



MuniFin – Green Bonds and Green Financing

Rami Erkkilä
Senior Specialist
Sustainable Finance

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MuniFin

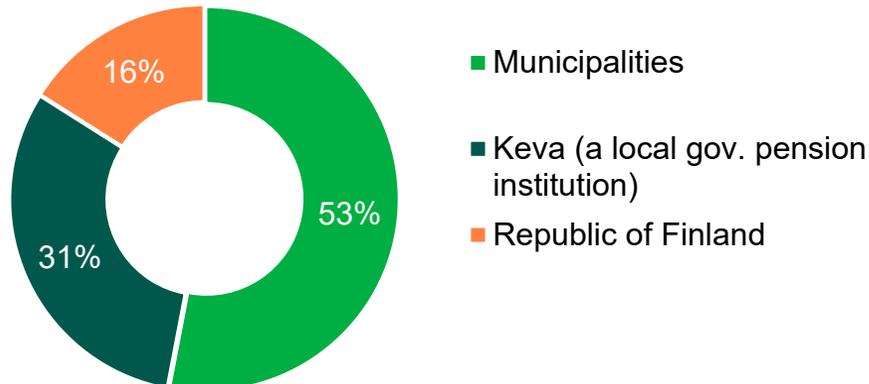


MuniFin in brief

The leading provider of financial services to Finland's municipal sector and housing production

- Funding explicitly guaranteed by the Municipal Guarantee Board (MGB)
- Ratings are in line with those of the Finnish sovereign
- Credit institution supervised by the ECB
- Credit institution of systemic importance to the Finnish financial system (O-SII)

100% Finnish public sector-owned credit institution



Credit ratings

Moody's
Aa1 (Stable)

S&P
AA+ (Stable)

ESG ratings

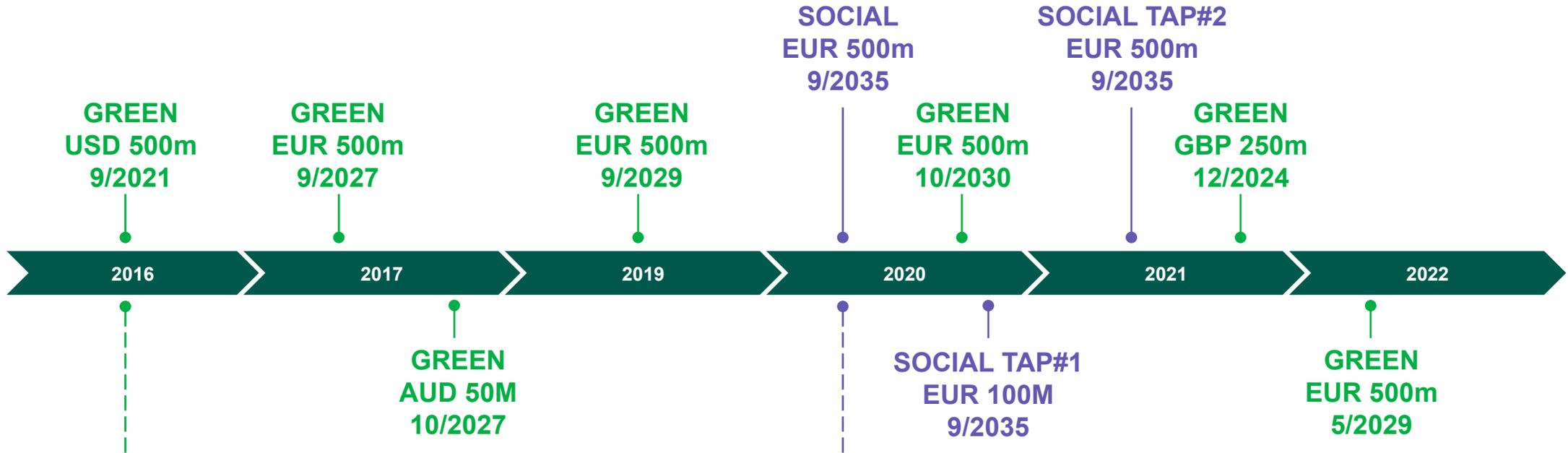
ISS ESG
C Prime

Sustainalytics
9.4
Ranking
Banks 30/989

MSCI
AA
Ranking
n/a

Green and social bonds

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Outstanding green bonds

6

2.3
EUR, billion



Outstanding social bonds

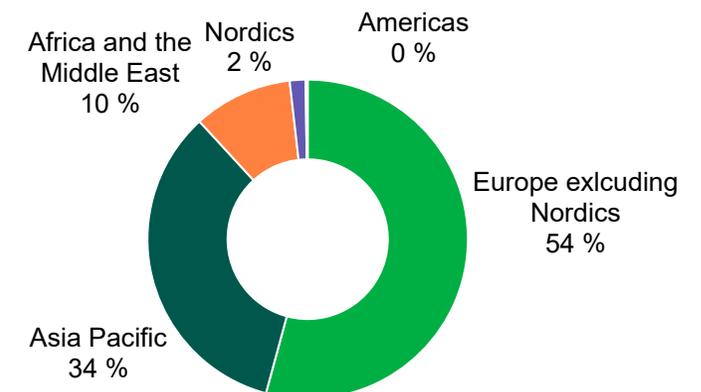
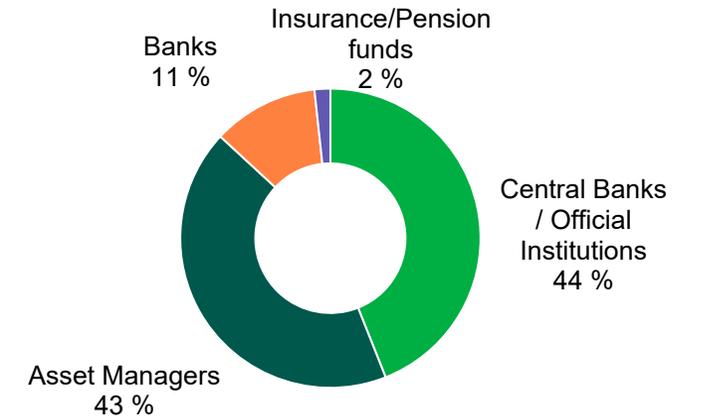
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1.1
EUR, billion



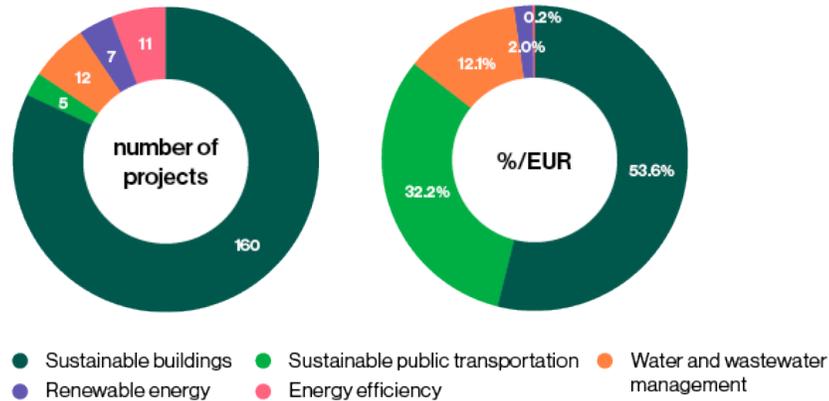
GBP 250 million 3-year green bond

- MuniFin priced its sixth green bond on 26 October 2021.
- The green bond is the first of its kind for MuniFin in the Sterling market. Nearly 40% of the allocation was to ESG focused investors.
- The slightly over 3-year GBP 250 million benchmark offers a 0.875% coupon and a spread of 30ps over the UKT 2 ¾ 09/07/24.
- Taking advantage of the constructive market tone, MuniFin announced the transaction on Tuesday 26 October at 9:10 London time. The books opened with price guidance at UKT 09/24 +30bps area. The size was fixed from the outset at GBP 250 million. The orderbook grew steadily and was finally closed in excess of GBP 300 million at 12:15.
- Central banks and official institutions took 44% of the orderbook, with Asset Managers as a close second with 43% participation. Geographically, European investors took 54%, excluding the Nordics. Asia Pacific took 34% and Africa and the Middle East 10%.
- The green bond was jointly led by BofA Securities, Nomura and TD Securities.

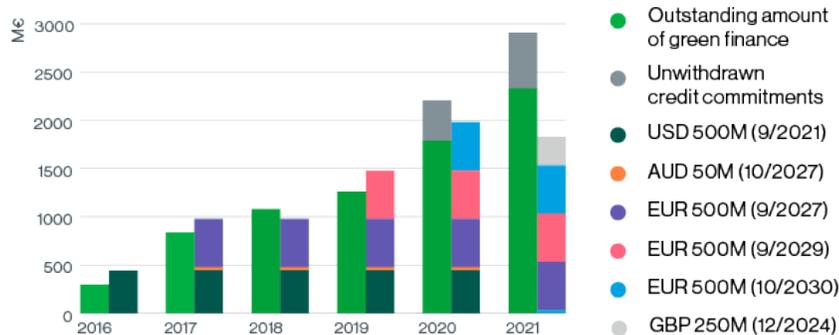


Executive summary of Green finance

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	1248	5,662	5
Sustainable public transportation	748	7,866	11
Water and wastewater management	281	-	-
Renewable energy	46	70,607	1,531
Energy efficiency	5	1,422	295
Total	2 328	85,557	N/A

Other impact indicators

Annual energy savings (avoided / reduced MWh)	31,351
Annual production of renewable energy (MWh)	103,622
Renewable energy production capacity (MW)	58
Annual amount of treated wastewater in existing plants immediately after project completion (m ³)	30,791,821
Annual amount of treated wastewater with increased capacity in the future (m ³)	29,994,624

Impact attributable to green bond investors

Outstanding amount of green bonds divided by outstanding amount of green finance (in EUR) as of 31 Dec 2021. Capped at 100%.

Amount	ISIN	Issue date	Maturity date	Impact
500m EUR	XS2242924491	14 Oct 2020	14 Oct 2030	21.5%
500m EUR	XS2023679843	10 July 2019	6 Sept 2029	21.5%
50m AUD	XS1706174015	25 Oct 2017	25 Oct 2027	1.4%
500m EUR	XS1692485912	3 Oct 2017	7 Sept 2027	21.5%
250m GBP	XS2404205119	2 Nov 2021	16 Dec 2024	12.7%

Basic information

Green bonds frameworks applied to the green finance portfolio	MuniFin Green Bonds Framework May 2019, November 2018, August 2017 and February 2016
Reporting period	The reporting is based on the green finance portfolio as at 31 Dec 2021
Report publication date	3 March 2022
Reporting frequency	Annual
Next report planned for	March/April 2023
Reporting approach	Portfolio-based and project-by-project reporting
Reporting framework	Nordic Public Sector Issuers: Position Paper on Green Bonds Impact Reporting (February 2020)



1. Buildings¹⁰

UN Sustainable Development Goals: 7.3, 9.1, 9.4, 11.1, 11.3, 11.7, 12.2, 13.1, 15.5

EU environmental objectives: Climate change mitigation (CCM)

Preliminary mapping of economic activities under the EU Taxonomy: CCM 7.1, 7.2, 7.3, 7.5, 7.6, 7.7



PROJECT CATEGORY AND ELIGIBILITY CRITERIA

1.1a Buildings

Buildings that have an Energy Performance Certificate (EPC) class A. The corresponding E-value requirements for EPC class A¹¹ are presented below.

Building type	E-value limit EPC A	Corresponding energy performance requirements ¹² -x%
Small residential buildings	80	-24%
Apartment buildings, minimum 3 storeys	75	-17%
Office buildings, health care centres	80	-20%
Commercial buildings	90	-33%
Hospitality buildings, including sheltered housing	90	-44%
Schools and day-care centres	90	-10%
Hospitals	150	-53%

In addition to the energy requirements stated above, the following non-compulsory criteria (i–iii) will be considered and promoted in order to make environmentally friendly investments more attractive to MuniFin's customers and facilitate the implementation of the EU Taxonomy.

- i. For buildings larger than 5000 m², the building undergoes testing for air-tightness and thermal integrity, upon completion.
- ii. For buildings larger than 5000 m², the life-cycle Global Warming Potential (GWP) of the building resulting from the construction has been calculated for each stage in the life cycle and is disclosed
- iii. Buildings that self-supply renewable energy, have undergone an environmental impact analysis, make use of recyclable and low carbon materials, or have obtained a certification according to Nordic Swan Ecolabel, LEED Gold, BREEAM Very Good, The Building Information Foundation RTS 3 stars or better, or other equivalent certification with high ratings.

EU TAXONOMY ELIGIBLE ACTIVITIES

7.1 Construction of new buildings

7.7 Acquisition and ownership of buildings

¹⁰ Any buildings directly heated by fossil fuels, including hybrid solutions and peak load and backup systems powered by fossil fuels, will be excluded from the Green Bond Framework.

¹¹ The relevant E-value for energy class A that is specified in applicable regulation during design phase. In the event that the national building code is revised, the changes will supersede the values described in the table.

¹² We expect the Finnish nearly zero-energy buildings requirement, once established, to be equivalent to the National Building Code of Finland, Decree of the Ministry of the Environment on the Energy Performance of New Buildings (1010/2017).



1. Buildings¹⁰

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PROJECT CATEGORY AND ELIGIBILITY CRITERIA

1.1b Other buildings

Other buildings, such as transport and communications buildings, indoor swimming pools, indoor ice rinks, and portable buildings, where
a) the building supplies at least 75% of its own energy from renewable sources, or
b) there are other environmental benefits proven by a specialist study.

1.2 Renovations

Renovations that lead to an overall reduction in primary energy demand by at least 30% compared to the pre-investment situation.

1.3 Individual energy efficiency measures

Installation of energy-efficient equipment such as energy efficient windows and doors, energy efficient light sources, ventilation and measures to ensure air-tightness, leading to a 30% improvement in energy efficiency compared to the pre-investment situation.
This list is not exhaustive.

1.4 Renewable energy in buildings

Installation of renewable energy technologies such as solar power, heat pumps or heat recovery systems.

1.5 Energy saving project (ESCO)

Energy saving projects including ESCO, leading to a 30% improvement of energy efficiency compared to the pre-investment situation.

1.6 Biodiversity and adaptation measures

Measures that aim to promote and/or sustain biodiversity and ecosystem services, such as roof-top beehives, green roofs and walls, and adaptation measures such as flood barriers, reinforcement of the building structure and rainwater harvesting. This list is not exhaustive.

EU TAXONOMY ELIGIBLE ACTIVITIES

7.2 Renovation of existing buildings

7.3 Installation, maintenance, and repair of energy efficiency equipment

7.5 Installation, maintenance, and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings

7.6 Installation, maintenance, and repair of renewable energy technologies

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Suolahti hockey arena, Äänekoski

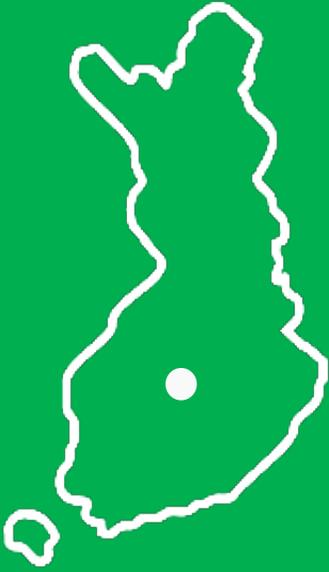
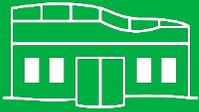


Photo: Jiri Halttunen / JYP

Energy efficiency: Suolahti hockey arena, 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.



Green evaluation team

The project was approved for MuniFin's green finance thanks to its many pioneering and energy-efficient solutions.



Finance: EUR 4,500,000

Thank you



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