Thank you for joining us today!

Please note:

• All participants are already muted upon entry to the webinar session.
• Use the “chat” function to submit questions or concerns during the broadcast.
• We’ll share a recording after the webinar.
Agenda

• **Key findings** on impact measurement and management:
  • What should I measure?
  • How do I measure?
  • Then what?

• **Discussion** among impact investors:
  • Sarah Wilson, Nuveen, A TIAA Company
  • Michael Eddy, Global Innovation Fund
  • Grace Horwitz, Blue Haven Initiative

• **Questions**
Abhilash Mudaliar
Research Director
The State of Impact Measurement & Management Practice

169 impact investor respondents
A variety of motivations inform IMM practice

Motivations for measuring and managing impact

<table>
<thead>
<tr>
<th>Motivation</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>To better understand our impact.</td>
<td>168</td>
</tr>
<tr>
<td>To proactively report our impact to key stakeholders.</td>
<td>167</td>
</tr>
<tr>
<td>To manage or improve our impact.</td>
<td>169</td>
</tr>
<tr>
<td>We believe that impact data have business value.</td>
<td>168</td>
</tr>
<tr>
<td>We need to communicate our impact for marketing and/or fundraising purposes.</td>
<td>158</td>
</tr>
<tr>
<td>We are required by our investors or donors to measure and report our impact.</td>
<td>150</td>
</tr>
<tr>
<td>There is client demand or pressure from changing cultural norms to measure and report our impact.</td>
<td>145</td>
</tr>
<tr>
<td>We are required by government regulations to measure and report our impact.</td>
<td>113</td>
</tr>
<tr>
<td>Other</td>
<td>44</td>
</tr>
</tbody>
</table>

Source: GIIN
Key decision points:

1. What should I measure?
2. How do I measure?
3. Then what?
What should I measure?
Investors seek social & environmental impact

<table>
<thead>
<tr>
<th>SDG-aligned impact themes targeted, by number of respondents</th>
<th>n = 124</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decent work and economic growth</td>
<td>74</td>
</tr>
<tr>
<td>Good health and well-being</td>
<td>54</td>
</tr>
<tr>
<td>Quality education</td>
<td>48</td>
</tr>
<tr>
<td>Affordable and clean energy</td>
<td>48</td>
</tr>
<tr>
<td>No poverty</td>
<td>39</td>
</tr>
<tr>
<td>Sustainable cities and communities</td>
<td>38</td>
</tr>
<tr>
<td>Industry, innovation, and infrastructure</td>
<td>34</td>
</tr>
<tr>
<td>Responsible consumption and production</td>
<td>32</td>
</tr>
<tr>
<td>Reduced inequalities</td>
<td>29</td>
</tr>
<tr>
<td>Clean water and sanitation</td>
<td>28</td>
</tr>
<tr>
<td>Climate action</td>
<td>27</td>
</tr>
<tr>
<td>Gender equality</td>
<td>24</td>
</tr>
<tr>
<td>Zero hunger</td>
<td>16</td>
</tr>
<tr>
<td>Life on land</td>
<td>14</td>
</tr>
<tr>
<td>Partnerships for sustainable development</td>
<td>10</td>
</tr>
<tr>
<td>Peace, justice, and strong institutions</td>
<td>9</td>
</tr>
<tr>
<td>Life below water</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>27</td>
</tr>
</tbody>
</table>

Source: GIIN
Investors measure different types of impact

**Types of impact measured**

n = 169

- Measure social/environmental outputs: 153
- Measure social/environmental outcomes: 130
- Measure the breadth of our impact: 72
- Measure whether our impact is additional: 64
- Measure the depth of our impact: 62
- Benchmark our social/environmental performance: 58
- Measure whether our impact is attributable: 51
- Measure the longevity of our impact: 34

Source: GIIN
...using a wide variety of tools

<table>
<thead>
<tr>
<th>Tools, indicator sets, and standards used in IMM</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRIS</td>
<td>85</td>
</tr>
<tr>
<td>United Nations Sustainable Development Goals (SDGs)</td>
<td>57</td>
</tr>
<tr>
<td>B Analytics / GIIRS</td>
<td>56</td>
</tr>
<tr>
<td>Principles for Responsible Investment (UNPRI)</td>
<td>30</td>
</tr>
<tr>
<td>SPI4 / Social Performance Task Force (SPTF)</td>
<td>19</td>
</tr>
<tr>
<td>Aeris CDFI ratings system</td>
<td>18</td>
</tr>
<tr>
<td>Global Reporting Initiative (GRI)</td>
<td>18</td>
</tr>
<tr>
<td>Leadership in Energy and Environmental Design (LEED) ratings...</td>
<td>16</td>
</tr>
<tr>
<td>Sustainability Accounting Standards Board (SASB)</td>
<td>14</td>
</tr>
<tr>
<td>Global Alliance for Banking on Values (GABV)</td>
<td>8</td>
</tr>
<tr>
<td>Social Return on Investment (SROI)</td>
<td>7</td>
</tr>
<tr>
<td>PRISM</td>
<td>3</td>
</tr>
<tr>
<td>Total Impact Measurement and Management (TIMM)</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>28</td>
</tr>
</tbody>
</table>

Source: GIIN
How do I measure?
Most impact investors set impact targets

Percentage of investors that set measurable impact targets

- 59% Yes, we set impact targets.
- 41% No, we do not set impact targets.

n = 169

Source: GIIN
Investors balance standardization and customization

Level of customization/standardization of impact metrics

- 37%: We use a set of standardized metrics across all investments within our portfolio.
- 24%: We select a set of metrics for each sector and/or impact objective within our portfolio.
- 20%: We customize some metrics for each investment and use some metrics across our entire portfolio.
- 19%: We select a specific set of metrics for each investment.

n = 169

Source: GIIN
IMM is a core responsibility across teams

**Human resources allocated to IMM**

n = 169

- 78: IMM is a responsibility only of our investment team.
- 71: IMM is a responsibility of both dedicated staff and our investment team.
- 25: We contract out our IMM work to external consultant(s).
- 15: IMM is a responsibility only of one or more staff dedicated to that purpose.
- 16: Other

Source: GIIN
Investors rely on implicit and explicit incentives

Incentives for investor staff & investees
n = 100

- 82% Yes, we incentivize the achievement of impact targets
- 18% No, we have no incentives for impact

For staff:
- Intrinsic motivations
- Performance evaluations
- Compensation

For investees:
- Intrinsic motivations
- Requirements for investment/follow-on capital
- Investment terms
- Governance/management changes
- Management compensation
Then what?
Impact data inform key investment decisions

Uses of impact data in investment management

n = 148

- 112 For pre-screening or due diligence
- 110 Inform investment selection / portfolio allocation decisions
- 71 Identify opportunities for capacity-building support or technical assistance
- 66 Inform portfolio modeling and strategy
- 55 Improve investees' operational efficiency
- 46 Help design or refine products/services of our investees
- 23 Inform exit decisions and/or exit timing
- 10 Other

Source: GIIN
...and improve impact achieved

**Uses of impact data in impact management**

<table>
<thead>
<tr>
<th>Uses of Impact Data</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicate results to stakeholders</td>
<td>123%</td>
</tr>
<tr>
<td>Identify or refine appropriate metrics</td>
<td>103%</td>
</tr>
<tr>
<td>Improve our process for analyzing and interpreting impact data</td>
<td>96%</td>
</tr>
<tr>
<td>Assess impact and ESG risk factors</td>
<td>92%</td>
</tr>
<tr>
<td>Set or revise impact expectations and/or impact targets</td>
<td>89%</td>
</tr>
<tr>
<td>Refine our data collection process</td>
<td>83%</td>
</tr>
<tr>
<td>Identify which stakeholders are affected by our investments</td>
<td>75%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
</tr>
</tbody>
</table>

Source: GIIN  

n = 144
Speakers

Sarah Wilson
Director, Responsible Investing
Nuveen, A TIAA Company

Michael Eddy
Vice President
Global Innovation Fund

Grace Horwitz
Associate
Blue Haven Initiative
Impact Measurement & Management at TIAA/Nuveen

Sarah Wilson
Director, Responsible Investing
Responsible Investment at TIAA/Nuveen: Our Scale

$600+ Billion
committed to RI principles under the UN Principles for Responsible Investment

$1.02 Billion**
invested in our Social Impact Portfolio along three themes:
- Financial Inclusion
- Affordable Housing
- Community & Economic Development

$77 Billion
in sustainability initiatives within real assets

>$18 Billion
in ESG-focused products

Based on assets under management as of March 31, 2017.
* As a PRI signatory, all of TIAA’s assets are committed to RI principles. A requirement of being a signatory is adhering to the PRI reporting framework which has been designed to achieve three main sets of objectives: 1) Accountability of the PRI: To ensure accountability of the PRI initiative and its signatories, 2) Signatory transparency: to encourage signatory transparency on responsible investment activities. 3) Signatory assessment: to provide tools to allow signatories to measure their own performance with objective indicators.
**Represents investment commitments. Adjusted valuation of AUM is $611 million.
Impact Measurement & Management Roles

- Manages $1 billion impact investing portfolio for the TIAA General Account
- Defines impact themes and underwrites/selects investments within each theme
- Communicates investment & impact outcomes to internal stakeholders
- Engages with GPs on impact measurement approaches
- Gathers/harmonizes impact data from GPs
- Provides impact measurement/ESG integration expertise
- Designs harmonized impact metrics across multiple GPs within a theme
- Participates in external initiatives to advance the practice of impact measurement
- + many other broad ESG responsibilities

The TIAA General Account is an insurance company account and does not present an investment return, and is not available to investors.

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Use Cases for Impact Data

• Demonstrating strength of alignment with TIAA/Nuveen impact themes during initial due diligence and on an ongoing basis

• Measuring GP progress toward both their business and impact targets over time

• Shedding light on strategic differences between GPs within the same theme (Example: Social vs. environmental metrics in affordable housing)
Disclosures

This material is not intended to be a recommendation or investment advice, does not constitute a solicitation to buy or sell securities, and is not provided in a fiduciary capacity. The information provided does not take into account the specific objectives or circumstances of any particular investor, or suggest any specific course of action. Financial professionals should independently evaluate the risks associated with products or services and exercise independent judgment with respect to their clients.

Please note socially responsible investments are subject to Social Criteria Risk, namely the risk that because social criteria excludes securities of certain issuers for non-financial reasons, investors may forgo some market opportunities available to those that don’t use these criteria.

The investment advisory services, strategies and expertise of TIAA Investments, a division of Nuveen, are provided by Teachers Advisors, LLC and TIAA-CREF Investment Management, LLC. Securities offered through Nuveen Securities, LLC.

374975-INST-AN-1/19
Global Innovation Fund

Michael Eddy
GIF aims to make a big difference in the lives of millions of people

- GIF is a $200 million non-profit fund
- It invests in innovations that help people in the developing world living on less than $5/day
- It’s like a venture capitalist, willing to take smart risks – but with the goal of maximizing social returns
Practical Impact Assessment

\[ \text{Impact} = \text{Breadth of Impact} \times \text{Depth of Impact} \times \text{Probability of Success} \]

- **Breadth of Impact**: The number of people who will benefit at year 10
- **Depth of Impact**: Benefit per person relative to annual income
- **Probability of Success**: The likelihood that the innovation will be successful in 10 years
Practical Impact Assessment

• A convenient, updateable forecast of impact, used before, during and after investment

• Allows you to start with good-enough order of magnitude estimates; refine as information improves

• Used alongside investment-specific indicators that track performance of each investment

• Promotes a portfolio-level view of effectiveness enabling us to track portfolio performance

• Complements more data-intensive, Social Return on Investment (SROI) analysis
Blue Haven Initiative
WHO WE ARE

One of the first family offices created with impact investing as its mission and focus, Blue Haven seeks market rates of financial return on its investments alongside maximum social and environmental impact. When investing, Blue Haven seeks to put capital to work in highly productive ways: helping mission-driven companies achieve scale, supporting entrepreneurs whose innovations spur change, and partnering with other investors and stakeholders to accelerate economic progress.

Blue Haven’s in-house direct investments team funds early-stage, innovative businesses that improve standards of living, create economic opportunity and deliver products and services cleanly and efficiently to underserved communities. We source investment opportunities that are off the radar for most U.S.-based VC investors by finding and engaging talented entrepreneurs and growing our financial commitment over time. A key area of focus is sub-Saharan Africa, a region that we believe provides opportunities for outsized impact and financial returns.

FOCUS

Geographic Focus

SUB-SAHARAN AFRICA

Investment Size

$500 - $1 million initial investment with potential to grow up to $10 million over time

Investment Type

EQUITY, QUASI-EQUITY, TERM LOANS, WORKING CAPITAL FINANCE, & MEZZANINE

Company Stage

SERIES A ONWARDS

Sector Focus

FINTECH HUMAN CAPITAL LOGISTICS RENEWABLE ENERGY

Portfolio

CROSSBOUNDARY KOPA NETWORKS PIVOT umati capital. SPIRE KARIBU HOMES

TEAM

LEISEL PRITZKER SIMMONS CO-FOUNDER & PRINCIPAL

IAN SIMMONS CO-FOUNDER & PRINCIPAL

LAUREN COCHRAN DIRECTOR OF PRIVATE INVESTMENTS lauren@bluehaveninitiative.com

GRACE HORWITZ ASSOCIATE grace@bluehaveninitiative.com

PAUL BRELOFF SENIOR ADVISOR
BHI Impact Objectives

- Invest in sustainable and scalable businesses
- Target companies providing goods and services to underserved consumers and markets
- Develop the impact investing ecosystem
- Support business enabling environments
Step 1: Estimating & Planning Impact

**Challenge**
- Skills mismatch and lack of appropriate education / training lead to a lack of job readiness and high rates of unemployment among youth in Kenya
- Employers have difficulty finding and training new talent due to lack of in-house human capital resources

**Value Proposition**
Spire provides career development and training services to help growing companies instill a baseline level of skills in entry and mid-level hires.

**Desired Outcomes**
- Reduced unemployment
- Fewer job vacancies
- More effective professional development
- Reduced employee churn
- Improved business performance

**Metrics & Measurement**
1. Companies served
2. # of students
3. # of classes (existing + new)
4. Customer NPS score
5. FTEs
Step 2: Monitoring at the company level

Impact Thesis:
• PEG makes healthy, safe off-grid power solutions affordable to the Ghanaian consumer through a PAYG model with long term plans and asset-financing emulating that of M-KOPA.

Impact Update:
• PEG has emerged as a leading distributor of solar home systems in Ghana, focused on adapting the PAYG model in the West African context.
• PEG has taken a number of steps to accelerate sales and improve repayment rates, including a revised sales strategy and innovative alternative payment methods (e.g. USSD shortcodes).
• PEG has partnered with BIMA to reward loyal customers in Ghana with free medical insurance covers.

<table>
<thead>
<tr>
<th>KPI</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Number of systems sold (K)</td>
</tr>
<tr>
<td>2</td>
<td>Customer savings ($ M)$</td>
</tr>
<tr>
<td>3</td>
<td>Hours of clean lighting (M / month)$</td>
</tr>
<tr>
<td>4</td>
<td>Carbon reduced - cumulative (tons)$</td>
</tr>
<tr>
<td>5</td>
<td>Jobs created (FTEs)</td>
</tr>
</tbody>
</table>

Pending finalized 2017 reporting
Step 3: Evaluating at the portfolio level

<table>
<thead>
<tr>
<th>TOTAL PORTFOLIO KPIs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Revenue Generated</td>
<td>$80M</td>
</tr>
<tr>
<td>People Employed (FTEs)</td>
<td>1,000</td>
</tr>
<tr>
<td>New Customers Acquired (Annual)</td>
<td>400k</td>
</tr>
<tr>
<td>Cumulative Customers Served</td>
<td>1.5M</td>
</tr>
</tbody>
</table>
## Step 4: Communicating to peers

<table>
<thead>
<tr>
<th>Company</th>
<th>Sustainable Development Goals</th>
<th>Sample Metrics</th>
</tr>
</thead>
</table>
| [Company Image] | [Development Goals Image] | • Industry-related GHG emissions  
• Share of energy from renewables |
| [M-KOPA Image] | [Development Goals Image] | • Share of population with reliable energy  
• Share of population with access to renewable energy |
| [Umati Capital Image] | [Development Goals Image] | • Access to financial services  
• Gini coefficient |
| [Spire Image] | [Development Goals Image] | • Youth employment rate  
• Average income  
• Human mobility governance index |
| [PEG Image] | [Development Goals Image] | • Share of population with reliable energy  
• Share of population with access to renewable energy |
Questions?

Sarah Wilson
Director, Responsible Investing
Nuveen, A TIAA Company

Michael Eddy
Vice President
Global Innovation Fund

Grace Horwitz
Associate
Blue Haven Initiative
Thank you!

Rachel Bass
rbass@thegiin.org
www.thegiin.org/
Investors use evidence and tools to set strategy

Ways to select impact metrics and targets

<table>
<thead>
<tr>
<th>Ways to Select</th>
<th>Impact Metrics</th>
<th>Impact Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on existing evidence used to develop strategy</td>
<td>73%</td>
<td>74%</td>
</tr>
<tr>
<td>Based on rating system, index, analytics tool, or other system</td>
<td>51%</td>
<td>20%</td>
</tr>
<tr>
<td>Based on Sustainable Development Goals</td>
<td>25%</td>
<td>16%</td>
</tr>
<tr>
<td>Based on regulatory and/or tax credit requirements</td>
<td>10%</td>
<td>7%</td>
</tr>
<tr>
<td>Other</td>
<td>18%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Source: GIIN

Impact metrics: n = 146  Impact targets: n = 106