



IS Green Bonds Allocation and Impact report 2021



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Foreword



Iceland Funds is proud to present the third impact report based on IS Green Bonds' investments. IS Green Bonds is the oldest and largest green bond fund in Iceland, outsizing the second-largest fund eightfold at year-end 2021.

The main investment objective of IS Green Bonds is to invest in bonds that are listed on the Sustainable Bond List within Nasdaq Iceland and have a favorable impact on the environment. Since the fund was established in 2018, the proportion of sustainable bonds in the portfolio has increased gradually as the market in Iceland has developed. Sustainable bonds amounted to 77% of the total bond portfolio at year-end 2021, increasing 7% YoY. However, as sustainable bonds are not as liquid as conventional bonds, the fund also invests in the latter to ensure liquidity.

The fund had a return of 5,4% in 2021 and has had an annualized performance of 6,3% for the past 3 years. Assets increased by ISK 394m and inflows to the fund amounted to ISK 18m bringing the total size of the fund to ISK 4,240m. New issuers were added to the portfolio in 2021, including Arion Bank, which issued its first green bond as well as the seafood company Brim, which issued Iceland's first blue bond, whose proceeds were allocated to the company's sustainable catch category. Other green issuers added to their issuance and the overall market for green bonds grew substantially.

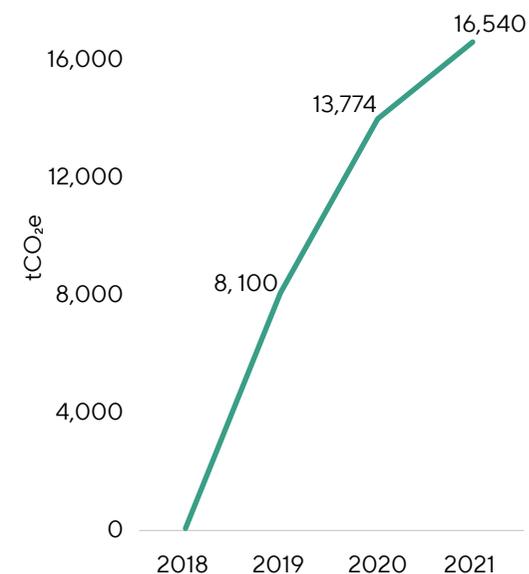
Since launching in 2018 projects supported by IS Green Bonds have resulted in total avoided emissions of 16,540 tCO₂e. In 2021 the number amounted to 2,782 tCO₂e and each day the fund has contributed 7.6 tCO₂e in avoided emissions. Waste management contributed the largest share in terms of avoided emissions totaling 1,783 tCO₂e or 64% of total avoided emissions.

IS Green Bonds largest holding is in bonds issued by Reykjavík Energy. In 2021 projects under the carbon capture and storage

category contributed most to avoided or sequestered emissions of Reykjavík Energy's green projects.

Ingólfur S. Kristjánsson
Helga Óskarsdóttir
Fund managers of IS Green Bonds

Accumulated avoided GHG emissions 2018-2021



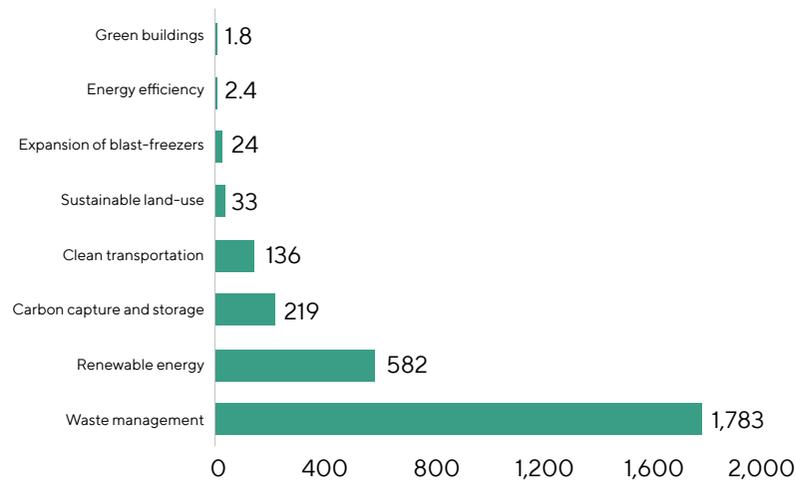


1. Introduction

2021 Impact summary

Projects supported by IS Green Bonds resulted in avoided emissions of 2,782 tCO₂e in 2021. Each day the fund has contributed to 7.6 tCO₂e in avoided emissions.

Avoided/sequestered greenhouse gas emissions (tCO₂e) by category 2021



1. Impact highlights are aggregated by adding together IS Green Bonds' allocated impact from each sustainable bond, based on the fund's share of investment. The list of highlights is non-exhaustive; more detail on positive impact can be found in the impact reports of individual issuers.

2. Avoided emissions per 1m ISK are estimated by dividing IS Green bonds' total avoided emissions in 2021 by the Fund's average amount outstanding in 2021 (market value).

In 2021, IS Green Bonds contributed to¹:



2,782 tCO₂e in avoided emissions



4 GWh of clean energy produced



12 tonnes of upcycled fish skin



19 clean vehicles



3,175 sqm of eco-efficient buildings



219 tCO₂e captured and mineralized underground in basalt rocks



3 social housing units



12 charging stations for electric vehicles

Avoided emissions per 1m ISK is 0.71 tCO₂e², equivalent to



2.4 round trips around Iceland, or



2.5 roundtrip airline seats between Reykjavik-London, or

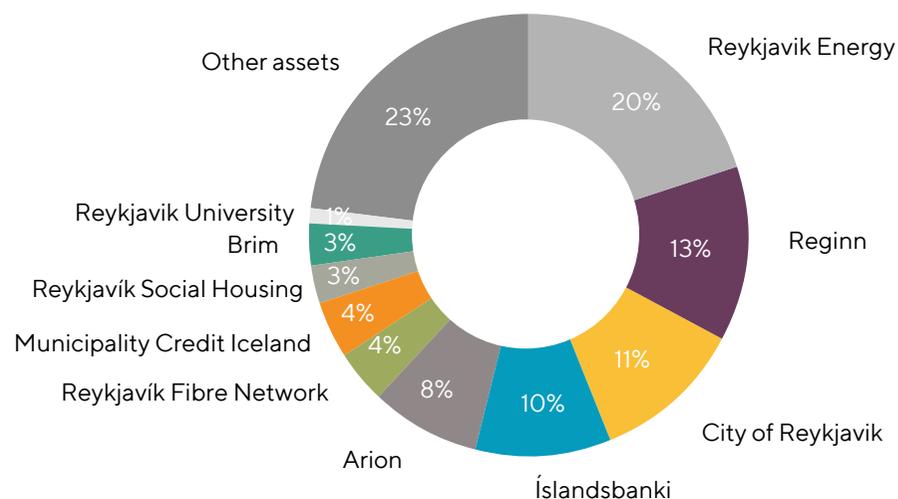


27 kg of Icelandic lamb meat

Allocation and methodology

IS Green Bonds' fund assets as of year-end 2021

Share of total investment by issuer



Methodology

Impact assessments in this report are based on issuers' own impact reports and public data.

Impact figures cover green and social bonds which accounted for 77% of IS Green Bonds' total assets at year-end 2021.

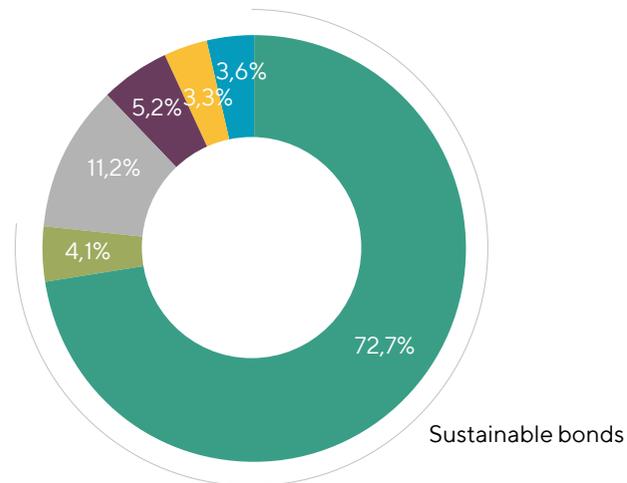
Impact figures are calculated based on IS Green Bonds' share of individual issuers' sustainable bonds. The Fund's average share of sustainable bonds in 2021 is multiplied by their impact as reported by individual issuers. Time and allocation to individual investments is taken into account.

We note that methodology might differ between issuers. Links to impact reports of individual issuers in 2021 can be found on their respective pages.

Composition of holdings

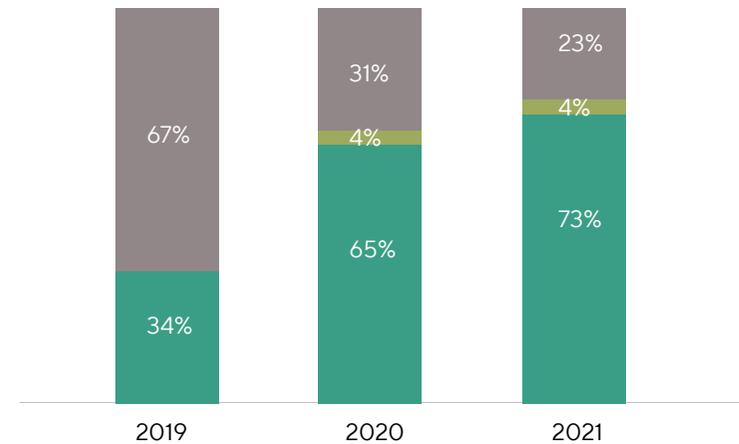
Since IS Green Bonds was established in 2018, the share of green and social bonds in the portfolio has increased as the sustainable bond market in Iceland has developed. In 2021, the share of sustainable bonds grew by 8%.

Holdings at year-end 2021



- Green bonds
- Social bonds
- Non-indexed gov. bonds
- Housing bonds
- Cash
- Indexed gov. bonds

Composition change YoY



- Green bonds
- Social bonds
- Other assets

Accumulated impact

Since 2018, IS Green Bonds has supported 16,540 tCO₂e of avoided emissions.

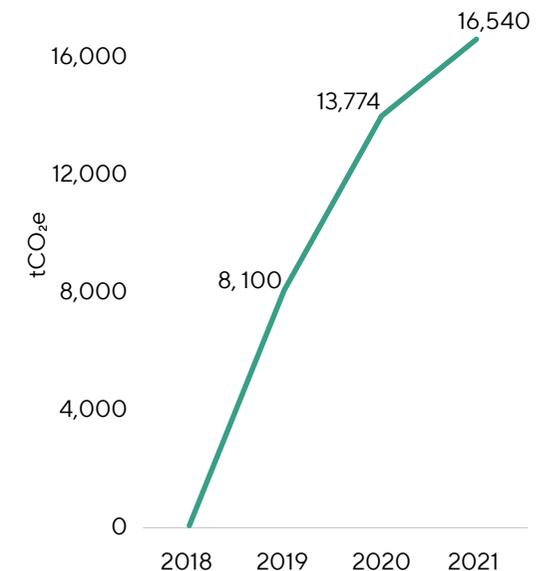
Since its establishment in 2018, IS Green Bonds has supported 16,540 tCO₂e of avoided emissions.

Around half of total avoided emissions were recorded in the fund's first year, a time when the green bond market in Iceland expanded rapidly and saw many firms issue green bond frameworks under which significant sustainable assets were refinanced. This includes two of Iceland's largest geothermal power plants financed by Reykjavik Energy's green bond proceeds, which explains in part why the reported avoided emissions were relatively high in IS Green Bonds' first year of operation.

Methodology used by individual green bond issuers to calculate the avoided emissions of their assets has also developed over the years and differs between some issuers. The baseline emission factor published by the Environment Agency of Iceland, which is used by some to calculate avoided emissions, may also change between years. This presents a challenge in comparing avoided emissions year-on-year, but further development and standardisation of impact reporting is expected in coming years as the market matures.

Avoided emissions describes the estimated reduction in emissions from financing a less carbon intensive asset instead of a more carbon intensive asset.

Accumulated avoided GHG emissions 2018-2021 supported by IS Green Bonds



Sustainable Development Goals alignment

IS Green Bonds supports a range of SDGs through its investments in green and social bonds issued in Iceland.

IS Green Bonds supports a range of SDGs through its investments in green and social bonds listed on ICE Sustainable Bonds and First North ICE Sustainable Bonds at Nasdaq Iceland. The use of proceeds and the SDGs supported as such reflect common sustainable activities undertaken within Icelandic industry, including sustainable fisheries and hydropower plants.

The five project categories which received the most investment in 2021 primarily support six SDGs (see table SDGs' alignment of primary project categories funded). Additional SDGs supported are outlined in the impact reports of individual issuers. Mapping of the primary project categories funded against the relevant UN SDGs is based on GBP/ICMA mapping and existing practices of Nordic issuers.

Sustainable development goals' (SDGs) alignment of primary project categories funded

Project category	Relevant SDGs
Green buildings	   
Sustainable fisheries	 
Energy efficiency	   
Renewable energy	 
Clean transportation	  



2. Impact assessment by issuer

Íslandsbanki

IS Green Bonds' investment in Íslandsbanki's sustainable bonds contributes to 7 categories of sustainable assets supporting a range of environmental objectives.

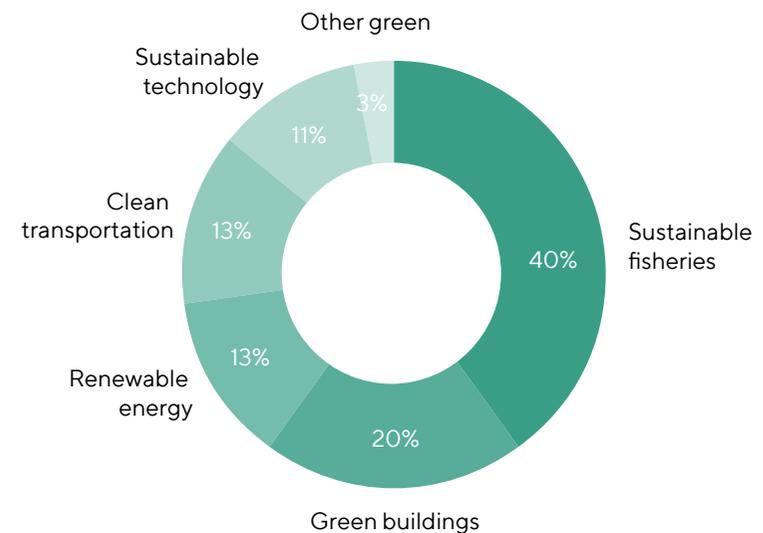
First Icelandic bank to issue a Sustainable Financing Framework

Íslandsbanki was the first Icelandic bank to develop and publish a Sustainable Financing Framework for sustainable loans in its portfolio. The Framework is based on best practices in Europe whilst reflecting Icelandic industry, covering 18 categories of diverse eligible assets. 11 out of the 18 categories defined are now in use, with sustainable fisheries seeing the biggest growth in 2021.

First Icelandic bank to issue a Sustainable Financing Framework

	Avoided emissions tCO₂e
Waste management	103
Clean transportation	22
Hydropower plants	7
Total	132

Allocation of IS Green Bonds' investment in Íslandsbanki by category¹



Municipality Credit Iceland (Lánasjóður sveitarfélaga)

MCI launched a green bond program in 2019 with the purpose of facilitating favorable funding for local government projects with environmental benefits.

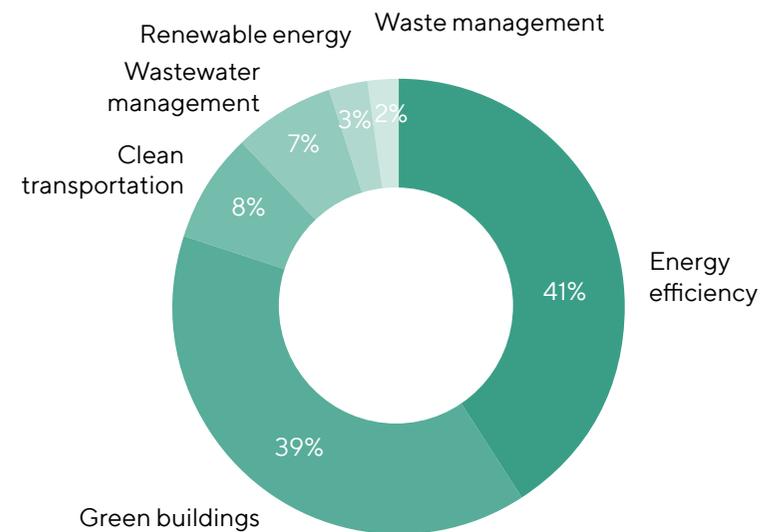
Case study – Iceland’s first school with Nordic Swan Ecolabel

The first school in Iceland to be built in line with the Nordic Swan Ecolabel is partially funded by Municipality Credit Iceland’s green bond proceeds. The 6,000 sqm building will be built from timber instead of concrete. The ecolabel sets requirements for the entire building process, from the felling of trees to when waste is recycled. This includes strict requirements for the chemicals used in building materials, energy-efficiency and ensuring a good indoor climate.

Estimated impact of IS Green Bonds’ share of funding

	Avoided emissions tCO₂e
Hydropower plant	78
Waste management	21
Green buildings	0,3
Total	99

Allocation of IS Green Bonds’ investment in MCI by category



Reginn

Reginn is a real estate company that invests in, leases and operates commercial property in Iceland. The company has set itself a goal to BREEAM certify at least 50% of its portfolio by 2025. At year-end 2021, 26% of Reginn's portfolio had been certified.

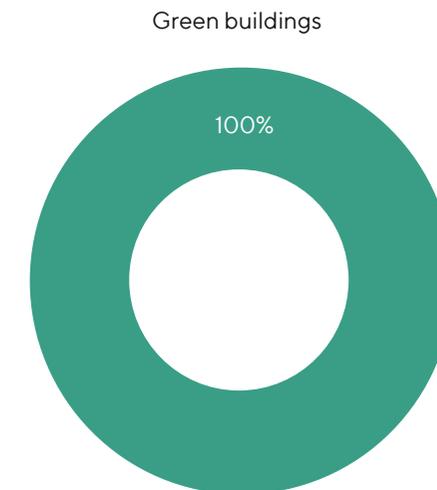
Case study – Green buildings

Reginn manages about a third of its property portfolio, placing the company in a strong position to reduce its negative environmental impact. For two of its largest commercial buildings with a combined size of around 85,700 sqm, Reginn undertook steps to integrate sustainability into their operations and obtained a BREEAM In-Use certification. This includes installing charging stations for electric vehicles, roofed bicycle parking, a system to monitor energy consumption, ventilation and cooling systems as well as plans to install smart waste.

Estimated impact of IS Green Bonds' share of funding

	Certification	Size (m ²)
Green buildings		1,471

Allocation of IS Green Bonds' investment in Reginn by category



City of Reykjavik

Reykjavik is the largest municipality in Iceland and finances a range of projects with green bond proceeds, including LED street lighting, cycling paths, electric vehicle charging stations and a biogas and composting plant.

Case study – Waste management

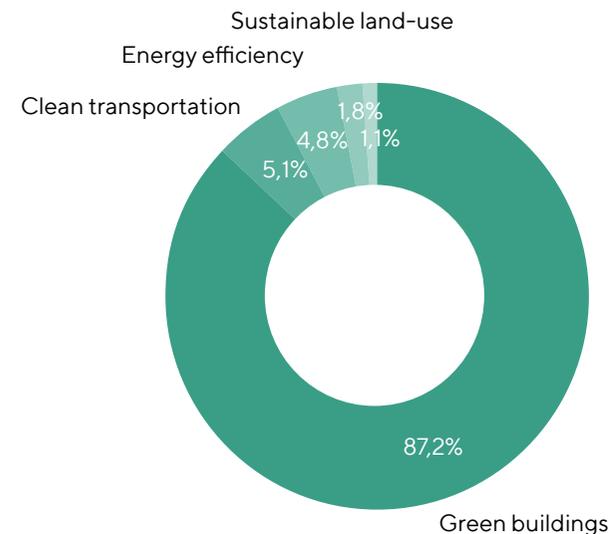
Waste management can be an effective way of reducing greenhouse gas emissions. Landfills generate methane as waste decomposes and rather than getting released as emissions without productive use, methane can be processed and used to replace fossil fuels. Financed under the City of Reykjavik Green Bond Framework, the biogas and composting plant in Álfsnes resulted in around 41,300 tCO₂e of avoided emissions in 2021.

The plant processed 2,209 tonnes of waste which would otherwise have been landfilled, resulting in the production of 31,000 Nm³ of methane gas for vehicles. The plant also processed 12,340 tonnes of biological waste, resulting in 982,233 Nm³ of biogas production.

Estimated impact of IS Green Bonds' share of funding

	Avoided emissions tCO ₂ e
Waste management	1,657
Clean transportation	115
Sustainable land-use	33
Energy efficiency	2
Green buildings	1
Total	1,808

Allocation of IS Green Bonds' investment in City of Reykjavik by category



Reykjavik Energy (Orkuveita Reykjavíkur)

Reykjavik Energy is a power and utility company owned by three municipalities with a goal of utilising resources in a sustainable and cost-effective manner to serve households, businesses and institutions.

Case study – Carbon capture and storage

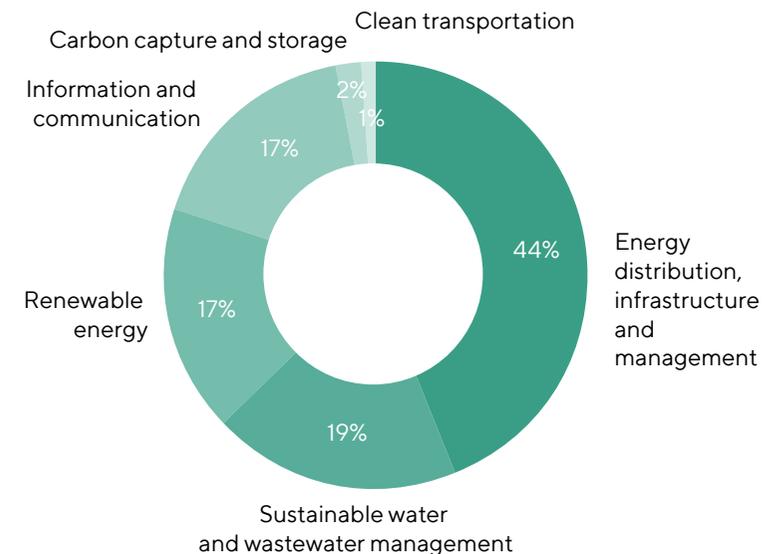
Projects under the carbon capture and storage category contributed most to avoided or sequestered emissions per million ISK invested of OR's green projects in 2021.

Notable projects financed include the Orca plant, the world's largest plant for direct air capture and storage of carbon. Another project financed involves testing and monitoring of additional sites for capturing and mineralizing carbon underground in rocks which can yield further sequestered emissions in the future.

Estimated impact of IS Green Bonds' share of funding

	Avoided emissions tCO ₂ e
Renewable energy	494
Carbon capture and storage	219
Total	713

Allocation of IS Green Bonds' investment in Reykjavik Energy by category



Reykjavik Fibre Network (Ljósleiðarinn)

Over 100,000 homes in Iceland are provided with fibre optic internet through the Reykjavik Fibre Network. In 2021, 310 kilometres of efficient fibre optic cables were added to the network.

Case study – Energy efficiency through fibre optic broadband

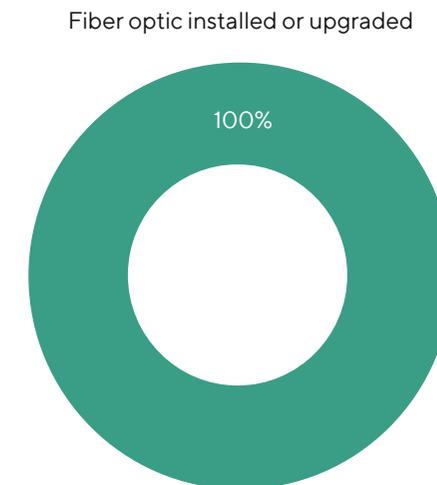
Fibre optic cables offer the fastest and most energy efficient broadband technology. Fibre’s reliance on fewer intermediate devices and amplifiers than other technologies facilitates its energy efficiency. Fibre is estimated to be 12 times more efficient at transmitting data than copper-based cables¹.

For three years in a row, Iceland has ranked first in Europe for household utilisation of optical fibre. As of September 2021, 78.4% of Icelandic households used the service to access the internet. Only 10% of homes around the country remain unconnected and works are planned to reduce this number in 2022.

Estimated impact of IS Green Bonds’ share of funding

	Cables laid (km)
Fibre optic broadband	12

Allocation of IS Green Bonds’ investment in RFN by category



Arion

Arion Bank published a Green Financing Framework in 2021 which outlines seven categories of assets eligible for green financing. The category with most committed finance in 2021 was green buildings.

Case study – Plastic recycling

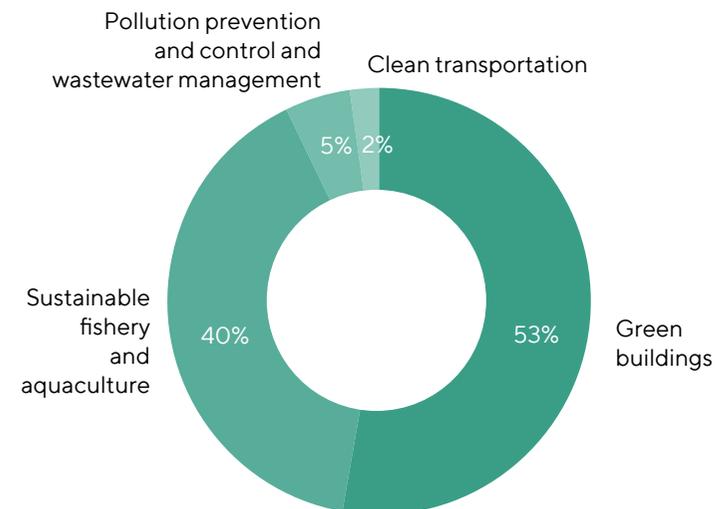
Waste management company Pure North is an example of an eligible asset under Arion Bank's Green Financing Framework, falling under the pollution prevention and control and wastewater management category.

Pure North recycles plastic using renewable energy sources. In the recycling process, dirty plastic waste is converted into plastic beads that are sold for the production of new plastic products in Iceland and abroad. Pure North's recycling method is chemical free and has an 81,7% lower carbon footprint compared to average EU recycling processes.

Estimated impact of IS Green Bonds' share of funding

	Avoided emissions tCO ₂ e
Pollution prevention and control and wastewater management	17
Clean transportation	2
Green buildings	1
Total	20

Allocation of IS Green Bonds' investment in Arion by category



Brim

Brim is a seafood company in Iceland focused on fishing and fish processing. Brim takes an active part in shaping the future of a sustainable fisheries sector, based on innovation, technological development and sustainability.

Case study – Plastic recycling

Funding allocated to Brim's sustainable catch category is used for general purpose financing to companies that derive at least 90% of their revenues from the sale of certified groundfish by Global Sustainable Seafood Initiative (GSSI) recognized schemes such as the Marine Stewardship Council (MSC) or other equivalent certification.

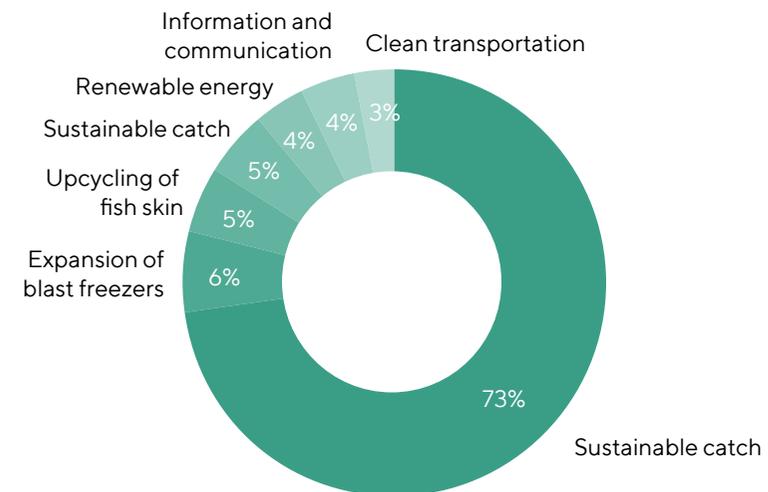
MSC certification is a way of showing that a fishery meets international best practice for sustainable fishing. In order to attain MSC certification, an independent body must assess and confirm a fishery's activity minimizes impact on ecosystems, that its level of fishing ensures enough fish are left in the ocean and that relevant laws are complied with.

Estimated impact of IS Green Bonds' share of funding

	Avoided emissions tCO ₂ e
Expansion of blast-freezers	24
Renewable energy	4
Clean transportation	0.3
Energy efficiency	0.2
Total	28



Allocation of IS Green Bonds' investment in Brim by category

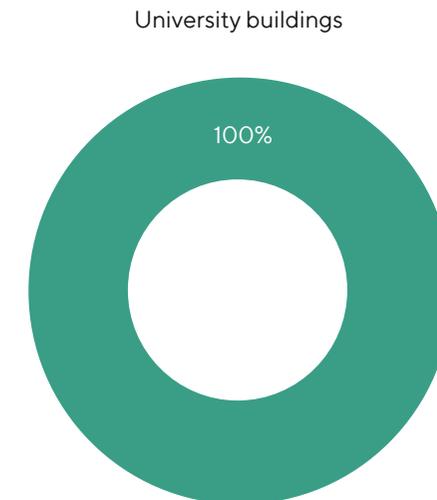


Reykjavik University¹

Reykjavik University (RU) is the second largest university in Iceland. It enrolls about 3,500 students annually and had 269 permanent employees as of 2020.

In 2021, RU commissioned Iceland Funds to issue social bonds to refinance the University's premises. Any investment in RU's buildings, both new buildings and any refurbishments to education buildings and student housing are intended to go further than existing building regulations, with accessibility in mind for the mentally and physically disabled.

Allocation of IS Green Bonds' investment in RU by category



Further information can be found in the Reykjavik University Social Financing Framework.

Reykjavik Social Housing (Félagshústaðir)

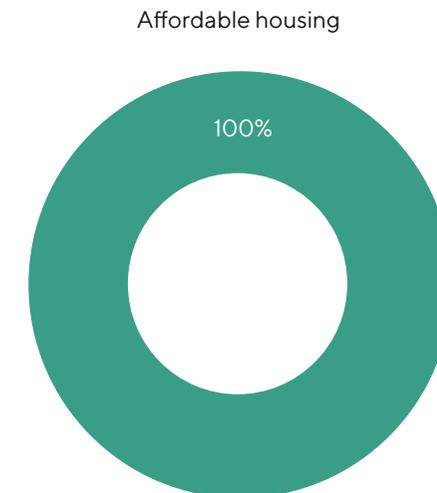
Reykjavik Social Housing (RSH) owns, operates, and maintains affordable housing for individuals and families. By providing affordable housing, RSH improves the livelihood of thousands of people and improves society by increasing equality.

Net proceeds from social bonds issued by RSH have been allocated to the construction of new housing, purchasing of existing housing and refinancing of existing loans. This has contributed to RSH's goal of increasing its affordable housing units by 600 between 2018-2022.

Estimated impact of IS Green Bonds' share of funding

	ISK m	Units
Affordable housing	120	4

Allocation of IS Green Bonds' investment in RSH by category





Appendices

Appendix I: Overview of allocation, share of funding and impact of eligible assets

Allocation to issuers of sustainable bonds (nominal amount)

	Average amount outstanding 2021	Amount outstanding 31.12.2021	Share of funding ¹	Avoided greenhouse gas emissions ²	Clean vehicles	Clean energy produced	Green building	Fiber optic cables laid	Upcycled fish skin	EV charging stations	Social housing units	Avoided greenhouse gas emissions per million ISK	Avoided greenhouse gas emissions per million EUR ³
	ISK million	ISK million	%	tCO ₂ e	number of	GWh	m ²	km	tonnes	number of	number of	tCO ₂ e	tCO ₂ e
Reykjavik Energy	925,939,726	821,000,000	2,45%	713	0.02	3.0	-	4.3	-	2.2	-	0.8	114
City of Reykjavik	517,041,096	430,000,000	4,02%	1,808	1.7	-	826	-	-	10	-	3.5	516
Reginn	453,753,425	540,000,000	1,72%	-	-	-	1,471	-	-	-	-	-	-
Íslandsbanki	322,465,753	420,000,000	0,78%	132	17.1	0.8	657	16	-	0.1	-	0.4	60
Municipality Credit Iceland	240,000,000	240,000,000	11,79%	99	-	8.7	177	-	-	-	-	0.4	61
Reykjavik Social Housing	120,000,000	120,000,000	0,91%	-	-	-	-	-	-	-	3	-	-
Brim	23,342,466	120,000,000	2,40%	28	0.2	-	-	-	12	-	-	1.2	176
Reykjavik University	11,068,493	40,000,000	0,33%	-	-	-	-	-	-	-	-	-	-
Reykjavik Fibre Network	5,260,274	160,000,000	6,96%	-	-	-	-	12	-	-	-	-	-
Arion	4,931,507	180,000,000	0,02%	2	0.1	-	44	-	-	-	-	0.4	64
Sustainable assets	2,623,802,740	3,071,000,000		2,782	19	12	3,175	32	12	12	3	1.06	156
Other assets (market value)	1.343.197.260												

1. Share of funding is calculated by dividing the average amount invested in an issuer's bonds in 2021 by the average amount outstanding of all sustainable bonds by the issuer in 2021.

2. Based on avoided GHG emissions reported in the allocation and impact reports of individual issuers. For Municipality Credit Iceland, avoided emissions were added for its funded hydropower plant and waste prevented from landfill using 2020 emission factors issued by the Environment Agency of Iceland.

3. EUR/ISK=147,6 on 31.12.2021