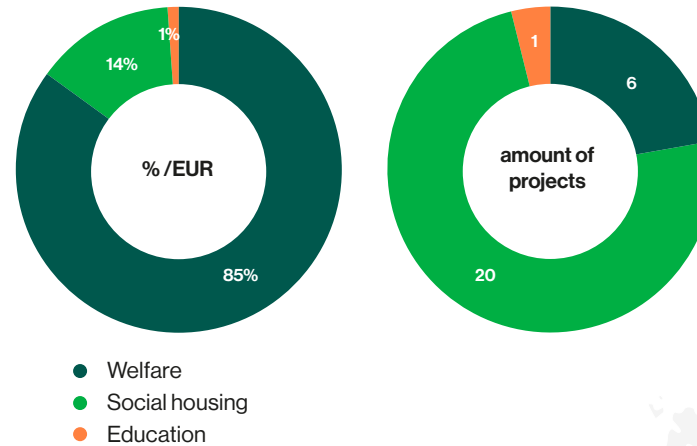
Municipality Finance Plc • Sustainable Bonds Impact Report 2020

At the end of 2020, the number of projects approved to the social finance portfolio was 27 projects, out of which 22 projects had begun to withdraw finance. The outstanding amount of social finance, which means the amount of finance disbursed minus repayments, totalled EUR 589 million at the moment of reporting. Total committed finance was EUR 768 million, which is the sum of the outstanding amount and the amount of unwithdrawn credit commitments. A summary of our social finance portfolio's impacts can be found on page 52 and a detailed list of our social finance projects can be found on pages 63–66.

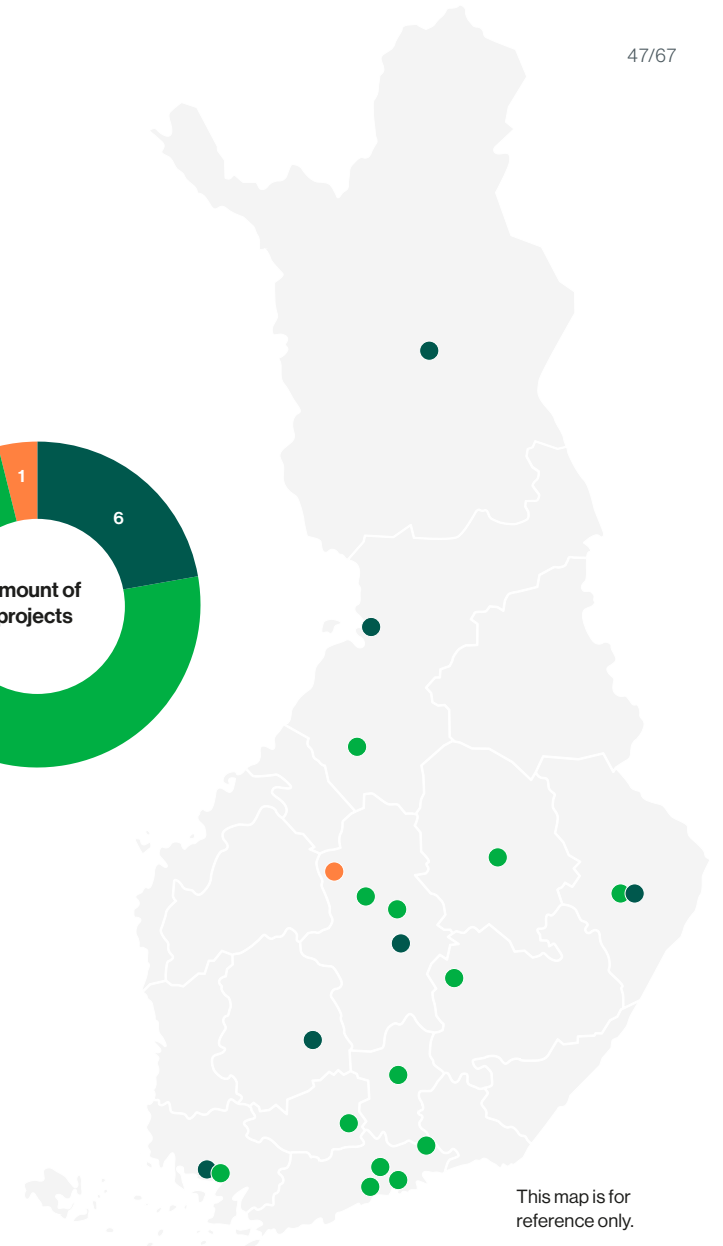
In 2020, MuniFin's social finance portfolio included pioneering projects from all Social Bonds Framework categories. Our social finance portfolio is largely dominated by welfare projects, which amount to EUR 499 million. Hospitals in Finland are currently being renewed on a large scale, and we have financed these important welfare projects across Finland. Our portfolio also includes social housing projects that improve the living conditions of the most vulnerable population (EUR 85 million), as well as two school projects (EUR 5 million).

The projects are located in 17 different regions across Finland.

Social finance project breakdown



Outstanding amount of social finance
EUR million



This map is for reference only.

The Social Evaluation Team approves projects

Social finance projects are approved by the Social Evaluation Team, a three-person team of social experts that includes two independent members and one MuniFin member. The team assesses the progressiveness and impact of the proposed projects from the perspective of the Social Bonds Framework and the UN SDGs.

The project selection process is two-fold. In the first stage, MuniFin's Customer Solutions division conducts a preliminary assessment of the project's eligibility for social finance. If the project is an education, culture facility or sports facility project, we use our internal evaluation model to assess potential impact on regional vitality and the wellbeing of residents. At this point, we also interview the customer and gather all necessary information for the evaluation team's assessment. The structure of the interview and the information requested from customers are determined together with the evaluation team so that projects can be assessed equally.

In the second stage, the evaluation team convenes to assess the projects and decide whether they will be approved for social finance. The evaluation team uses the material collected in the first stage to support its decision. The team also gets to know the project's description and target population and estimates its investment requirement. The assessment focuses on whether the project will solve a known problem and whether it will produce the desired benefits for society. The experts also assess which UN SDGs the project will promote. The evaluation team has also selected five social goals through which the project's impact is evaluated. These social goals are equality, communality, safety, welfare and regional vitality.

Our objective is to find projects that generate long-term social benefits and decrease welfare disparity. If the project is also beneficial for the environment we will hold this in its favour, but projects approved for social finance are not required to meet the environmental criteria set for green finance.

Social Evaluation Team members:



"Considering social impact is vital in every publicly funded project. Social finance can help bring about a systemic change that is based on aiming for and analysing widespread impacts."

Jenni Airaksinen, University Lecturer in Local and Regional Governance, Tampere University

"Social finance transforms the world. It makes visible the wide-reaching social impact of various projects and also highlights how they promote wellbeing. My priority in social finance is preventing loneliness, promoting affordable housing and supporting the adoption of new operating models."



Jouni Parkkonen, CEO, Association for Advocating Affordable Rental Housing – KOVA



"Through social finance, we wish to highlight the pioneering projects of our customers that combine social impact both for their users and the surrounding community in an exemplary fashion. These projects also create new operating models while taking into account their sustainable impact in the long term."

Päivi Petäjaniemi, Account manager, MuniFin

Reporting principles

Our Social Bonds Framework defines the contents of this social finance and bonds section of the annually published Sustainable Bonds Impact Report. Our reporting strives to adhere to the principles and guidelines of the International Capital Market Association (ICMA). The primary purpose of this report is to describe the impacts of the financed projects based on the available facts.

Our approach to impact evaluation

Our reporting applies a bond-programme-based approach, which is also known as the portfolio approach. In this approach, one dynamic portfolio consisting of social bonds is used to finance one dynamic portfolio of social finance projects. We do not allocate social bond proceeds to single projects within the project portfolio.

According to the portfolio approach, we may refinance a social bond at maturity in order to maintain an appropriate balance between the social bonds portfolio and the social finance project portfolio.

We carry out our impact reporting in accordance with the following principles:

- The reporting is based on the situation at the end of 2020, taking into account new withdrawals, repayments and redemptions.
- The project's impacts have been calculated based on our estimated share of the project's total finance. Our estimated share of the project's total finance refers to MuniFin's outstanding amount of social finance for a particular project in relation to the project's estimated total finance. If MuniFin is the project's only financier, the project's estimated total finance equals MuniFin's granted finance. If the project has other financiers as well, the estimated total finance is the project's total liabilities based on information from the customer and public sources. This figure does not include self-financing or grants.

- Some projects in the social portfolio have not yet withdrawn any finance. Their impact is therefore not included in the impact assessment, and the outstanding amount of their finance is EUR 0.
- Our reporting is based on ex-ante evaluation conducted prior to project implementation. These calculations are made once and are not updated annually.
- Our impact assessment includes both quantitative and qualitative impacts.
- We develop our reporting continuously and welcome development proposals.

Terms used in this report:

- Outstanding amount = disbursed amount minus repayments
- Unwithdrawn credit commitment = amount of finance granted to the customer but not yet withdrawn
- Total committed finance = outstanding amount + unwithdrawn credit commitment

We have assigned each project a target population to describe the group of people the service or housing is aimed for. The target populations are broadly defined in our Social Bonds Framework, but they are also assessed individually for each project.

The UN 2030 SDGs in this report have been selected based on the direct impact of the projects. All projects may also have indirect impacts on the individuals using the services and the society at large, but such impacts fall outside the scope of this report. The SDGs and related targets are reported by project category in this report.

Impact indicators

We have chosen impact indicators that are suitable for our project categories and describe their output. They are as follows:

Social housing

- Number of residents: estimated number of people living in the project apartments, based on the number of rooms and averages. Moving within the year does not affect this estimate.
- Number of apartments: Number of apartments, of which the share of apartments for the most vulnerable population is separately reported.

Welfare

- Number of patient visits: estimated number of visits, including inpatient time.
- Number of welfare service users reached: number of people living within the hospital district or within a specific catchment area for university hospitals. These are reported for each project and added up for total figure. However, this figure cannot be compared to the population as the district areas may be overlapping. For instance, a welfare centre is part of a larger hospital district and includes the same welfare service users. Hospitals are also part of a larger university hospital catchment area.

Education

- Number of students, pupils and children reached: Number of students in upper secondary schools, number of pupils in primary and secondary schools and number of children in day care centres and preschools.
- Average class size: number of pupils in one class

Social goals

Projects with social finance aim to tackle important social challenges like exclusion, inequality and homelessness. To become selected, projects must create positive impacts in their surrounding community. The evaluation team assesses project eligibility through social goals such as equality, communality, welfare, safety and regional vitality.

Equality: In an equal society, every person is equally valuable and has the same human rights and the same opportunities to influence the society. Offering services equally to everyone while taking special needs into account promotes equal opportunity. Ensuring that all groups of people have equal access to services of equal quality brings us closer to this goal. Equal housing takes into account reasonable pricing, regional differences and the needs of the most vulnerable population and aims to prevent homelessness.

Communality: Communality is the way individuals interact as a group. It can take the form of shared activities and trust, for example. Communality and inclusion can prevent loneliness and reduce the risk of exclusion. Building design can facilitate the meeting of different groups of people and support a sense of community through shared spaces that foster communication. Social workers or residential building community coordinators can also create better conditions for a heightened sense of community.

Welfare: Welfare includes the health, material wellbeing and experienced wellbeing, i.e. the quality of life, of an individual¹. A high-quality apartment or school can already improve health and wellbeing by itself through a safe and versatile use of space. Functional design and operating practices of a new, patient-oriented hospital can create better conditions for holistic wellbeing. Welfare is often also connected to the abovementioned aspects of communality.

Safety: Safety is not only the absence of threat and danger, but also a personal experience closely connected with welfare. Functional, well-designed spaces and modern technology can reduce various risks and increase the feeling of safety.

Regional vitality: Regional vitality, especially at a municipal level, is the ability to create opportunities for working, studying and entrepreneurship and provide the necessary services for residents in an economically sustainable way. In a broader context, public investments can improve a municipality's vitality and attractiveness also by improving the private sector's operating conditions and opportunities for innovation.

¹<https://thl.fi/fi/web/hyvinvointi-ja-terveyserot/eriarvoisuus/hyvinvointi>

The impacts of social finance

WELFARE






SOCIAL HOUSING



EDUCATION



Social finance and bonds | The impacts of social finance

Project category	Number of projects	Outstanding amount 31.12.2020	Number of patient visits	Number of welfare service users reached	Number of residents	Number of apartments	Number of apartments for the most vulnerable population	Number of students, pupils and children reached	Average class size
 Welfare	6	499,385,571	665,966	1,641,290					
 Social housing	20	84,953,476			1,079	922	922		
 Education	1	4,488,602						136	17
Entire portfolio	27	588,827,649	665,966	1,641,290	1,079	922	922	136	17



Welfare

In Finland, municipalities are responsible for organising social and welfare services. All projects by municipalities and joint municipal authorities that meet the criteria of the MuniFin Social Bonds Framework are eligible for our social finance. In 2020, we approved six social and healthcare projects across Finland for our social finance portfolio. At the time of review, the portfolio had no sports and culture projects.

Impact indicators

In our approved projects, we report the number of potential service users. The number of patient visits is weighted with MuniFin's share of financing, i.e. the proportion of MuniFin's finance to the project's total finance. The six approved projects promote the wellbeing of a large number of people: the annual number of patient visits is estimated to reach 665,966. Moreover, it is estimated that around 1.6 million people live in the catchment areas of the hospitals and welfare centers. This number is not directly comparable to Finland's total population, because different projects may report the same residents due to overlapping catchment areas.

Target population

The welfare projects approved for our social finance portfolio promote the good health and wellbeing of a wide group of people. In practice, the target population of these projects covers everyone in the hospital district or catchment area, because they are all potential service users. Some of the approved projects offer a wide range of special and/or basic healthcare services, while others only focus on a particular specialty.

Environment

Many projects pay particular attention to being environmentally friendly, and many hospital projects have put especial effort into improving their waste management and energy efficiency.

In particular, welfare projects promote the following social goals:

Equality: The projects' essential benefits are the improved availability and quality of care. One of Finland's key goals is narrowing the health gap, and updating the network of hospitals and health centres responds to this goal.

Welfare: The projects significantly promote the health and wellbeing of the customer and patient groups of hospitals. Many of the projects involve the versatile application of new technologies and aim for patient-friendly environments. The quality of healthcare improves with the efficient use of human resources, and quality care and pleasant surroundings support patient wellbeing.

Safety: The projects significantly improve the quality of specialised medical treatment in the region, thus also improving safety and sense of security.

Regional vitality: The projects increase regional vitality by improving the quality of care and working conditions for employees. Some of the projects may also strengthen local cooperation.



Welfare

Welfare projects promote the following UN Sustainable Development Goals



Goal 3

3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.

3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.

3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.

3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

The Social Bond Principles

Access to essential services
Socioeconomic advancement and empowerment

Entire portfolio		Target population
Number of projects	6	Hospital district/catchment area residents
Outstanding amount of social finance	EUR 499 million	
Unwithdrawn credit commitment in social finance	EUR 107 million	
Number of patient visits	665,966	
Number of welfare service users reached	1,641,290	

Tyks Lighthouse Hospital will modernise the medical campus and consolidate Turku's position as a major European life sciences cluster

The Lighthouse Hospital, the new hospital of the Hospital District of Southwest Finland, will be conveniently located in the Turku University Hospital (Tyks) Main Hospital area near the Turku–Helsinki railway. The new hospital will house paediatrics and adolescent medicine, obstetrics and gynaecology, otorhinolaryngology, oral and maxillofacial diseases, neurophysiology, medical imaging services and other support services.

Tyks Lighthouse Hospital will increase the quality of care, enhance customer and patient experience and improve staff working conditions. The modern facilities will be versatile and innovative. The hospital is designed to be customer oriented, family friendly and safe. Locating the clinics and wards close to each other saves time, ensures faster care and reduces the need to transfer patients. In addition to investing in making the facilities highly functional, great care has also been taken to make them inviting.

Tyks Lighthouse Hospital will increase the attractiveness of the life sciences cluster as an innovation environment and bring new business and jobs to the area. The hospital will be connected both to the other hospitals in the Tyks Main Hospital area and to the Medisiina D building, which brings together teaching, research and diagnostics facilities in nursing and medicine. The project falls under MuniFin's social finance.





Social housing

MuniFin is the largest financier of non-profit housing production in Finland. All non-profit organisations and projects nominated by the Housing Finance and Development Centre of Finland (ARA) that meet the criteria of our Social Bonds Framework are eligible for our social finance. In 2020, we approved 20 housing projects in our social finance portfolio. All of these projects create housing for the most vulnerable population.

Impact indicators

In our approved projects, we report the number of apartments, the number of apartments for the most vulnerable population, and the number of residents. These numbers are weighted with MuniFin's share of finance. At the time of review, the number of apartments was 922, all aimed at the most vulnerable population. The number of residents was 1079. Most apartments are one-room apartments. Our portfolio also includes projects with apartments for both the most vulnerable population and regular affordable rental apartments, but because their outstanding amount of finance was 0 at the time of review, they were not included in our impact indicator.

Target population

The special housing projects that we finance provide underprivileged people with better opportunities to stay in safe, affordable housing that takes their additional needs into account. The different needs of different groups have been taken into consideration in the planning stage. Student housing guarantees affordable homes for young people at an important turning point in life, while care and service homes offer safety and routines for elderly people, people in psychiatric rehabilitation, and people with disabilities or memory disorders.

Environment

Many social finance projects pay particular attention to being environmentally friendly: new buildings are built to be energy efficient and may also use renewable energy and new technologies. All projects approved for social finance comply with the Decree of the Ministry of the Environment on the energy efficiency of new buildings (1010/2017). For block of flats with three or more storeys the E-value limit is 90 kWh/year/m². The decree provides for certain exceptions in which earlier provisions on the energy efficiency of buildings can be applied.

In particular, social housing projects promote the following social goals:

Equality: The projects promote inclusion by providing access to quality housing regardless of the individual's socioeconomic background. Some of the projects combine housing for the most vulnerable population and regular affordable rental housing in the same location to support the integration of special groups into society.

Communality: The projects invest in elements of communal living, which help to prevent social exclusion and improve the residents' quality of life. The projects employ comprehensive and diverse solutions that support communality. A good example of this are community coordinators and social workers, who are there for the residents and organise communal activities.

Welfare: Residents in care and service homes benefit from the health services provided, which improve their welfare.

Safety: The projects use technological solutions that address the safety and convenience of the housing for its target population. Community coordinators also establish a sense of security and help the residents get better acquainted with each other.



Social housing

Social housing projects promote the following UN Sustainable Development Goals



Goal 3

3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.

3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.

Goal 10

10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.

Goal 11

11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.

Social Bond Principles

Affordable housing
Socioeconomic advancement and empowerment

Entire portfolio		Target population
		All projects are for the most vulnerable population:
Number of projects	20	Young people in need of special aid
Outstanding amount of social finance:	EUR 85 million	Elderly people
Unwithdrawn credit commitment in social finance	EUR 62 million	Children with intellectual disability
Number of apartments	922	Adults with mild intellectual disability
Number of apartments for the most vulnerable population	922	People in psychiatric rehabilitation
Number of residents	1079	Immigrants
		Elderly people with memory disorders
		Students

Community spirit the guideline for Settlementiasunnot homes in Tapiola

To be completed by the end of 2021, Settlementiasunnot's building in Tapiola, Espoo, is built to foster communal living and promote inclusion. The building will have 73 rental apartments of which 15 apartments for people with special needs, specifically targeted at people with a mild intellectual disability or people recovering from a mental illness. The special needs apartments will be spread out across the building.

To encourage communal living, the building will have many shared facilities, including a cosy communal living area with a kitchen, a co-working space, shared balconies, a workshop and a laundry room. The building will also have two saunas and a rooftop terrace garden that enables box farming among other things.

The project also strongly stresses ecological aspects. At the rooftop terrace greenness will be invested in, the building has a solar power plant and it uses the RTS environmental classification system. The project falls under MuniFin's social finance.



Sepänhelmi takes an innovative approach to senior housing

Joensuu hoiva- ja palveluyhdistys, an association offering supported and service housing under the City of Joensuu, is currently constructing the Sepänhelmi residential rental building for senior citizens in the city centre. Sepänhelmi will serve as a pilot project for the city's senior housing.

The building's design and construction process will be used to establish best practices that can then be copied in future construction and renovation projects. The project's results will also be shared with the Ministry of Economic Affairs and Employment and the University of Eastern Finland. To form a solid background, the project staff surveyed improvement needs in senior housing and asked both seniors and care staff to provide ideas of successful solutions.

The guiding design principle was to make the facilities as comfortable and pleasant as possible. Accessibility was taken into consideration in many ways, including fully walker-accessible rooms and facilities, electric locks and automatic water taps.

The objective is to make Sepänhelmi a community centre for the neighbourhood. Sepänhelmi's recreational room, sauna and rooftop terrace will also be open to the residents of the second senior house on the plot, and the residents of another neighbouring building will be able to rent them for a modest fee. Geothermal heating and solar panels will account for two thirds of the building's energy needs, with district heating covering the remaining one third. Recharging points for electric cars, mopeds and walkers will be available in the courtyard. The Sepänhelmi project is funded with MuniFin's social finance.





Education

In Finland, basic education is typically the responsibility of municipalities and joint municipal authorities. Municipalities also provide preschool education and, in some cases, other levels of education as well. All projects by municipalities and joint municipal authorities that meet the criteria of the MuniFin Social Bonds Framework are eligible for our social finance. Education projects are screened using an internal evaluation model in efforts to identify areas where investments would have a great impact on regional vitality. In 2020, we approved one school-related project in our portfolio.

At the time of review, the proportion of schools in the portfolio was very small (1%) because municipalities often finance their school investments with budget loans. Only project-specific financing was approved for the social finance portfolio at the time of the reporting.

Impact indicators

In our approved projects, we report the number of pupils, students and children, and the average class size. The number of pupils, students and children reached are weighted with MuniFin's share of financing, i.e. the proportion of MuniFin's finance to the project's total finance. At the moment, our social finance portfolio includes one project that integrates a day-care centre, preschool, primary school and upper secondary school under one roof. The number of children, pupils and students was 136 and the average class size was 17. Finnish class sizes are below the OECD average: 20 at primary school and 19 at middle school.¹

Target population

The primary target population for these projects are the children at day-care centres and the pupils and students at schools. Although school premises are primarily meant for teaching, they can also be used for other purposes after classes, in which case the wider target population consists of a larger group of people who benefits from new hobby and meeting facilities. This multipurpose use is taken into account in the project's design phase in order to best accommodate for different groups of people.

Environment

In the approved project, one of the key design principles was the building's environmental effect. The aim has been to construct a strong, energy-efficient and easily maintained building which adheres to the Terve Talo ("Healthy house") criteria from design to implementation and use.

In particular, educational projects promote the following social goals:

Communality: In the projects, having children and adolescents of different ages study in the same education centre facilitates the transition from one grade to another and improves safety in the community. Different uses of space and outdoor areas allow children and young people to form social groups. Communality through learning is also considered for example by allowing classrooms to be divided into smaller spaces or combined into larger areas and by constructing various additional spaces for pupils to use in groups.

Regional vitality: A substantial investment in schooling improves the service provision of the municipality and boosts regional vitality. Moreover, some school facilities, such as handicrafts, music, kitchen and language learning classrooms, can be used effectively by the adult education centre.



Education

Education projects promote the following UN Sustainable Development Goals



Goal 4

4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes.

4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations.

Goal 10

10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.

Social Bond Principles

Access to essential services

Socioeconomic advancement and empowerment

Entire portfolio		Target population
Number of projects	1	Day-care aged children, schoolchildren and upper secondary school students in the school's catchment area
Outstanding amount of social finance	EUR 5 million	
Unwithdrawn credit commitment in social finance	EUR 10 million	
Number of students, pupils and children reached	136	
Average class size	17 students	

Karstula's school quarter is the heart of the community

In designing Karstula's new school centre, the key principle was to create a functional, healthy and safe school building that will be energy-efficient and environmentally friendly. The new school will replace several old buildings in which people have suffered from sick building syndrome.

In the new school quarter, day care, preschool education, basic education and upper secondary education, all previously located in different buildings, will be offered under one roof. At nights and weekends, the local adult education centre will use the premises for its courses. For this reason, flexibility and adaptability held a vital role in designing the facilities. To cater for various events, the school's auditorium steps and cafeteria can be transformed to seat people and act as a stage.

The school quarter will also be home to senior citizens. This allows people of different ages to come together naturally and benefit from each other's company. The school quarter will act as the village centre, bringing vitality to the village, increasing community spirit and making the municipality more attractive. The school falls under MuniFin's social finance.



Social finance projects and impacts

Welfare											
Customer	Project	Target population	Relevant social impact	Year of approval	Estimated completion year	Outstanding amount 31 Dec 2020	Unwithdrawn credit commitment 31 Dec 2020	Total committed finance 31 Dec 2020	Munifin's estimated share of finance 31 Dec 2020	Number of patient visits	Number of welfare service users reached
Central Finland Healthcare District	Hospital Nova	Hospital district/catchment area residents	Equality, Welfare, Safety	2020	2020	193,142,016	37,857,984	231,000,000	43 % ¹	209,380	106,826
Joint Municipal Authority for North Karelia Social and Health Services, Siun Sote	Renovation of Central hospital E-wing	Hospital district/catchment area residents	Equality, Welfare, Safety	2020	2026	40,000,000	-	40,000,000	100 %	46,000	165,000
Joint Municipal Authority for North Ostrobothnia Healthcare District	Oulu University Hospital 2030	Hospital district/catchment area residents	Equality, Welfare, Safety	2020	2023-2030	65,000,000	-	65,000,000	21 % ¹	182,200	153,674
Pirkanmaa Hospital District	Tampere University Hospital, psychiatric hospital	Hospital district/catchment area residents	Equality, Welfare, Safety	2020	2023-2030	50,000,000	-	50,000,000	100 %	96,000	900,564
Sodankylä Municipality	Welfare center Sopukka	Hospital district/catchment area residents	Equality, Welfare, Regional vitality	2020	2020	20,469,968	-	20,469,968	99 %	39,538	7,908
The Hospital District of Southwest Finland	Turku University Hospital	Hospital district/catchment area residents	Equality, Welfare, Regional vitality	2020	2022	130,773,587	69,226,413	200,000,000	65 %	92,849	307,318

¹In these projects, the project's total liabilities have been used to represent the project's total finance when calculating MuniFin's estimated share of the project's total finance. The full definition of MuniFin's estimated share of finance is available on page 50.

Social finance and bonds | Social finance projects and impacts

Social housing											
Customer	Project	Target population	Relevant social impact	Year of approval	Estimated completion year	Outstanding amount 31 Dec 2020	Unwithdrawn credit commitment 31 Dec 2020	Total committed finance 31 Dec 2020	Munifin's estimated share of finance 31 Dec 2020	Number of residents	Number of apartments
Joensuun Hoiva- ja Palveluyhdistys ry	Construction of apartment building Sepänhelmi	Elderly people	Equality, Community, Welfare	2020	2021	-	4,088,500	4,088,500	0 %	-	-
Kiinteistö Oy Kesti	Construction of apartment building Palvelukoti Kestipuisto	Elderly people	Equality, Welfare, Safety	2020	2021	2,300,000	-	2,300,000	100 %	28	28
Kiinteistö Oy Y-Säätiön palvelutalot	Construction of apartment building Friisimäen nuori-soasunnot	Young people in need of special aid	Equality, Community, Welfare	2020	2021	-	7,683,000	7,683,000	0 %	-	-
MVH-Asunnot Oy	Construction of apartment building Onnikoti	Elderly people	Equality, Community, Welfare	2020	2021	1,430,400	357,600	1,788,000	80 %	17	17
NAL Asunnot Oy	Construction of apartment building Kirstinharju 4	Young people in need of special aid	Community, Safety, Welfare	2020	2022	-	8,268,000	8,268,000	0 %	-	-
Niiralan Kulma Oy	Construction of apartment building Untamonkatu 6	Young people in psychiatric rehabilitation	Community, Welfare, Safety	2020	2020	1,508,532	-	1,508,532	100 %	14	14
Settlementiasunnot Oy	Construction of apartment building Jousenpuistonkatu 9	Adults with mild intellectual disability, people in psychiatric rehabilitation and immigrants	Equality, Community, Welfare	2020	2021	-	10,404,200	10,404,200	0 %	-	-

Social finance and bonds | Social finance projects and impacts

Social housing											
Customer	Project	Target population	Relevant social impact	Year of approval	Estimated completion year	Outstanding amount 31 Dec 2020	Unwithdrawn credit commitment 31 Dec 2020	Total committed finance 31 Dec 2020	Munifin's estimated share of finance 31 Dec 2020	Number of residents	Number of apartments
Suomen Hoivaja Asunto Oy	Construction of apartment building Mäntyrannan palvelutalo	Elderly people	Equality, Welfare, Safety	2020	2020	5,649,919	627,769	6,277,688	90 %	52	52
The Foundation for Student Housing in the Helsinki Region, HOAS	Construction of apartment building Mäkelänrinne 4	Students	Equality, Community	2020	2021	6,348,623	-	6,348,623	100 %	100	88
The Foundation for Student Housing in the Helsinki Region, HOAS	Construction of apartment building Tuuliniitty 1	Students	Equality, Community	2020	2021	12,484,484	4,175,413	16,659,896	75 %	142	123
The Foundation for Student Housing in the Helsinki Region, HOAS	Construction of apartment building Vehkapolku 10, HOAS Bethania	Students	Equality, Community	2020	2021	13,150,775	3,298,000	16,448,775	80 %	148	129
The Foundation for Student Housing in the Helsinki Region, HOAS	Renovation of apartment building Hopeatie 10	Students	Equality, Community	2020	2021	4,835,112	-	4,835,112	99 %	80	61
The Foundation for Student Housing in the Helsinki Region, HOAS	Renovation of apartment building Kitarakuja 1	Students	Equality, Community	2020	2020	4,843,909	-	4,843,909	99 %	47	36
The Foundation for Student Housing in the Helsinki Region, HOAS	Renovation of apartment building Kitarakuja 3	Students	Equality, Community	2020	2019	7,442,758	-	7,442,758	99 %	149	115
The Foundation for Student Housing in the Helsinki Region, HOAS	Renovation of apartment building Pasilanraitio 6	Students	Equality, Community	2020	2020	5,862,400	-	5,862,400	100 %	92	71

Social finance and bonds | Social finance projects and impacts

Social housing											
Customer	Project	Target population	Relevant social impact	Year of approval	Estimated completion year	Outstanding amount 31 Dec 2020	Unwithdrawn credit commitment 31 Dec 2020	Total committed finance 31 Dec 2020	Munifin's estimated share of finance 31 Dec 2020	Number of residents	Number of apartments
The Foundation for Student Housing in the Helsinki Region, HOAS	Renovation of apartment building Retkeilijänkatu 11	Students	Equality, Community	2020	2020	8,594,327	-	8,594,327	99 %	114	99
Turun Ylioppilaskyläsäätiö	Construction of apartment building Tyysisija os Inspehtorinkatu 12-14	Students	Equality, Community	2020	2021	9,000,000	13,665,195	22,665,195	40 %	79	74
Versionsilmu Oy	Construction of apartment building Paavontie 41	Children with intellectual disability	Equality, Community, Welfare	2020	2021	800,000	400,000	1,200,000	67 %	8	8
Virkkulankylä Oy	Construction of apartment building Hausjärven Virkkula	Elderly people	Equality, Community, Welfare	2020	2021	702,237	2,808,948	3,511,185	20 %	7	7
Äänekosken Asumispalvelusäätiö	Construction of apartment building Eerolankatu 16	Elderly people with memory disorders	Equality, Community, Welfare	2020	2022-2023	-	6,073,600	6,073,600	0 %	-	-
Education											
Customer	Project	Target population	Relevant social impact	Year of approval	Estimated completion year	Outstanding amount 31 Dec 2020	Unwithdrawn credit commitment 31 Dec 2020	Total committed finance 31 Dec 2020	Munifin's estimated share of finance 31 Dec 2020	Number of students, pupils and children reached	Average class size
Karstula Municipality	Karstula comprehensive school (400-500 students / children)	Day-care aged children, schools-children and upper secondary school students in the school's catchment area	Community, Regional vitality	2020	2021	4,488,602	10,311,398	14,800,000	30 %	136	17

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