



**IMPACT  
REPORT**  
2019

# CONTENTS

---

## 2019 HIGHLIGHTS 4

GEF and positive impact created	5
Methodology	6

## LETTER FROM THE TEAM 8

## GEF CAPITAL 12

Profile	13
Macrotrends and investment themes	15
Our approach	22

## CREATING VALUE THROUGH OUR ESGEF METHODOLOGY 24

Investment cycle assessment: from sourcing to exit	26
--	----

## GEF's PORTFOLIO 30

Unicoba	32
Luminae	38
ENC Energy	44
Tecverde	50
AGV	54

---

## **Value and prosperity – creating shared value beyond ESG**

Creating positive impact in our society is in our DNA – maximized ROI intertwines with sustainability. We are a Private Equity fund manager that carefully invests in companies that are exposed to key sectors aligned with fundamental macrotrends. We work alongside our executives and actively manage our portfolio companies to ensure they are well positioned to deliver unique societal impact







**1.**  
**2019**  
**HIGHLIGHTS**





# 2019 overview

## GEF and positive impact created

USD303.46 M

REVENUE



USD40.89 M

EBITDA



USD123.40 M

NET ASSET VALUE



100% OF OUR COMPANIES

SDG-ALIGNED



0%: GEF CAPITAL PARTNERS LATAM  
15%: GEF PORTFOLIO AVERAGE

STAFF TURNOVER



1,673 MALE 805 FEMALE

EMPLOYEES



225,898 tCO<sub>2</sub>

THE SUM OF THE GHG EMISSION GEF'S PORTFOLIO CONTRIBUTED TO REDUCE IS EQUIVALENT TO 48,804 PASSENGER VEHICLES DRIVEN FOR A YEAR



5,463.70 ton

WASTE RECYCLED OR RESIDUALS OUR PORTFOLIO HAS HELPED AVOID IN THE PRODUCTION PROCESS



# esGEF Methodology

In 2019, GEF Capital Partners Latam (GEF) focused its attention on further developing its proprietary Environmental, Social and Governance (ESG) capabilities and implemented at the

portfolio level. We also divested from three of our six investments\*, as we believed our investment reached maturity with respect to their sustainable growth and value creation cycles.

Investment region  
– **Brazil, middle market**

GEF Capital Partners Latam is a Certified **B Corp**

Asset Class – **Private equity**

Investment themes – **Energy, Sustainable Food & Agriculture, Urban Solutions**

Supported macrotrends – **Population growth, Climate Change, Urbanization**

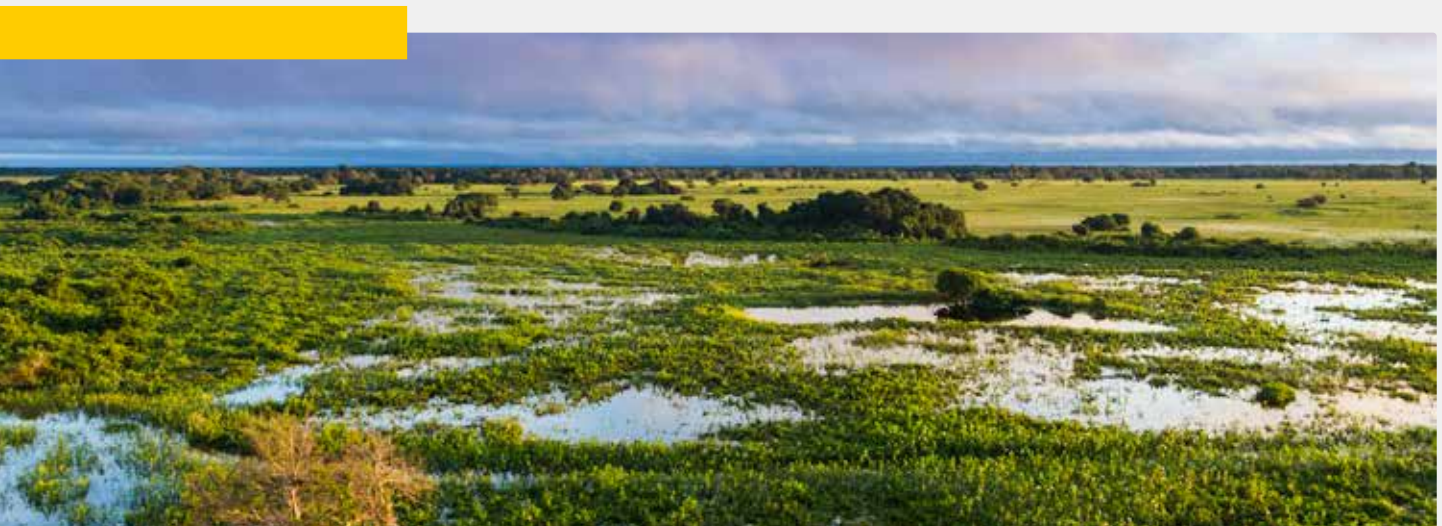
In May 2020, GEF has become the first Brazil-based signatory to the **IFC Operating Principles for Impact Investing**



## Global guidelines



\* AGV, which includes AGV Health and AGV FMCG, and Tecverde.



**GEF'S THEMES ARE ALIGNED WITH THE UNITED NATIONS' SUSTAINABLE DEVELOPMENT GOALS (UN SDG)**



**Investment themes**

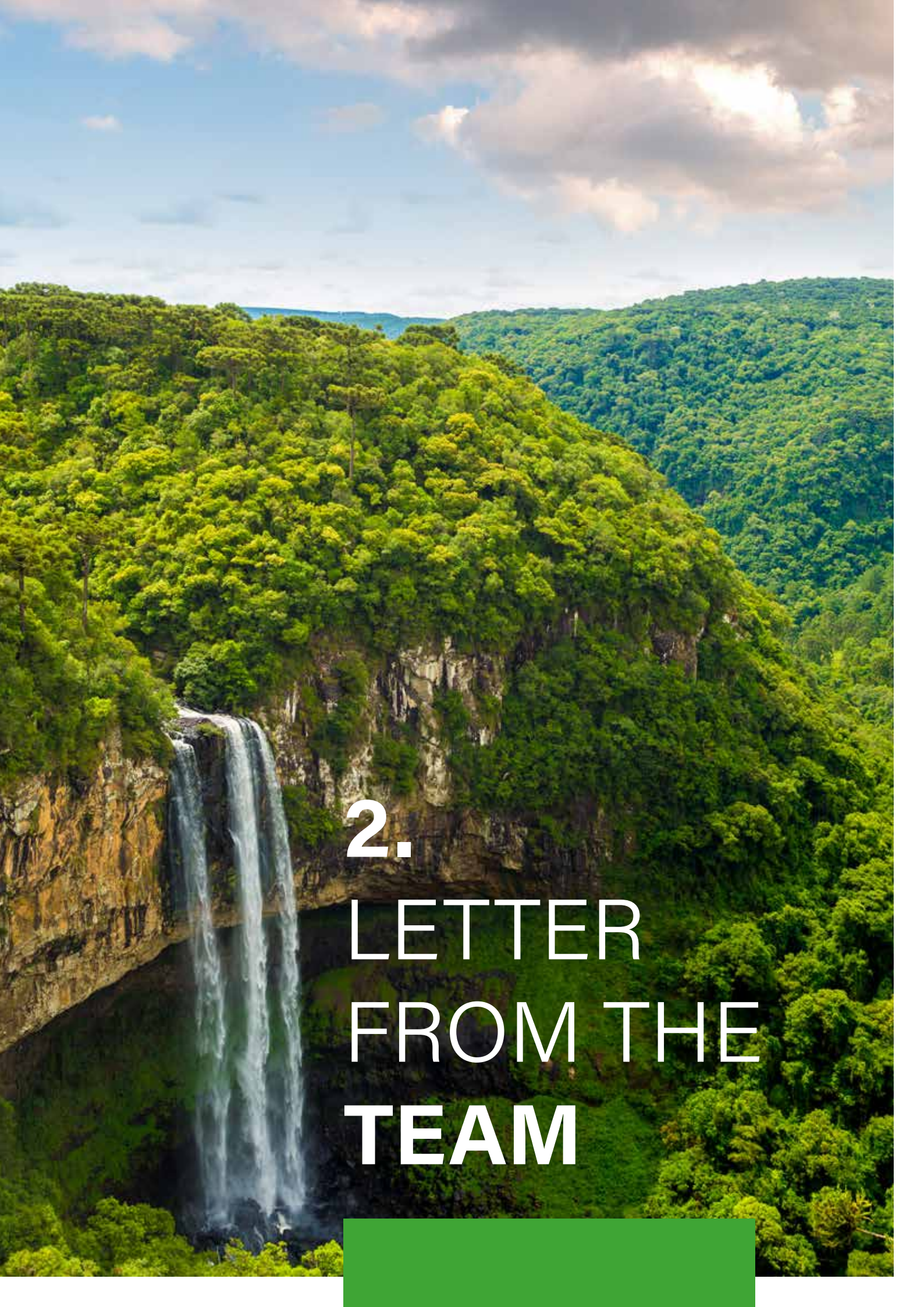
ENERGY - SDG	6	7	11	12	13	14	15
SUSTAINABLE FOOD & AGRICULTURE - SDG	2	3	6	8	12	13	15
URBAN SOLUTIONS - SDG	7	11	12				

**Portfolio's SDG Alignment**

ENC ENERGY - SDG	7	11	12				
UNICOBA - SDG	7	8	9	12			
LUMINAE - SDG	7	8	12				
TECVERDE* - SDG	6	7	9	11			
AGV LOGÍSTICA** - SDG	3	6	7	12			

\* Exit: 1Q 2020.  
 \*\* Exit: 4Q 2019.





**2.**  
**LETTER**  
**FROM THE**  
**TEAM**





GEF has been growing at a solid pace through the successful scaling of a business model that relies on our commitment to long term value creation supported by operational growth and disciplined integration of ESG factors. During 2019, GEF drove its attention to continue strengthening its team and processes. Furthermore, we sold three companies, and made one new investment.

In 2020, for the first time since the Global Risks Report was first published, all of the “top long-term risks by likelihood” ranked by the World Economic Forum (WEF) were environmental, and climate change was rated the greatest global threat. The OECD estimates that around USD6.50 T will be required annually to meet the Paris Agreement goals by 2030. Public sector resources alone will not be sufficient to meet this challenge, and solid mobilization of institutional and private capital will be necessary.

In such unprecedented times, we truly believe that companies that develop disruptive solutions to global challenges are the ones that will stand out and rise above. On that basis, GEF aims to contribute to a sustainable future by mobilizing capital to grow companies that deliver relevant environmental and social outcomes to our planet alongside superior financial returns to our investors.



Anibal Wadih



Alexandre Alvim



Estevan Taguchi



Tiago Gomes



Mario Mafud



Ricardo Cifu



Luisa Cardoso



Lucas Yamamoto



Marcia Campos

#### SUSTAINABLE FUTURE

We truly believe that companies that develop disruptive solutions to global challenges are the ones that will stand out and rise above



We differentiate ourselves by integrating positive societal impact into the investment cycle. We rely on sophisticated frameworks and our ESGEF proprietary model to source, conduct diligence, and monitor opportunities that will keep us aligned with our mission, and we do so with a relentless focus on operational quality.

We are immensely proud of the work performed by our portfolio companies to increase resource efficiency that translates into reduction of greenhouse gas emissions, and produces other measurable societal impacts. Luminae, a leading LED lighting solution provider, has directly contributed to the reduction of ~13.70 M kWh in energy consumption in 2019, which corresponds to over 2,000 passenger vehicles driven for a year. Our waste-to-energy company, ENC Energy, converts methane into energy, which is then distributed to small and medium-size enterprises (SMEs) connected to the grid. In 2019, over 500 SMEs have benefitted from more accessible energy, and the company contributed to a reduction of methane emissions, a heat-trapping gas 25x more potent than CO<sub>2</sub>, of nearly 5 K metric tons, corresponding to over 26,000 passenger vehicles driven for a year. Unicoba, our

most recent investment, is a battery solution provider working to introduce two highly impactful business units that will be soon measured and monitored: (i) peak shaving energy storage, which leads to more efficient energy use, and (ii) off-grid electricity systems, which allows for expanded access in remote regions of the country. We would also like to highlight the significant improvements in aligning processes with ESG best practices across the portfolio, described in later sections.

Even though we have recently exited from AGV Health, AGV FMCG and Tecverde; in line with our commitment to identify and act on the most impactful initiatives throughout the investment period, we supported AGV Group in the implementation of lean management concepts and helped Tecverde establish clean processes that reduced CO<sub>2</sub> emissions by 80% compared to standard processes used to construct a similar structure.

We are beyond excited about the impact we have helped drive in recent years and about the work we are committed to continue doing, but, as purpose-driven investors, we are particularly inclined to reflect on the current moment we are living.



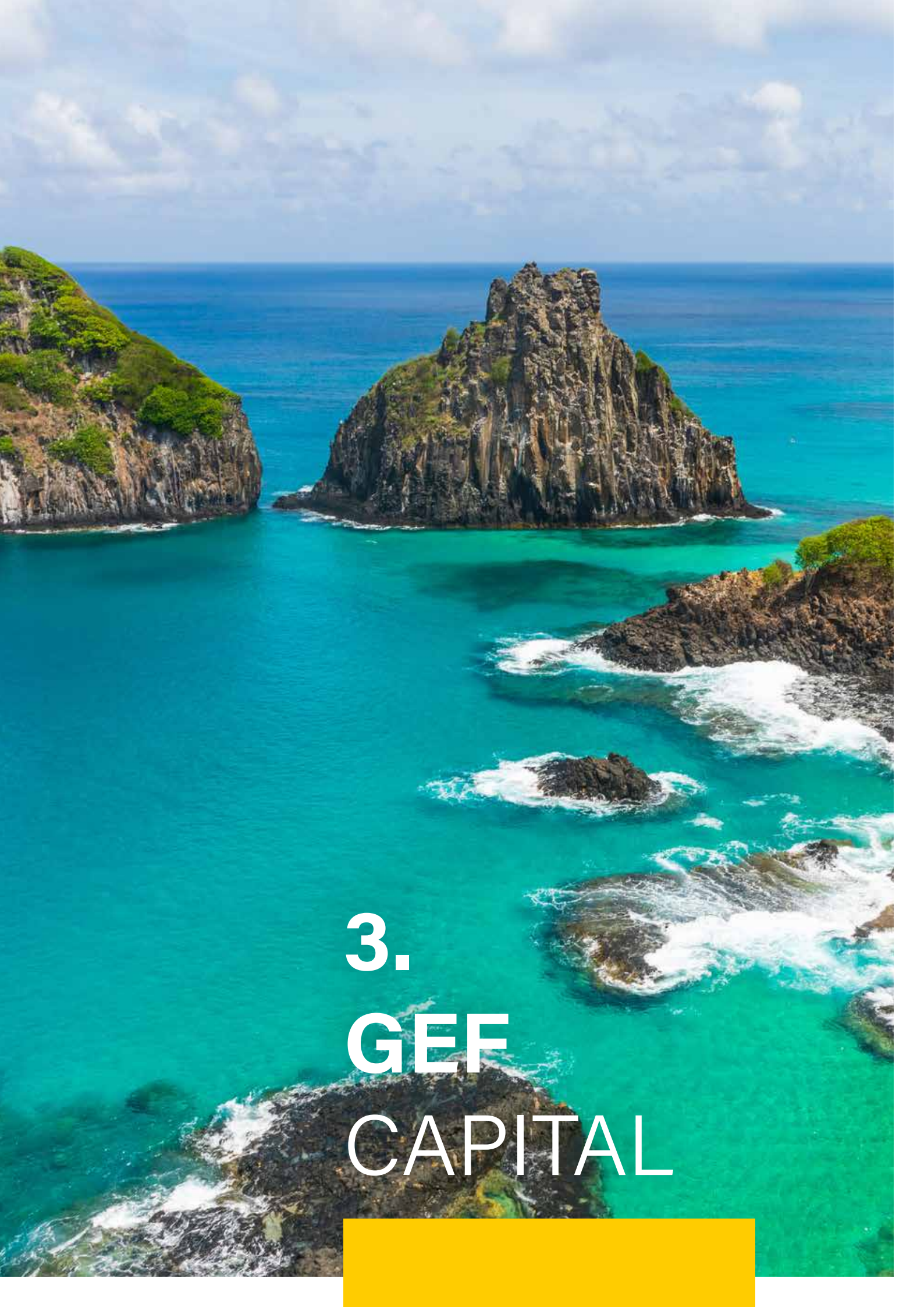
As we finalize this report in May 2020, humanity has been facing one of the greatest challenges since World War II, the COVID-19 pandemic. Regardless of the geography, people have been forced to increase social distancing in hope of minimizing contagion of the virus, which has proved to be lethal to the elderly and other high-risk groups. Unfortunately, the world has been caught off-guard despite warnings that pandemics like this were increasingly more likely to occur. As result, we are faced with a vulnerable healthcare infrastructure, that fails to fulfill current global demand, and lockdowns are putting substantial pressure on the economic system. As we live through this moment marked by deep uncertainties, we relentlessly reflect on how to best navigate through this time, by focusing on protecting our portfolio companies and reinforcing our investment theses. Most importantly, we trust that our efforts play a pivotal role in assisting to create resilience that will protect future generations from similar events, and

we reinforce our commitment to work towards a greener, more equitable future for generations to come.

This report intends to illustrate our initiatives that have derived positive societal outcomes and to encourage other capital allocators to consider purpose-driven forms of investment. We are attentive of the evolving macro trends and remain confident to be well positioned to benefit from the opportunities that shall arise in the future.

It is with great pleasure that we invite you to explore our first annual impact report. In the years to come, we will continue to work on strengthening and diversifying our portfolio and doing our best to implement well-structured ESG practices. We are committed to the continuous refinement of our investment strategy and improvement in promoting positive interventions that deliver substantial economic value in addition to a greener, more equitable future.

**COVID-19 is one of the most looming crises faced by this generation.**



# 3. GEF CAPITAL





## Profile – Positive environmental impact is in our DNA

GEF Capital Partners was formed in March 2018 following the completion of a collaborative spin-out from Global Environment Fund, an early pioneer in global sustainability and environmental investing in key emerging markets and in the US. We operate in Latin America as GEF Capital Partners Latam and seek to build on the legacy established by Global Environment Fund by focusing on companies that contribute to the optimal use of resources and the construction of a more sustainable future.

We look for businesses that introduce efficient solutions that contribute to more disciplined use of energy for companies that introduce innovative solutions to urban issues, and businesses that propose positive interventions in agricultural practice and food consumption.

We believe that by living and working in Latin America, we can identify, manage, improve and exit investments in ways that not only aim to generate superior financial returns, but also have a positive environmental impact. In other words, we want to invest capital in ways that do more with less, that improves the world around us, while also rewarding our investors who participate in investments with us.

In Latin America we are headquartered in Sao Paulo, Brazil, a city, we believe, offers an unparalleled universe of investable middle market companies with impactful business models.

### We are committed

GEF is a private equity fund manager focused on investing in companies that are well positioned to promote positive societal impact in alignment with three core themes:

(i) Energy, (ii) Food & Ag. and (iii) Urban Solutions.

Our investment approach considers two primary criteria to filter opportunities:

Prospective companies should (i) be operating in a market where it can achieve high growth and financial returns above the market rate and (ii) have a positive impact on the environment and the use of natural resources.



**VALUE** Seek value in specialized businesses where current market perception misprices key assets or businesses



**GROWTH** Identify secular, macro and regulatory trends that will allow for outsized growth dynamics



**OPERATIONAL** Find opportunities to serve as a value-added partner to management or company founders to drive operational improvement



**EFFICIENT CAPITAL** Bring efficient capital solutions to areas where none existed, thereby unlocking value



**ESG** Experience in adoption of ESG best practices in portfolio companies

## GEF's team profile – Committed to future generations

GEF has a seasoned investment team with complementary skills and execution capacity in fundraising, origination and deal closing. With multiple years of global investing across different sectors, we are uniquely positioned to successfully implement our strategy and deliver significant value to our investors.

Our team is different – we play an active role in each of our portfolio companies. This includes assisting in the development and implementation of business/strategic planning, which more often than not demand substantially more involvement from our investment

professionals than the typical participation in customary monthly board meetings.

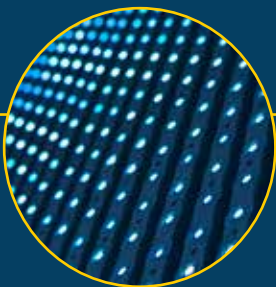
**esGEF** Our value creation program includes the introduction of our ESGEF methodology to assess ESG factors and drive shared value and is conducted entirely in-house, demanding us to work alongside our companies to map risks and capture long-term value. Our understanding is that by sticking to this approach, we are better equipped to foresee any uncertainties and mitigate potential risks to create superior risk-adjusted returns for our shareholders and positive societal impact.

## Focus – Energy, urban solutions, agribusiness and food

We focus on investing in industries supported by key megatrends grouped into three themes: (i) energy, (ii) urban solutions and (iii) food and agriculture. We understand that the list of sub-segments within our core areas is not exhaustive, but we are currently focused on the specific subset outlined below.

### ENERGY

- Energy efficiency
- LED and smart lighting
- Distributed generation
- Energy storage



### URBAN SOLUTIONS

- Efficient and sustainable construction systems
- Logistics
- Waste management and recycling
- Water treatment



### FOOD AND AGRICULTURE

- Efficient logistics and supply chain
- Plant nutrition
- Animal health and nutrition
- Precision agriculture





# Macrotrends and investment themes

GEF's investment approach relies on a deep understanding of global macrotrends.

## POPULATION GROWTH

According to the UN, global population is expected to reach 8.40 B by 2030 and 9.80 B by 2050, resulting in:

- Pressure on food production (higher productivity is required to make up for the decreasing in available land for agriculture)
- Pressure on climate (argument about reaching proposals from COP-21 are far more difficult)
- Population aging (geriatric population to reach 2.10 B by 2050)

## CLIMATE CHANGE

COP-21 commitment to keep global temperatures below 2 °C above pre-industrial revolution levels involves:

- Cleaner sources of energy
- Efficient use of resources (i.e., energy, water, etc.)
- Reduction in GHG emissions

## URBANIZATION

Exodus to urban centers (according to the UN – 68% of 2050 population should be living in cities) could further drive:

- Concentrated energy use = more pollution
- Higher level of direct GHG emissions
- Increased waste generation
- Increased in poverty, and, consequently, higher inequality

Some of the macrotrends previously illustrated are expected to lead to adverse societal outcomes in the future, as outlined in the World Economic Forum's annual Risk Report, including extreme weather events, water crisis, biodiversity loss, human-made environmental disasters and natural disasters.

GEF recognizes the meaningful role played by enterprises that, through efficient business models, help mitigate the materialization of such risks. Our firm is particularly focused on the three themes we believe are most inter-connected with these trends.

## Clean energy to move the world

Energy is central to nearly every major challenge and opportunity the world faces today, according to the United Nations (UN). Around 3 B people rely on wood, coal, charcoal or animal waste for cooking and heating. Therefore, according to the UN, energy is the dominant contributor to climate change, accounting for around 60% of total global greenhouse gas emissions.

We believe in business models that support the smart generation and utilization of energy and that reduce GHG emissions and their effects on climate. Although Brazil's energy matrix is considered to be "green" relative to the rest of the world, we are privileged in that we have some of the highest solar radiation rates (>1,800 kWh/m<sup>2</sup>/year vs. Germany's 1,000 kWh/m<sup>2</sup>/year\*) and tremendous wind power potential (estimated at 500 GW\*\*, which would be enough to meet the country's demand three times over), which should lead the country to an even greener future. To move further along this path, Brazil will need to focus on implementing initiatives that promote energy efficiency. Since 2000 the country saved 5% of additional energy consumed in 2017. The structural change in the economic activity, which moved from energy-intensive industry sectors to less-intensive manufacturing and service sectors reduced the impact of activity growth by 14%. According to the International Energy Agency (IEA), this reduction would have reached 23% had Brazil invested more in cross-sector technological improvements.

We seek to invest in companies that contribute to a greener future through renewable generation or application of sophisticated technology to increase efficiency across the sector.

\* [climatepolicyinitiative.org/wp-content/uploads/2017/10/Working\\_Paper\\_-\\_Distributed\\_Solar\\_Photovoltaic\\_Generation\\_in\\_Brazil.pdf/](https://climatepolicyinitiative.org/wp-content/uploads/2017/10/Working_Paper_-_Distributed_Solar_Photovoltaic_Generation_in_Brazil.pdf/)

\*\* Brazilian Wind Power Association (ABEOLICA)

## Healthy food and sustainable agricultural practices

This is a key theme that is closely aligned with the macro trends previously illustrated, and is particularly relevant to Brazil, where the availability of adequate rainfall, fertile soil and abundant arable land make the country ideal for agriculture. On top of that, Brazil comprises the largest portion of the Amazon (60%), the world's largest rainforest and is responsible for a large portion of the world's current carbon sequestration.

In recent years, agricultural malpractice (i.e., misuse of fertilizers), adverse climate events, and unethical human interventions have created adverse effects that range from soil degradation to the excessive emission of greenhouse gases. According to Climate Watch Data, agriculture is the single largest contributor to GHG emissions in the country (500 Mt CO<sub>2</sub> vs. 450 Mt CO<sub>2</sub> from the energy sector from a total of 1.40 Gt emitted in 2019). As the world works to mitigate risks around food security and climate change, we recognize that pivotal solutions must be implemented in the agricultural sector, and we are excited about the existing opportunities available in Brazil. From efficient plant nutrition, to sustainable food and ingredients companies, GEF believes that the sector is fertile for business models that contribute to increased access to healthy dietary options and that use resources efficiently in ways that contribute to minimizing GHG emissions.

While substantial environmental impacts from food occur in the production phase (agriculture, and food processing), households influence these impacts through their dietary choices and habits, which should become more determinant as global population increases. That is why we look for companies that operate in any phase of the supply chain. This includes not only developing better ways of production, but also educating consumers on sustainable consumption, and that provide them with adequate information through standards and labels.





## Urban solutions to improve the flow of people and resources

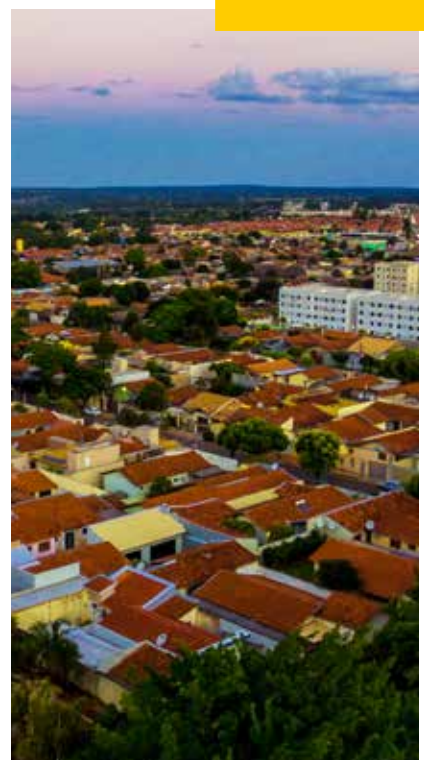
According to the UN, the world’s metropolitan areas occupy just 3% of the Earth’s land, but account for 60-80% of energy consumption and 75% of carbon emissions. Urban growth brings along massive challenges around job creation, social well-being and sustainable use of resources. Half of the global population (3.50 B people) currently resides in cities and this number is projected to rise to 5 B people by 2030. Rapid urbanization challenges include pressure on fresh water supplies, sewage, overloaded public healthcare systems, and appropriate waste management.

On a global basis, the transportation sector accounts for approximately 25% of the greenhouse gas emissions, according to the UN. Well planned mobility systems are crucial to help address climate change.

Given the core role of transportation in sustainable development, we look for companies that provide efficient solutions in this sector.

More efforts are needed to fully eradicate a wide range of diseases and address many different persistent and emerging health issues. According to the UN, noncommunicable diseases alone will cost low- and middle-income countries more than USD7 T in the next 15 years. We are also looking at companies that provide more efficient health systems, improve sanitation and hygiene, and increase people’s access to physicians.

GEF is committed to invest in companies that help design a more efficient urban plan. Needless to say, these companies are headquartered in urban areas and, consequently, their management deal with the challenges brought by urbanization. We believe that by investing in the right companies, encouraging research on technology and improving management we can overcome these problems and allow cities to continue to thrive and grow.



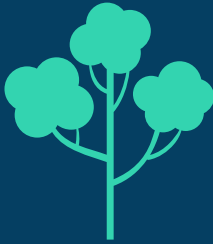
# Brazilian context



Brazil is a continent-sized country with a population of **210 M**<sup>1</sup>



**World's ninth largest economy** with a GDP of USD1.87 T<sup>2</sup>



The country's unique land dimensions hold a significant portion of the world's preserved forests (**13% of total**, followed by Congo and Indonesia with 4% and 2%, respectively)<sup>3</sup>



Its tropical soil produces over **200 M tons** of grains every year



Total area **8.50 M (km<sup>2</sup>)**<sup>4</sup>

Privilege to have a substantial portion of its territory covered with native land, Brazil has been attracting international attention due to systemic environmental issues, more specifically to the increasing deforestation in the Amazon. Population growth and rapid urbanization of previously preserved areas contribute to the problem, but no other factor has been so materially adverse as the unethical expansion of soybean production and cattle farming in the Amazon region.

Lately, the situation has become significantly more concerning, since the federal government remains silent about forest burning and seems firmly committed to the economic development of the forest through exploitative agricultural activities. The Amazon is the largest carbon sink in the world, and as we approach a tipping point in climate change, initiatives supported by private investors have become increasingly more popular, including carbon sequestration projects and ethical use of resources on food production.

Agriculture plays a pivotal role in Brazil's economy, currently representing 20% of the country's GDP.

The country has traditionally been highly efficient and has a competitive advantage in the global agribusiness sector. However, greater productivity is required to fulfill the increased demand for food (FAO expects it to increase by 70% between 2020-2050), and a more disciplined use of resources is necessary to mitigate further increases in GHG emissions (according to the World Bank, nearly a third of GHG emissions in Brazil are originated in agribusiness). The sector in Brazil has been attracting special attention from entrepreneurs, researchers and investors, who aim to support innovative interventions from agtechs or well-established companies.

1. Source: [data.worldbank.org/indicator/SP.POP.TOTL?locations=BR/](https://data.worldbank.org/indicator/SP.POP.TOTL?locations=BR/)

2. Source: [data.worldbank.org/country/brazil/](https://data.worldbank.org/country/brazil/)

3. Source: [www.fao.org/3/i2247e/i2247e00.pdf/](https://www.fao.org/3/i2247e/i2247e00.pdf/)

4. Source: IBGE



# Brazilian general challenges



## AGING POPULATION<sup>1</sup>

- ▼ 24% Up to 14 years
- ▲ 69% 15-65
- ▲ 7% 65+



## URBANIZATION<sup>1</sup>

- ▼ 16% Rural
- ▲ 84% Urban
- 5,565 Cities



## GOODS TRANSPORT<sup>2</sup>

- 60% Road haulage
- 25% Rail freight
- 12% Waterway
- 3% Other



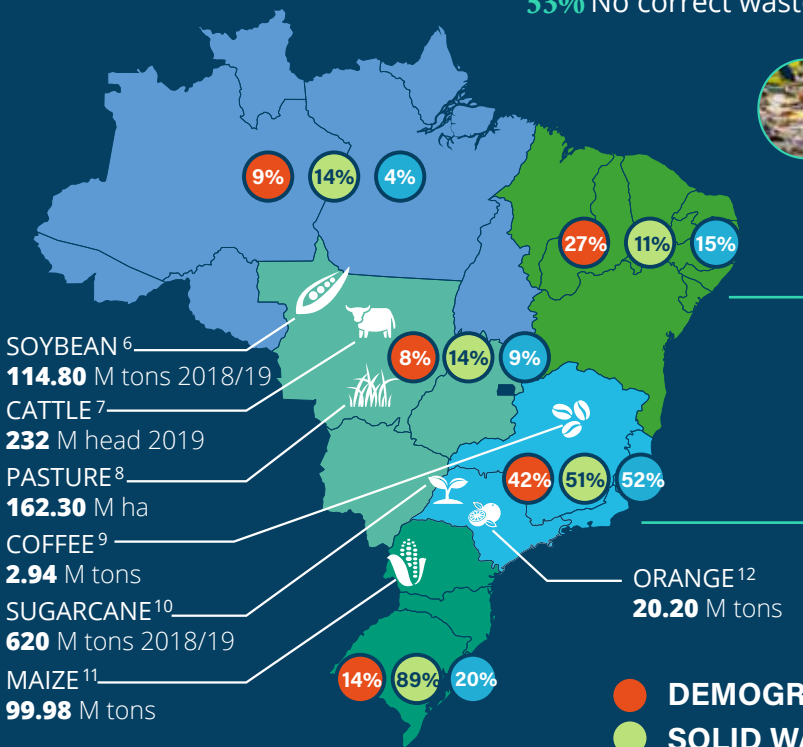
## VEHICLE FLEET<sup>2</sup>

46 M,  
10 years  
average age



## SANITATION

- 34% No clean water<sup>3</sup>
- 49% No sewage
- 53% No correct waste disposal



## HIGH RISK OF WATER STRESS<sup>4</sup>

Metropolitan regions of the Southeast and Northeast

The country is also unique in that most of its energy matrix relies on renewable sources.

## GHG EMISSIONS<sup>5</sup>

1.90 GtCO<sub>2</sub>eq, **7<sup>th</sup> largest in the world** The state of São Paulo is the 3<sup>rd</sup> largest, **50% energy** and **logistic**

**44%**

change in land use, mainly in the North region

**25%**

agricultural

**21%**

energy and logistic

**5%**

waste

**5%**

industrial process

1. Source: [brasilemsintese.ibge.gov.br/](http://brasilemsintese.ibge.gov.br/)

2. Source: [www.sindipecas.org.br/sindinews/Economia/2019/RelatorioFrotaCirculante\\_Maio\\_2019.pdf/](http://www.sindipecas.org.br/sindinews/Economia/2019/RelatorioFrotaCirculante_Maio_2019.pdf/)

3. Source: [www.tratabrasil.org.br/saneamento/principais-estatisticas/no-brasil/agua](http://www.tratabrasil.org.br/saneamento/principais-estatisticas/no-brasil/agua) and [https://g1.globo.com/economia/noticia/saneamentomelhorammetade-dos-brasileirossegue-sem-esgoto-no-pais.ghtml/](https://g1.globo.com/economia/noticia/saneamentomelhorammetade-dos-brasileirossegue-sem-esgoto-no-pais.ghtml)

4. Source: [wribrasil.org.br/pt/blog/2019/08/ranking-mostraondehamaior-risco-de-faltar-agua-no-brasil-e-no-mundo/](http://wribrasil.org.br/pt/blog/2019/08/ranking-mostraondehamaior-risco-de-faltar-agua-no-brasil-e-no-mundo/)

5. Source: [plataforma.seeg.eco.br/total\\_emission/](http://plataforma.seeg.eco.br/total_emission/)

6. Source: [www.embrapa.br/en/soja/cultivos/soja1/dados-economicos/](http://www.embrapa.br/en/soja/cultivos/soja1/dados-economicos/)

7. [www.ers.usda.gov/amber-waves/2019/july/brazil-once-again-becomes-the-world-s-largest-beef-exporter/](http://www.ers.usda.gov/amber-waves/2019/july/brazil-once-again-becomes-the-world-s-largest-beef-exporter/)

8. Source: [abiec.com.br/sustentabilidade/](http://abiec.com.br/sustentabilidade/)

9. Source: [www.embrapa.br/en/busca-de-noticias/-/noticia/47028493/cafe-arabica-corresponde-a-70-e-cafe-conilon-a-30-da-producao-dos-cafes-do-brasil-em-2019/](http://www.embrapa.br/en/busca-de-noticias/-/noticia/47028493/cafe-arabica-corresponde-a-70-e-cafe-conilon-a-30-da-producao-dos-cafes-do-brasil-em-2019/)

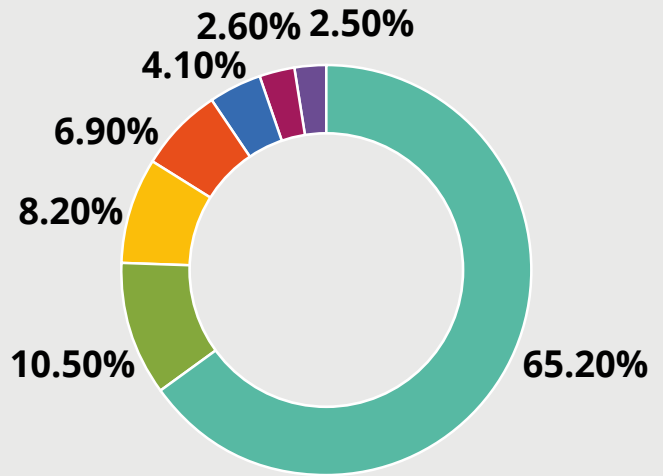
10. Source: [www.statista.com/statistics/742530/sugar-cane-production-volume-brazil/](http://www.statista.com/statistics/742530/sugar-cane-production-volume-brazil/)

11. Source: [www.canalrural.com.br/noticias/agricultura/milho/producao-milho-conab-2/](http://www.canalrural.com.br/noticias/agricultura/milho/producao-milho-conab-2/)

12. Source: [revistagloborural.globo.com/Noticias/Agricultura/Laranja/noticia/2019/07/usda-preve-producao-maior-de-laranja-e-excesso-de-oferta-de-suco.html/](http://revistagloborural.globo.com/Noticias/Agricultura/Laranja/noticia/2019/07/usda-preve-producao-maior-de-laranja-e-excesso-de-oferta-de-suco.html/)



**BRAZILIAN ENERGY MATRIX\***



- Hydraulic
- Natural gas
- Biomass
- Solar and aeolic
- Coal
- Petroleum and oil products
- Nuclear

\* Source: Brazilian Energy Matrix – [www.epe.gov.br/pt/abcdenergia/matrix-energetica-e-eletrica/](http://www.epe.gov.br/pt/abcdenergia/matrix-energetica-e-eletrica/)



Some of the **world's highest solar** radiation rates



Estimated at 500 GW, would be enough to meet the country's demand **three times over**

Installed hydroelectric capacity is meaningful for global standards, but Brazil is also privileged in that it has some of the world's highest solar radiation rates (>1,800 kWh/m<sup>2</sup>/year vs. Germany's 1,000 kWh/m<sup>2</sup>/year) and tremendous wind power potential (estimated at 500 GW, would be enough to meet the country's demand three times over), which should lead the country to an even greener future.\*\*

\*\* Source: [exame.abril.com.br/negocios/dino\\_old/energias-renovaveis-justo-imenso-potencial-brasileiro-dino89081876131/](http://exame.abril.com.br/negocios/dino_old/energias-renovaveis-justo-imenso-potencial-brasileiro-dino89081876131/)



As any other country in the Latin American region, Brazil also faces **severe social challenges**

Over **55 M Brazilians are classified as poor** by the World Bank, and this number increases by 2 M every year

In 2019, Brazil ranked **7<sup>th</sup> in the global social inequality** only better than some African countries\*

**Poor social indicators** coupled with **stagnated infrastructure** translate into **urban problems** faced by the country

**Penetration of water treatment\*\* services is fairly low** (50% of Brazil's population doesn't have sewage services), and private sector involvement is still very limited (i.e., less than 10% of total investments)

With regards to **waste generation**, Brazil ranks first in Latin America, and accounts for **40% of the total generated in the region** (541 tons per day, as per UN Environment)

According to the World Bank's What a Waste 2.0 report, the country ranks **fourth in global waste producer ranking**, with 11.30 B tons

Out of this total, **WWF states that 91% are collected**, but only **1.28%** is actually **reinserted into the production chain** – one of the lowest global rates and well below the global average of 9%

**Recent amendments in regulation should facilitate investments from private parties**, allowing for a rapid and sustainable development of urban areas

Most of the aforementioned challenges are associated with social and environmental aspects that need to be properly addressed to support the country's sustainable economic development. Public and private investors

and policy makers have demonstrated increasing interest to work together on solutions that ultimately contribute to the reduction of GHG emissions and alternatives that promote increase of social standards.

\* Source: [noticias.uol.com.br/internacional/ultimas-noticias/2019/12/09/brasil-e-o-7-mais-desigual-do-mundo-melhor-apanas-do-que-africanos.htm/](https://noticias.uol.com.br/internacional/ultimas-noticias/2019/12/09/brasil-e-o-7-mais-desigual-do-mundo-melhor-apanas-do-que-africanos.htm/) | [hdr.undp.org/en/2019-report/download/](https://hdr.undp.org/en/2019-report/download/)

\*\* Source: [g1.globo.com/economia/noticia/saneamento-melhora-mas-metade-dos-brasileiros-segue-sem-esgoto-no-pais.ghtml/](https://g1.globo.com/economia/noticia/saneamento-melhora-mas-metade-dos-brasileiros-segue-sem-esgoto-no-pais.ghtml/)



## Our approach

Our investment approach is derived from our pragmatic understanding of global macro trends and relies on the disciplined application of our risk-mitigation, value-driving ESGEF model.

We find that integrating ESG factors into our investment analysis beginning at origination helps us map, anticipate and mitigate any potential risks that might arise in the future. We expose ourselves to sectors that we expect to be more resilient in the long-term when macro trends materialize, but most importantly, we seek to invest in companies that may potentially help mitigate the adverse impacts of these trends in the future. We have developed our proprietary ESGEF methodology to guide us in the assessment of our prospective investments and help us make more informed decisions that ensure adherence to our core purpose.

performing this exercise very early on, as it allows us to identify material risks that can be immediately mitigated (i.e., through inclusion of condition precedent provisions in the share purchase agreement).

Following the closing of an investment, we typically mobilize our internal resources to structure a 100-day plan alongside the company to define the strategy to improve operational processes in the short term and create the basis for long-term growth. As part of this strategy, the ESG action plan, resulting from the Due Diligence described above is introduced, and accountability is assigned at different levels. We monitor progress on a regular basis, reporting to the company's ESG Committee every month. In the ESG Committee meetings, members typically brainstorm about the impact metrics to be monitored and the broader shared value initiatives to be considered going forward.

**We find that integrating ESG factors to our investment analysis since origination helps us map, anticipate and mitigate any potential risks that might arise in the future.**

This involves an early assessment of the impact of a target's business model. Our understanding is that numerous companies have impactful business models, even if the intentionality is not explicit, so we tend to not discard such businesses from our initial screening process for this particular reason as we believe that business models can evolve to become meaningful impact drivers. The early impact assessment is supported by globally accepted frameworks, including the UN's SDG and the Impact Management Project that lead to a much more thorough internal analysis.

As a prospective investment moves forward to due diligence stage, we introduce a comprehensive ESG assessment supported by various rigorous global standards to evaluate the company's process, leading to a diagnostic, key in the construction of an action plan. We benefit enormously from

We believe that companies that contribute profitably to societal progress are better positioned to thrive in the market as they reshape the essence of competition, and those are the companies in which we seek to invest. We also fundamentally believe that business models can and should adjust to accommodate this "shared value" strategy, and this is an ongoing exercise that should be a top priority at the board level of every company we support. GEF relentlessly works to implement our ESGEF methodology on our portfolio companies and encourage thoughtful discussion on our monthly ESG Committee meetings aiming to further develop the shared value strategies of our portfolio companies.

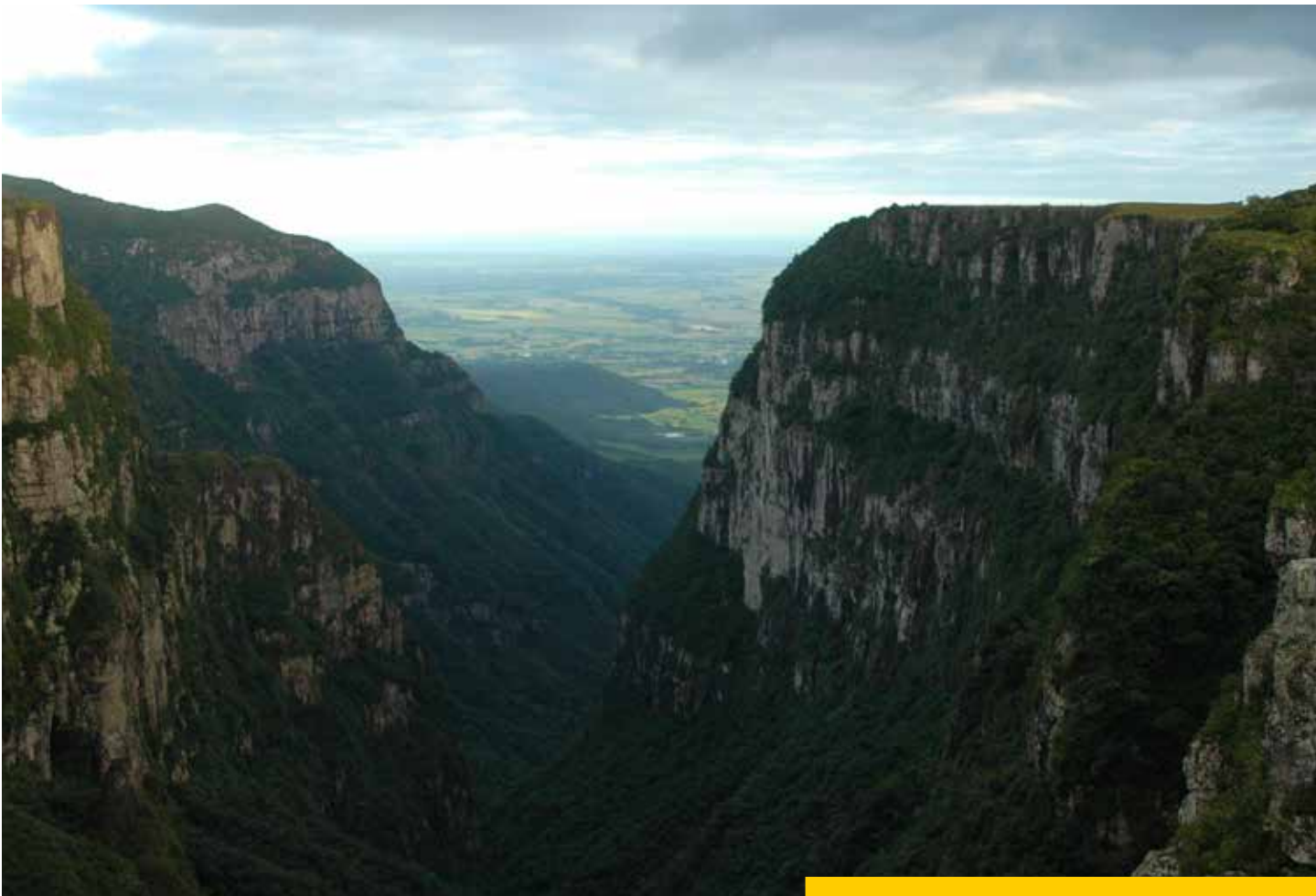
## Shared value drives positive societal change

According to Michael Porter and Mark Kramer, who introduced the movement in 2011, shared value can affect strategy at three levels: (i) creating new products that address clear societal needs, (ii) enhancing productivity in the value chain and (iii) investing to improve the business environment in the regions where the company operates.

Consider Luminae, our LED lighting company. The company has developed a proprietary technology that offers higher energy efficiency, which translates into a substantial reduction in energy consumption and cost savings for its clients. Such reductions are further enhanced as the lighting structures are paired with real time energy consumption monitoring systems. While its current client base revolves primarily around large food retail chains

(i.e., supermarket chains), the company has been implementing a robust strategy to reach other segments, including SMEs, which arguably benefit more substantially from the resulting efficiency gains, as their scale reduces their competitiveness against large players. The expansion of the client base within the target region naturally results in economic gains for Luminae, as well as societal gains (i.e., a broader reduction in energy consumption, cost savings for small and medium-sized businesses, etc.).

As we continue to support this and other businesses, we remain attentive to the ways in which the company may drive positive societal changes, which may enhance returns for our investors.







4.

CREATING VALUE  
THROUGH  
OUR **ESGEF**  
**METHODOLOGY**

# esGEF

*Through a disciplined introduction of our ESGEF methodology, we aim to create shared value across our portfolio. We aim to strengthen the competitiveness of a company while simultaneously driving positive economic and societal impact. Shared value creation focuses on identifying and expanding the connections between societal and economic progress, superior profits, cost reduction, and competitiveness enhancement.*

## ORIGINATION

Sourcing of companies within the themes supported by megatrends:

- Energy
- Urban solutions
- Food and agriculture

## DUE DILIGENCE

Rigorous evidence-based assessment, supported by some of the world's most rigorous compliance standards

## SHARED VALUE CREATION

Tailored KPIs to measure impact in addition to financial returns (implementation of ESG action plan derived from the assessment introduced at due diligence)

Positive (S)ROI (shared return on investment), based on the following actions: (i) early impact assessment helps us avoid impact drift later; (ii) ESG assessment and subsequent action plan helps the company reach compliance/best practice in aspects of the business, helping us mitigate material risks; (iii) introduction of impact metrics helps us monitor what is important and focus on incorporating that on the company's overall expansion strategy and (iv) a relentless focus on creating shared value



# Investment cycle assessment: from sourcing to exit

## 1.

### ORIGINATION

Our investment approach considers two primary criteria to filter opportunities. Prospective companies should (i) be operating in a high-growth market where it could achieve above market financial returns and (ii) provide positive societal

impact. For this early assessment, we typically rely on a thorough analysis of the five dimensions of impact proposed by the impact management project to better understand the materiality of change.



#### WHAT

What outcomes(s) does the effect relate to, and how important are they to the people (or planet) experiencing it?

1

#### HOW MUCH

How significant is the effect that occurs in the time period?

2

#### WHO

Who experiences the effect and how underserved are they in relation to the outcome(s)?

3

#### CONTRIBUTION

How does the effect compare and contribute to what is likely to occur anyway?

4

#### RISK

Which risk factors are material and how likely is the effect different from the expectation?

5

We have identified that this exercise followed by subsequent mapping of the most relevant risks (as outlined in the IMP framework) are crucial to help us understand the proposed impact and the materiality of existing/potential risks.



IMPACT RISK		DEFINITION
1	<b>Evidence</b>	→ The probability that insufficient high-quality data exists to know what impact is occurring
2	<b>External</b>	→ The probability that external factors disrupt our ability to deliver the impact
3	<b>Stakeholder participation</b>	→ The probability that the expectations and/or experience of stakeholders are misunderstood or not taken into account
4	<b>Drop-off</b>	→ The probability that positive impact does not endure and/or that negative impact is no longer mitigated
5	<b>Efficiency</b>	→ The probability that the impact could have been achieved with fewer resources or at a lower cost
6	<b>Execution</b>	→ The probability that the activities are not delivered as planned and do not result in the desired outcomes
7	<b>Alignment</b>	→ The probability that the impact is not locked into the enterprise model
8	<b>Endurance</b>	→ The probability that the required activities are not delivered for a long enough period
9	<b>Unexpected impact</b>	→ The probability that significant unexpected positive and/or negative impacts is experienced by people and the planet

In the very early stages of our investment cycle, we also apply the SDGs framework to evaluate the alignment of the business with the United Nations’ 2030 agenda for sustainable development. We typically identify the goals our prospective companies are

aligned with and those that might be directly compromised by the company’s business model. This is an ongoing analysis that helps us further investigate our companies’ true commitment to participate in the resolution of systemic issues (and avoid mission drift).



## 2.

**DUE DILIGENCE**

Once we have established that a prospective investment has met the criteria to advance in our investment process, we initiate a thorough and multidisciplinary due diligence. One of the key aspects assessed at this stage is the business'

compliance with ESG factors. GEF has developed a proprietary assessment based on rigorous standards including the IFC's Performance Standards, the IFC EHS guidelines, OECD guidelines for corporate governance, ILO, etc.

**GEF'S UNIQUE FRAMEWORK IS BASED ON STRICT INTERNATIONAL STANDARDS, WHICH ARE INCORPORATED INTO THE DUE DILIGENCE PROCESS AND, SUBSEQUENTLY, INTO THE ACTION PLAN IMPLEMENTATION**

**International Finance Corporation (IFC)**

Organization of the World Bank and member of the World Bank Group, it is the largest global development institution focused on the private sector in developing countries. IFC has introduced standards (the IFC Performance Standards) and principles (the Operating Principles for Impact Investing) that are currently considered best practices to be followed by the industry

**INTERNATIONAL LABOR ORGANIZATION (ILO)**

UN agency that sets labour standards, develops policies and devises programmes promoting decent work for all women and men

**PRINCIPLES FOR RESPONSIBLE INVESTMENT (PRI)**

Voluntary and aspirational set of investment principles that offer a menu of possible actions for incorporating ESG issues into investment practice

**Sustainable Development Goals (SDG)**

The United Nations Sustainable Development Goals (UN SDGs) address by 2030 the global challenges we face, including those related to poverty, inequality, climate change, environmental degradation, peace and justice. The SDG targets are thoroughly assessed in the DD stage

**Organization for Economic Co-operation and Development (OECD)**

Intergovernmental economic organization that has developed the principles for Corporate Governance, which is regarded as one of the industry's most well regarded

We understand that this might be the first interaction most professionals at the company have with ESG factors, and we therefore find it extremely relevant to work alongside the business in order to maximize the utility of this exercise. The output consists in a diagnosis that helps us shape a strategy going forward, which might involve the inclusion of relevant ESG

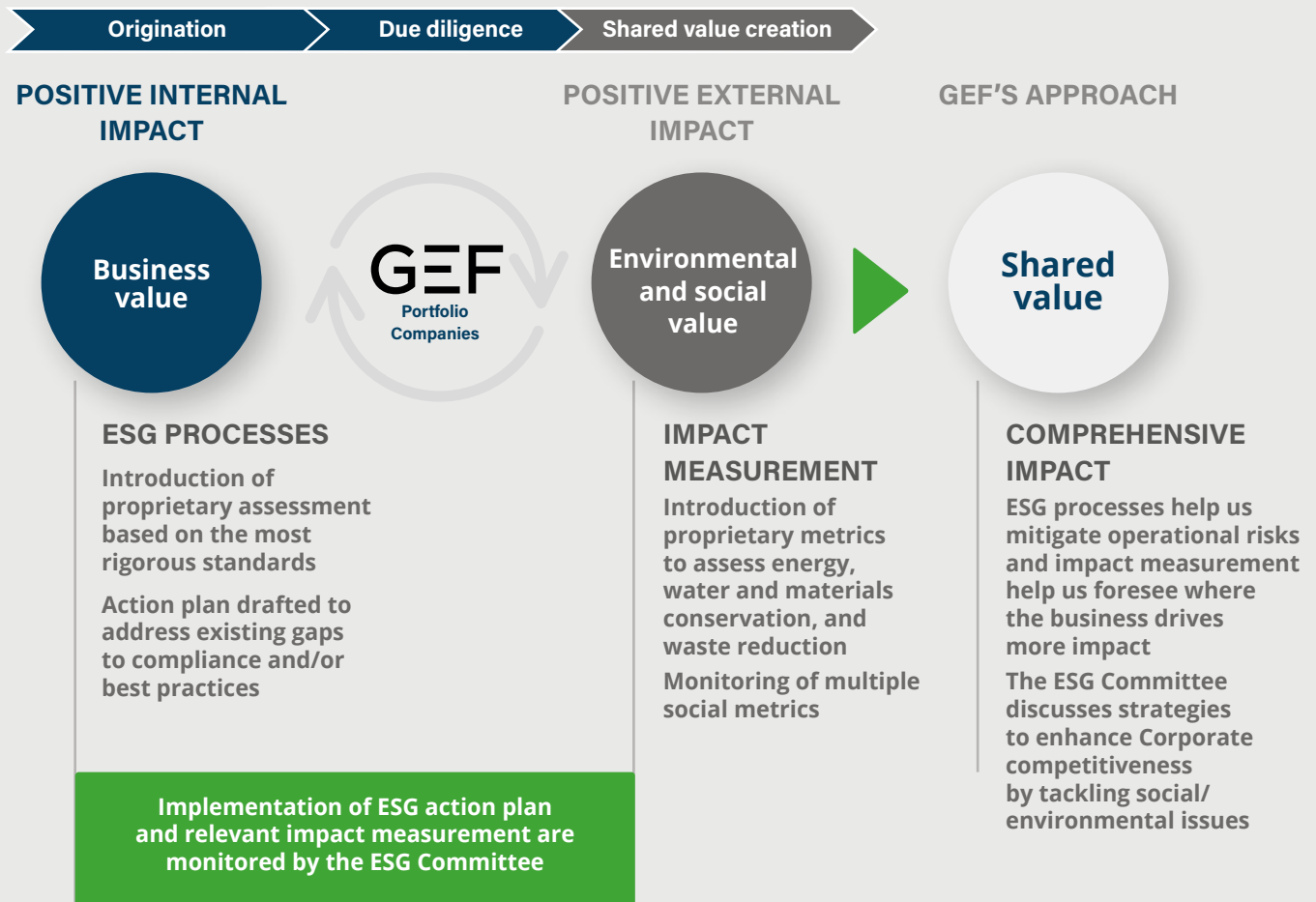
action points as Conditions Precedent to transaction closing, but always translates into the development of a comprehensive ESG action plan to be addressed after closing. We are specifically attentive about distributing accountability, establishing deadlines, and ensuring we are available at all times, in order to guarantee a smooth execution.

### 3. SHARED VALUE CREATION

The investment closing seals a new relationship with our investee, which involves close participation in the operation throughout the monitoring cycle. At this stage we establish the key committees, including the ESG Committee, whose members meet on a monthly basis to report on the progress of the ESG action plan implementation and quantitative societal metrics, as well

as to discuss broader aspects of the company's shared value strategy.

We are very pragmatic in selecting the quantitative metrics to be measured and monitored, and usually select a handful to keep this exercise simple and focused on what truly matters. We typically focus on resource efficiency, carbon footprinting and general social metrics.







**5.**  
**GEF's**  
**PORTFOLIO**

---

Our 3 current **portfolio companies** are strongly **aligned** with the **megatrends** and themes that support our investment approach





## Unicoba

Unicoba is a leading energy storage solutions provider, primarily focused on stationary and portable batteries. The company currently serves a wide array of segments and clients, having a relevant market share in storage solutions for telecom, financial institutions, data centers and commercial applications, as well as in the portable segment for cellphones, tablets and laptops. As GEF first started considering an investment in Unicoba, what really caught our attention was the business' potential to further increase value to its clients and society in general. Unicoba has been working to introduce new technologies that increase battery lifespan, reduce maintenance cycles, lower waste generation and correct the disposal of polluting materials, further contributing to the preservation of the environment. Additionally, products under development may support the development of renewable energy generation and provide access to electricity to low-income population for the first time, through off-grid projects developed by major Brazilian utilities in some regions of the country.

**1<sup>st</sup> green  
debentures  
issued (2019)**

**BRL40 M  
33 MONTHS TERM**

### KEY DIFFERENTIALS:

- Promotion of alternative that drives higher energy efficiency
- Adoption of environmentally friendly industrial technologies and process
- Contribution to the substitution of hazardous materials (LFP vs. sulphur batteries)

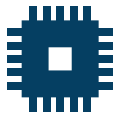
### THIS COMPANY IS ALIGNED WITH THE FOLLOWING UN SDGS







## Company information:



The company was **founded in 1973** as an importer of electronic components



Nearly **4,000 active customers**



Nowadays, it is a **leading energy storage solution provider, primarily focused** on portable Lithium Ion Batteries (Li Batteries) and energy backup batteries



In the Li battery market, the company **is the largest independent manufacturer in Brazil** and is the trusted supplier for leading manufacturers of notebooks and mobile phones



The company is introducing a new generation of batteries that are **resistant to higher temperatures, have longer lifespan can be remotely monitored and have anti-theft locks**



Over 35% of market share in stationary storage solutions for the telecom industry and **is uniquely positioned to take advantage of the new and growing energy storage segment** in Brazil, combining market experience and manufacturing expertise on a technology agnostic basis

### MAIN CHALLENGES:

- Regulatory aspects
- Potential 5G technology entrance
- Brazil has less radio-base stations than are required for the 4G technology

### MAIN OPPORTUNITIES:

- Customers in different sectors such as telecommunications, banks and datacenters
- Peak shaving
- Off-grid backup
- Battery solutions for residences

## SHARED VALUE STRATEGY

### The introduction of LFP batteries in solar powered off-grid electricity systems to serve remote areas of Brazil

- Federal regulation mandates Brazilian utilities reserve 0.50% of net profits for energy efficiency projects
- Since the program was created, nearly 60% of the investments have targeted low income populations
- One of the largest energy distributors in the country has recently introduced a program to install solar powered off-grid systems in the remote Pantanal region
- Complex logistics add to the existing difficulties and makes a stronger case for utilizing the most efficient components (that will rely less on maintenance)
- Unicoba is currently in discussions with distributors on the possibility of supplying LFP batteries, which are more resistant and durable, and require less external maintenance

### Introduction of a program to collect and handle clients' old lead batteries

- A great portion of Unicoba's new clients are former users of lead batteries that opt to switch for more efficient products
- These clients do not always account for the polluting content of the batteries, and end up discarding the residual batteries inappropriately
- On that basis, Unicoba has designed a program to assist clients (new and old) with the collection and appropriate handling of these materials, in line with strict environmental standards
- Although at early stages, this initiative has driven additional sales to the company, Unicoba's executives regard it as a top strategic priority as it helps drive sales and impact

#### Business value

Products of superior quality position Unicoba uniquely to expand client portfolios, and develop new business units



#### Business value

The initiative has helped the business increase sales, improving operational performance



#### Environmental and social value

Low income populations with 1<sup>st</sup> time access to electricity

Supports renewable generation



#### Environmental and social value

Correct discarding of polluting materials helps mitigate environmental risks

Substitution of products creates env. benefits



## GEF's contribution and company development

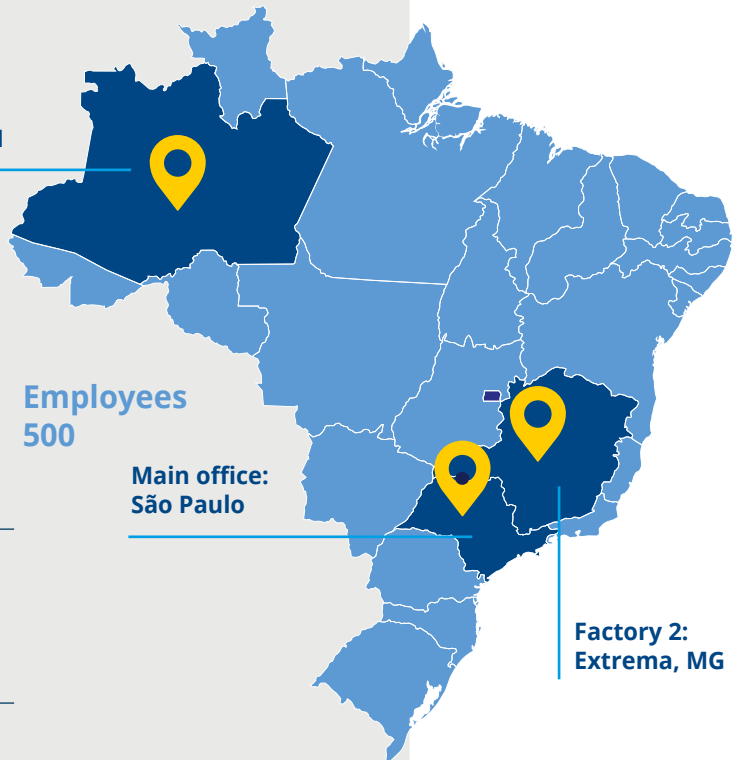
### ESG ACTIONS IMPLEMENTED BY GEF:

HR guidebook	Updated version of the Code of Ethics
Introduction of Board Best Practices	Establishment of a plan targeting ISO Certification
Formalization of an environmental and social management system	Formalization of internal compliance function
Introduction of market executives, including CEO, CFO and commercial VP	Industry leading KPIs and financial indicators

### CAPITAL TO DEPLOY PROJECTS UNDER DEVELOPMENT AND ACTIVE CONTRIBUTION FOR NEW PROJECTS AND ACQUISITIONS

Debt raising with leading local financial institution

Factory 1:  
Manaus, AM







## Remarkable social and environmental impact:

Through its energy storage solutions, Unicoba helps **reduce hazardous waste disposal**, as new batteries can last up to 10 years as opposed to current technology with average of 3 years lifetime

**Improved overall efficiency of the power grid**, as storage accelerates the broader adoption of renewable energy

**Reduces the use of more polluting backup electricity generation** like diesel



## COVID-19 crisis

In response to the COVID-19 pandemic, Unicoba has moved quickly to ramp up production and serve those most in need – energy storage solutions for medical purposes. The company has been providing, in urgent fashion, batteries to medical equipment manufacturers that assemble ventilators, monitors and fusion bombs, among others. These are key medical devices for the recovery of patients severely affected by COVID-19. The company is also directing the production of batteries to incubators, hemodialysis equipment, and physiotherapy, and has been providing no-breaks to certain hospitals all over Brazil to guarantee reliable operation in case of an interruption of the power supply, ensuring critical energy to equipment and facilities.





## Luminae

The USD112 B global lighting sector is going through rapid transformation driven by (i) the growing adoption of light-emitting diode (LED) technology and (ii) the increasing popularity of connected lighting systems. LED systems are increasingly more popular and urgently needed since they require less energy and their extended lifetime contributes to the reduction of residue production. As a leading-edge LED lighting and efficiency provider, Luminae is uniquely positioned to benefit from this trend in Brazil, and GEF has been a proud partner of the company for almost 3 years, since we first invested in the business.

### ITS GREATER DIFFERENTIALS ARE:

- Most efficient LED fixture in Latin America
- Luminae's products offer superior energy efficiency in comparison to conventional alternatives. Systems are paired with real time energy consumption monitoring systems, which guarantee higher performance

### THIS COMPANY IS ALIGNED WITH THE FOLLOWING UN SDGS







### ITS STRATEGY UNDER IMPLEMENTATION IS:

- When replacing its lighting structures, clients often discard old equipment inappropriately, creating adverse environmental externalities. Luminae is about to partner with a third-party firm that will offer residual collection services, minimizing direct or indirect adverse impact from Luminae's sales process

## Company information:



Luminae was founded in **2008** to offer lighting systems with superior efficiency to the Brazilian market



Ideal **solution to reduce energy costs**, overall maintenance and lamp replacement, reducing dangerous waste generation



The company **imports the components** and assembles its products in its own factory



Average **project payback** between 10-24 months – the client pays Luminae with the energy savings during the payback term



Luminae created its **own lighting concept**, in an innovative and sustainable way and at a lower cost, developing a complete and customized solution for customers in most different sectors



Robust revenue growth – 4x during the **investment life**



Greater **energy efficiency** through enhanced lighting and energy monitoring, as a solution to ever increasing energy prices in Brazil and more sustainable operations



More than **4 k projects** in all Brazilian states



## Our clients

More than **600 clients**

Member of the **Green Building Council**, with the Leadership in Energy and Environmental Design (LEED) certification

**The company achieves up to 80% energy savings with projects that provide better lighting quality with lower consumption. It has become a benchmark in energy efficiency in Brazil through 3 business units:**

### Main challenges:

- Cash flow management
- Long term operational cycle
- Business model – sale process requires seasoned commercial team

### Main opportunities:

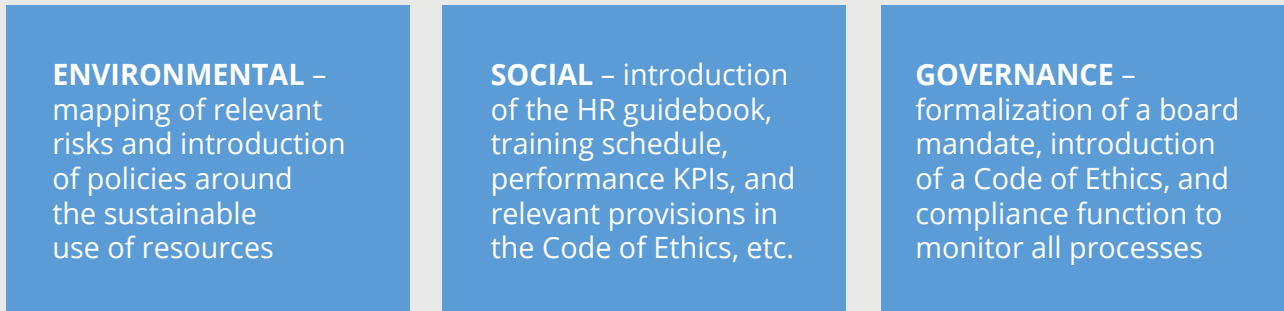
- Diversified clients base
- All energy fronts
- Off-grid partnership

- Complete lighting and energy solution with the most efficient LED fixture in Latin America, providing better lighting quality with lower energy consumption – customized project service allied to the commercialization of lighting products
- Complete solar photovoltaic solution, so customers can generate their own energy in a sustainable and economical way
- Energy management and monitoring system in real time so customers can track, take action, and optimize their energy consumption and utilization

# SHARED VALUE STRATEGY

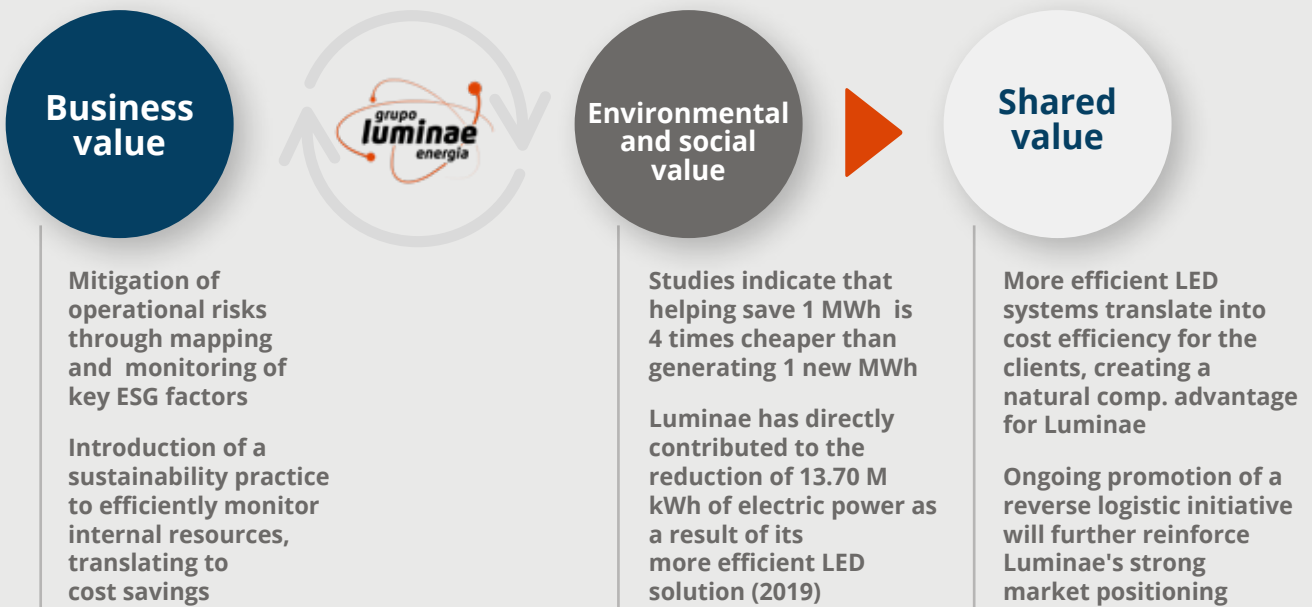
## Luminae's business model drives a reduction in energy consumption, which translates to cost savings for clients

Since the introduction of the ESG assessment followed by an action plan, Luminae has substantially improved its processes



Luminae's core activity is to produce and distribute highly efficient LED lighting systems that lead to optimal resource utilization, translating into cost savings to clients and lower impact on the environment.

The ESG assessment introduced to the company indicated an indirect environmental risk that arises as clients purchase Luminae's solution, replacing old structures, which are typically mishandled. This creates an opportunity for the company to strengthen its positioning.



## Strategy under implementation

When replacing its lighting structures, clients often discard old equipment inappropriately, creating adverse environmental externalities.

Luminae is about to partner up with a third-party firm that will offer residual collecting services, minimizing direct or indirect adverse impact from Luminae's sales process.



## GEF's contribution and company development:

### INTRODUCTION AND IMPLEMENTATION OF RELEVANT ESG FACTORS

HR guidebook	Updated version of the Code of Ethics	Strategy to formalize internal compliance function	Industry leading KPIs and financial + ESG monitoring
Active role on strategic planning, hiring of executives, definition of goals, priority projects (BSC) and variable remuneration program	Establishment of processes to obtain ISO Certification	Introduction of board/ governance practices – Commercial, Financial, Human Resources (positions and wages) and Audit Committees, and Compliance	

#### ■ CAPITAL TO DEPLOY PROJECTS UNDER DEVELOPMENT AND ACTIVE CONTRIBUTION TO NEW PROJECTS AND ACQUISITIONS

Debt raising with leading local financial institution

#### ■ DEVELOPMENT OF 2 BUSINESS UNITS, ENERGY MONITORING AND SOLAR PV



## Remarkable social and environmental impact:

Up to **80% reduction in energy consumption** with lighting

Up to **300% improvement in light output**

Up to **1,000% gains in energy efficiency** to clients

## COVID-19 crisis

In response to the COVID-19 pandemic, Luminae has quickly acted to assist society in the best way it could. Following minor reduction in demand for lighting systems, the company has decided to adapt part of the production site to manufacture face masks. The appropriate machinery was imported from China, and since the beginning of the pandemic Luminae has donated over 100 K masks (as of May 2020). The company has also partnered with a local sewer association with a firm commitment to purchase excess fabrics for the production of reusable masks. We are very proud that our portfolio company has stepped up to the challenge and has demonstrated once again that it is committed to walk the impact talk.





## ENC Energy

As mentioned in earlier sections of this report, Brazil faces massive issues around waste management and relatively low penetration of renewable energy. With regards to the former, only 50% of solid urban waste reaches regulation compliant landfills in Brazil, and only a fraction of those treat methane emissions appropriately. As we have deepened our understanding of relevant macrotrends, we have identified ENC Energy as a solid company well positioned to deliver efficient urban solutions. Since we first invested in the company, in 2018, installed capacity has increased from 4 MW to 31 MW, with the potential to scale and deliver further Impact. The business has so far committed to its purpose to create positive societal impact while delivering attractive financial profit. The business' resilience has been put to the test during the COVID-19 crisis, but reliance on mid and long-term energy contracts and stable operations have provided the company with a prosperous path.

**ENC Energy provides clean energy generation**

### ITS MAIN DIFFERENTIALS ARE:

- Methane sequestration and reduction of GHG emissions
- Sustainable waste management
- Production of clean energy made accessible to SMEs

### THIS COMPANY IS ALIGNED WITH THE FOLLOWING UN SDGS







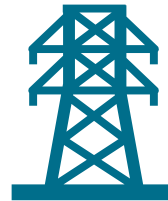
#### FUTURE VALUE DRIVERS:

- Credits are currently sold at USD2/ton in Brazil, but in Europe are already traded at USD30/ton
- As asset owners and large cos. put climate at the center of their strategies, demand for certificates should increase, and prices should follow

#### Company information:



ENC Energy Brasil is a company specializing in energy generation from waste, offering engineering and operational services for waste-to energy plants



ENC Energy Brasil currently operates 27 MW (as of March 2020), and has additional 4 MW under commissioning. The company has also mapped approximately ~20 MW of additional opportunities

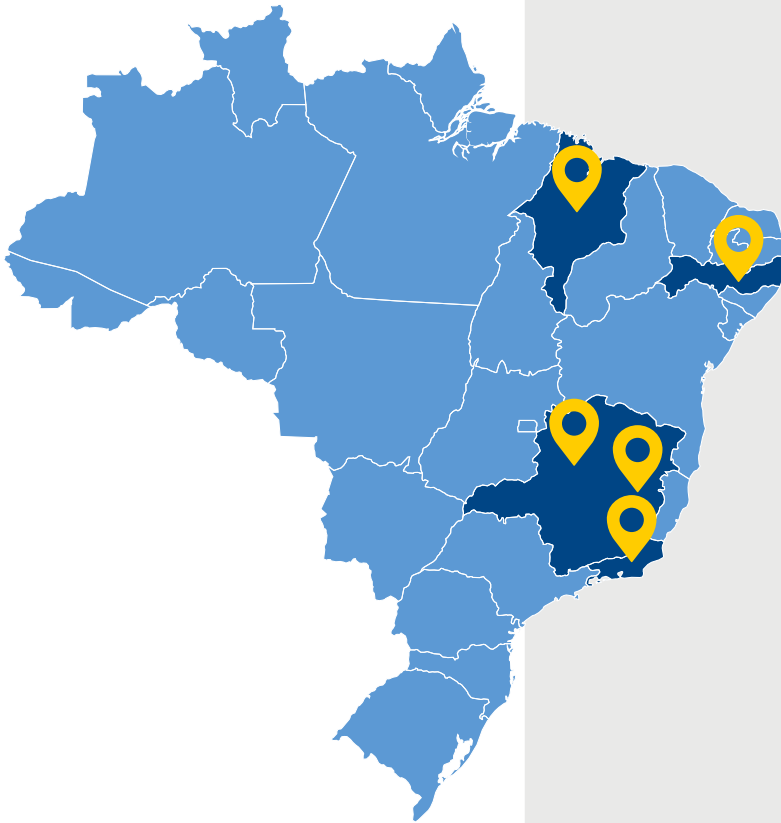


The company was founded in Brazil in 2012 as a subsidiary of ENC Portugal, an expert in waste to energy generation in Europe, with a long history of success in several countries



ENC has developed and operates its own plants, as well as third parties'



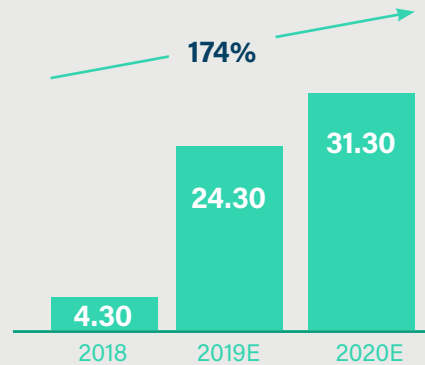


### ENC Energy Brasil

Status	State	Project	MW
O	MG	Valorgás	4.30
O	RJ	Campos	1.00
C	MA	São Luis	2.00
C	PE	Igarassu	4.00
C	MG	Ipatinga	2.00

Note:  
O – Operating and C – Under Commissioning

### CAPACITY UNDER OPERATION (MW)\*:



\* Does not include organic opportunities under development.

### Main challenges:

- Cities are lacking federal guidelines regarding waste destination
- Municipal guidelines for landfills regarding to waste destination
- Licensing new landfills may take many years

### Main opportunities:

- Increase capacity at the existing plants
- New generation plants

### Landfill gas-to-energy

**generation**, lowering greenhouse gases emissions and **offering clean energy** to consumers

Strategic **partner with broad experience in Europe** and Latin America

Company **well positioned to seize opportunities in the nascent landfill gas-to-energy market** in Brazil

**Renewable 3-10-year agreements with clients** – most clients are micro/small companies

# GEF’s contribution and company development:

## INTRODUCTION AND IMPLEMENTATION OF RELEVANT ESG FACTORS

HR guidebook	New Code of Ethics	Engagement with third party consultant to formalize internal compliance function with appropriate control
Introduction of best practices for the board	Active role in strategic planning, hiring of executives, definition of goals, priority projects (BSC) and variable remuneration program	Establishment of processes to obtain ISO Certification (expected by 2021)

■ **INDUSTRY LEADING KPIs AND FINANCIAL INDICATORS**

■ **CAPITAL TO DEPLOY PROJECTS UNDER DEVELOPMENT AND ACTIVE CONTRIBUTION FOR NEW PROJECTS AND ACQUISITIONS**

Negotiation with Brazilian PE fund Vinci to develop projects in the Northeast region  
 Debt raised with leading local financial institution



## Remarkable social and environmental impact:

<p><b>Energy efficiency higher than Solar PV</b></p>	<p><b>Reduction of methane emissions from landfills</b> (25x more potent than CO<sub>2</sub> as a heat trapping gas)</p>	<p><b>Increasing the attractiveness of the landfill business</b>, critical for urban waste management solutions</p>	<p>Distributed Generation leads to distribution of <b>more accessible energy</b> to ~500 local SMEs</p>
--	--	---	---



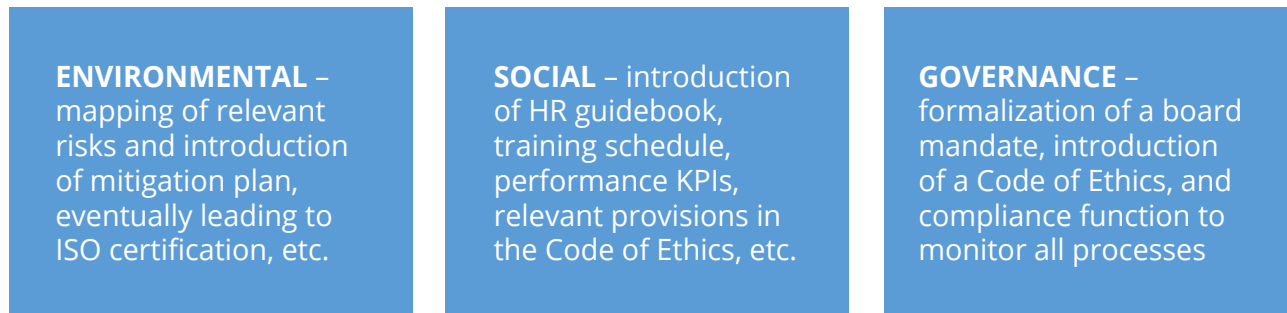


## SHARED VALUE

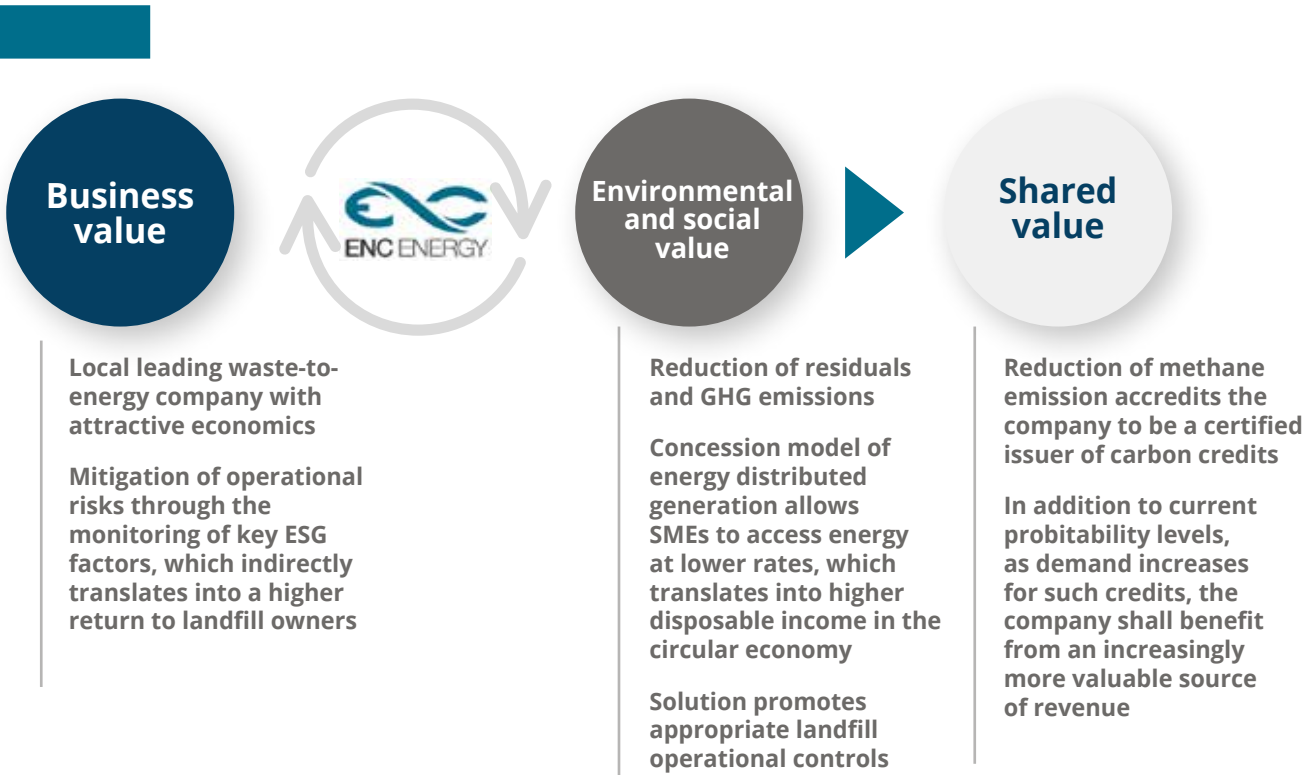
### ENC Energy's business model directly impacts hundreds of SMEs and drives substantial environmental impact

ENC's waste-to-energy solution converts methane, one of the most potent greenhouse gases, into energy, which is sold in the distributed energy system, primarily to SMEs and large energy consumers through Power Purchase Agreement (PPA) contracts. It is estimated that methane is 25 times more potent than CO<sub>2</sub> as a heat-trapping gas.

Since introduction of the ESG assessment followed by the action plan, ENC has substantially improved its processes.



As a result of its core activity related to GHG reduction and the ongoing structuring of its operational processes, ENC is well-positioned to become a certified carbon credit issuer.



### Value increment drivers

Scalable solutions with an estimated 70% of landfills not having a waste to energy solution

Credits are currently sold at USD2/ton in Brazil, but in Europe are already traded at USD30/ton. This arbitrage may close over time

As asset owners and large cost. Put climate at the center of their strategies, demand for certificates should increase, and prices should follow







## Tecverde

Brazil, like many developing countries, still has housing challenges, especially in lower income areas with a deficit of nearly 5 M homes, according to a study conducted by PNAD. Considering the environmental impact caused by homebuilding and the potential to decrease the housing deficit, we identified Tecverde as a leading candidate to provide more environmentally friendly housing solutions. The company is an innovative homebuilder located in Curitiba, Southern Brazil, that uses a unique construction model with approximately two-thirds of a home being built within a factory setting and individual wall panels shipped to a job site for assembly into a final structure. Tecverde's wood-frame system delivers disruptive efficiency to the homebuilding sector through the reduction of construction time (70%), waste generation (85%) and carbon emissions (80%), with significantly better thermal and acoustic comfort, with most of the houses being directed to the government backed program *Minha Casa Minha Vida*, aimed at the low income population. GEF successfully exited the company in 1Q2020 through a strategic sale.

### Company information:

Provider of prefabricated wood frame housing solutions, including raw material, labor, foundations, and the manufacture of multi-frame housing structures – 70% of the house is manufactured at the plant and the other 30% is built *in loco* in approximately 5 days. The company provides consulting and approvals related to the building system until the project is completed.

Business prospection based on technical and financial feasibility analysis.

**THIS COMPANY IS ALIGNED WITH THE FOLLOWING UN SDGS**







**Innovative building system of wood frame construction** – 70% of a house in an industrialized environment with quality properly controlled

Solution for the **reduction of low-income housing deficit**, in the context of the *Minha Casa Minha Vida* federal program

Between 2016 and 2019, the company has built 2,210 standard 43 m<sup>2</sup> houses, with acoustic and thermal insulation

Tecverde builds with wood from planted forests with a **sustainable planting method** – renewable resources

Tecverde System walls **consume 18% less energy** to be manufactured and 80% less CO<sub>2</sub>

Tecverde System consumes less water than a brick wall because water is not used to manufacture wood walls

Considering the houses built in the context of the **government backed program Minha Casa Minha Vida**, nearly 8,000 low income people were benefited

GEF held **a 51% stake**

**Active shareholders' agreement**

## GEF's contribution and company development:

- Forward integration with the objective to provide more control of the value chain, increase scale, and lower costs for clients
- Strong support to daily cash flow management, and debt raising with financial institutions
- Active role in strategic planning, hiring of executives, and goals definition

## Remarkable social and environmental impact:



- Low income housing
- Reduction of 80% of CO<sub>2</sub> emission
- Reduction of 70% in the time needed to build
- Reduction of 85% of the waste generated
- Energy savings of 50% from thermal and acoustic insulation

## Impact currently created (between 2016 and 2019):

CO<sub>2</sub> reduced 10,390 tons = ~10,000 X car emission yearly

Waste avoided 12,390 tons = ~6,195 X SUV weight

Water saved 2,870 m<sup>3</sup> = 1.30 m<sup>3</sup> per Tecverde House built

Social impact ~8,000 people benefitted

### Environmental and social value

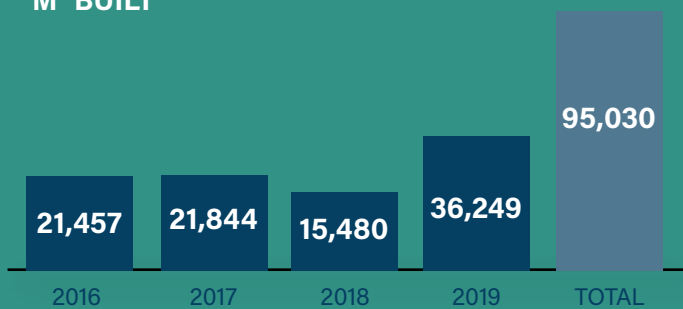
The company has managed to substantially avoid waste and reduce CO<sub>2</sub> emissions

It has directly benefitted nearly 8,000 people

### Business value

Multiple publicly available studies have concluded that construction and advertising of sustainable houses translate into higher sales

#### M<sup>2</sup> BUILT



## COVID-19

Amid the COVID-19 pandemic, which put unprecedented pressure on Brazil's healthcare system, Tecverde was presented with an honorable challenge: to build 100 hospital beds in 40 days in partnership with *Brasil ao Cubo*. Both companies are specialized in modular constructions and applied their know-how to increase capacity at a public municipal hospital in São Paulo in record time.

Development required more than 25 engineers scattered all over the country, using online video tools and Building Information Modeling techniques to convey the project. After the metallic chassis were manufactured by *Brasil ao Cubo*, the modules were transported to Tecverde's factory,

where the walls, cabling, pipes, painting, finishing, tiles and doors were applied, following the strictest requirements from the Ministry of Health. These pre-assembled modules were transported to São Paulo to be installed at the new hospital – modular construction continued to impress, with all the modules being installed and finished at the final location in only 11 days, with 7 days to spare from the original schedule. We are very proud of Tecverde being able to apply its know-how and technology to the fullest, delivering a fast, and reliable solution while at the same time contributing to society.









## AGV

Brazil is the 3<sup>rd</sup> largest animal health market with strong growth opportunities. Despite being a major animal protein producer, Brazil is still incipient in the use of animal health products, resulting in significantly lower productivity compared to other important protein producers. Although the country is already a key global player in the animal protein industry, the structure and coordination of its value chain is less developed than that of other important protein exporters. With those opportunities in mind, we had identified AGV, a 3PL logistics service provider, with an asset light business model and with integrated warehousing and transportation systems. The company has a strong presence in sectors that show increasing demand for logistics solutions in Brazil, including animal health and nutrition, human health and fast moving consumer goods. GEF successfully exited the company in 4Q2019 through a strategic sale.

### AGV structure in Brazil:

- Founded in 1998
- 40 distribution centers, with more than 200 K m<sup>2</sup> installed capacity
- BRL1.90 B of managed inventory
- 38,000 Drop off locations in nearly 4,500 cities
- 2,000+ employees

#### THE COMPANY'S SERVICES HELP TO:

- Increase animal protein conversion rate
- Enhance capillarity and delivery rate for human health products
- Reduce CO<sub>2</sub> emissions by using a robust proprietary cargo consolidation system, enabling full truck loads and up to 15% less trucks on the roads

#### THIS COMPANY IS ALIGNED WITH THE FOLLOWING UN SDGS





**Where we are**

**MAPA**

- BA** Salvador
- GO** Aparecida de Goiânia
- MG** Betim
- MG** Juatuba
- MG** Uberlândia
- MS** Campo Grande
- MT** Cuiabá
- PE** Abreu e Lima
- PA** Marabá
- PR** São José dos Pinhais
- RO** Vilhena
- RS** Cachoeirinha
- SC** Xanxerê
- SP** Cajamar
- SP** Vinhedo (matriz)

**ANVISA**

- GO** Aparecida de Goiânia
- MG** Varginha
- MG** Extrema
- PR** São José dos Pinhais
- PR** Campina Grande do Sul
- RJ** Duque de Caxias
- RJ** Rio de Janeiro
- RS** Cachoeirinha
- SP** Cajamar
- SP** Guarulhos
- SP** São Paulo
- SP** Vinhedo (matriz)

 AGV H&N

 AGV FMCG

Leader in third party logistics (3PL) for animal health and Top 3 in human health – this company does not own assets:

- Rented warehouses
- Rented trucks
- Third party truckers

**GEF’s contribution and company development:**

- Immediate value-add opportunities include: (i) introduction of lean management concepts and best ESG standards, (ii) commercial focus on health and adjacent markets with high growth potential, and (iii) profitability reassessment per client
- Attraction of independent board member, establishment of management incentive plan, and leadership in People, Strategy, and Finance, Commercial and Risk Management Committees

**40 warehouse facilities** across Brazil and transportation services nationwide

**60 K m<sup>2</sup>** of refrigerated and controlled temperature warehouses

Asset-light, integrated logistics operator with scale in Brazil, providing **outsourced storage and transportation** solutions with long-term contracts

**Partnered with strategic partner** (founder) and Brazilian PE fund Kinea for co-control

GEF held **a 35% stake**

**Active shareholders’** agreement

**Remarkable social and environmental impact:**



- Veterinary vaccines/medicines contribute to more efficient protein production
- Contributing to the eradication of the foot and mouth disease in Brazil
- LTL to FTL freight consolidation nationwide removes trucks from road, reducing fuel consumption and CO<sub>2</sub> emissions

**Highly profitable:**

- Health ROIC >50%
- Industry growth >10% in challenged macro environment



*"Yesterday I was clever, so I wanted to change the world. Today I am wise, so I am changing myself."*

*Rumi. Persian Poet*

## Closing remarks

At GEF, we welcome changes, as they enable us to reassess our purpose and become better at what we do on a daily basis. We work relentlessly to improve our capabilities and strengthen our commitment to our stakeholders – which involves society and the environment, through our shared value motivation.

We are both grateful to our investors and inspired by our investees. GEF has been growing at a solid pace thanks to the successful scaling of a business model that relies on our commitment to long term value creation and to promoting relevant societal changes.

We are all going through unprecedented times. In this regard, we feel an urgent need to slow down and re-evaluate all paradigms that have driven the world as we know it. Our first impulse has naturally been to take a step back and closely support our portfolio companies, and we are

privileged to have deliberately invested in businesses that, in different ways, contribute to the construction of a more resilient future. We are also taking the time to reflect on what the world will look like after the storm is over and remain convinced that disciplined allocation of capital has never played a more pivotal role. As the world transforms through paradigm rupture, inaction could drive widening social disparity and aggravate the already fragile climate situation. The World Economic Forum has been warning, for many years, about an increasingly more likely environmental pandemonium. In 2020, for the first time since the Global Risks Report was first published, all of the "top long-term risks by likelihood" were environmental, and climate change was ranked as the greatest global threat. The OECD estimates that around USD6.50 T will be required annually to meet the Paris Agreement goals by 2030.



Disciplined investments that do not just check ESG boxes or comply with score/ratings will be fundamental to drive required transformations. Governments have finally begun to realize that changes are inevitable and only ambitious, though optimistically achievable, plans will help us reverse some of the adverse macro trends. The European Commission plans to become “climate neutral” by 2050, through the introduction of the Green Deal, an aggressive target that will rely on substantial participation by private investors. The commission has introduced a taxonomy to provide the private sector a common understanding about green investments, which will, in principle, function as a guidebook, but to which investors will need to be compliant in the future.

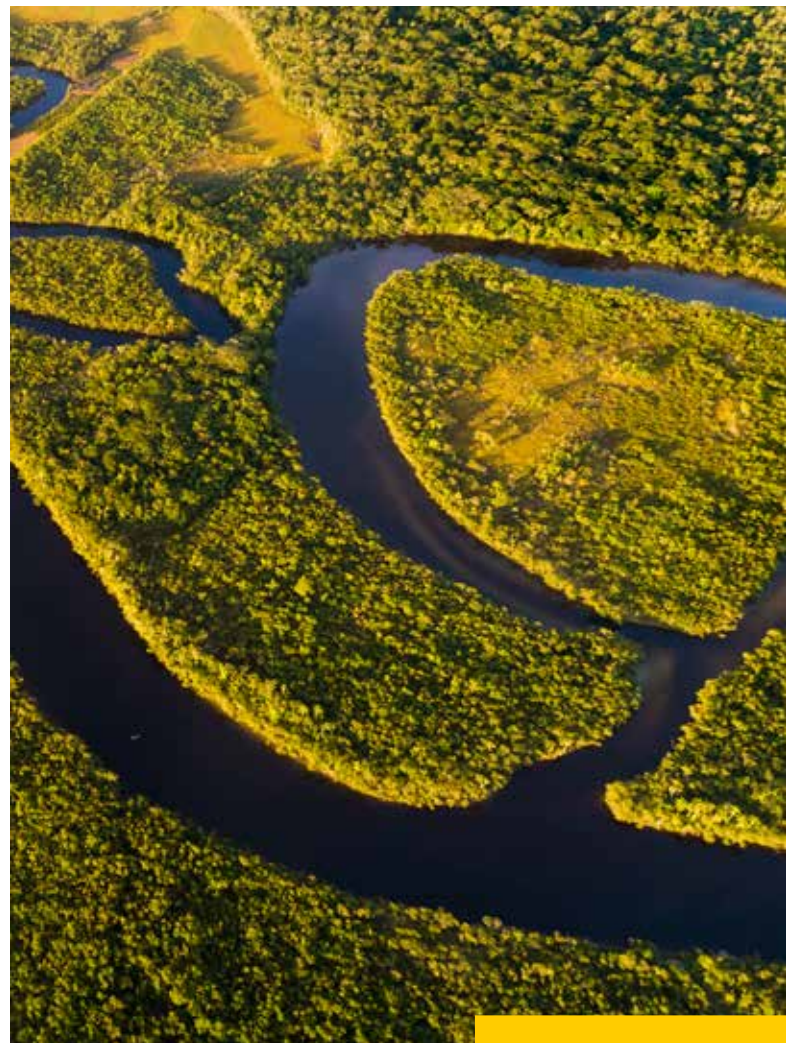
Even though we are uniquely positioned to drive the financial paradigm shifts in our region, we remain preoccupied about the speed and frequency at which adverse events might occur in the future. This has perhaps been one of the motivations that led us to publish this comprehensive report and it could not have been timelier. We embrace the responsibility to promote a more regenerative form of capitalism, one that expands on Milton Friedman's views around shareholder value maximization, and also considers stakeholders, of which the environment is also a part. We hope we have managed to illustrate that in this report. A disciplined focus and integration of ESG factors are part of a fundamental value maximization strategy, which should translate into shared value.

We are excited about the impact we have contributed in recent years and about the positive results we

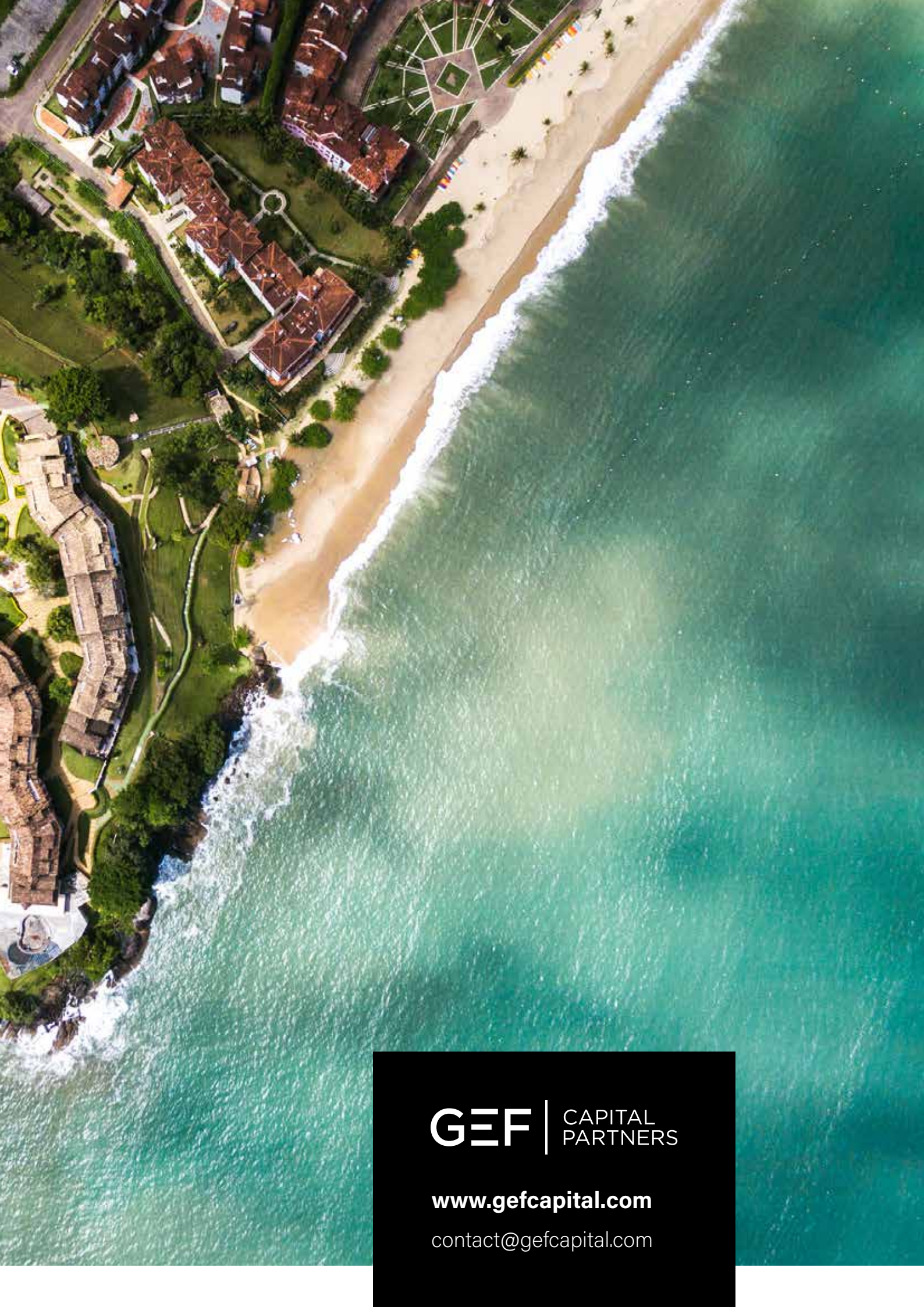
are committed to delivering to our investors. Although we remain connected to a pragmatic purpose-driven strategy that resonates with the resolution of global societal issues, we will continuously seek to change in order to improve as a firm.

Once more, we reiterate our gratitude to our investors for the trust and commitment to our vision, and to our partners for their work and drive to create financial and societal value.

### GEF team







**GEF** | CAPITAL PARTNERS

[www.gefcapital.com](http://www.gefcapital.com)

[contact@gefcapital.com](mailto:contact@gefcapital.com)