Driving Europe's energy transition

Triodos Energy Transition Europe Fund Impact Report 2024

Triodos Investment Management

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Lower risk — Higher risk

Typically lower rewards — Typically higher rewards

Impact highlights 2024

37,700
tonnes of CO_2 emissions avoided

33,400
households provided with clean electricity

77
generation capacity **under construction** (MW)

41
investments in

10
different **countries**

3
new **investments**

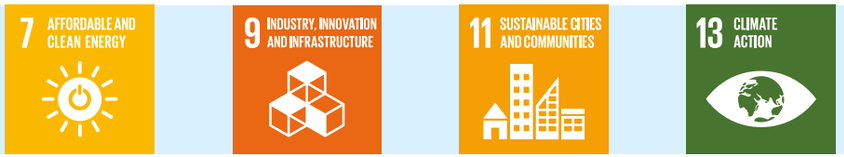
419
generation **capacity** (MW)

108,500
electricity production (MWh)

72
Generation capacity **in development** (MW)

169M
net assets (EUR)

Key Sustainable Development Goals contributed to:



Contributing to Europe's energy transition through strategic and impactful investments

In 2024, the EU market continued to benefit from positive fundamentals, leading to a record high average renewable energy generation of 47%. Marking a significant milestone, this surge in renewable energy also brings challenges such as grid congestion due to the invariable nature of wind and solar energy supply. More recently, geopolitical uncertainties underscore the urgent need for the EU to enhance its energy independence. The energy transition has never been more strategically important for Europe. Our fund is at the forefront of this transformation.

The primary focus of the fund's investments in 2024 was to increase future generation capacity and enhance the reliability of the energy system by expanding storage capacity. This goal was achieved as the fund contributed to providing an all-time high of 176,000 households (2023: 142,000) with renewable energy. Furthermore, the fund increased its operational storage capacity to 55MW, compared to 44MW in 2023.

More specifically, we financed impactful projects across Europe, including wind energy in Ireland and Romania, and storage energy in the Netherlands, Ireland and the UK. We also funded additional storage projects with GridBeyond. Such investments are crucial in helping the grid efficiently manage the significant amount of renewable energy being added.

Lastly, we leveraged our partnerships with Zeeuwind and E-Connection to repower wind turbines at Windpark Jacobahaven and Windpark Willem-Annapolder (WAP), set to be operational in 2025 and 2026, respectively. At WAP, we are replacing ten turbines with four new ones, each with five times more capacity. A great example of how the fund optimises its impact together with risk and returns.

For 2025, we look forward to continuing our role in providing financing and structuring solutions to help Europe continue its energy transition.

Sonja de Ruiter
Fund Manager Triodos Energy Transition Europe Fund

Fund characteristics

Asset class
Infrastructure

Domicile
The Netherlands

Legal structure
Triodos Impact Strategies II NV

Inception date
July 2006

AUM per December 2024
EUR 169m

Managed by
Triodos Investment Management

Depository
BNP Paribas S.A.

Accelerating vital transitions

The sheer magnitude of today's challenges – from climate change and resource scarcity to biodiversity loss and rising inequality - signals that we need deep changes in our human systems and institutions to realise a prosperous life for people on a thriving planet.

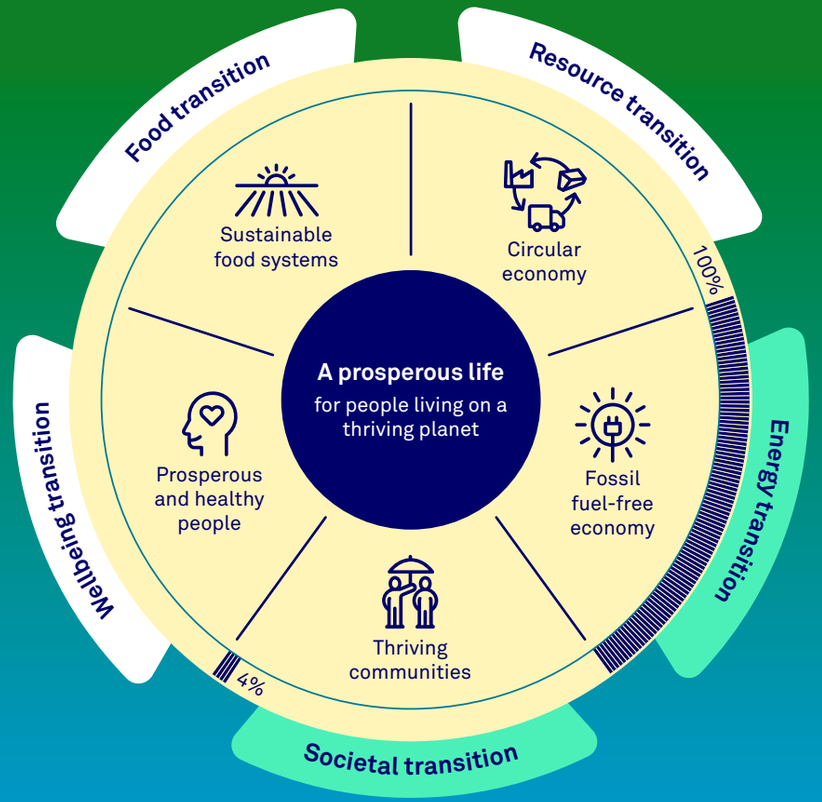
To facilitate this profound, systemic transformation, Triodos Investment Management has identified five interlinked transitions: Food, Resource, Energy, Societal and Wellbeing, all anchored in the UN Sustainable Development Goals. As a financial player, our mission is to enable and accelerate these vital transitions.

Contribution Triodos Energy Transition Europe Fund

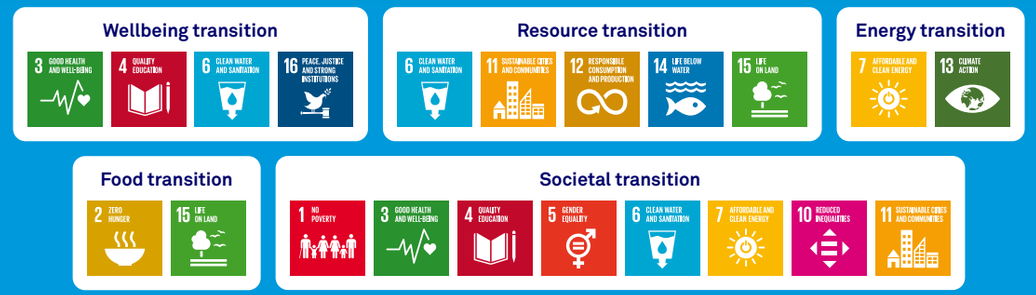
100% of the fund's investments contribute to the **Energy transition**, by increasing renewable energy generation in the energy mix, meeting energy demand and reducing energy intensity and improving reliability to make the energy system more stable and robust.

The fund contributes 4% to the **Societal transition** through one of its investments in renewable energy in emerging markets, which prioritises local community impact and job creation in its projects.

5 interlinked transitions



Anchored in the UN Sustainable Development Goals



Radically transforming the energy system

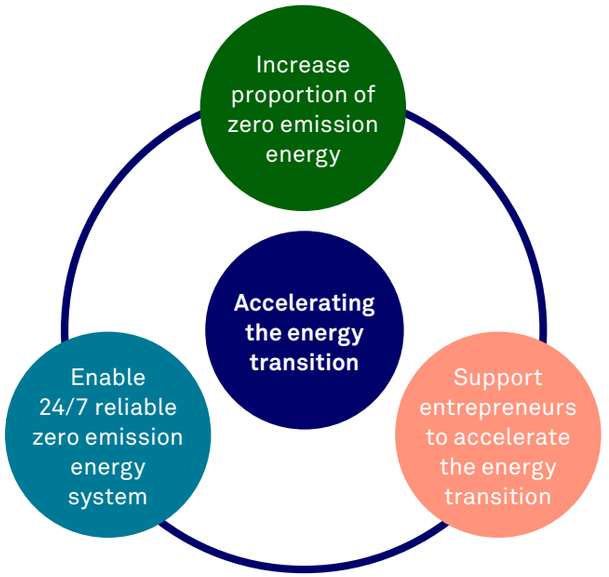
Triodos Investment Management classifies Triodos Energy Transition Europe Fund as an SFDR article 9 fund. The fund's objective is to accelerate the energy transition by investing in companies and projects that contribute to reducing CO_2 emissions and making the energy system more suitable for the energy transition.

Triodos Energy Transition Europe Fund invests in environmentally sound companies and projects that accelerate the energy transition while optimising the impact-return-risk characteristics of the fund's portfolio. The fund supports projects and portfolios across various technologies, including heat transition, wind farms, ground-mounted solar, rooftop solar and battery storage. As a result, the fund proactively contributes to measurable and lasting reductions in CO_2 emissions while also financing solutions to emerging challenges such as grid congestion.

Triodos Energy Transition Europe Fund's sustainable investment objectives are:

- To increase the proportion of zero emission energy
- To enable a 24/7 reliable zero emission energy system
- To support entrepreneurs to accelerate the energy transition

These objectives are supported by a Theory of Change that outlines the pathway from our activities to expected outcomes (see p. 6). The Theory of Change guides the indicators we consider in our allocation decisions and which we use to monitor progress throughout the life of the investments (see p. 8-10).



Why do we invest in the energy transition?

Investing in Europe's energy transition is crucial for both economic growth and environmental sustainability. The European Union aims to achieve climate neutrality by 2050, requiring annual investments of up to EUR 575 billion. This transition not only reduces greenhouse gas emissions but also creates millions of jobs and enhances energy security. By investing now, we can lead the global shift towards a sustainable future and ensure long-term returns for our stakeholders.

Sustainable Development Goals

Accelerating the energy transition contributes to multiple UN Sustainable Development Goals (SDGs).

Aligning the fund's impact objectives with the SDGs allows us to communicate about the positive impact we make with our investments. Triodos Energy Transition Fund primarily contributes to the following SDGs:

Renewable energy generation, technology and energy efficiency projects contribute to increasing the share of energy in the global energy mix.

Integrating clean energy into commercial and industrial processes and industry and infrastructure innovation contributes to resilient infrastructure and sustainable industrialisation and innovation.

Renewable energy generation projects and energy demand and energy intensity reduction solutions in cities contribute to sustainable cities and communities.

A transition to more renewable and efficient energy systems represents an opportunity to contribute to delivering on climate action.

Theory of Change

The Theory of Change underpins how Triodos Energy Transition Europe Fund acts, invests and evaluates its activities.

If we:

Invest sub-debt and/or equity in and engage with innovative companies and project developers that fit within our vision and transitions needed in society and that:

	• Develop clean tech assets • Enable renewable energy, heat production and mobility solutions	• Contribute to a reliable and stable renewable energy distribution system through optimising storage and grid modernisation • Enable energy efficiency improvements • Resolve mismatches between energy demand and supply	• Offer solutions in the energy transition but are facing financial bottlenecks to growth
Assuming:	• Markets and the policy environment favour renewable energy • Renewable energy is reliable and affordable	• Transforming energy distribution systems to support the energy transition remains a high priority	• Our innovative financial solutions address impediments for growth and reinforce business development
Then we expect:	• Renewable energy will become available everywhere at any time • Carbon emissions will be avoided	• The proportion of renewable energy solutions in the grid will increase • Energy systems' reliability and resilience will improve	• Entrepreneurs will focus more on business development • Barriers for customers to adopt energy transition solutions will reduce
Which will contribute to:	**An increased proportion of zero-emission energy**	**A 24/7 reliable zero emission energy system**	**Support for entrepreneurs to accelerate the energy transition**

Investment in practice

An increased proportion of zero-emission energy

“Over the past few years, we've learned that repowering is a key strategy for enhancing financial success while improving our impact. By replacing existing turbines with more efficient, higher-capacity models, we can generate more electricity. At Windpark Jacobahaven, we’re excited to partner with E-Connection to upgrade our 3MW turbines to 4.2MW models, boosting our output by 150% - enough to power 13,000 homes!

This initiative allows us to optimise land and grid use, creating shared value for all stake-holders. We're also committed to reusing, refurbishing or upcycling old turbines to preserve their value. In this case, with refurbished units set to enjoy a second life in Italy.”

Jeremy Ruis
Junior Investment Manager

› See our 2024 results in data

A 24/7 reliable zero-emission energy system

“New investment opportunities arise from emerging challenges in the EU, such as grid instability. In 2024, we capitalised on these opportunities by extending our partnership with GridBeyond, a company dedicated to accelerating the deployment of behind-the-meter battery energy storage systems across the UK and Ireland.

Our investment enables GridBeyond to offer battery storage solutions to industrial and commercial energy users, helping to manage grid congestion while driving cost savings and reducing carbon emissions.”

Maria Cristina Rabbi
Senior Investment Associate

› See our 2024 results in data

Support for entrepreneurs to accelerate the energy transition

“The pace and stage of the energy transition varies by region. While some European countries are trailblazers, others are just starting to gain momentum. With our investment in Zircon Power, we demonstrate how impactful progress can be made across countries. This company owns and develops wind farms in Ireland and Romania. Our development loan supports Zircon Power at the portfolio level, enabling it to advance these projects and accelerate the energy transition within the sometimes limited physical, social and economic constraints.”

Kay van der Kooi
Senior Investment Manager

› See our 2024 results in data

Impact data overview

Increased proportion of zero-emission energy

SDGs contributed to:

Key impact indicators*

	2024	2023	Change
Number of projects in renewable energy generation	**27**	27	0%
Tonnes of CO_2 emissions avoided	**37,700**	38,100	-1%
Number of households provided with clean electricity	**33,400**	28,800	16%
Generation capacity (MW)	**419**	398	8%
Green electricity production (MWh)	**108,500**	99,600	9%

* The calculation is based on production data from the period Q4 2023-Q3 2024.
** Impact per million EUR invested is calculated by dividing the result by the total portfolio size/1 million as of the end of the reporting period.

Explanation

The CO_2 emissions avoided attributed to the fund slightly decreased due to a downward revision of the estimated attribution factors. Despite that, the green electricity production increased, particularly due to better performance in projects such as Windpark Roompotsluis. Additionally, the generation capacity (MW) increase resulted from new investments, including the repowering of the Windpark Jacobahaven and Windpark Willem-Annapolder II, along with improvements in data quality.

For each million invested, the fund helped avoiding 264 tonnes of CO_2 emissions**.

24/7 reliable zero-emission energy system

SDGs contributed to:

Key impact indicators*

	2024	2023	Change
Number of production locations (measured through grid connections)	145	136	7%
MW storage capacity in operation	55	44	25%
MW storage capacity under construction	12	11	13%
MW storage capacity in development	10	6	67%
Number of projects in storage capacity	5	5	0%

* These impact indicators are based on respectively data for five projects in 2024 and 2023.

Explanation

The increased storage capacity in 2024 relates to the investment in GridBeyond Storage in Ireland, and additional investments to GIGA Zoo in the Netherlands.

Support entrepreneurs to accelerate the energy transition

SDGs contributed to:

Key impact indicators

		2024	2023	Change
	Number of partners	9	9	0%
	% of NAV invested with partners of existing portfolio*	69%	50%	36%

* The NAV invested with partners of existing portfolio is calculated as the NAV as of 31 December of the respective year.

Explanation

To support entrepreneurs in the energy transition and build structural partnerships with investees to promote sustainable project development, the fund invests in assets that are developed by an existing investee. If two or more assets are developed by this investee, it is considered a partner. Per 31 December 2024, 69% of the net asset value (NAV) was invested with partners. The increase compared to last year mainly relates to the investments outlined here, as well as the Windpark Jacobahaven, part of the partnership with E-Connection.

How do we leverage our partners?

After 21 years at Willem-Annapolder, we saw an opportunity to leverage our partnership with Zeeuwind to decommission and repower some of the fund's old wind turbines. We successfully recycled over 90% of the windmills, as the turbine technology, particularly the blade technology, was no longer market standard and unsuitable for second life use. In our comprehensive recycling approach, only the turbine blades proved problematic. Consequently, we decided to temporarily store the blades until a suitable party offers a viable solution; several options are currently under consideration.

In 2024, we leveraged our existing partnership with Grid Beyond Storage to build on our initial successes and develop a single solution that combines storage, EV charging and solar PV. The new commitment will add an extra 9MW of capacity. These investments are crucial for addressing issues related to EU grid congestion.

Triodos Energy Transition Europe Fund contributes to the following UN Sustainable Development Goals

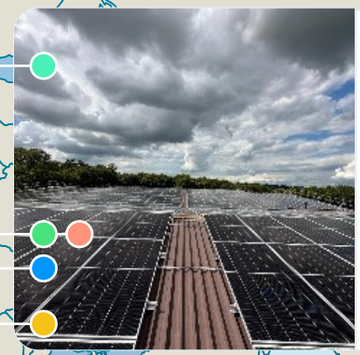
	SDG	Rationale	Key Impact Indicators	Example Investees
	• Universal access to affordable, reliable and modern energy services (Target 7.1) • Increasing renewable energy in the global energy mix (7.2) • Improving energy efficiency (7.3)	Renewable energy generation, technology, and energy efficiency projects contribute to increasing the share of energy in the global energy mix, thereby reducing GHG emissions, improving air quality and reducing the risks of climate-driven disasters.	• Number of projects in renewable energy generation: **27** • Renewable energy generation capacity: **419 MW** • Green electricity production: **108,500 MWh**	SolarAccess, Netherlands
	• Upgrading infrastructure and retrofitting industries to make them sustainable (9.4)	Integrating clean energy into commercial and industrial processes and similar industry and infrastructure innovation, contributes to building resilient infrastructure, and sustainable industrialisation and innovation	• Number of projects in storage capacity: **5** • Storage capacity in development: **10 MW** • Storage capacity under construction: **12 MW** • Storage capacity in operation: **55 MW**	GIGA Rhino and GIGA Buffalo, Netherlands
	• Ensuring access to adequate, safe and affordable basic services (11.1) • Reducing the adverse per capita environmental impact of cities (11.6)	Renewable energy generation projects and energy demand and energy intensity reduction solutions in cities contribute to sustainable cities and communities. This includes urban infrastructure, buildings, public transport, district heating and cooling and waste-to-energy plants.	• Number of households provided with clean electricity: **33,400**	Muniled, Spain
	• Integrating climate change measures into national policies, strategies and planning (13.2)	A transition to more renewable and efficient energy systems represents an opportunity to contribute to delivering on climate action.	• Total number of projects: **41** • Tonnes of CO_2 emissions avoided: **37,700**	Zircon, Ireland

Impact investments

Click here to access an interactive world map that shows all investments as at year-end 2024.

Battery storage UK/Ireland

GridBeyond develops battery storage technologies and installs on-site battery storage systems. The partnership between the fund and GridBeyond allows for the installation of a pipeline of battery storage projects located behind the meter at GridBeyond's clients' sites across the UK and Ireland.
› Find out more here



Rooftop solar, Netherlands, France, UK, Sweden, Poland

Triodos Energy Transition Europe Fund co-finances the rooftop solar assets of building and infrastructure company Wavin, thus contributing to Wavin's ambition to reach net zero carbon emissions by 2050. The generated renewable electricity will be used on site by the different Wavin entities.
› Find out more here

Wind power, Netherlands

Repowering wind farms has become a powerful tool in the fund's investment strategy. Windpark Willem-Annapolder in the Netherlands is an excellent example of how repowering can significantly boost clean energy generation, contribute to a smaller ecological footprint and generate solid returns.
› Find out more here

Solar park, Netherlands

Zuidbroek Energie solar park covers 39 hectares and contains more than 90,000 solar panels. Together they generate 47,000 MWh of electricity, enough to supply 15,000 households with green energy. The park also has a battery for energy storage.
› Find out more here

Large utility-scale storage, Netherlands

GIGA Rhino and GIGA Buffalo are the largest utility scale lithium-ion energy storage systems in the Netherlands. Construction of a third battery started in the second half of 2024. The batteries are developed by GIGA Storage BV. Storage plays a crucial role in the energy transition.
› Find out more here

Do no significant harm

Minimising adverse impact

To make sure that its investments do not cause any significant harm, Triodos Energy Transition Europe Fund continuously monitors alignment with the strict Triodos Minimum Standards. The material social risks for renewable energy investments in Europe are mainly related to human rights (including labour rights) in the value chain, raw materials sourcing and equipment manufacturing. Material environmental risks include water and waste management in the supply chain, environmental and biodiversity impact in project development, and product end-of-life management.

We consider human rights, including fair and equal labour standards, both within operations of the investments and across their spheres of influence, including their suppliers and further up their supply chain, where possible. For every investment, we ensure that the required permits are in place. To obtain a permit for the development of a project in the EU, the developer needs to conduct an environmental impact assessment, which includes a detailed assessment of a wide range of environmental risk factors and mitigants, including environmental risks to population and human health, biodiversity, water and waste management and climate.

In addition, a circularity policy is in place to reduce our dependency on scarce minerals and to reduce waste after the lifetime of the assets (decommissioning) by implementing circularity practices is in place.

Triodos Minimum Standards

The Triodos Minimum Standards set out the absolute minimum standards that we apply for all our direct investment activities within Triodos Investment Management. They are applied based on environmental, economic and social externalities and provide an overview of the products, processes and activities that we do not want to be involved in.

The minimum standards are based on our values and are embedded in all our finance and investment processes. Where relevant and possible we also apply industry standards, for example the IFC Performance Standards for financial inclusion funds and renewable energy projects in emerging markets. By applying minimum standards, we exclude most of the sustainability risks as defined by regulators.

Driven by external developments and based on new insights we reviewed our minimum standards and implemented several changes. Some of the changes concern the principles, exclusion criteria and thresholds, in relation to topics such as sex work, alcohol and cannabis, deforestation, conflict minerals, biofuels, water dams and responsible technology (AI).

Engagement agenda

As an active investor, we use our influence to promote sustainable, long-term value creation by the companies we invest in. Starting with the initial analysis and due diligence, we engage in regular dialogue with our investment companies to drive more sustainable business practices. In the case of our equity investments, we use our board seat and position to influence the activities and behaviour of the investee companies to reduce the negative and increase the positive impact of their business activities.

Climate change

We actively collaborate with our clients to integrate circularity principles throughout the development, operational, and near-decommissioning phases of their assets. For example, we partnered with Zeeuwind and E-Connection to decommission old turbines by recycling +90% of the turbines and replacing them with newer models set to be operational throughout 2025-2026.

Local communities

We ensure our clients have the appropriate grievance and complaint handling mechanisms in place at all stages of a project.

In addition, we encourage our clients to ensure local community involvement in all stages of the project by promoting participation in renewable energy education initiatives and sponsorship of local community initiatives. Often, local communities can also invest in the projects themselves, thus benefiting not only from clean energy, but also financially.

Human rights in supply chains

We ensure that our clients are committed to the respect of human rights in their supply chain during the dialogue before investing. Especially in the case of battery energy storage systems (BES) and solar panel solutions.

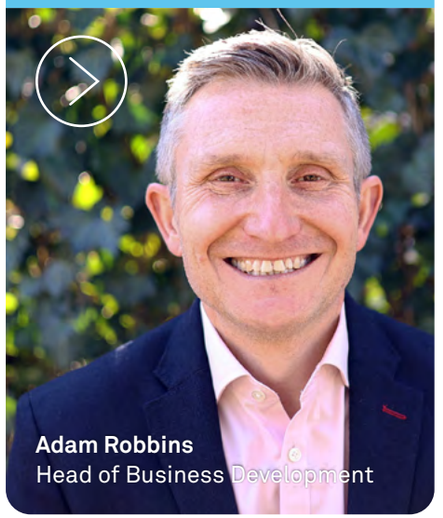
For example, following our engagement with Gridebyond Storage in 2024, we performed a due diligence on the investee to ensure that its suppliers are in line with best practices when it comes to human conditions in the supply chain.

Watch our bite-sized Masterclasses

Grow your knowledge of impact investing and join our experts as they share practical insights to help you navigate this rapidly developing market.

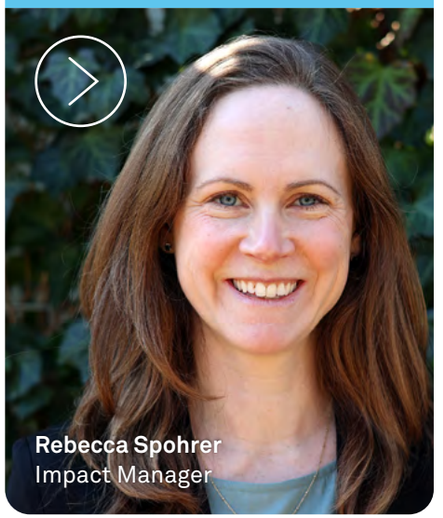
Sustainable investing

Delve into the nuances of sustainable investment strategies, such as ESG integration and impact investing. Learn to identify different approaches and align them with your values and financial goals.



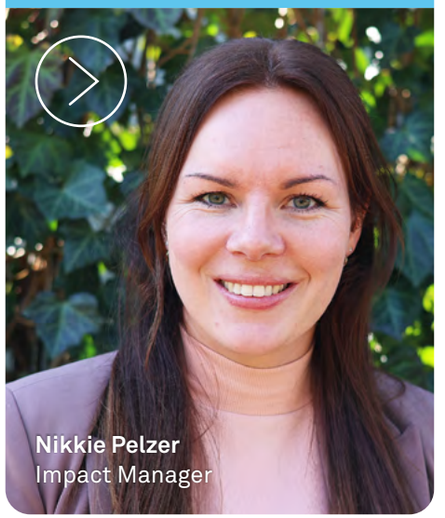
Impact management

Find out how to embed impact into your investment approach, using tools like the impact management cycle and the Theory of Change. Learn to adapt strategies over time to effectively align with your mission and investment goals.



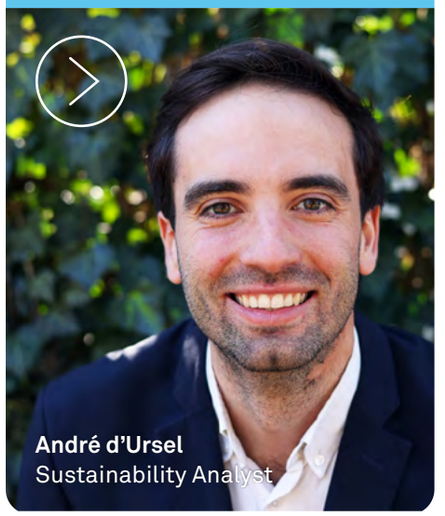
Impact measurement

Learn more about the importance of impact measurement in investing for decision-making, accountability, and transparency. Explore the role of data, legislation, and the Theory of Change in creating a meaningful measurement process.



Engagement

Learn more about the power of shareholder engagement as a tool for driving positive change in listed companies. Gain insight into effective stewardship strategies and the tangible results achievable through impactful company engagement.



Annex: Impact metrics explained

The figures in this Impact Report are attributed to the share of the fund in the asset. The attribution is calculated based on the market value of the fund's equity and debt divided by the balance sheet total of the asset which is used as proxy.

Number of generation projects
The number of renewable energy generation projects the fund is developing, constructing or operating.

Tonnes of CO_2 emissions avoided
Tonnes of CO_2 emissions avoided by generating renewable energy compared to generating electricity by conventional means. The emissions avoided by operational assets are calculated based on the actual production figure and an 'emission factor'. The emission factor is based on the grey energy facilities that are first priced out of the market and replaced by renewables in a certain country.

Green electricity production (MWh)
Megawatt hours generated by the funds' operational, energy producing assets.

Households provided with clean electricity
The total number of households equivalent for which the annual electricity demand can be serviced by the megawatt hours produced. The number of households is calculated based on the actual production.
figure divided by the annual electricity usage per household in a certain country.

Renewable energy generation capacity in development (MW)
The megawatt generating capacity that is currently under development. The development phase is defined as the phase before the financial close of the investment by the fund.

Renewable energy generation capacity under construction (MW)
The megawatt generating capacity that is currently under construction. The construction phase is defined as the period between the date of the financial close of the investment by the fund and the commercial operations date (COD).

Renewable energy generation capacity in operation (MW)
The megawatt generating capacity that is currently operational. The operational phase is defined as the period between the COD date and decommissioning of the project.

Number of production locations
The number of locations on which the fund is developing, constructing or operating renewable energy assets. Each grid connection counts as one production location.

Number of projects in storage capacity
The number of storage capacity projects the fund is developing, constructing or operating.

Storage capacity in development (MW)
The megawatt storage capacity that is currently under development. The development phase is defined as the phase before the financial close.

Storage capacity under construction (MW)
The megawatt storage capacity that is currently under development. The construction phase is defined as the period between the date of financial close and the COD date.

Storage capacity in operation (MW)
The megawatt storage capacity that is currently under development. The operational phase is defined as the period between the COD date and decommissioning of the project.

% of portfolio invested with partners
The percentage of the portfolio that is invested in cooperation with a partner. A partner is classified as a counterparty connected to more than one investment.

Climate-related financial risk disclosures

This disclosure shows how climate-related risks and opportunities are organised in processes and procedures to consider both physical risks (that arise as physical consequences from climate change) and transition risks (relating to the transition to a climate-neutral economy).

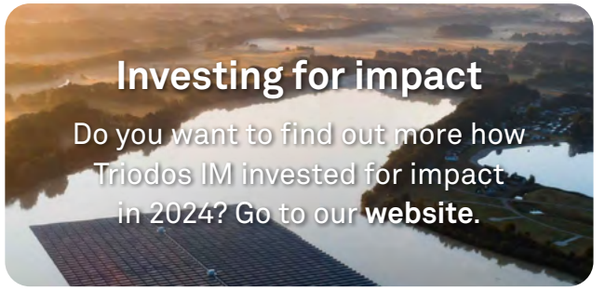
For a full understanding of Triodos IM's approach to climate change, this disclosure should be considered together with Triodos Bank's Integrated Annual Report and our emissions reduction ambitions.

Implementation of sustainability regulation

SFDR
We classify all our funds as Article 9 Funds under the EU Sustainable Finance Disclosure Regulation (SFDR). Article 9 classification refers to the most sustainable product category and has the strictest requirements on sustainability disclosures. This includes information on adherence to the sustainable objectives of the fund, how we mitigate adverse impact on people and planet, how sustainability risks are assessed and managed and how we ensure good business conduct of all investments.

EU Taxonomy
As from 1 January 2023 Triodos IM is obliged to report what percentage of a fund's portfolio is aligned with the EU Taxonomy Regulation. The EU taxonomy is a classification system that defines criteria based on which economic activities can be considered as environmentally sustainable.

Find out more: EU SFDR and Taxonomy requirements and the disclosures in the fund's latest annual report.



About Triodos Investment Management

Triodos Investment Management (Triodos IM) is a globally active impact investor. We see impact investing as a driving force in the transition to a green, inclusive and resilient economy.
We have built up in-depth knowledge throughout our 30+ years of impact investing in sectors such as Energy and Climate, Financial Inclusion and Sustainable Food and Agriculture. Triodos IM also invests in listed companies that support sustainable solutions for the future. Assets under management as per end of December 2024: EUR 5.8 billion.
Triodos IM is a wholly owned subsidiary of Triodos Bank, a leading expert in sustainable banking.

Investing in positive change

For more information about our impact investment strategies and solutions, please contact our Investor Relations team at:

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Disclaimer

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