Scaling Impact & ESG (I-ESG) Investments Using AI and Data
#1 Core banking solution provider with access to 3000 banks in 150 countries
Sustainable investments are expected to cover 95% of all assets by 2030 ...

- $26 Tr\(^1\) AUM in 2020

- Trend accelerating with:
  - EU regulations
  - US drive towards green investments
  - Millennial wealth transfer

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\(^1\) IFC, 2020: The Promise of Impact Investing Report
\(^2\) Source: ECB, Bloomberg, IIF as of Nov 2020
Pressure on financial institutions for I-ESG compliance continue to rise ...

- Increasing demands to measure Impact & ESG of investee companies

- Customers choosing banks, asset managers based on ESG credentials

- Regulators becoming vocal about greater ESG adoption e.g. EU SFDR (2021), comparable legislations expected in US, Asia

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Source: KPMG Frontiers in Finance May 2020; Moody’s Yahoo Finance as of 21 Mar 2021; Company websites
Too many standards complicate I-ESG reporting ...
Therefore, financial institutions are struggling with ...

1. Impact measurement
   Multiple standards e.g. SFDR, IFC OPIM

2. Reporting
   Lack of credible tools

3. Impact washing
   Need for data driven verification

Therefore, financial institutions are struggling with …
GreenArc Platform: provides analytics & reporting aligned to global standards

1. IMPACT ANALYTICS
   I-ESG measurement aligned to UN SDGs and GIIN IRIS+ metrics

2. CUSTOM REPORTING
   Granular reporting aligned to IMP Framework, EU SFDR

3. IMPACT AUDIT
   Impact verification using data science aligned to IFC principles
Our I-ESG methodology is aligned to global industry standards

**GIIN IRIS+**

**UN SDGs¹**

**IMP**

**Mapping & alignment of I-ESG goals with the UN Sustainable Development Goals¹**

**Our methodology was developed under the guidance of Impact Management Project (IMP):**
Member of IMP’s selective Impact Frontier’s Cohort (2021-22)

¹Considered the Leading ESG Framework for Large Companies (Harvard Law School, October 2018)
Platform built with scalability as priority ...

GreenArc Impact SaaS

Asynchronous data ingestion → Storage, management of data → Impact engine

IMP Guidelines → UN SDGs → GIIN IRIS+ Metrics → Socioeconomic Benchmarks → Lender Datasets

Loan Tape¹
- Loan Size
- Interest Rate
- Income
- Education
- Gender Equality
- Access to Financing

Benchmarking: Sociodemographic statistics²
- Female & informal employment
- Default rates
- Average loan size
- Population with access to banking
- Poverty line
- Employment by sector

ML Impact Scoring Model
- Feature Identification: Sensitivity analysis & factor prioritisation
- Parameter Weights: Multinomial Regression
- Threshold Setting: Decision trees used to stratify high & low impact

Impact Analytics
1. ML-based Impact Scoring
2. Industry first Impact API
3. Impact Audit³ (in partnership with)

¹Sample sources and benchmarks
²Sample sources and benchmarks
³Build in progress
The Opportunity is Sizeable

Global BFSI Big Data Analytics Market¹ (28% CAGR)

<table>
<thead>
<tr>
<th>Target No. Clients Onboarded</th>
<th>AUM per Segment (Mn)</th>
<th>Potential Annual Revenue (Mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Asset Managers (10Mn - 100Mn AUM)</td>
<td>200</td>
<td>4,200</td>
</tr>
<tr>
<td>Med Asset Managers (100Mn - 500Mn AUM)</td>
<td>54</td>
<td>7,000</td>
</tr>
<tr>
<td>Large Asset Managers (500Mn - 5Bn AUM)</td>
<td>16</td>
<td>13,000</td>
</tr>
<tr>
<td>Banks / SWFs (1Bn – 100Bn AUM)</td>
<td>10</td>
<td>50,000</td>
</tr>
<tr>
<td>Obtainable Revenue (Details: slides 12-13)</td>
<td>280</td>
<td>74,200</td>
</tr>
</tbody>
</table>


Total Available Market
$87 Bn

Serviceable Available Market²
$5.1Bn

Blue Ocean opportunity for an industry standard solution exists for the next 6-12 months before the gold rush starts
... and business model is based on a SaaS based pricing

Financial Institution / Asset Manager

($) Investment

I-ESG reporting

GreenArc Platform

Set-up Fee
Impact Analytics Fee
Impact Reporting Fee
Advanced Analytics Fee (*Impact Audit*)

I-ESG data

Beneficiary / Last mile lender

($) Return

Monetisable cross-platform loan level data
We have live clients …

### Live Clients

#### Financial Institutions
- **BNP PARIBAS**
  - MAS FSTI Project, Impact Research Project
  - Investment Due Diligence

- **Japanese Financial Institution**
  - $30Bn AUM, Project complete
  - Multi year engagement under discussion

- **TAURUS**
  - $3Bn AUM multi family office,
  - Contract signed for multi-year contract

- **GRAVITY**
  - Swiss Multi Asset Manager, Live mandate

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#### Pipeline

### Asset Managers (Scoping underway)
- PE firm with offices in EU, US, Canada
- Australian Impact firm with $40Bn AUM
- French Asset Manager with €30Bn AUM
- PE firm with $5Bn AUM across NY, LN, Asia

18 large US asset managers – BD in progress

### Financial Institutions (Active conversations)

<table>
<thead>
<tr>
<th>(US$)</th>
<th>2020 (H2)</th>
<th>’21</th>
<th>’22</th>
<th>’23</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets On Platform</strong></td>
<td>18 Mn</td>
<td>H1: 152 Mn</td>
<td>2 Bn</td>
<td>10 Bn</td>
</tr>
<tr>
<td><strong>Revenue</strong></td>
<td>45 K</td>
<td>H1: 150 K</td>
<td>2.5 Mn</td>
<td>10 Mn</td>
</tr>
</tbody>
</table>
... and good traction

**Accolades**

- **Global Top 6:**
  2020 ADB MSME Challenge

- **Global Top 10:**
  2020 KPMG Hackcelerator

- **Singapore Top 10:**
  2021 Extreme Tech

- **South East Asia Top 50:**
  2019 Most Disruptive Companies

**Technology Partnerships**

- Top core banking tech solution provider
- Approved for revenue sharing as part of market partnership with access to 3000+ banks across 150 countries

- UK Listed financial analytics provider
- Due diligence in progress to add GreenArc Impact Analytics to Bureau Credit Scores business offering
We have an experienced team …

**Team experienced in Finance, Impact & AI**

- Bikram Chaudhury, CEO
  - 25 years experience
  - Former EM Credit Head, Credit Suisse APAC

- Rony J Palathinkal, COO
  - 15 years experience
  - Former AI Innov. Head, Credit Suisse APAC

- Dr. Naveen Agnihotri, CTO
  - 15 years experience
  - Post Doc. Neural Networks – MIT, Former CTO Lenddo EFL

- Meeta Misra, Director, Impact & Outreach
  - 14 years experience
  - ESG and Impact Specialist, Hedge Funds

- Candidate identified, Head of Sales
  - 20 years experience
  - Chief commercial officer, Analytics Fintech

**17 member team** | Singapore and Mumbai

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**Advisory Board**

- Pierre Rousseau
  - MD, Strategic Advisor Sustainable Business, Former Global Markets Asia Head, BNP Paribas

- Sudip Thakor
  - Former Co-Head, Credit Suisse Global Emerging Markets
We are raising $1M ...

To onboard 20 financial institutions in the next 15 months

- $500K Business Development
- $400K Tech Build
- $100k IP, Corporate Expenses

Total: $1M

Till date: Raised $1M in seed round and MAS Innovation Grant
When people gain income, they gain choice, and that is fundamental to dignity.

Jacqueline Novogratz, Founder, Acumen Fund
Appendix 1: What is Impact & ESG (I-ESG) investing?

The spectrum of financial investing

<table>
<thead>
<tr>
<th>Focus</th>
<th>Philanthropy</th>
<th>Social/Environmental Investing</th>
<th>Sustainable &amp; Responsible Investing</th>
<th>Conventional Financial Investing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Philanthropy</td>
<td>Social/Environmental Investing</td>
<td>ESG Investing</td>
<td>Fully Commercial Investment</td>
<td></td>
</tr>
<tr>
<td>Address societal challenges</td>
<td>Social and/or environmental</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>through grants</td>
<td>outcome and some expected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>financial return</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intent to have a measurable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>environmental and/or social</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>return</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enhance long term value by using</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ESG factors to mitigate risks</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>and identify growth</td>
<td></td>
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<tr>
<td></td>
<td>Limited regard for environmental,</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>social or governance practices</td>
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</tbody>
</table>

Use of ESG metrics & methodologies


Social and Financial: Social return & adequate financial market rate

Financial Returns: Financial market return focused on long-term value

Appendix 2: Milestones

Q1 '20
- Raised Seed capital
- Founded by Cerracap Ventures
- Founding member of Asian Institute of Digital Finance
- innovfest unbound (SEA Top 50)

Q2 '20
- MAS FSTI POC grant for platform v1
- ADB MSME Challenge Global Top 6

Q3 '20
- Japanese Financial Institution
- Impact measurement engagement

Q4 '20
- Impact audit module
- Impact reporting engagement

Q1 '21
- MAS Capital Markets License
- Impact Frontiers cohort kick off
- KPMG Hackcelerator Global Top 10

Q2 '21
- $50M Social Impact Debt Fund
- Extreme Tech Challenge Top 10
- MAS FSTI POC grant for platform v2
# Appendix 3: Competitive Landscape

<table>
<thead>
<tr>
<th>I-ESG Reporting</th>
<th>Coverage</th>
<th>ESG/Impact Score Recipient</th>
<th>Impact Audit</th>
<th>UN SDG Alignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESG</td>
<td>Impact</td>
<td>Asset Class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESG Impact</td>
<td>Asset Class Bank Loan</td>
<td>Bank Loan</td>
<td>End beneficiary</td>
<td>Entity level</td>
</tr>
<tr>
<td>ESG Impact</td>
<td>Entity level</td>
<td>Entity level</td>
<td>Entity level</td>
<td></td>
</tr>
<tr>
<td>S&amp;P Global</td>
<td>Entity level</td>
<td>Entity level</td>
<td>Entity level</td>
<td></td>
</tr>
<tr>
<td>Sustainalytics</td>
<td>End beneficiary level</td>
<td>Entity level</td>
<td>Entity level</td>
<td></td>
</tr>
<tr>
<td>Clarity AI</td>
<td>End beneficiary level</td>
<td>Entity level</td>
<td>Entity level</td>
<td></td>
</tr>
<tr>
<td>Greenwashing</td>
<td>End beneficiary level</td>
<td>Entity level</td>
<td>Entity level</td>
<td></td>
</tr>
</tbody>
</table>

* S&P provides SDG analytics separate from their ESG solution

US Fintech with investment from Blackrock, Deutsche Börse