SUSTAINABILITY REPORT 2022



Our Mission

Setting up and managing dedicated Building Energy Efficiency Facilities (BEEFs) in cooperation with local partners across Europe, F3 provides 20+ year standardised financing to owners of building stock to purchase guaranteed safety, health and comfort services while reducing the buildings' carbon footprint by over 50%.

Our Vision

Support scaling up massively the decarbonization of the built environment through low-risk, long-term building energy efficiency financing methodologies which deliver guaranteed Safety, Health and Comfort[™] long-term to residents. As an aspiring B Corp, F3's responsibility is to align our interests and those of our financiers with citizens, along with those of our value chain (service providers, utilities, construction companies, suppliers), and employees. F3 goal goes beyond financial returns, aiming also to be a benchmark for scale, integrity, and impact on owners in delivering guaranteed Safety, Health and Comfort.

Our Values

As a financial institution working in the housing sector we understand that trust is fundamental in building renovation because it directly touches people's homes and involves so many different players. Therefore, we have built a process that opens a way for building trust in this sector through transparency, accountability and standardisation. To maintain our integrity and that of the entire chain, we incorporate best practices and operate according to B Corp principles.

Sustainable development goals

As an organisation, we have integrated four sustainable development goals (SDG) into our business model to address the impact of our work on local communities and further centre it around people and their living conditions.

SDG 3: Ensure healthy lives and promote well-being for all at all ages.

Sustainable development depends on encouraging well-being at all ages and ensuring particular have healthy lives. Buildings in а significant, although often impact on residents' both physical and mental health since an underappreciated. average of 20 hours daily is spent in houses and public facilities. Aspects such as poor indoor air quality, chemical pollution, traffic noises, insufficient ventilation and temperature extremes result in respiratory and cardiovascular diseases, as well as anxiety and depression. Statistically, about one in six Europeans live in dwellings that make them sick and develop Sick building syndrome (SBS) - a specific medical ailment brought on by unhealthy structures.¹ There are further indirect health effects as well as environmental considerations. Since they account for a third of the EU's greenhouse gas emissions and 40% of its overall energy consumption, buildings belong to a crucial sector that needs urgent measures if we are to safeguard health from the effects of climate change. The disruption of food systems, rise in zoonoses and food-, water-, and vector-borne illnesses, as well as mental health problems, are all significant effects of climate change on people's health. Extreme weather events like heat waves, storms, and floods are also becoming more frequent, posing a huge risk to people's physical and mental health.² By increasing renovation finance, F3 helps make renovation more accessible. As a result, renovations lower the incidence of chronic respiratory disorders by improving the air quality in buildings. Additionally, it has been demonstrated that better buildings promote physical and mental health, which makes them essential for wellbeing at all ages.

¹MacNaughton, P., Satish, U., Laurent, J. G. C., Flanigan, S., Vallarino, J., Coull, B., ... Allen, J. G. (2017). The impact of working in a green certified building on cognitive function and health. Building and Environment, 114, 178–186. doi:10.1016/j.buildenv.2016.11

² "Climate Change and Health" (Climate change and health, October 30, 2021)

<https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>

SDG 7: Affordable and clean energy.

In the twenty-first century, guaranteeing access to inexpensive, dependable, sustainable, and contemporary energy is essential for global growth. This year, the EU has been facing a major energy crisis due to the war in Ukraine and sanctions, causing utility bills to skyrocket. As a result, residents are being forced to make significant changes in our everyday lives. By enhancing building efficiency and general building conditions, homeowners' utility costs are being reduced. The F3 methodology, which is based on Energy Performance Contracting (EPC), allows for the use of energy savings to partially cover the cost of restoration, and offset the expenses over time. EPC makes it possible for people to pay for renovations while still residing in a safe, energy-efficient building without the need for up-front money.

SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable.

Rapid urbanisation has created several problems, such as the rise in slum populations, the worsening air pollution, insufficient infrastructure and essential services and the uncontrollable urban sprawl that makes cities more susceptible to disasters. Promoting healthier cities through urban design, better air, and more active lives will have a significant positive impact on people's health. F3 strategy concentrates on housing, which is crucial for individuals living in cities. People from varied origins and economic levels are drawn to neighbourhoods with improved living conditions. Meanwhile, neighbourhood rehabilitation lowers the degree of violence - studies show that features of the physical environment can affect the likelihood that a crime will be committed. They have an impact on how prospective offenders perceive a potential crime scene and how they assess the environment around a potential crime scene.³ Buildings present a chance for cities since renovations may considerably enhance the quality of life for city residents.

³ https://www.ojp.gov/pdffiles/physenv.pdf

SDG 13: Take urgent action to combat climate change and its impacts.

Global greenhouse gas concentrations hit new highs in 2020, and current statistics indicate that this trend will continue. The temperature of the Earth increases along with these concentrations. The average worldwide temperature in 2021 was around 1.1°C higher than pre-industrial levels (from 1850 to 1900). The seven hottest years on record occurred in the years 2015 through 2021.⁴ Greener construction practices are essential for both people's health and the health of the environment. According to projections, the worldwide decarbonization target of a 7.6% annual CO2 emissions reduction should be met in order to keep global warming to 1.5°C. Existing building stock renovation might reduce yearly global CO2 emissions by 6.78%.⁵



⁴"2021 One of the Seven Warmest Years on Record, WMO Consolidated Data Shows" (World Meteorological Organization, January 17, 2022)

https://public.wmo.int/en/media/press-release/2021-one-of-seven-warmest-years-record-wmo-consolidated-data-shows ⁵ Asdrubali, F., Desideri, U. (2019) Handbook of Energy Efficiency in Buildings, Butterworth-Heinemann, ISBN 9780128128176, https://doi.org/10.1016/B978-0-12-812817-6.00042-5.

Environmental impact

The environmental crisis must be tackled through all industries. The housing sector is a huge contributor to carbon emissions due to the inefficient building stock. Deep renovation is a necessary measure to alleviate the negative impact of energy production and increase the life cycle of already-built environments. The renovation of already existing buildings also reduces the necessity to build new housing with higher embodied carbon compared to the materials required to renovate. Financing the renovation processes supports the wider goals of climate neutrality and gives people the capacity to create a positive change.

What issues do we address?

Emissions from the energy consumption of the residential sector	Prolong the life cycle of the built environment	
Buildings are one of the biggest emission sectors: globally 30% of final energy consumption and 27% of emissions from the energy sector are linked to the buildings according to IEA. ⁶ Thus, the housing sector is a key segment for the improvement to reduce the climate impacts by decreasing the energy demand.	The renovation of multifamily buildings prolongs the longevity of the buildings and alleviates the possible introduction of additional carbon emissions. The renovation of multifamily buildings is associated with a reduced amount of embodied carbon compared to the newbuilds. ⁷ With this, we support interventions with a lower impact on the planet.	

How are we addressing these issues?

Requirements of energy savings level in building renovation	Monitoring of the results
Within our investment guidelines, a minimal energy performance is required. After the renovation, the building should not consume	To address both the financial and environmental impacts, monitoring the building performance is a key aspect of the operation. We are striving for

⁶ IEA (2022), Buildings, IEA, Paris <u>https://www.iea.org/reports/buildings</u>, License: CC BY 4.0

⁷ Langston, Craig, Edwin H. W. Chan, and Esther H. K. Yung. 2018. "Hybrid Input-Output Analysis of Embodied Carbon and Construction Cost Differences between New-Build and Refurbished Projects" Sustainability 10, no. 9: 3229. <u>https://doi.org/10.3390/su10093229</u>

savings, which is tracked by the service providers leading the renovation projects. This provides a result guarantee. indicators environme renovation energy sa impact in t	ement of the long-term sustainability ect, in which all the performance are met and the negative ntal impacts are alleviated. For the projects, we calculate the annual ved and use it to further assess the he following months and years.
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Impact in numbers

In 2022, a total of 1.15 GWh were saved in the retrofitted buildings with an average of 192.25 MWh per building. This accounts for 47.02% of the energy savings before and after the renovation. A total of 103.95 tonnes of CO2eq emissions were avoided through the renovation projects. Between 2018 and 2021, a total of 3.72 GWh of heat energy was saved in the retrofitted buildings and 348.13 tonnes of CO2eq of emissions were avoided.



Social impact

Improvement of infrastructure has a significant social impact by providing more affordable housing, tackling energy poverty, boosting the economy and even reducing crime rates. People start to take greater pride in their neighbourhoods and devote their own time and money to further improve it as a result of the infrastructure boom. As a result, additional businesses are expected to open up shops in the area, and a diversity of housing developments will likely attract residents with a diverse range of needs and financial situations.

What issues do we address?

Energy poverty	Health, safety and comfort of the residents	Lack of transparency
Energy poverty has become a more acute issue for European residents in recent years. Russian gas supplies, which are essential for electricity, industrial operations, and heating, have been reduced by more than 80% in 2022. Since early 2021, wholesale prices for electricity and gas have increased by as much as 15 times, having a significant impact on both homes and businesses ⁸ . Building renovation is an effective way to minimise the effect of the	Buildings undoubtedly have a significant impact on the wellbeing of the society, thus ensuring a healthy, safe and comfortable environment is key. As a result of the majority of our time being spent indoors for both work and living, indoor surroundings have become residents' natural home. Four factors of indoor environmental quality —thermal comfort, visual comfort, acoustics, and indoor air quality—affect building inhabitants' happiness, and productivity. ⁹ Reducing factors such as poor indoor air quality, chemical pollution,	Stakeholders frequently cited a lack of clear information as one of the major barriers to building renovation. Additionally, the sector development in general is hampered by the information imbalance and the lack of communication at each stage of project implementation. This issue is highly common in Latvia, residents often tend to postpone, or even refuse engaging in housing renovation due to the lack of trust and basic understanding of the issue. ¹⁰

⁸ International Monetary Fund.

https://www.imf.org/en/Publications/fandd/issues/2022/12/beating-the-european-energy-crisis-Zettelmeyer ⁹Impact of indoor environmental quality on occupant well-being and comfort: A review of the literature. https://doi.org/10.1016/j.ijsbe.2016.03.006

https://abc.lv/raksts/viedoklis-kapec-daudzdzivoklu-namu-renovacijas-projekti-riga-norit-tik-leni-un-ka-to-mainit-c53b9a05b 1

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How are we addressing these issues?

Use of EPC++ to address the needs of the residents	Making the solution accessible to all	Making the process transparent
EPC++ offers inhabitants the chance to actively participate, increase the lifespan of their building, and alter their daily habits in order to reach the greatest outcome together. Technical criteria for EPC++ under BEEF guidelines include all structural and energy efficiency measures as well as additional steps to protect occupants' safety, health, and well-being for a longer period of time. Beyond core structural component repairs, it also includes enhancements to communal areas. It enables free assured maintenance to be included in the building restoration. Additional steps expand the advantages of refurbishment and enhance visual comfort and safety.	Residents will live in a new building with guaranteed safety, health, and comfort for 20 years. The BEEF financing model is designed to deliver the renovation for people regardless of their income level, the long-term payback period makes it affordable. As F3 work concentrates on multi-family buildings, a key focus is on some of the most vulnerable groups to energy poverty who are low-income families, pensioners, etc. As more than 40% of our beneficiaries are underserved, F3 makes renovation accessible to them.	F3 makes sure that the data is open and available to all parties, from the stakeholders to the residents. F3's instrument for bringing efficiency, openness, and consistency to building renovations—and so creating trust and engagement—is the SUNShINE platform.

Impact in numbers

A total of 251 households live in six forfeited buildings. This accounts for a total of 524 residents that were directly affected by the renovation of their building. Of these households, 45.30% of the beneficiaries are underserved including elderly households and households on the verge of poverty. On average, each household saved 4.60 MWh/year on heat consumption.



Economic impact

Energy renovation addresses a variety of economic impacts, from macroeconomic impacts related to the energy security and national investment gaps in building sectors, to localised issues of lack of guarantees in the renovation projects. The challenges are addressed via the support of local stakeholders to enable their operations and annual verification activities to understand the financial impact of operations on every party involved.

What issues do we address?

Energy insecurity	Lack of affordable financing	Lack of guarantees
Energy efficiency improvement is directly related to energy security. The reduction of energy consumption of a building reduces the amount of import of the energy sources from other countries. This means that the attraction of additional investment into renovation projects has a wider macroeconomic impact on national level.	The building renovation is an economically intensive process, which falls back on the residents. The adoption of long-term payment options for the residents increases the affordability of projects on a monthly basis. The affordability of the solution is key with the current trends of investments: an overall of 7 billion euros investment gap is identified in the European Union for the development of social and affordable housing.	A reluctance to renovate a building exists due to the lack of standardised mechanisms offering long-term results. Many service providers guarantee short-term results for their work.

How are we addressing these issues?

Enable scale for local companies	Annual forfeiting check	Lack of guarantees
The introduction of private	To evaluate the effectiveness	The existence of long-term
financing in the renovation	of the investment, an annual	guarantees within BEEF
projects supports the	forfaiting check is performed.	investment guidelines provides
achievement of necessary	This enables accountability for	the assurance of high-quality
impact goals. Complemented	the service providers to have	works that will guarantee

with public funding, it can increase the overall accountability, transparency, and efficiency. F3 is cooperating with stakeholders and service providers in different parts of the European Union to enable the development of private financing schemes for upscaling building renovation.	the planned results that benefit all the stakeholders involved in the process.	performance for 20 years after the building is renovated.
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Impact in numbers

The total energy savings accounted for a total of 63 thousand EUR/year in monetary savings related to the decrease of energy consumption. On average, each of the households saved 252.30 EUR per year on their energy bills.

