

Sustainability through Innovation



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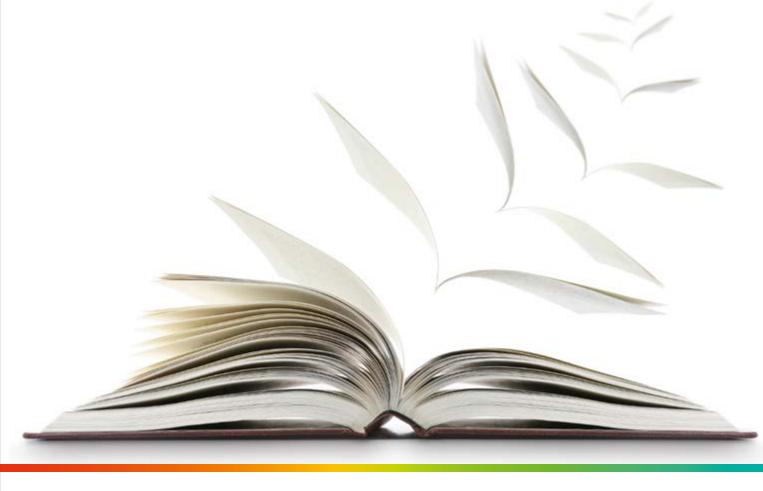
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Our impact

We are driven by the belief that technological innovation can address one of the world's most pressing needs – how to achieve sustainable prosperity.

"Sustainable investing is a growing part of mainstream thinking."

Since we started ETF Partners over a decade ago, sustainable investing has moved on from being an eccentric indulgence of a few pioneering advocates to being core to any professional investor's portfolio. No longer on the fringe – no longer perceived as niche – sustainable investing is a growing part of mainstream thinking. While we think the growing interest in sustainable investing is a very positive development, there is still a lot of confusion about what the term should mean.

There are those for whom it is simply about avoidance. "Thou shall not", for example, invest in fossil fuels. There are those that say we should tread cautiously in new areas – conservatively backing green bonds or looking for modest yields from green infrastructure. However, we think that to deliver far-reaching positive impact, and to deliver financial returns, those types of initiatives do not go far enough.

We must take risks. We must be bold. We must innovate. It is the entrepreneur who is seeking to meet the grand challenges of our day, and the best of these companies can also deliver great commercial success.

Now, while it is relatively straightforward to quantify the financial return of an investment over time, it is much more difficult to assess the impact of that money. The greater investment community is still at an early stage of forming common reporting standards and metrics to assess the impact of any given investment. One school of thought is that Environmental Social and Governance (or "ESG") metrics are the solution. Certainly they are helpful in highlighting issues, but essentially ESG is all about compliance with established industry best practice. Indeed, we typically see that more mature companies can achieve higher ESG scores that younger businesses. In effect, they are being rewarded for maturity, often regardless of real impact, while newer companies are not recognised for their potential to deliver change.

This matters. It matters because it is very clear that the world's ecosystems and resources are not being cared for. We need new solutions. If we want to see change, we therefore need to measure it, promote it and ultimately to invest in it – to encourage further innovation.

We are optimistic about our future, because we believe that innovation – if fostered appropriately – can provide the answers. Fostering involves intelligently applied investment and mentoring. It also requires an appropriate framework for communication.

The purpose of this paper is to provide our stakeholders with specific insights into our framework for evaluating potential impact and for measuring progress in a simple and practical way.

"We are optimistic about our future, because we believe that innovation – if fostered appropriately – can provide the answers."

Patria Slee

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W.R.J.

Rob Genieser

Fabrice Bienfait



Sustainability through Innovation



Rational optimism

Is it rational to be optimistic? The United Nations recently said:

1 in 4 species are at risk of extinction.A forest area the size of Belgium was destroyed in 2018.Urban areas have doubled since 1992.The world has 12 years to limit the effects of climate change – after that all bets are off.



So, why do we remain optimistic? To the surprise of many, there is a clear historical trend of improvement in the human condition over time. If you doubt this, it is worth reading "Factfulness: Ten Reasons We're Wrong about the World" by Hans, Ola and Ana Rosling, which traces how our lives have improved. However, these improvements also come with baggage - or serious consequences - namely the damage that we have done to our surrounding environments and to our fellow species. Our increasing prosperity threatens much around us, and paradoxically perhaps, even ourselves.

Now that we begin to recognise the seriousness of the issues, innovation will be needed to address these better-understood challenges going forward. This is where sustainable investing can play an important role. In particular, venture capital must support technological innovation, as entrepreneurs seek to develop a host of solutions to the problems of our day, that in turn will support sustainable prosperity.

And it will be the entrepreneur who makes the difference. Innovation can't be mandated by top-down targets. Individuals innovate, not governments. Scientists, engineers, and enlightened business leaders do not just see the world as it is, but also as it could be. The entrepreneurial movement can be chaotic, revolutionary, unpredictable – but ultimately it will be world-changing. We are at the vanguard of that movement, with ETF Partners investing in innovative companies that we think can help to change the world.



Sustainability is the lens through which we view the world.

And we see some surprising things. Rather than restrict us, it gives us an advantage. If delivering sustainable prosperity is one of the greatest challenges of our age, then it follows that it may well be one of the greatest investment opportunities.

Today, we are seeing rapid changes in large segments of the global economy, brought about by the increasing pressure for the world to become more sustainable. Whether it is across industry, the energy sector, or in cities themselves, we are seeing waves of disruptive change. Depending on where we are in the cycle of change in these areas, we see a different type of company that needs backing.

Take the automotive industry. Early on in the cycle, when first movers began to build electric cars, early models were not too dissimilar from their combustion brethren – namely steel chassis with "standard components." Few made money investing here, as the capital cost of these projects was high and the differentiation of their offering was not compelling. In the second phase, as better cars started to be produced with time, investors could back the roll-out of infrastructure (such as charging) – again at high capital costs and with little differentiation. The third phase though, is where it gets interesting. "And we see some surprising things. Rather than restrict us, it gives us an advantage." It is the stage in which we are now. This is where knowledge-based companies begin to emerge to address the problems and opportunities created by the new vehicles and infrastructure. These companies can have a big impact and often require relatively little capital.

You would think everyone would want to invest here. However, many investors feel 'burnt' by their prior experience of the first two phases of change and often word gets around that 'the sector is not right for venture capital' – just at the time when it actually is.

It wasn't the monolithic Bell Labs, Xeroxs and IBMs of the late twentieth century that reaped the benefits, but the generation of more application-focused businesses that followed – the Googles, Apples, eBays and Amazons.

And so with sustainability.

Those nimble, capital-light businesses that can stand upon the shoulders of giant sunk investment, and deliver the promise of sustainability to the world, will reap rewards out of all relation to their own costs. "Those nimble, capital-light businesses that can stand upon the shoulders of giant sunk investment, and deliver the promise of sustainability to the world, will reap rewards out of all relation to their own costs."



Beyond ESG

ESG investing takes into account environmental, social and governance factors. It looks at the existing footprint of established companies and focusses on their compliance with standards, both existing and aspirational. To be sure, ETF Partners aims at best-practice ESG compliance across its portfolio companies.

However, such ESG screening and integration tends to miss the point when dealing with innovative, fast growing companies. That's because they are usually small organisations with a small 'footprint' of their own, but with the potential to make a hugely positive impact through the products they are developing.

Impact investing goes a few steps further. Here investors focus on intent, purpose, and real outcomes in the future. Our particular focus at ETF Partners is on positive environmental impact and on supporting companies that have the potential to achieve very significant outcomes.

ESG Exclusionary Screening

Exclude entire sectors based on ESG

ESG Positive Screening

Invest in companies with positive ESG performance

ESG Integration

Include ESG factors alongside financial analysis

OUR FOCUS

Impact Investing

Invest in companies which have the commercial purpose of making an impact

Active Ownership

Engage with companies on ESG and impact management

How we measure and manage impact

We think the correct approach for measuring our form of impact investment is to look at the potential in our young companies to make a difference. We must evaluate the potential environmental impact of our companies' innovative solutions, and then support them on an ongoing basis.

As a result, we have developed a simple yet effective in-house methodology on which to measure and manage the environmental impact of prospective and current portfolio companies.

We combine qualitative and quantitative data into an impact scorecard that we use to select and then actively manage our investments. Our analysis covers five broad attributes to which we assign a score from 0 to 5*:

- Alignment with UN Sustainability Goals
- Impact Potential
- Additionality through Innovation
- Impact Performance
- Financial Maturity





1. ALIGNMENT WITH UN SUSTAINABILITY GOALS (SDGs)

Our starting point is to assess a particular company's alignment with the UN Sustainable Development Goals, an internationally recognised impact framework. SDGs are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity.

Our investment strategy and our three main investment themes (smart cities, smart industry, smart energy) address several SDGs directly. When we consider a new investment, we always first assess how well the company is contributing to the specific targets under each goal.





2. IMPACT POTENTIAL

Simply put, the environmental impact potential of prospective investments must be significant for the company to proceed through our selection funnel. Whether we are measuring KW of energy savings, or tons of materials recycled, the numbers must be meaningful. We also recognise that different businesses have different impact potential and realising it will depend upon a number of factors, including management's ability to execute on the business plan.

3. ADDITIONALITY THROUGH INNOVATION

It is all very well having a big potential impact, but to interest us a company has to do it in a way that is unique and innovative - if it can be achieved by just anyone, then it probably will be. Truly valuable investments will offer sustainability benefits that would not otherwise have been possible. We therefore target companies that are solving environmental issues in new innovative ways.

4. IMPACT PERFORMANCE

All our companies are impactful but we like to measure the growth of the impact of our investments, so we can better help our portfolio companies achieve their impact potential. We use impact KPIs which are tangible and business-specific (e.g. m³ of water savings if the company develops water savings products) and we look at the recent growth of the selected impact KPI. We are now also encouraging the boards of our companies to review impact performance against our impact metrics.



5. FINANCIAL MATURITY

We look at financial performance in the context of impact management, as it ultimately demonstrates durable and successful adoption of the company's solutions. Simply put, only a commercially successful company can achieve sustainable impact.

Once we have completed the five steps highlighted above, it is time to assemble our scorecard, with which we monitor our investments on an ongoing basis to see if they are delivering the impact that we had hoped. We have found it to be an effective additional way to monitor and explain performance. We are also now finding it a great way to engage with our management teams and their workforce as well as with our own fund investors.

> While inevitably we will continue to refine this methodology over time, and improve how it is applied to specific companies, we are pleased with our progress to date - and that our companies are making a difference!



The Environmental Technologies Fund Sustainability Scorecard

The following is a sample of our portfolio companies across our three themes of Smart Cities, Smart Energy and Smart Industry, scored according to our sustainability metrics.







	4.0/5.0
	Mobility Services Software
FUND	Environmental Technologies Fund 2 LP
📀 на	Paris, France



SDG 11, target #2: "provide access to safe, affordable, accessible and sustainable transport systems"

SDG 11, target #6: "reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality"

2. IMPACT POTENTIAL

Carsharing services powered by the Vulog solution have the potential to reduce by a factor of 10 the number of cars on the road and accelerate the deployments of electric vehicles, thereby significantly reducing traffic and improving air quality. We see the Vulog technology solution as the key component of a new transport system which will dramatically change the way we move around cities and beyond.

3. ADDITIONALITY THROUGH INNOVATION

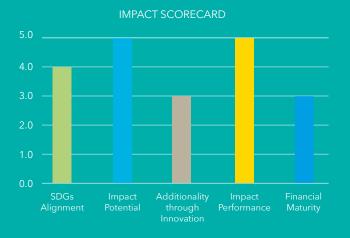
Vulog's software platform enables new shared mobility services, from scooter sharing and car sharing today, to autonomous vehicle sharing tomorrow. It is the #1 global provider and a significant enabler in the market.

4. IMPACT PERFORMANCE

The Vulog solution is now being used in more than 25 cities on 5 continents by the leading carsharing and mobility operators. One shared trip every two seconds is powered by Vulog.

5. FINANCIAL MATURITY

Vulog is working with a number of global automotive OEMs and mobility customers, and has a proven software as a service business model.





Paris, France

1. ALIGNMENT WITH UN SDGs



HQ

SDG 12 Target #3: "halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains"

SDG 12 Target #5: "substantially reduce waste generation through prevention, reduction, recycling and reuse"

SDG 2 Target #1: "ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food"

2. IMPACT POTENTIAL

At least a third of food produced worldwide is never eaten¹. We believe Phenix has the potential to revolutionise food waste management and food donation, addressing the devastating social and environmental impact of food wastage.

3. ADDITIONALITY THROUGH INNOVATION

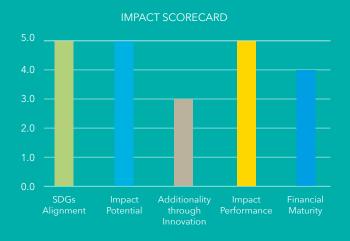
Phenix provides software and services that enable major food retailers to manage their near end-of-life food products. Previously, the bulk of unwanted food would have gone to landfill, but now the retailers make use of a range of options: they can sell the food through different channels (discount sales in stores, mobile app, discounters), donate it to charity, sell it for animal feed, or sell it to a waste to energy plant.

4. IMPACT PERFORMANCE

Phenix has grown rapidly through France and is now expanding in Europe. Today, the company prevents 50 tons of food being wasted every day (that's the equivalent of 100,000 meals per day).

5. FINANCIAL MATURITY

Phenix has developed a profitable business model and is expanding internationally.









	4.0/5.0
	Recycled Leather Manufacturing
FUND	Environmental Technologies Fund 2 LP
📀 на	Peterborough, UK



SDG 12 Target #4: "achieve the environmentally sound management of chemicals and all wastes throughout their life cycles"

SDG 12 Target #5: "substantially reduce waste generation through prevention, reduction, recycling and reuse"

2. IMPACT POTENTIAL

The leather production industry is one of the most polluting in the world. Up to 50% of natural leather hide is wasted and often destined for landfill. ELeather collects waste leather and takes it through an environmentally friendly process which produces highly sustainable materials. A large customer has named Eleather one of the most sustainable products in their supply chain.

3. ADDITIONALITY THROUGH INNOVATION

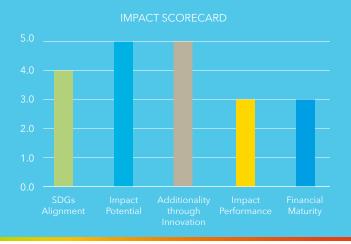
ELeather is the original and only manufacturer of leather fibre composites. Its patented clean technology manufacturing process combines traditional leather fibres without the use of unfriendly adhesives that can be harmful to the environment. Furthermore, the process recycles 95% of the process water, and the waste streams are converted into energy which is fed back into the process.

4. IMPACT PERFORMANCE

ELeather has saved over 3,000 tons of leather in the last three years. It has supplied over 150 airlines with light weight seating, tangibly cutting their carbon emissions, and is transforming the seating on over 12,000 carriages. It also provides materials to the fashion industry, including for Nike's Flyleather shoes.

5. FINANCIAL MATURITY

The company exports to over 40 countries and has an established blue-chip global customer base. In 2018, the company invested \pounds 70m into a new production facility to meet global demand.





FUND	Environmental Technologies Fund 2 LP
📀 на	Lausanne, Switzerland



SDG 12 Target #4: "significantly reduce the release of chemicals and all wastes to air, water and soil in order to minimise their adverse impacts on human health and the environment"

2. IMPACT POTENTIAL

Indoor inspections of inaccessible industrial and energy assets have always proved a great challenge. Flyability provides drone-based inspections, a cost effective and safer approach to preventative maintenance, reducing downtime, reducing the risk from environmental hazards and keeping workers out of harm's way.

3. ADDITIONALITY THROUGH INNOVATION

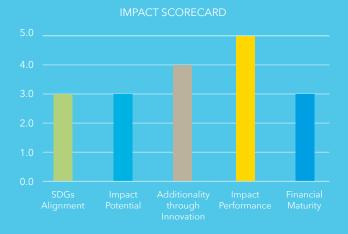
Flyability is a spin-off from the Ecole Polytechnique Federale de Lausaunne and the Laboratory of Intelligent Systems and has developed a very unique design for its drone. The company has a large patent portfolio.

4. IMPACT PERFORMANCE

The company has deepened its leadership position in the power generation sectors and expanded into new industries. In 2018, Flyability drones undertook 30,000 inspection flights.

5. FINANCIAL MATURITY

The company has customers across a wide range of sectors (power generation, chemicals, mining and public safety) which have validated its value proposition.













SDG 7 Target #3: "double the global rate of improvement in energy efficiency"

SDG 9 Target #4: "upgrade infrastructures to make them sustainable, with increased resourceuse efficiency and greater adoption of clean and environmentally sound technologies and industrial processes"

2. IMPACT POTENTIAL

By 2030 the total electricity demand of computing is expected to exceed a fifth of global demand. By switching from air cooling to water cooling, Cloud & Heat's technology can reduce the energy consumption for cooling of a datacentre by up to 97%. In addition, by extracting the heat from the datacentre in the form of hot water with up to 60°C, the company provides a source of renewable heat that would otherwise have been lost, especially in countries with colder climates.

3. ADDITIONALITY THROUGH INNOVATION

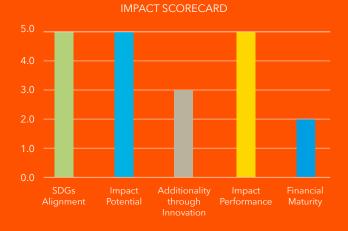
The company has developed a unique approach to the water cooling of servers and renewable heat recycling.

4. IMPACT PERFORMANCE

In 2018, the company installed 2.5 megawatts of energy efficient datacentre infrastructure.

5. FINANCIAL MATURITY

The company has already delivered hundreds of datacentres globally.





	Energy Utility Software
FUND	Environmental Technologies Fund 2 LP
📀 на	Oslo, Norway



SDG 7 Target #2: "increase substantially the share of renewable energy in the global energy mix"

SDG 7 Target #3: "double the global rate of improvement in energy efficiency"

2. IMPACT POTENTIAL

Greenbird has the potential to solve a major problem in global utilities – providing new energy saving services and green energy capacity enabled by smart grids. To realise this, utilities need to embrace a fundamental digital transformation. With its Utilihive platform, the company plays a significant role in helping such utilities deploy smart grid applications to enable a cleaner and more efficient energy use.

3. ADDITIONALITY THROUGH INNOVATION

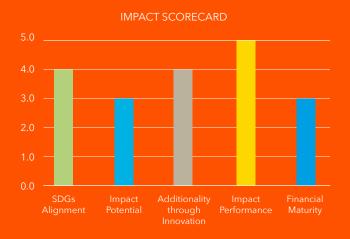
Greenbird's technology helps utilities to accelerate the green revolution. Its solutions manage the dataflow quickly and smoothly, and can be installed and updated in days, compared to months of custom coding.

4. IMPACT PERFORMANCE

Greenbird offers the leading integration platform in the energy sector². In 2018, the company's products enable nearly 2 million meters worldwide. Greenbird continues to expand internationally with roll-outs in Taiwan, Germany and the Middle East, among others.

5. FINANCIAL MATURITY

Greenbird offers a proven software as a service business model.





We are driven by the belief that technological innovation can address one of the world's most pressing needs – how to achieve sustainable prosperity.

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Sustainability through Innovation

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