

CARNOT EFFICIENT RESOURCES

IMPACT REPORT 2021



In cooperation with:



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CARNOT EFFICIENT RESOURCES

The Carnot Efficient Resources Fund is an Impact investment fund that invests in listed equities. The companies represented in the fund develop and produce products and technologies that reduce the consumption of natural resources and reach people around the world. In addition to the financial return, the fund investor, as co-owner of the portfolio companies, has a substantial positive effect in terms of the UN's sustainable development goals. This impact report aims to illustrate and quantify this effect.

Carnot Impact Investing is a blended approach, which differentiates itself through financial as well as social and environmental performance. The positive effects (impact) are created in six steps:

1. Topic of resource efficiency
2. Controversial activities (ESG top-down analysis)
3. Financial analysis
4. Sustainability (ESG bottom-up analysis)
5. Impact validation
6. Engagement

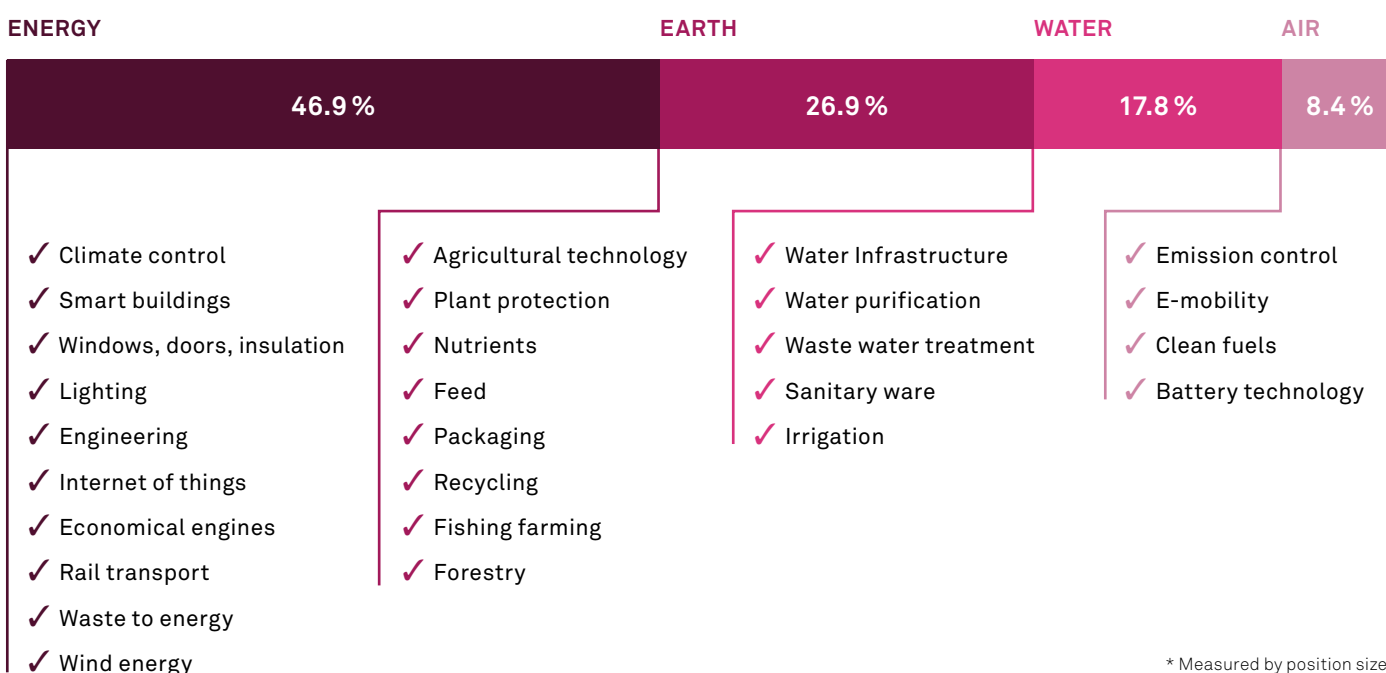
In the appendix, the report is supplemented by examples, external reports on sustainability and the carbon footprint as well as information on Carnot Capital memberships and publications.

1. Topic of Resource Efficiency

The Carnot Efficient Resources Fund invests exclusively in companies with products, services and development projects that reduce the consumption of natural resources. The reduction of resource consumption must be part of the company strategy. Such companies can be assigned to the basic elements fire, water, earth and air based on the ancient four-element theory. The following overview shows which topics the Carnot Efficient Resources Fund currently covers.

1. Fields of Activity of the Portfolio Companies*

as of 31/12/2021



* Measured by position sizes

2. Controversial Activities

First, we screen portfolio candidates for controversial activities. Companies with such activities are excluded due to their negative impact (negative screening). For certain activities, a low turnover tolerance threshold is applied.

3. Financial Analysis

In our opinion, sustainability and the impact are only guaranteed if the company has a solid financial basis. We expect

- a) a strong balance sheet,
- b) an economic benefit of the products for the buyers,
- c) a good return on capital employed (ROCE).

A high ROCE promotes growth and innovation, which in turn reinforces the positive impact.

4. Sustainability Analysis

The Carnot Efficient Resources fund invests exclusively in sustainable companies. The analysis is made by Carnot Capital. Portfolio candidates for which no sustainability assessment is available are audited specifically by us on following a questionnaire. This procedure significantly expands the investment universe. The analysis includes a catalogue of

- a) environmental (products, production, supply chain),
- b) social (suppliers, employees, employer, clients) and
- c) governance issues.

The classification includes the sustainability contribution of the industry as well as the sustainability contribution of the individual company. We use the increasingly well-founded reporting of companies as well as Bloomberg and Sustainalytics as sources of information. Finally, we consider the comprehension of the business model that we gain in fundamental analysis to be a prerequisite for a sustainability assessment.

2. Controversial Activities		31/12/2021	31/12/2020
	Tolerance Threshold	Portfolio Share	Portfolio Share
Genetic engineering	5 %	0 %	0 %
Nuclear energy (power plants, technology)	5 %	0 %	0 %
Weapons (systems, components)	5 %	0 %	0 %
Extraction of fossil fuels	0 %	0 %	0 %
Land mines, cluster munitions	0 %	0 %	0 %
Addictive substances (tobacco, alcohol)	0 %	0 %	0 %
Sex business	0 %	0 %	0 %
Gambling	0 %	0 %	0 %

3. Relevant Financial Figures	31/12/2021	31/12/2020
Average debt ratio (net debt/EBITDA)	0,5x	0,8x
Average return on capital employed (ROCE)	32.1 %	30.9 %

4. Sustainability (Bottom-Up)	31/12/2021	31/12/2020
Share of sustainable companies in the portfolio	100 %	100 %

5. Impact Validation

a) Addressed Sustainable Development Goals (SDGs)

The portfolio companies make it possible to reduce resource consumption and thus have a decisive impact on the “UN’s Sustainable Development Goals” (SDGs).

The strongest support is given to goal no. 9 “Industry, Innovation, Infrastructure” because a variety of resource efficient products contribute to a modern infrastructure and environmentally friendly industrial processes. The Impact on “Affordable and Clean Energy” (no. 7) and “Climate Action” (no. 13) is also significant. The other goals in the table are supported mainly by the companies in the areas of drinking water, wastewater, food production and waste treatment.

Addressed Goals (SDGs), ranked by impact of the fund*		Product Examples
	Industry, Innovation, Infrastructure 9.4 Modernising infrastructure, environmentally friendly industrial processes	Smart buildings, Heat exchangers City cleaning Wastewater treatment
	Affordable and Clean Energy 7.2 Increase the share of renewable energy 7.3 Increase energy efficiency	Waterpower Heat pumps Water management Internet of things
	Climate Action 13.2 Integrate climate change measures into national policies, strategies and planning	Heat pumps Energy from waste Intelligent climate control
	Responsible Consumption and Production 12.2 Sustainable management and efficient use of natural resources 12.3 Reduce food losses and waste 12.5 Reduce waste generation through prevention, reduction, recycling and reuse	Organic food Packaging Agricultural technology Recycling
	Good Health and Well-Being 3.9 Substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	Drinking water treatment Nutrients Sludge drying
	Sustainable Cities and Communities 11.2 Modern public transport systems 11.6 Reduce environmental impact of cities, improve air quality, efficient waste management	Rail transport E-mobility Waste management
	Decent Work and Economic Growth 8.4 Decouple economic growth from environmental degradation	Energy efficient industrial Technology
	Zero Hunger 2.1 Ensure access to safe, nutritious and enough food 2.4 Ensure sustainable and efficient food production	Fertilizer Food preservation
	Clean Water and Sanitation 6.1 Access to safe and affordable drinking water for all 6.3 Substantially increasing recycling and safe reuse of water 6.4 Reduce water shortages through by increasing water-use efficiency	Water pipes Irrigation technology Sanitary ware
	Life Below Water 14.7 Sustainable management of fisheries, aquaculture and tourism	Fish farming

* The size of the symbols corresponds to the extent of the impact according to the heatmap. Source: Carnot Capital

c) Share of Revenues of Companies with Impact Products

In our impact analysis, we determine which part of a company's revenue has a positive impact. On average, the portfolio companies generate more than half of the turnover with products, services and projects with a positive impact. A fund investment

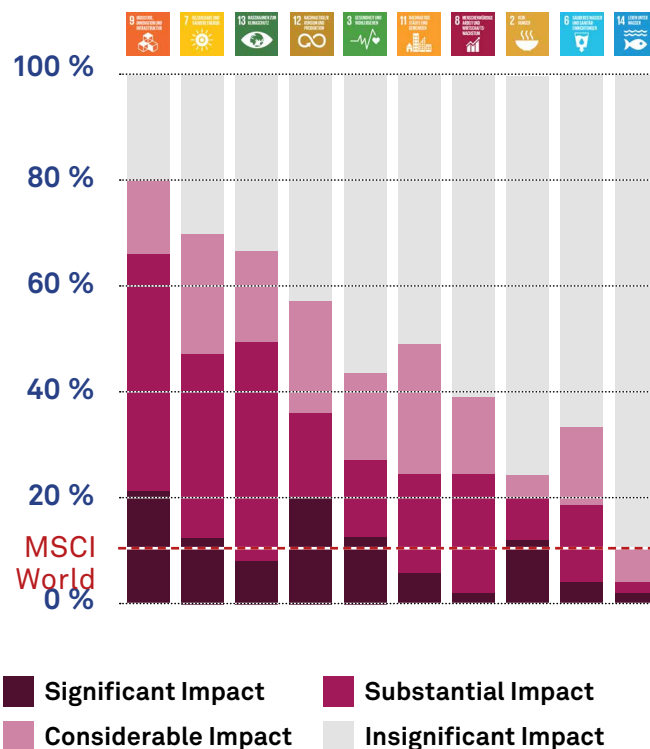
of EUR 1 million accounts for approximately EUR 0.66 million of revenues with a positive environmental impact. Part of this revenue has a social impact at the same time, as outlined (SDG 3 Health and Well-Being, SDG 2 Zero Hunger, etc.).

5. b) Portfolio Share with Impact

per 31/12/2021

Carnot Efficient Resources	100 %
Benchmark MSCI World*	10 %
Portfolio share with environmental impact	100 %

 9 INDUSTRIE, INNOVATION UND INFRASTRUKTUR	Industry, Innovation, Infrastructure	80.5 %
 7 BEZAHLBARE UND SAUBERE ENERGIE	Affordable and Clean Energy	70.1 %
 13 MASSNAHMEN ZUM KLIMASCHUTZ	Climate Action	66.7 %
 12 NACHHALTIGER KONSUM UND PRODUKTION	Responsible Consumption and Production	57.3 %
 3 GESUNDHEIT UND WOHLERGEHEN	Good Health and Well-Being	46.3 %
 11 NACHHALTIGE STÄDTE UND GEMEINSCHAFTEN	Sustainable Cities and Communities	49.1 %
 8 MENSCHENWÜRDIGE ARBEIT UND WIRTSCHAFTS WACHSTUM	Decent Work and Economic Growth	39.2 %
 2 KEIN HUNGER	Zero Hunger	33.4 %
 6 SAUBERES WASSER UND SANITÄRDIENSTLEISTUNGEN	Clean Water and Sanitation	26.4 %
 14 LEBEN UNTER WASSER	Life Below Water	10.8 %



* Quelle: your SRI/MSCI

5. c) Revenues with Impact Products

	31/12/2021	31/12/2020
Impact products* revenue per EUR 1 million investment amount	EUR 744,000**	EUR 659,000**
As % of total sales revenue of the portfolio companies	68 %	64 %
** Price/Sales	0,91	0,96

*Pure environmental Impact

d) Research & Development of Impact Products

A significant positive impact results from the research and development activities of the portfolio companies because they lead to new resource-saving products. Measured in terms of sales, R&D expenditure accounts for around 3%. For a fund investment of EUR 1 million, tens of thousands of euros of research and development expenditure are thus spent on improving resource efficiency.

6. Engagement

If the Carnot Impact Analysis reveals questions (e.g. on corporate governance) or suggestions for improvement (e.g. on the impact reporting of the company), Carnot uses its contacts to the management level to address these commitment issues personally.

5. d) R & D Expenditure for Impact Products	31/12/2021	31/12/2020
R & D expenditures per EUR 1 million investment amount	EUR 31,500	EUR 27,000
As % of total sales revenue of the portfolio companies	3.1 %	2.7%

6. Number of Engagement Cases	31/12/2021	31/12/2020
Opened engagement initiatives	1	1
Closed cases	0	0
Pending cases	2	1

APPENDIX

1. Examples

Companies and Products with Impact	Details	* Scale: significant, substantial, considerable, low impact																
  <p>LED lamps & luminaires</p>	<p>Energy/Lighting</p> <table border="1"> <tr><td>Portfolio weight</td><td>2.1 %</td></tr> <tr><td>Share of revenue from resource efficient products</td><td>65 %</td></tr> <tr><td>ROCE</td><td>35 %</td></tr> <tr><td>Net debt</td><td>1.5x</td></tr> <tr><td>R&D expenditure (% revenue)</td><td>4.8 %</td></tr> <tr><td>Sustainability</td><td>yes</td></tr> <tr><td>Environmental impact*: SDG 7/13</td><td>significant</td></tr> <tr><td>Social impact*: SDG 9</td><td>substantial</td></tr> </table> <p>LED bulbs save about 50 % energy compared to fluorescent tubes, even 80% compared to halogen bulbs. Signify is one of the world's largest LED lighting manufacturers and is pushing ahead with intelligent lighting controls, which significantly reduce energy consumption further.</p>	Portfolio weight	2.1 %	Share of revenue from resource efficient products	65 %	ROCE	35 %	Net debt	1.5x	R&D expenditure (% revenue)	4.8 %	Sustainability	yes	Environmental impact*: SDG 7/13	significant	Social impact*: SDG 9	substantial	
Portfolio weight	2.1 %																	
Share of revenue from resource efficient products	65 %																	
ROCE	35 %																	
Net debt	1.5x																	
R&D expenditure (% revenue)	4.8 %																	
Sustainability	yes																	
Environmental impact*: SDG 7/13	significant																	
Social impact*: SDG 9	substantial																	
  <p>Suitable bacteria strengthen growth and resistance of plants</p>	<p>Earth/Food & Nutrition</p> <table border="1"> <tr><td>Portfolio weight</td><td>1.9 %</td></tr> <tr><td>Share of revenue from resource efficient products</td><td>82 %</td></tr> <tr><td>ROCE</td><td>>50 %</td></tr> <tr><td>Net debt</td><td>2.2x</td></tr> <tr><td>R&D expenditure (% revenue)</td><td>8.1 %</td></tr> <tr><td>Sustainability</td><td>yes</td></tr> <tr><td>Environmental impact*: SDG 12</td><td>significant</td></tr> <tr><td>Social impact*: SDG 2/3</td><td>substantial</td></tr> </table> <p>Chr. Hansen has a vast experience in the development and improvement of bacterial strains. Bacteria have unique properties that make them ideal for agriculture. They can help make plants resistant to diseases and pests.</p>	Portfolio weight	1.9 %	Share of revenue from resource efficient products	82 %	ROCE	>50 %	Net debt	2.2x	R&D expenditure (% revenue)	8.1 %	Sustainability	yes	Environmental impact*: SDG 12	significant	Social impact*: SDG 2/3	substantial	
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Sustainability	yes																	
Environmental impact*: SDG 12	significant																	
Social impact*: SDG 2/3	substantial																	
  <p>Electric water heater with hybrid heat pump</p>	<p>Water/Water Infrastructure</p> <table border="1"> <tr><td>Portfolio weight</td><td>2.1 %</td></tr> <tr><td>Share of revenue from resource efficient products</td><td>100 %</td></tr> <tr><td>ROCE</td><td>46 %</td></tr> <tr><td>Net debt</td><td>0x</td></tr> <tr><td>R&D expenditure (% revenue)</td><td>2.8 %</td></tr> <tr><td>Sustainability</td><td>yes</td></tr> <tr><td>Environmental impact*: SDG 6/7</td><td>significant</td></tr> <tr><td>Social Impact*: SDG 3/9/11</td><td>substantial</td></tr> </table> <p>Heat pump water heaters are very efficient, resulting not only in significant savings in energy costs, but also in a significant reduction in greenhouse gas emissions.</p>	Portfolio weight	2.1 %	Share of revenue from resource efficient products	100 %	ROCE	46 %	Net debt	0x	R&D expenditure (% revenue)	2.8 %	Sustainability	yes	Environmental impact*: SDG 6/7	significant	Social Impact*: SDG 3/9/11	substantial	
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Share of revenue from resource efficient products	100 %																	
ROCE	46 %																	
Net debt	0x																	
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Sustainability	yes																	
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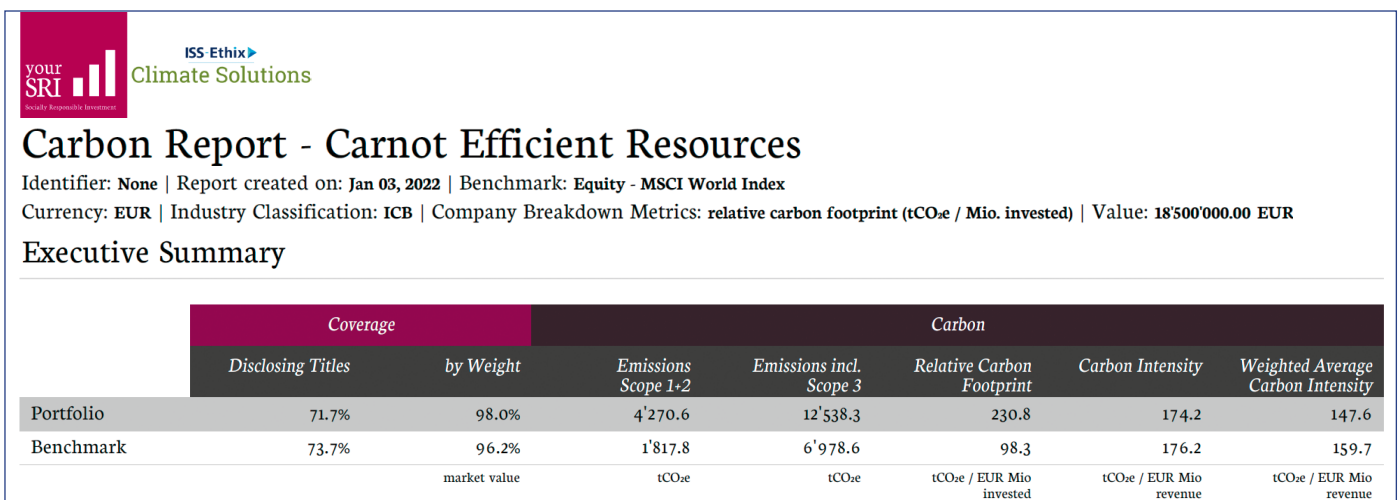
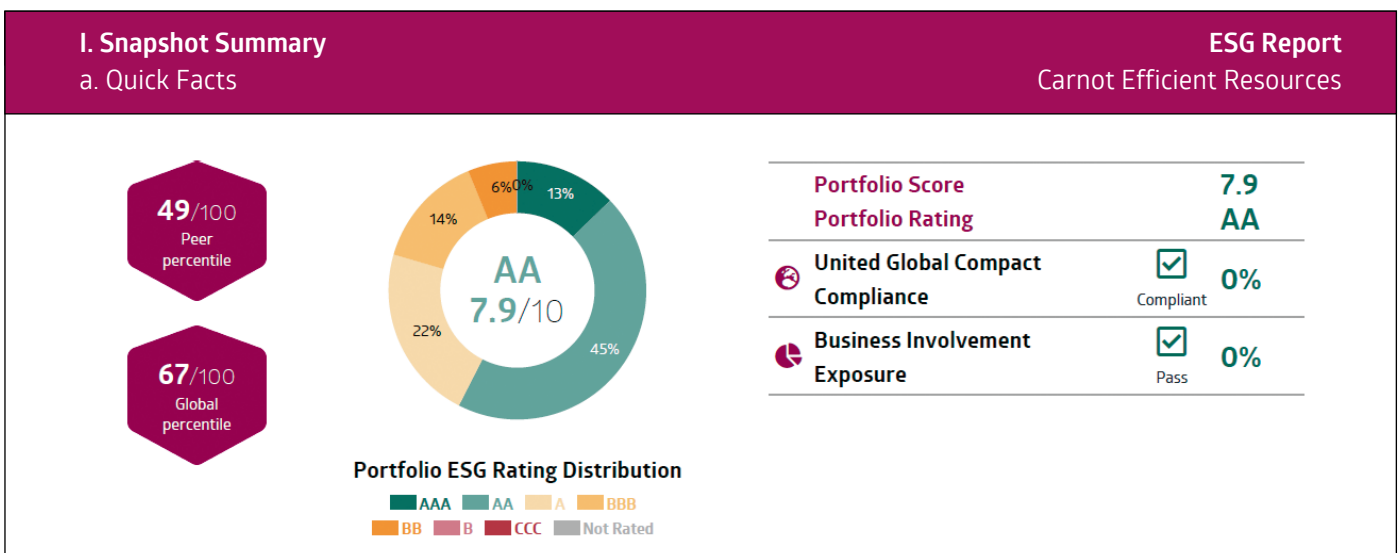
2. External Sustainability Assessment

We have the Carnot Efficient Resources Fund's sustainability reviewed externally by yourSRI. The analysis is based on the very comprehensive database of MSCI. The most important results are shown in the following overview (Snapshot Summary). It shows the sustainability rating (maximum AAA), the ranking in the entire universe (Global percentile), the rank in the peer group (Peer percentile), the compliance with the United Nations Global Compact (United Global Compact Compliance) and the portfolio share of companies with controversial activities (Business Involvement Exposure). The external result corresponds to our internal assessment.

3. CO₂ Foot Print

The shown Carbon Report was created by yourSRI and uses data from ISS Ethix. This analysis covers the CO₂ emissions of the company's fuel combustion (Scope 1), the indirect emissions generated by the electricity suppliers (Scope 2) as well as the emissions contained in other services and products procured (Scope 3).

The analysis does not consider the CO₂ reduction effects that the products, services and projects of the companies generate. These effects are, in our opinion, particularly important from an impact perspective. For this reason we make our own assessment (see 5. Impact Validation).



Source: yourSRI.com

4. Memberships

Carnot Capital has committed as a signatory to implement the six United Nations Principles for Responsible Investment (UN PRI) in the investment process.

Carnot Capital is a member of Swiss Sustainable Finance.

Carnot Impact Investing-process follows 9 steps along the “Operating Principles for Impact Management”. The IFC of World Bank Group released these rules.



5. Publications



Carnot Capital AG (December 2019), **Investments into Energy and Resource Efficiency with A Measurable Impact**, https://www.carnotcapital.com/_pdf/dokumente/Carnot_Capital_Research_Paper_Impact_Investing_in_Public_Equities_EN.pdf



Carnot Capital AG (August 2019), **Carnot Impact Investing: Overview & Case Study Belimo** https://www.carnotcapital.com/_pdf/dokumente/Carnot_Impact_Case%20Study_Belimo_EN.pdf



Carnot Capital AG (September 2019), **Investoren aufgepasst!** Artikel in Zeitschrift Private – Das Geld-Magazin, Septemerausgabe 2019, https://www.private.ch/media/docs/private/2019/04/de/022_Investoren-aufgepasst.pdf



Carnot Capital AG (September 2020), **Carnot Impact Investing: Overview & Case Study Akasol**, https://www.carnotcapital.com/_pdf/dokumente/Carnot_Impact_Case_Study_Akasol_EN.pdf

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Carnot Capital

6. Who is Carnot Capital AG

Carnot Capital is an investment management company, specialized in energy and resource efficiency. We founded the company in 2007 in Zurich and received 2013 the permission as an asset manager for collective investments by the Swiss Financial Markets Supervisory Authority FINMA. We manage the equity funds Carnot Efficient Energy and Carnot Efficient Resources performing a sustainability examination ESG. We buy stocks of listed companies with products and technologies that lower the consumption of natural resources. Due to rising scarcity and increasing environmental problems, those companies profit from structural growth. The stock selection is based on a value approach, where the quality of the company is central. We only invest in established, profitable companies with strong balance sheets. Carnot Impact Investing is a blended approach, which differentiates itself through financial as well as social-ecological performance and by combining these two qualities and revealing the positive effects they have achieved (impact from ESG & SDG mapping).

