DEUTSCHE ASSET MANAGEMENT GLOBAL SOCIAL FINANCE GROUP'S USE OF IMPACT DATA[1]

IMPACT MEASUREMENT & MANAGEMENT CASE

Deutsche Asset Management is one of the world's leading investment management organizations. Deutsche Asset Management offers individuals and institutions traditional and alternative investments across all major asset classes.

Within Deutsche Asset Management, Sustainable Investments is a platform that mobilizes public and private capital for positive environmental, social, and financial returns through entrepreneurial solutions. The Global Social Finance group (GSF), within Sustainable Investments, employs a series of emerging-market-focused microfinance and social enterprise private debt strategies that finance the working capital needs of socially motivated investees, while offering investors an opportunity to place "impact capital" into new and innovative business models providing access to goods and services for low-income populations. The mission of GSF is to mobilize impact capital to finance enterprises and projects that directly benefit the poor and underserved communities.

THE CHALLENGE

As a socially-focused asset manager, GSF recognizes that expanded access to high-quality products and services can improve quality of life for under-served populations.

GSF'S APPROACH

Through its impact investing activities, GSF supports expanded access to capital in geographies, industries, and enterprises often under-served by traditional market actors.

GLOBAL SOCIAL FINANCE: THE FUNDAMENTALS

Asset Class of Investments	Private debt
Stage of Investments	Early stage and growth stage
Target Returns	Target returns vary, from more concessionary returns from philanthropic capital to risk-adjusted market rates
Target Geography	Developing markets globally
Year Founded	The GSF group started its first microfinance fund in 1997
Sectors of Focus	Microfinance, energy, health, and other alternative financial services

1 Note that GSF refers to this data as social performance data, due to the fact that "impact" data requires attribution according to standard monitoring and evaluation practices. GSF's approach also focuses on collecting output data, as opposed to outcome data, from borrowers. For the purpose of this use case, the term "impact data" has been used throughout the document, where "impact" is used to refer to the broader concept of the positive and negative social and environmental results that accrue to target beneficiaries associated with the investment or business activities. See the full *The Business Value of Impact Measurement* report section on "Terms Used" for additional detail.

This case highlights some elements of GSF's impact measurement approach and explains how the group, investors, and borrowers benefit from the approach. For GSF, collecting impact data from investees is important not only for delivering against the group's and investees' social mission (a central purpose of impact investing), but also for supporting the business value of borrowers (see box for definition of 'business value'). Internally, GSF's socially-focused measurement approach generates data that helps achieve strategic alignment, mitigate risks, market to investors, and make follow-on investment decisions. While some impact investors have historically considered impact measurement to be costly and overly burdensome, many have found that it provides tangible and intangible benefits. This case helps explain why impact measurement and management should not be viewed as a necessary cost, but rather as a practice that can inform or improve many aspects of business performance. Understanding this lesson is vital to the practice of impact investing—an investment approach that relies on the integration of traditional business considerations with social and environmental factors to achieve both financial and social and/or environmental returns.

Business value is defined as factors that are advantageous to the overall strength of an investor's or investee's organization, including both direct economic value (whether from improved sales or operations) and strategic benefits that indirectly influence an organization's long-term viability.

Source: *The Business Value of Impact Measurement*, Global Impact Investing Network (GIIN), August 16, 2016, https://thegiin.org/knowledge/publication/businesst-value-im

BACKGROUND ON GLOBAL SOCIAL FINANCE'S IMPACT MEASUREMENT PROCESS

IMPACT-EMBEDDED INVESTMENT STRATEGY

GSF targets microfinance institutions (MFIs) and social enterprises that align with the group's mission, ideally displaying some or all of the following characteristics:

- **Client base that lacks access to essential products/services:** products/services designed for and specifically targeting vulnerable populations (e.g., poor/low-income populations, women, rural populations, or others).
- **High-quality products/services:** products/services that are high in quality (reliable, durable, and well-made) and provided in a responsible manner, resulting in an improvement in quality of life for the end client.
- **Transformative products/services:** products/services that have a directly transformational, positive impact on their end users.
- **Innovative business model:** business models that leverage new or proprietary technology, or apply the technology in a new way, to solve an identified social and/or environmental problem.
- **Scalable business model:** business models with the potential to be scaled in their existing contexts, or replicated in other contexts, geographies, or sectors, to increase social benefits.
- **Sustainable business model:** business models with the potential to operate with limited or no subsidies and government support.
- **ESG practices:** organizations that are currently implementing, or have a clear path toward implementing, standard Environmental, Social and Governance (ESG) best practices.

BACKGROUND ON GLOBAL SOCIAL FINANCE'S IMPACT MEASUREMENT PROCESS

Due diligence focuses on understanding the extent to which these criteria are met. To understand more fully the extent to which a potential investee has built out internal infrastructure to support achievement of its social mission, GSF investment officers complete a social scorecard assessment during due diligence. The scorecard, with one version that targets MFIs and another version that targets social enterprises, comprises a total of 43 simple, multiple-choice questions covering topics such as social performance management and reporting, governance, client protection practices, employee treatment, outreach, responsible financial performance, and environmental protection policies. While developed as a proprietary internal tool, GSF has followed industry standards within microfinance, such as the Universal Standards for Social Performance Management, as well as the Client Protection Principles articulated by the Smart Campaign. GSF is in the process of examining a move to a new industry-created scorecard tool, based on the SPI4 social performance assessment tool, in order to align more fully with industry standards.

While the social scorecard provides some confidence in an investee's ability to deliver on its mission based on the processes, policies, and procedures it has built, in order to get an insight into the company's progress in achieving its mission, GSF collects impact data on both cross-fund, standardized metrics and on company-specific, individualized metrics. The standardized metrics help the group analyze meaningful trends across a set of similar investments (e.g., portfolio companies in the energy sector), whereas the individualized metrics help the investment officers manage the impact and business performance of particular borrowers. Accordingly, the group implements and analyzes metrics along three distinct levels:

- **Level I—Cross-Fund:** GSF has developed a theory of change that applies across all of its funds. The data collected at this group-wide level help assess whether the group is likely to be achieving its intended impact.
- **Level II—Fund-Specific:** More specific impact goals are also set on a fund-by-fund level, tracking one metric per target to manage toward the goal. For example, GSF's team has defined five key impact targets for one of its funds, which are outlined in the upcoming *Sample of Metrics Tracked* section. For that fund, attainment of these targets is tied to a portion of the fund's management fee.
- **Level III—Individualized by Portfolio Company:** Finally, GSF also collects data on borrower-level metrics that are intended to benefit both GSF and the borrower. The investment officer works directly with the portfolio company to lay out how it plans to measure progress against its social performance goals. Based on these iterative conversations, GSF then agrees upon a set of metrics that the borrower believes would be meaningful for its own organization to track.

IMPACT MEASUREMENT STAFFING STRUCTURE

Impact measurement is led by the investment officer responsible for an investment's origination and ongoing monitoring. Additionally, several GSF team members are responsible for managing the data collection and consolidation process, as well as formalizing its cross-fund theory of change and fund-specific goals.

BACKGROUND ON GLOBAL SOCIAL FINANCE'S IMPACT MEASUREMENT PROCESS

SAMPLE OF METRICS TRACKED

View the Global Social Finance IRIS User Registry Page   Browse the IRIS metrics online

The social and environmental performance metrics, listed below, align with GSF's impact measurement process described on the previous page. These metrics are only a representative sample of the full set of metrics that GSF intends to track (GSF is currently working on standardizing the metrics across the team and all borrowers). Where possible, GSF uses IRIS metrics (see last page of this use case for a description of IRIS); where a GSF metric below aligns with an IRIS metric, the relevant metric and its corresponding IRIS identification code have been listed.

LEVEL I: CROSS-FUND, GROUP-WIDE LEVEL METRICS*

METRIC	RATIONALE	SAMPLE IRIS METRICS
Number of clients, by client characteristic	To assess customer outreach and access	Client Individuals: Total (**PI4060**) Client Individuals: New (**PI8732**) Client Individuals: Rural (**PI1190**) Client Individuals: Female (**PI8330**)
Number and types of employees	To assess direct employment creation	Full-time Employees: Total (**OI3160**) Full-time Employees: Managers (**OI8251**) Full-time Employees: Female Managers (**OI1571**)
Number and types of people involved in governance	To assess governance quality and diversity	Board of Directors: Total (**OI1075**) Board of Directors: Female (**OI8118**)
Number of countries in which company operates	To approximate breadth of outreach	Location of Organization's Operating Facilities (**OD1777**)
Number of company offices	To approximate breadth of outreach	N/A

* Several of the metrics in this Level I category overlap with the metrics found in other Levels (e.g., number of clients). This is due to the fact that they are aggregated up from the lower levels.

LEVEL II: FUND-SPECIFIC METRICS**

METRIC	RATIONALE	SAMPLE IRIS METRICS
Number of client loans in new/ innovative product segments	A scale target	N/A
Number of clients	A scale target	Client Individuals: Total (**PI4060**)
Percent of portfolio companies that have attracted new funding during the life of GSF's loan	A crowding-in target (GSF's investment attracting other lenders / shareholders)	N/A
New jobs at portfolio companies	An employment creation target	Permanent Employees: Hired (**OI3547**)
Percent of portfolio companies adopting Smart Assessment/ Certification, or adopting alternative code of conduct (for non-MFI social enterprises)	A target to ensure protection of clients; to improve quality of service for low-income customers	Operational Certifications (**OI1120**)

** The fund metrics and targets listed here are the targets outlined for one of the vehicles managed by GSF and do not apply to all GSF-managed funds. Specific fund-level targets are reflective of each fund's theme, and accordingly, will vary across other funds. This is not an offer to sell or solicit an investment fund or vehicle, and some investments may not be available to certain investors in certain regions.

BACKGROUND ON GLOBAL SOCIAL FINANCE'S IMPACT MEASUREMENT PROCESS

LEVEL III: INDIVIDUALIZED PORTFOLIO COMPANY METRICS***		
METRIC	**RATIONALE**	**SAMPLE IRIS METRICS**
VARIOUS SECTORS		
Client savings premium	To assess affordability	Client Savings Premium **(PI1748)**
Number of units sold with payment plan	To assess affordability	Units/Volume Sold: Total **(PI1263)** *Note: IRIS metric not specific to units/volume sold with payment plan.*
Number of complaints registered per quarter	To assess quality of products/ services and responsible business	Number of Complaints Registered **(PI2197)**
Number of total employees receiving training	To assess quality of products/ services	Employees Trained **(OI4229)**
Employee training hours: total per quarter	To assess quality of products/ services	Employee Training Hours **(OI7877)**
FINANCIAL SERVICES		
Number of voluntary savings accounts	To assess savings creation	Number of Voluntary Savings Accounts **(PI6439)**
Value of voluntary savings account	To assess savings creation	Value of Voluntary Savings Accounts **(PI3240)**
Average loan size/ per-capita GDP	To analyze product offering in the company's context	Average Loan Size Disbursed **(PI5160)**
HEALTH		
Number of healthcare facilities	To approximate scale and access	Healthcare Facilities **(PI1017)**
Number of outpatient treatments	To track treatment volume, which typically lead to surgeries	Units/Volume Sold: Total **(PI1263)**. *Note: IRIS metric not specific to treatments units/volume sold.*
Percent of surgeries performed at below-market prices (either below-market or at no cost to patient)	To assess affordability and access for low income customers *Note: Market prices are context-specific and based on GSF analysis.*	N/A *Note: The data required to calculate the IRIS metric Client Savings Premium (PI1748) may be helpful in reporting against this GSF metric.*
Number of procedures/surgeries conducted	To gauge access to safe surgeries, and to track primary revenue source for hospitals *Note: This information is sometimes collected by sub-type of surgery.*	Units/Volume Sold: Total **(PI1263)**. *Note: IRIS metric not specific to surgeries units/volume sold.*

"Many 'impact' metrics are also business metrics with real business value. For example, the number of surgeries conducted is both an access metric (access to safe surgery is rare and has a very high impact on preservation and quality of life); it is also the primary revenue source for hospitals."

—GSF Team Member

(table continued on next page)

BACKGROUND ON GLOBAL SOCIAL FINANCE'S IMPACT MEASUREMENT PROCESS

Percent of outpatient treatments and percent of surgeries covered by public health insurance	To assess access for low income customers, who often rely on public health insurance	Units/Volume Sold: No Direct Payment (**PI8454**) Units/Volume Sold: Total (**PI1263**)
Percent of eye-care surgeries with high-quality, acceptable-quality, or low-quality outcomes, respectively (%)	To monitor quality of service *Note: This metric is called Best Corrected Vision. GSF uses WHO standards for high-quality, acceptable-quality, and low-quality outcomes. This data can be analyzed on customer income segment.*	N/A
Number of post-surgical infections	To monitor quality of service *Note: This data can be analyzed on customer income segment.*	N/A
ENERGY		
Energy savings from products sold	To monitor positive environmental effects of products sold	Energy Savings from Products Sold (**PI7623**)
Reduction or avoidance of GHG emissions due to products or services sold	To monitor positive environmental effects of products/services sold	Greenhouse Gas Reductions due to Products Sold (**PI5376**)
Increased income resulting from higher productivity or additional income-generating opportunities	To assess economic benefits of off-grid solar and clean cookstove usage	N/A
Reduction in deaths and disability-adjusted life years (DALYs)	To assess health benefits of clean cookstove usage	N/A

*** These metrics vary by portfolio company based on the company's areas of focus. The metrics listed here are a representative sample and are not comprehensive. The typical number of metrics that GSF requests its borrowers track are 3-6.

FREQUENCY OF DATA COLLECTION

Data collection from, and general check-ins with, portfolio companies are dependent on their respective funds' monitoring methodology. GSF hosts quarterly calls and receives monthly reports from MFI and social enterprise borrowers, and also has more frequent engagement with earlier-stage social enterprise investees. The GSF group also aims to conduct an annual in-person company review with its borrowers.

Because GSF is a debt provider, its ability to effect change at borrower's management, governance, and shareholder levels is more limited than for investors in other asset classes. The primary purpose of data collection from its investees is to assess the health of the company and, if necessary, provide support or advice for improvement.

DATA MANAGEMENT SYSTEM

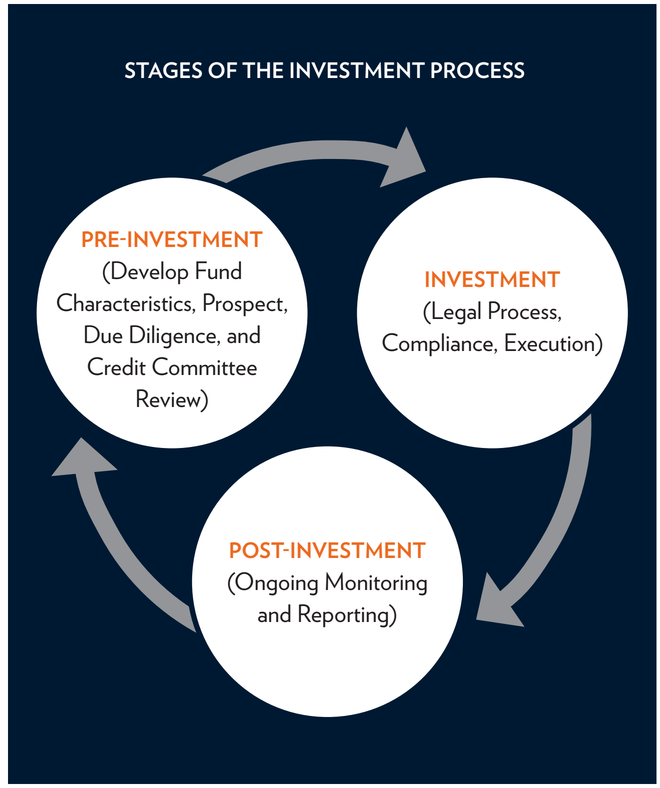
GSF uses Excel-based tools for the management of its impact data.

IMPACT REPORTING PRACTICES

GSF reports some impact metrics to its investors on a quarterly basis, with a fuller set of metrics reported annually by fund.

DERIVING BUSINESS VALUE FROM IMPACT MEASUREMENT: THE GLOBAL SOCIAL FINANCE CASE

In addition to using social and environmental data to improve *impact* performance, which is of course integral to the practice of impact investing, many investors also apply this data in other ways. As described in the full The Business Value of Impact Measurement report, impact investors frequently use social performance and impact data to make decisions and take actions that drive business value. Building on findings from the GIIN's Annual Impact Investor Survey 2016 and based on interviews with 30 practitioners, *The Business Value of Impact Measurement* outlines five drivers of business value that impact investors can gain along various stages of the impact measurement and management process. These drivers are: revenue growth, operational effectiveness and efficiency, investment decisions, marketing and reputation building, and strategic alignment and risk mitigation. The examples below, which are unique to GSF, are categorized along these same drivers. They are also arranged by stage of the investment process to demonstrate how impact data can be utilized throughout the investment cycle.



Pre-Investment (Develop Fund Characteristics, Prospect, Due Diligence, and Credit Committee Review)

Driver: Investment Decisions. As mentioned previously, GSF's social scorecard is used during the due diligence phase to ensure that the prospective borrowers' business strategies and practices are sufficiently developed to deliver against their social missions. The scorecard facilitates the investment officer's assessment, posing questions such as: "Does the company design products and delivery channels in such a way to ensure that they do not cause clients harm? (Y/N)." GSF posits that it can mitigate some social and financial risks by assessing the company's commitment to fair and respectful treatment of its clients (among many other social and financial factors). For example, if GSF lends to a MFI, and the MFI has policies and practices in place to ensure that its clients avoid over-indebtedness, the MFI is not only protecting its clients—a social motivation—but it is also maintaining its financial stability by mitigating future asset quality deterioration. As such, the scorecard helps screen for organizations with exposure to social risks that could translate into financial risks. In this way, the social scorecard assessment influences investment decisions.

Driver: Marketing and Reputation Building. For GSF as a fund manager, the impact measurement process has helped it build its own brand in the impact investing space, and by doing so, attract investors into the fund "that may already be acting within the impact investing sector, or may be coming into this sector for the first time," as a GSF representative explained. GSF created a theory of change to be clear about the group's investment thesis from an impact perspective, which is used in external communications for brand-building purposes. This theory of change exercise has helped GSF define its role within the sector and firmly identify itself as an impact investor.

Investment (Legal Process, Compliance, Execution)

Driver: Strategic Alignment and Risk Mitigation. Beyond its use of the social scorecard, GSF investment officers also set social performance goals with each borrower at the onset of a loan, which include a discussion on which impact metrics the borrower intends to track in order to manage against those goals. For example, if the social enterprise's mission is to increase access to financial services for women in rural areas, the organization will commit to reporting on the percentage of clients who are women and who live in rural areas. These metrics help confirm that the borrower's activities remain strategically aligned to its mission during the course of the investment.

Driver: Investment Decisions. Beyond deciding upon social performance indicators and goals at the time of loan origination, as described in the example above, GSF investment officers will also monitor performance against certain impact metrics prior to providing any follow-on funding. In other words, performance against impact metrics can sometimes influence the group's investment decisions. Specifically, for some transactions, milestones related to ESG requirements are tracked in order to decide whether to disburse follow-on tranches. These milestones in the past have included the obtainment of a conflict of interest policy or increased diversity on the company's governance board.

Post-Investment (Ongoing Monitoring and Reporting)

Driver: Strategic Alignment and Risk Mitigation. GSF also uses impact data to monitor the quality of investees' services as a means to ensure end-clients are being treated safely and to protect the reputation of investees, which is essential for continued business success. For example, for several of its health-related investments, the group tracks and manages against certain outcome measurements, including the number of post-surgical infections and the percentages of eye-care surgeries with various quality outcomes (high-quality, acceptable-quality, or low-quality outcomes). GSF primarily measures these outcome metrics to optimize impact. For example, the metric *number of post-surgical infections* is monitored because infections put a patient's life at risk; since surgical infection rates tend to be high in emerging markets, particularly in government hospitals, GSF posits that private providers with lower post-surgery rates of infection provide significant social value. But tracking this metric also has a value beyond managing the impact performance–it also helps ensure that the investee is delivering consistently high-quality services with low infection rates, which in turn, builds the company's reputation, driving higher volumes of patients from various income segments (low, middle, even high). According to GSF, a health company's reputation for quality in the market "is a key driver of financial success." Further, GSF has found it useful to segment this data along client income brackets. A GSF investment officer focused on health-related investments explains: "It has become clear to us that it is important to start tracking these outcome metrics for different classes of patients if a healthcare provider is using a cross-subsidization model. Many healthcare delivery companies that impact investors are interested in are treating low-income and middle-income people, and everyone in between. And to some degree, there's a sliding pricing scale with some services in our investments. If there's a risk that lower-income people get lower-quality service that should be tracked to ensure poor clients do not get a lower standard of medical care." By tracking these metrics and conducting this analysis, GSF both ensures that the lower-income clients can access the same quality of services as the higher-income clients, and protects the company's brand against financial and impact risks.

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THE IMPACT PROGRAMME

GIIN
GLOBAL IMPACT INVESTING NETWORK

IRIS

The Global Impact Investing Network (GIIN®) is a nonprofit organization dedicated to increasing the scale and effectiveness of impact investing around the world. IRIS is an initiative of the GIIN. It is the catalog of generally accepted performance metrics used to measure and manage the social, environmental, and financial performance of impact investments. While investors' impact measurement practices typically consist of multiple components, the IRIS catalog can help investors at a key phase in the process—the metric selection phase. For more information, please visit www.thegiin.org and www.iris.thegiin.org.

This case is part of a series that highlights the impact measurement practices of select fund managers, focusing in particular on the business value that they derive from these practices. The information found in these use cases is principally sourced from the investors' participation in the full *The Business Value of Impact Measurement* study, available on the GIIN's website: https://thegiin.org/knowledge/publication/business-value-im.

NOVASTAR VENTURES' USE OF IMPACT DATA

IMPACT MEASUREMENT & MANAGEMENT CASE

Novastar Ventures ("Novastar") is a venture catalyst firm that invests in early- and growth-stage businesses in East Africa that are led by entrepreneurs with the character, capacity, and ambition to profitably serve East Africa's growing low-income, high-potential consumer base.

Novastar's investees address proven demand for basic goods and services with innovative business models that widen access, improve quality, and lower costs for the largest group of end consumers – which in East Africa is low-income households. Novastar, which was the first investee of the DFID Impact Fund managed by the CDC Group plc (CDC), is an equity investor that takes a minority stake in its portfolio companies and actively contributes to their success beyond the provision of capital projects that directly benefit the poor and underserved communities.

THE CHALLENGE

Despite recent economic growth, all East African countries are well below global averages for the Human Development Indicators (HDI) Index as defined by the United Nations—a composite statistic of metrics including health, education, and income indices. For example, across the region, nearly 50% of the population lives on less than USD 1.25 per day, well above the global average of roughly 25%.

See the GIIN's The Landscape for Impact Investing in East Africa report, "Demand and Need for Impact Investing Capital" section, for further information.

NOVASTAR'S APPROACH

Novastar's thesis is that large-scale social impact will naturally result from a commercial venture strategy targeting the biggest problems in the largest markets in East Africa.

NOVASTAR VENTURES: THE FUNDAMENTALS

Asset Class of Investments	Venture capital
Stage of Investments	Angel stage, seed stage, early stage, and growth stage
Target Returns	Risk-adjusted market rate
Headquarters Location	Nairobi, Kenya
Target Geography	East Africa
Year Founded	2014
Sectors of Focus	Education, energy, food & agriculture, healthcare, information, and sanitation

This case highlights Novastar's impact measurement approach and explains how the firm derives business value from it (see box for definition of 'business value'). For Novastar, measuring and actively analyzing impact data is important not only for improving impact performance (a central purpose of impact measurement), but also for achieving financial success. Novastar's measurement approach generates impact data that inform investment decisions, help mitigate risks, drive revenue growth, and help market to both existing and prospective investors. While some impact investors have historically considered impact measurement to be costly and overly burdensome, many have found that it provides both tangible and intangible benefits for them and their investee companies. This case focuses on the benefits, that is, how investors' decisions and actions drive business value. Understanding these benefits is vital to the practice of impact investing, an investment approach that integrates commercial considerations with social and environmental factors to achieve both financial returns and positive social and environmental impact.

Business value is defined as factors that are advantageous to the overall strength of an investor's or investee's organization, including both direct economic value (whether from improved sales or operations) and strategic benefits that indirectly influence an organization's long-term viability.

Source: *The Business Value of Impact Measurement*, Global Impact Investing Network (GIIN), August 16, 2016, https://thegiin.org/knowledge/publication/businesst-value-im

BACKGROUND ON NOVASTAR VENTURES' IMPACT MEASUREMENT PROCESS

IMPACT-EMBEDDED INVESTMENT STRATEGY

In addition to making impactful investments, Novastar has two key objectives: 1) to promote a venture capital asset class in East Africa in order to catalyze and support ambitious, high-capacity entrepreneurs; and 2) to demonstrate that a commercial venture strategy in this region naturally generates sustainable social benefits for low-income households at scale, proving that investors need not sacrifice commercial venture returns in order to generate impact.

For Novastar, good investment opportunities are those for which the commercial and impact performance is positively correlated and inextricably linked—there is a fundamental alignment between the commercial growth and success of the company and scaled benefits for low-income individuals. **Novastar believes that impact is generated when low-income individuals or households benefit through their engagement in the value chain of a business as consumers, employees, suppliers, or distributors.** Because low-income individuals make up the biggest market in Novastar's investment region, Novastar posits that companies that serve these markets also have the greatest opportunity to scale. As such, Novastar sees a positive relationship between impact and commercial goals. Novastar has agreed to this qualitative definition of impact potential with its investors as a method by which to screen investments. An independent member of the investment committee signs off on this qualitative impact screen for each approved investment. Conversely, Novastar will avoid investments that require sacrificing returns to achieve social impact.

Because financial and impact performance are inextricably linked for Novastar's investments, the firm assesses the following criteria in order to ensure strong overall (impact and financial) performance:

- **Market potential:** Novastar seeks portfolio companies with business models that address a big problem in a big market. Venture funds take a lot of early stage risk and will inevitably experience failures in the portfolio. Thus, the 'winners' need to succeed at a very large scale to achieve the overall return objectives for the fund. This constrains Novastar to prioritizing investment opportunities according to the size of the market they are addressing.
- **Innovation:** Novastar seeks portfolio companies with business models that service market demands in an innovative way, enabling new market access, cheaper and/or better-quality products or services.

BACKGROUND ON NOVASTAR VENTURES' IMPACT MEASUREMENT PROCESS

- **Focused and simple strategy:** Novastar seeks portfolio companies with business models that are very clear about how the business will serve market needs.
- **Character, capacity, and ambition of the entrepreneurial team:** Novastar looks for a team's demonstrated ability to build businesses that can transform markets and grow rapidly to scale. Characteristics assessed include integrity, audacity, resilience, and humility. Capacities assessed include experience, vision, and energy, amongst others. Finally, ambition is assessed as the desire to tackle challenging problems at scale and grow large businesses. Additional details about what Novastar looks for in entrepreneurs are available online.
- **Entrepreneurs whose values are aligned to Novastar's:** Novastar searches for companies with leaders who are building businesses with a purpose beyond short-term profit maximization.

IMPACT MEASUREMENT STAFFING STRUCTURE

As of 2016, Novastar has one staff member managing investor relations and reporting. Working with the relevant investment manager, this individual is responsible for setting baseline impact measures and collecting, validating, and reporting both non-financial and financial information to investors. In addition, each investment manager who serves as the point-of-contact for a portfolio company is responsible for reviewing and approving the impact data reported to Novastar.

FUNDING FOR IMPACT MEASUREMENT

Novastar funds its impact measurement practices with its internal operational budget, as it is integrated with the investment process. In some cases, technical assistance money from the DFID Impact Fund has been used to enhance the portfolio company's understanding of consumer behavior, which has a bearing on impact results as explained further below.

BACKGROUND ON NOVASTAR VENTURES' IMPACT MEASUREMENT PROCESS

SAMPLE OF METRICS TRACKED

View Novastar Ventures' IRIS User Registry Page ▶ Browse the IRIS metrics online ▶

Novastar is a registered IRIS user. Novastar prioritizes IRIS metrics as a useful tool to enable integrated reporting of both financial and social performance. Where a Novastar metric below aligns with an IRIS metric, the relevant IRIS metric has been listed.

METRIC	RATIONALE	SAMPLE IRIS METRICS
Number of Low-Income Consumers (defined as individuals living below USD 2 per day, per capita)	Used as proxy for scale, which is integral to Novastar's investment thesis *Analyzed for the impact screen at the time of the investment decision. Sourced directly from the business when data is available (e.g., businesses that provide credit to customers and collect this information for commercial needs); otherwise, estimated based on demographics of the market served.*	Client Individuals: Very Poor (PI9835)
Number of, and Income Levels of, Beneficiaries (as consumers, employees, suppliers, or distributors)	Used to improve understanding of company stakeholders in order to ensure a strong value proposition to each, while also checking that impact is being achieved *For example, through Novastar's investment in Soko (ethically sourced fashion jewelry from low-income Kenyan artists), Novastar tracks not only the number of artisan workshops but also the number of employees at the artisan workshops (i.e., suppliers to the company).*	Client Individuals: Total (PI4060), *see submetrics for poor, very poor, and low income.* Client Households: Total (PI7954), *see submetrics for poor, very poor, and low income.* Permanent Employees: Total (OI8869), *see submetric for Low Income Areas.* Supplier Individuals: Total (PI5350), *see submetrics for poor, very poor, and low income.* Distributor Individuals (PI2758), *see submetrics for poor, very poor, and low income.*
Number of Employees of Investees, by Gender	Tracked primarily due to select investors' interest	Permanent Employees: Total (OI8869) Permanent Employees: Female (OI2444)
Amount of taxes paid	Helps Novastar gauge the indirect positive influence that its portfolio companies have on their communities of operation, and is also a compliance check	Payments to Government (FP5261)
Results of the Product/Service Delivered	To approximate breadth of outreach These outputs are typically specific to each investment, and relate to the investee's theory of change. Several include: • Increases in household income. • Differential learning outcomes shown through test scores vs. a control (*Bridge International Academies*). • Metric tons of CO_2 emissions offset (*SolarNow, Paradigm*). • Metric tons of waste removed from informal urban settlements (*Sanergy*). • Number of hectares under cultivation (*Komaza*). Visit Novastar's website for more information on its portfolio companies.	Greenhouse Gas Reductions due to Products Sold (PI5376) Waste Reductions from Products Sold (PI5926) Waste Reductions from Services Sold (PI5678) Land Directly Controlled: Cultivated (OI1674)

BACKGROUND ON NOVASTAR VENTURES' IMPACT MEASUREMENT PROCESS

FREQUENCY OF DATA COLLECTION

Financial data is collected monthly; impact data is collected and reported quarterly.

DATA MANAGEMENT SYSTEM

At present, Novastar provides each portfolio company with a pre-filled Excel spreadsheet, showing the agreed-upon metrics (financial, impact, and ESG), past quarters' reported performance, and blanks for the current quarter. The portfolio company's management completes and returns this information to Novastar.

IMPACT REPORTING PRACTICES

Novastar provides quarterly reports and a summary annual report to its investors. These reports integrate both financial and operational performance, as well as an impact summary that includes data on metrics such as those listed above, for each portfolio company. The annual report expands upon the social benefit achieved by the investments through additional qualitative descriptions.

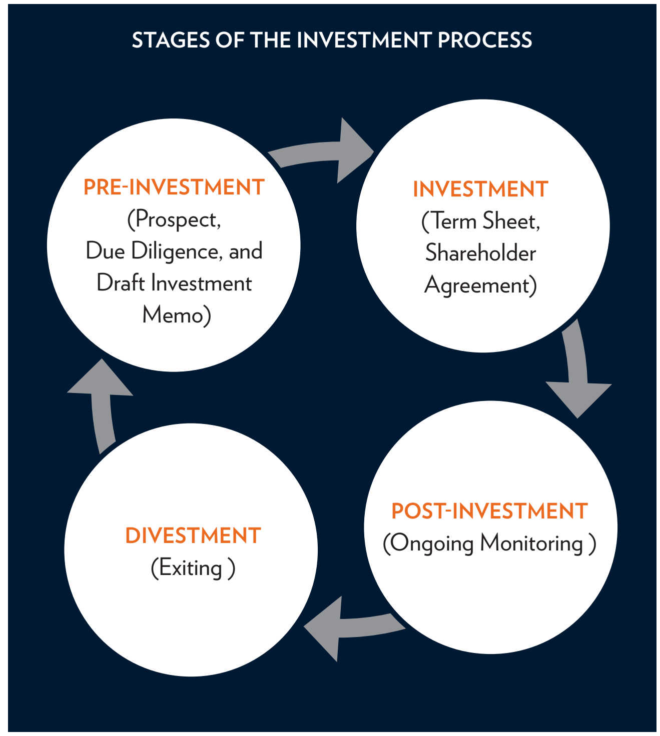
> "We spend a little more time in our annual report [than in our quarterly reports] on the impact side, and provide a pictorial essay for each of our portfolio companies that tries to bring the social benefit to life for the investors. It's also motivational for us as a team, seeing as it was a part of our motivation for doing this [work] in the first place."
>
> —Steve Beck, *Novastar Ventures Co-Founder and Managing Director*

EVOLUTION IN IMPACT MEASUREMENT APPROACH

Since its inception, Novastar has made an important adjustment to its impact measurement practices. When Novastar began investing, the team conducted baseline studies to learn about investees' target beneficiaries (scale, income levels, and other relevant information). Notably, however, Novastar did not involve their investees in this process, out of fear of interrupting their commercial progress and busy schedules. Novastar quickly shifted its impact measurement approach to engage its investees in a conversation at the onset about what information the investee *already* collects and *would find helpful* to collect. This early engagement with the portfolio companies has led to the collection of more informative data, and along the way has helped ensure alignment with investees on the importance of impact measurement. It has also helped Novastar to better assess the motivations of the founding team—Novastar finds that if the founding team is motivated by impact, they typically already collect some information on it. Novastar wants all impact measurement reporting to be beneficial to the portfolio company, as well as the Fund.

DERIVING BUSINESS VALUE FROM IMPACT MEASUREMENT: THE NOVASTAR VENTURES EXAMPLE

In addition to using social and environmental data to improve *impact* performance, which is of course integral to the practice of impact investing, many investors also apply this data in other ways. As described in the full The Business Value of Impact Measurement report, impact investors frequently use social performance and impact data to make decisions and take actions that drive business value. Building on findings from the GIIN's Annual Impact Investor Survey 2016 and based on interviews with 30 practitioners, *The Business Value of Impact Measurement* outlines five drivers of business value that impact investors can gain along various stages of the impact measurement and management process. These drivers are: revenue growth, operational effectiveness and efficiency, investment decisions, marketing and reputation building, and strategic alignment and risk mitigation. The examples below, which are unique to Novastar Ventures, are categorized along these same drivers. They are also arranged by stage of the investment process to demonstrate how impact data can be utilized throughout the cycle.[1]



Pre-Investment (Prospect, Due Diligence, and Draft Investment Memo)

Driver: Investment Decisions. Novastar finds value in using impact data to determine which investment opportunities have high potential for impact and returns. For Novastar, the impact metric on the number of low-income individuals that are likely to be reached plays an important role at the diligence phase (see earlier section to learn about Novastar's impact screen). To better understand the scalability of a potential investee's business model—which is key to Novastar's success as a market-rate return venture fund—Novastar collects information on the number of low-income individuals that are likely to be reached. This social performance metric has helped Novastar assess which investment opportunities are most likely to meet its commercial mandate, thereby improving its efficiency in making investment decisions.

Investment (Term Sheet, Shareholder Agreement)

Driver: Strategic Alignment and Risk Mitigation. Novastar sees risk mitigation value from much of the environmental, social, and governance (ESG) factors on which it demands compliance from investees. Managing these factors helps ensure that Novastar's portfolio companies are operating responsibly in their communities, while building long-term value in the company. For example, Novastar requests information on payments to governments and requires its investees to sign their compliance with the Foreign Corrupt Practices Act and the UK Anti-Bribery Act. Additionally, as part of the investment agreement, Novastar and the investee agree to an "ESG Action Plan" tailored to the company's stage of maturity and ESG risk profile. The plan includes items such as the implementation of improved occupational health and safety practices, environmental protection measures, and others. Tracking and managing this

1 Note that investors vary in their descriptions of the stages of an investment process, as described further in Rockefeller Philanthropy Advisors' *Solutions for Impact Investors: From Strategy to Implementation*, November 2009. This terminology is adapted from the Bamboo Finance 2015 Impact Report, available online at http://www.bamboofinance.com/wp-content/uploads/bamboo-finance-impact-report-2015.pdf.

information helps Novastar mitigate risks related to failure of achieving its desired impact and provides accountability. See page six of the full The Business Value of Impact Measurement brief, "A Note on ESG and Impact Investing" section, for more information on the relationship between ESG and impact data.

Post-Investment (Ongoing Monitoring)

Driver: Revenue Growth. Novastar has found that by better understanding its investees' customers, it can help drive revenue growth. A core element of Novastar's investment model is selecting businesses for which benefitting low-income households is clearly connected to the commercial success of the business. Novastar engages in conversations about scale early on with its investees, and the scale calculation requires an understanding of how many low-income individuals can be served in the market. By segmenting the market by socioeconomic status, Novastar can have a strategic conversation with its investees about the potential to access new market segments (often in a lower income bracket). With this aim in mind, Novastar has in the past deployed technical assistance to help portfolio companies, such as Sanergy, with customer-lens market research on an opportunistic basis (more information on Novastar's investment into Sanergy is available in the next section).

Driver: Strategic Alignment and Risk Mitigation. The impact data that Novastar collects help course correct investment performance when necessary, to mitigate both impact and financial risks. After collecting quarterly impact data from its portfolio companies, Novastar reviews the data and investigates any results that vary from expectations. In the past, these variations have raised issues that were further explored. For example, as part of the impact measurement process, Novastar noticed that the marketing materials of one of its portfolio companies was potentially misleading regarding the gender of low-income suppliers, a metric of importance to Novastar and its investees. Novastar suggested that marketing materials be changed to reflect the reality about the gender of low-income suppliers to increase transparency.

Driver: Marketing to Investors. The social performance information that Novastar collects during the post-investment, ongoing-monitoring stage helps the firm build a positive brand. Novastar uses impact data to communicate to its existing investors (limited partners), some of whom aggregate this information across other fund investments. Several of Novastar's investors target specific impact goals; as such, it is important for Novastar to accurately and reliably report this information upwards. Demonstrating the benefits delivered to beneficiaries is an important differentiator for Novastar to continue to attract impact investors into its funds.

Divestment (Exiting)

Driver: Marketing to Investors. Data on investments' ESG performance not only help Novastar mitigate risk, but also drive the potential valuation of the portfolio company at the point of divestment. At exit, Novastar expects that many prospective investors will find the ESG practices of Novastar's portfolio companies attractive. Examples of these ESG practices are described above (see example under 'Investment' phase above). Novastar believes that these practices will open exit opportunities to a wider array of buyers, thereby increasing the companies' value at the time of sale.

CASE WITHIN A CASE

INVESTOR

NOVASTAR VENTURES

- Novastar has led two investment rounds into Sanergy over the past three years.
- Novastar selected Sanergy for investment in large part because the social benefits that Sanergy produces (access to dignified, hygienic sanitation, business ownership and increased income, public health improvements) are correlated with the commercial logic of the business.

INVESTEE

SANERGY

About Sanergy

- Sanergy is a franchisor of small-scale sanitation centers.
- Its mission is to develop a sustainable, scalable, and financially viable sanitation infrastructure within informal urban settlements where the density of population is very high and the availability of sanitation infrastructure and services is extremely low.
- Waste is collected daily, and converted (at a centralized facility) into by-products such as fertilizer and other agricultural inputs. Those by-products are then sold to Kenyan farms.

Sanergy's Impact Measurement

- Impact measurement is integrated into every staff member's responsibilities; managers' performance is tied to impact all along the value chain.
- Funding for impact measurement comes out of Sanergy's operational budget. For longer-term evaluations, Sanergy has worked with grant-funded third-party evaluators.
- Metrics tracked include: # toilets sold in informal settlements, # daily uses from community members who now have access to affordable hygienic sanitation, tons of waste safely removed and treated, and # jobs created.

"Our impact targets are our operational targets" —David Auerbach, *Sanergy Co-Founder*

END BENEFITS

As Sanergy's toilet network expands, it:

- Addresses a basic need amongst individuals living in the informal urban settlements.
- Improves general public health and minimizes environmental damage through the uptake of toilets.
- Expands asset ownership, employment, and income among its franchisees.
- Offers farmers a yield-enhancing organic fertilizer.

Acknowledgements

The study was produced with support from the U.K.. Government through the Department for International Development's Impact Programme.

This case was created by the Global Impact Investing Network (GIIN). Members of the GIIN team who contributed to this report include: Ariela Cohen (lead author), Rachel Bass, Laura Gustafson, Rebecca Kurland, Kelly McCarthy, Pete Murphy, and Hannah Schiff. The development of this report was supported by the GIIN's work on Impact Measurement & Management.

The GIIN would like to thank Steve Beck, Managing Director at Novastar Ventures, who contributed perspectives and experience on impact measurement for the creation of this case.

UKaid from the British people

THE IMPACT PROGRAMME

GIIN GLOBAL IMPACT INVESTING NETWORK

IRIS

The Global Impact Investing Network (GIIN®) is a nonprofit organization dedicated to increasing the scale and effectiveness of impact investing around the world. IRIS is an initiative of the GIIN. It is the catalog of generally accepted performance metrics used to measure and manage the social, environmental, and financial performance of impact investments. While investors' impact measurement practices typically consist of multiple components, the IRIS catalog can help investors at a key phase in the process—the metric selection phase. For more information, please visit www.thegiin.org and www.iris.thegiin.org.

This case is part of a series that highlights the impact measurement practices of select fund managers, focusing in particular on the business value that they derive from these practices. The information found in these use cases is principally sourced from the investors' participation in the full *The Business Value of Impact Measurement* study, available on the GIIN's website: https://thegiin.org/knowledge/publication/business-value-im.

THE LYME TIMBER COMPANY'S USE OF IMPACT DATA

IMPACT MEASUREMENT & MANAGEMENT CASE

The Lyme Timber Company LP ("Lyme Timber" or "Lyme") is a private timberland investment management organization (TIMO) that invests in and manages timberland and rural real estate with important conservation attributes.

Lyme's portfolio consists of: **working lands**, **high-priority conservation lands**, and **mitigation banks**. The lands that Lyme invests in generate operating income from a variety of sources such as sustainable timber harvesting, recreational leasing, sale of carbon-offset credits, alternative energy supply agreements, and sale of **mitigation credits**. Lyme also achieves investment returns through capital events such as the sale of **conservation easements** and the final sale of the property.

Note: Bolded terms are explained further at the end of this use case, under "terms used".

THE CHALLENGE

Forests face major ecological health and biodiversity risks. According to a 2016 report on conservation finance, an estimated USD 300-400 billion per year is needed to preserve healthy ecosystems on land and in the oceans, in order to protect the earth's natural capital stock of clean air, fresh water, and species diversity.

LYME TIMBER'S APPROACH

Lyme's investments often fill gaps in larger conserved landscapes, and Lyme's protection of these lands helps deliver vital ecosystem services such as: the protection and restoration of streams and wetlands, drinking water supply protection, habitat conservation, carbon sequestration, flood control, maintenance of air quality, soil regeneration, recreational access, and ecotourism. Lyme's investments also strengthen rural economies by providing jobs in forestry and logging as well as recreation and tourism.

LYME TIMBER: THE FUNDAMENTALS

Asset Class of Investments	Real assets
Target Returns	Risk-adjusted market-rate returns
Headquarters Location	New Hampshire, USA
Target Geography	United States and Canada
Year Founded	1976
Sectors of Focus	Sustainable forestry / timber and land conservation

This case highlights Lyme Timber's impact measurement approach and explains how the firm derives business value from it (see box for definition of 'business value'). For Lyme Timber, measuring and actively analyzing impact data is important not only for improving impact performance (a central purpose of impact measurement), but also for achieving financial success. Lyme generates impact data that help the company ensure the strategic alignment of its investments and support its marketing and reputation-building efforts. While some impact investors have historically perceived impact measurement to be costly and overly burdensome, many have found that it provides both tangible and intangible benefits. This case focuses on the benefits, that is, how investors use impact data to make decisions and take actions that generate business value. Understanding these benefits is vital to the practice of impact investing—an investment approach that relies on the integration of traditional business considerations with social and environmental factors to achieve both financial returns and impact.

Business value is defined as factors that are advantageous to the overall strength of an investor's or investee's organization, including both direct economic value (whether from improved sales or operations) and strategic benefits that indirectly influence an organization's long-term viability.

Source: *The Business Value of Impact Measurement*, Global Impact Investing Network (GIIN), August 16, 2016, https://thegiin.org/knowledge/publication/businesst-value-im

BACKGROUND ON LYME TIMBER'S IMPACT MEASUREMENT PROCESS

IMPACT-EMBEDDED INVESTMENT STRATEGY

Lyme selects investments based on the potential to achieve both a financial return and a conservation outcome.

From a conservation perspective, the availability of buyers (principally public agencies) to purchase conservation easements and their degree of interest in a particular property are key criteria in selecting investments. Lyme has a deep network of land trust and conservation partners, and tracks conservation priorities and sources of conservation funding throughout the US. Out of the nearly one million acres in Lyme's current and historical portfolio, 95% have been (or are expected to be) permanently conserved. More information on Lyme's current and past portfolio is available online.

Additionally, Lyme Timber's forest management practices are guided by the Northern Forest Lands Council's nine principles of sustainability, which are:

- Maintenance of soil productivity
- Conservation of water quality, wetlands, and riparian zones
- Maintenance or creation of a healthy balance of forest age classes
- Continuous flow of timber, pulpwood, and other forest products
- Improvement of the overall quality of the timber resource as a foundation for more value-added opportunities
- Maintenance of scenic quality by limiting adverse aesthetic impacts of forest harvesting, particularly in high-elevation areas and vistas
- Conservation and enhancement of habitats that support a full range of native flora and fauna.
- Protection of unique or fragile areas
- Continuation of opportunities for traditional recreation

BACKGROUND ON LYME TIMBER'S IMPACT MEASUREMENT PROCESS

IMPACT MEASUREMENT STAFFING STRUCTURE

Lyme's Director of External Relations assumes the primary responsibility for impact measurement and reporting. Additionally, Lyme's Director of Forestry Operations is responsible for conducting regular property visits and leads Lyme's monitoring and compliance of sustainable forestry practices. A third member of the Lyme team collects and analyzes geographic information system (GIS) data that help inform Lyme's acquisition decisions, as described further herein. These data collection systems, combined, contribute to Lyme's ability to achieve its desired impact.

FUNDING FOR IMPACT MEASUREMENT

Lyme Timber funds its impact measurement practices with its internal operational budget, as it is integrated with the investment process.

SAMPLE OF METRICS TRACKED

View Lyme Timber's IRIS User Registry Page ▸ Browse the IRIS metrics online ▸

Lyme has found using IRIS metrics to be helpful in reducing its reporting burden; rather than having to produce many tailored reports, it instead can use the standardized IRIS metrics to produce a singular impact report that it shares with fund investors and other interested parties. Lyme played a critical field-building role as an active participant in a 2012 working group that developed a set of generally accepted land conservation metrics for inclusion in the IRIS catalog.[1] For each Lyme Timber metric listed below, the aligned IRIS metric has been listed.

METRIC	RATIONALE	RELEVANT IRIS METRICS
Land Directly Controlled: Sustainably Managed. Area of land directly controlled by the organization and under sustainable cultivation or sustainable stewardship as of the end of the reporting period.	Metric directly links to Lyme's impact objective of maintaining sustainable forestry practices.	Land Directly Controlled: Sustainably Managed (OI6912)
Operational Certifications. Third-party certifications held by the organization that are related to its business processes and practices and that are valid as of the end of the reporting period.	Metric helps verify that the lands in Lyme's portfolio are being sustainably managed, by securing a third-party certification. *Notes: All of Lyme's working timberland properties are third-party certified to one or both of the two leading sustainable forestry certification programs: The Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative© (SFI).*	Operational Certifications (OI1120)
Protected Land Area: Permanent. Area of land with a permanently protected land status (through conservation easements or fee sales) as of the end of the reporting period.	Metric allows Lyme to demonstrate the durable conservation outcomes that result from its investments.	Protected Land Area: Permanent (PI3924)
Ecological Restoration Management Area. Area of land under ecological restoration management during the reporting period. Includes both land area directly controlled and land area indirectly controlled by the organization.	Metric allows Lyme to demonstrate the restorative conservation outcomes that result from its investments. This metric is especially relevant for Lyme's mitigation bank investments.	Ecological Restoration Management Area (PI9556)

(table continued on next page)

1 The group consisted of land conservation practitioners, land conservation investment managers, impact investors, and field experts, who each offered input and advice related to the identification and formulation of the metrics.

BACKGROUND ON LYME TIMBER'S IMPACT MEASUREMENT PROCESS

METRIC	RATIONALE	RELEVANT IRIS METRICS
Area of Adjacent Protected Land. Number of acres of protected land that shares a boundary with the organization's protected land areas as of the end of the reporting period.	Metric provides a rough indicator of the ecological value of a property. As explained further in the following section, large connected assemblages of protected lands are more valuable ecologically than small, disconnected and isolated blocks of protected land.	Area of Adjacent Protected Land (PI5750)
Units/Volume Sold: Total. Sustainably harvested wood products during the reporting period.	Metric indicates investments' current and future potential for generating recurring cash flows.	Units/Volume Sold: Total (PI1263)
Area of Trees Planted: Native Species. Area of land on which native species of trees were planted by the organization during the reporting period.	Metric provides indication of forestland's sustainability.	Area of Trees Planted: Native Species (PI3848)
Area of Fresh Water Bodies Present. Surface area of freshwater bodies present during the reporting period on protected land, land under sustainable stewardship, or land under sustainable cultivation.	Since protecting water quality and quantity is critical to ecological health, Lyme tracks the surface area of freshwater bodies as an indicator of environmental impact.	Area of Fresh Water Bodies Present (PI7170)
Jobs Maintained at Directly Supported/Financed Enterprises: Total. Number of full-time equivalent employees working for enterprises financed or supported by the organization at the end of the reporting period who remain at the organization as of the end of the reporting period.	Metric helps demonstrate the social and economic impact of Lyme's investments, which are frequently in distressed rural communities.	Jobs Maintained at Directly Supported/Financed Enterprises: Total (PI5691)
Ecosystem Services Provided. Ecosystem services provided by land directly or indirectly controlled by the organization, during the reporting period.	Metric enables Lyme to describe in a standardized way the intrinsic ecosystem benefits that its investments provide. *Notes: This IRIS metric requires a "select all that apply" response. Lyme selects the following:* • *Biological raw materials* • *Freshwater* • *Maintenance of air quality* • *Habitat* • *Nutrient cycling* • *Water cycling* • *Recreation and Ecotourism*	Ecosystem Services Provided (PD8494)

FREQUENCY OF DATA COLLECTION

Annually

DATA MANAGEMENT SYSTEM

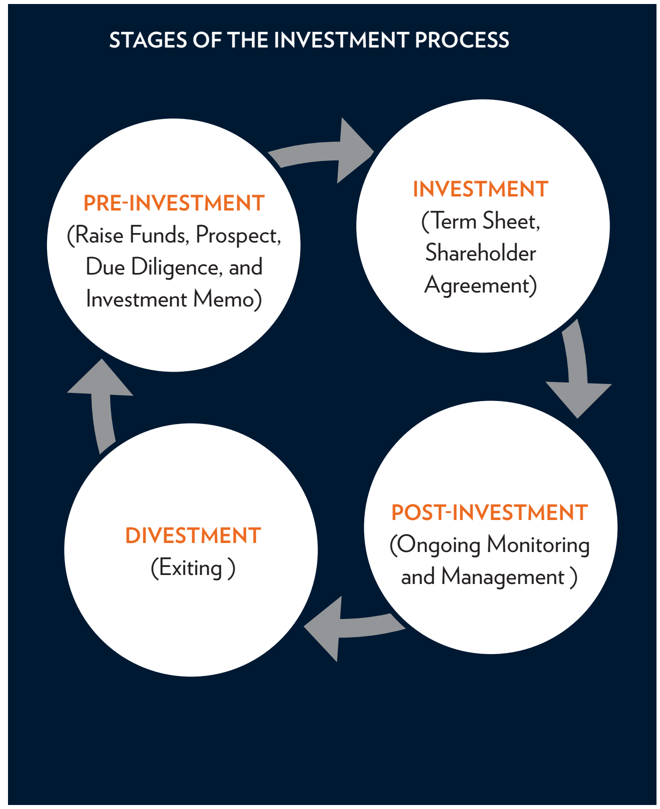
The Lyme team uses an excel spreadsheet to collect and store impact data. Lyme also uses Esri, a geographic information system mapping software, to help accurately analyze and describe its portfolio in alignment with several of the IRIS metrics such as Area of Adjacent Protected Land (PI5750) and Area of Fresh Water Bodies Present (PI7170).

IMPACT REPORTING PRACTICES

The Lyme team provides a fund level impact report to its investors on an annual basis.

DERIVING BUSINESS VALUE FROM IMPACT MEASUREMENT: THE LYME TIMBER CASE

In addition to using social and environmental data to improve *impact* performance, which is of course integral to the practice of impact investing, many investors also apply this data in other ways. As described in the full The Business Value of Impact Measurement report, impact investors frequently use social performance and impact data to make decisions and take actions that drive business value. Building on findings from the GIIN's Annual Impact Investor Survey 2016 and based on interviews with 30 practitioners, *The Business Value of Impact Measurement* outlines five drivers of business value that impact investors can gain along various stages of the impact measurement and management process. These drivers are: revenue growth, operational effectiveness and efficiency, investment decisions, marketing and reputation building, and strategic alignment and risk mitigation. The examples below, which are unique to Lyme Timber, are categorized along these same drivers. They are also arranged by stage of the investment process to demonstrate how impact data can be utilized throughout the cycle.[2]



Pre-Investment (Raise Funds, Prospect, Due Diligence, and Draft Investment Memo)

Driver: Strategic Alignment and Risk Mitigation. Lyme Timber uses geographic information system (GIS) data and other information sources to ensure that its investments are strategically aligned with its investment thesis. Several data sources help Lyme find lands that are strategically aligned with its mission. One of Lyme's strategies is to acquire *contiguous* land – land that shares a boundary with another protected land area. Most of the lands that Lyme invests in are adjacent to protected lands, such as state parks or wildlife refuges. Lyme pursues this strategy because large, connected areas of conserved land are more valuable from a conservation standpoint than small and disconnected pieces of conserved land. By becoming the adjacent land-owner, Lyme creates a buffer that improves habitat quality for wildlife. In order to ensure that Lyme adheres to this strategy, Lyme relies on quantitative GIS data from credible third-party sources (e.g., The Nature Conservancy, the Wisconsin Department of Natural Resources, or the United States Forest Service), as well as qualitative data from partners such as The Nature Conservancy, that help indicate which land parcels are strategic priorities for conservation across various states. These sources of information also often provide a good indicator for where funding is available. As such, in these cases, the impact performance and business value overlap, where higher conservation priorities are correlated to the achievement of strong financial returns.

Driver: Marketing and Reputation Building. Beyond marketing to prospective and current investors, Lyme's impact data have also earned it the trust of key stakeholders, such as local authorities, which has both helped the firm complete transactions and generally supported its

2 Note that investors vary in their descriptions of the stages of an investment process, as described further in Rockefeller Philanthropy Advisors' *Solutions for Impact Investors: From Strategy to Implementation*, November 2009. This terminology is adapted from the Bamboo Finance 2015 Impact Report, available online at http://www.bamboofinance.com/wp-content/uploads/bamboo-finance-impact-report-2015.pdf.

reputation. It is important to note that one of Lyme's impact objectives relates to improving the economies of distressed rural communities. For example, one of the investment funds managed by Lyme includes a portfolio land of 72,800 acres in Florida's Big Bend region, a very rural area with a declining population that is characterized by lower incomes, lower education levels, net out-migration, and a comparatively older population, relative to the rest of the state.[3]

In Florida, the case for prioritizing land for conservation rather than for purely commercial use has at times been difficult to make—indeed, officials in the state have expressed doubts about the relationship between human activity and climate change.[4] Lyme augments the case for forest conservation in Florida by showing the positive effects of its investments on the economic prospects of the community. For example, Lyme has hired all local teams of managers, foresters, loggers and truckers, thereby helping local employment, and has maintained hunting access to the property, thereby supporting a vital part of the local tourism economy. Furthermore, Lyme has seen that the trees from its Florida lands provide important raw material for local mills, which employ significant numbers of people. Lyme believes that measuring the direct and indirect community development benefits has helped bolster the case for sustainable forest management and conservation in rural communities and with their appointed or elected officials. Additionally, when Lyme finances investments with New Market Tax Credit (NMTC) financing, as it did in Florida, it is required as a NMTC partner to report key economic, social, and environmental data to relevant U.S.-governmental bodies.[5] As such, this type of impact data has also helped Lyme maintain a good standing with key regulatory stakeholders

Divestment (Exiting)

Driver: Marketing and Reputation Building. The data point that Lyme collects about the impact of its exit strategy has been an important differentiator to attract investments into its funds. Most large forestland owners in the United States operate sustainably; the sector's major trade association, the National Association of Forestland Owners, requires its members to commit to sustainable forest management. However, third-party certification is purely voluntary and owners can choose to let it lapse at any time. Additionally, once a property is sold, unless a conservation easement is in place, there is no guarantee that it will be managed sustainably in the future. Lyme has recognized that impact investors in its funds are particularly concerned with the durability of the impact of their investments; as such, Lyme believes that the fact that such a large percentage of Lyme's holdings have been permanently conserved has served as a key factor distinguishing Lyme from other TIMOs. In order to demonstrate this impact, Lyme measures and reports on the number of acres of land that are permanently conserved through an easement (a legal agreement in which the landowner cedes certain land management rights to another entity, such as a trust). According to Lyme's Director of External Relations Liz Adams, "During our recent capital raise we worked with several impact investment management firms that told us that Lyme's ability to demonstrate durable conservation outcomes was a critical component of their decision to invest in our fund."

3 "Demographic, economic, and growth initiative analysis: Big Bend Region of Florida, Southwick Associations Fish and Wildlife Economics and Statistics, May 2015, http://www.conservationfund.org/images/projects/files/Big_Bend_Technical_Report_FINAL_PDF.pdf

4 Katie Valentine, "California and Florida Governors Duel on Climate Denial," *ThinkProgress*, May 3, 2016, http://thinkprogress.org/climate/2016/05/03/3774748/jerry-brown-hitsrick-scott-climate-change/.

5 The New Markets Tax Credit is a program of the U.S. government "designed to increase the flow of capital to businesses and low-income communities by providing a modest tax incentive to private investors." See "New Markets Tax Credit Fact Sheet," New Markets Tax Credit Coalition, http://nmtccoalition.org/fact-sheet/.

CASE WITHIN A CASE

INVESTOR

THE LYME TIMBER COMPANY

- Investors purchased land from International Paper (IP), a large traditional forest product company and forestland owner
- Lyme purchased 146,00 acres of the land and sold a comprehensive working-forest easement for this tract to the New Hampshire Department of Forests and Lands
- The Nature Conservancy purchased the remaining 25,000 acres to establish a wildlife management area, to be transferred to the state of New Hampshire at a later date
- Lyme partnered with a team of conservation organizations, including the Trust for Public Land, the Society for the Protection of New Hampshire Forests, and The Nature Conservancy, to provide the much-needed up-front capital for a conservation transaction
- The deal closed in 2003
- Lyme sold the permanently conserved property to a private timberland investment group in 2009

INVESTEE

THE CONNECTICUT LAKES

About the Connecticut Lakes

- Headwater lakes to the Connecticut River, located in the northern tip of New Hampshire
- 171,000-acre forest makes up 4% of the entire land area in New Hampshire and is critical to the rural forest-based economy in the North Country (timber-related jobs and popular tourist recreational destination)
- Important for water quality down course through New England
- Provides habitat for at least 20 rare species
- Conserved forests were covered by third-party certification under the guidelines of the Forest Stewardship Council

Key Components for this Successful Deal

- Large tracts of high-priority conservation land came up for sale by a divesting paper company
- Lyme Timber supplied private capital for the deal
- Many partners, including public-sector, nonprofit, and for-profit groups, brought different strengths to the endeavor
- Working-forest conservation easements made the deal affordable and successful in the view of local economic development interests as well as state natural resource agencies

"This project... is a real model of conservation today where both economic and environmental sustainability are the hoped-for outcomes." —Peter Stein, *Lyme Timber*

Source: Peter R. Stein, Trends in Forestland Ownership and Conservation, Forest History Today Spring/Fall 2011.

Acknowledgements

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The GIIN would like to thank Liz Adams, Director of External Relations at the Lyme Timber Company LP, who contributed perspectives and experience on impact measurement for the creation of this case.

Terms Used

Conservation Easement. A legal agreement which is intended to protect specific conservation values, in which the landowner cedes certain rights to another entity. This mechanism permanently restricts development and other activities, but allows income generation from sources such as sustainable timber harvesting, recreational leasing activities, and sale of ecosystem services. When a buyer purchases a tract of timberland, it acquires a bundle of rights that includes recreational rights, water rights, mineral rights, timber rights, development rights, and many more. The owner can choose to retain these rights by owning the land and all its associated rights, or else choose to transfer or tie up any number of these rights in the form of a conservation easement. The conservation easement is binding on all future landowners.

High-Priority Conservation. Rural real estate where value is based primarily on the risk of development or conversion to other uses. In these deals, Lyme seeks to return capital to investors primarily through the sale of easements and fee interests to public agencies or private conservation buyers.

Mitigation Bank. Degraded property (wetland, stream, or habitat conservation area) that is restored to its original ecological condition in order to offset or compensate for expected adverse impacts to similar nearby ecosystems.

Mitigation Credits. Credits that can be sold by the owner of an approved mitigation bank for cash to public and private project developers who need to mitigate their adverse impacts, as required by law.

Working Lands. Lands with operational scale that are actively managed for the goods and services associated with the land. Working lands include including timber, ranch, and agricultural lands. Cash flow is derived from the sustainable management of the natural resources of working lands.

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