

# World's first Development Impact Bond in education

Process evaluation from the Educate Girls Development Impact Bond



UBS Optimus Foundation collaborates with investors, service providers and others, but such relationships are not partnerships in the legal sense of the term and nothing in this document should be construed as giving rise to such an inference.

This document is for your information only and is not intended as an offer to sell or a solicitation of an offer to buy any security, investment instrument, product or other specific service. UBS AG and its affiliates retain the right to change the range of services, the products and the prices at any time without prior notice. Certain services and products are subject to legal restrictions and cannot therefore be offered worldwide on an unrestricted basis. Nothing herein shall limit or restrict the particular terms of any specific offering. No offer of any interest in any product will be made in any jurisdiction in which the offer, solicitation or sale is not permitted, or to any person to whom it is unlawful to make such offer, solicitation or sale. Not all products and services are available to citizens or residents of all countries. UBS Optimus Foundation makes no representation or warranty, express or implied, in relation to the accuracy, completeness or reliability of the information contained herein. The information in this document is not intended to be a complete statement or summary of the developments referred to in it and is subject to change without notice. UBS Optimus Foundation is under no obligation to update or keep current the information contained herein. UBS Optimus Foundation does not provide investment, legal or tax advice and this document does not constitute such advice. It strongly recommends to all persons considering the information in this document to obtain appropriate independent legal, tax and other professional advice. UBS Optimus Foundation expressly prohibits the redistribution or reproduction of this material in whole or in part without its prior written permission and accepts no liability whatsoever for the actions of third parties in this respect. Neither UBS Optimus Foundation nor its directors, representatives or agents accept any liability for any loss or damage arising out of the use of all or any part of this document.

## Contents

I. Executive Summary.....	5
II. Introduction.....	6
III. Background of the Educate Girls DIB.....	6
The Objective .....	6
Summary of outcome evaluation findings .....	7
IV. Process Evaluation.....	7
Overview .....	7
Methodology .....	7
V. Processes that can support innovation and greater impact delivery .....	8
Effective processes followed in the EG DIB.....	8
Processes/adaptations that could have been useful .....	11
Snapshot of the EG intervention under the DIB .....	12
VI. Processes to replicate/adapt to improve the sustainability of impact bonds .....	15
Overview .....	15
Specific processes .....	15
VII. Conclusion.....	24
VIII. Annexure.....	25
List of stakeholders/experts interviewed .....	25
IX. Contributors to the report .....	26

This report was funded by the UBS Optimus Foundation and the Children's Investment Fund Foundation.

## I. Executive Summary

The Educate Girls Development Impact Bond (EG DIB), the first DIB in India and in education globally, signals that DIBs can drive significant innovation and impact gains, even in organizations that have a strong trajectory of delivery, as EG did prior to the DIB.

The positive conclusion of the DIB provides process learnings that can inform the design and roll out of future DIBs, particularly around:

- Processes that improve efficacy i.e., the effectiveness of DIBs in delivering impact, and
- Processes that can improve the long-term sustainability of DIBs (either in terms of lower transaction and opportunity costs, or through terms that are more acceptable to a wider group of outcome payers and investors).

### **Driving innovation and impact: the DIB structure is only as effective as the processes that are followed**

A DIB, in theory, improves delivery efficacy via the combined force of an ambitious outcomes framework with independent evaluation mechanisms and incentive capital for the investors and implementation partners (IPs).

The EG DIB experience indicates that specific processes during the design and implementation of a DIB can significantly impact how effective it is at prompting innovation. These processes can be summarized as follows:

- Setting ambitious targets based on existing evaluation data to spur innovation
- Capacity building of the implementation partner, including:
  - a. up-front support to better understand targets, evaluation methodologies and how to budget for innovation;
  - b. ongoing support to augment existing capabilities, such as monitoring, evaluation and learning (MEL)
- Sharing detailed outcome evaluation data in a timely manner and providing support to unpack data, to help the implementation partner better identify gaps, adapt their interventions and fine-tune their internal processes to better measure impact
- A hands-off approach by the risk investor and the outcome funder (i.e., not interfering in decisions around the program or deployment of funds); while this is an expectation within the DIB framework, it is an important cultural shift for ‘impact-driven’ funders who are likely to come from a tradition of providing ongoing support to grantees

- Recognition by the investor that impact from adaptations is likely to be visible in later years and continued deployment of the risk capital even with a non-linear performance trajectory; for the same reason, considering longer time-horizons (4–5 years) for innovation DIBs may be beneficial to all stakeholders

In addition, EG DIB stakeholders felt that future DIBs should consider early facilitation of government buy-in around DIB activities, particularly when implementation partners are using government delivery channels. Government buy-in may also be important to ensure long-term sustainability and scale of the intervention, for example, by transitioning to a social impact bond.

The EG experience also suggests certain capabilities are prerequisites within the implementation partner so that IPs can effectively leverage DIB structures and processes. These include having a target-driven culture, existing MEL capabilities (even if used in another context), and an entrepreneurial culture that is receptive to learning and adaptation. These findings also resonate with other practitioners’ experience across impact bonds.

### **Increasing Sustainability: critical to reduce the proportion of transaction costs and adapt terms and structures to make DIBs relevant to a wider group of investors and outcome payers (OP)**

From a sustainability standpoint, the EG DIB has faced criticism for the high transaction costs that were incurred, and this merits additional thought about processes that can improve transaction cost efficiency.

There is agreement amongst EG DIB stakeholders and the wider ecosystem that transaction costs are likely to decrease over time as DIBs become more widely used. This is likely true only for larger DIBs. The EG DIB was conceptualized as a ‘proof-of-concept’, to demonstrate the feasibility and potential of such an instrument. Its size, therefore, was small and associated transaction costs were disproportionately high. Future DIBs should consider larger outcome pots, which would benefit all stakeholders by allowing investors and outcome payers to pool risk and spread transaction costs over a wider base.

To scale the DIB ecosystem and meet the promise of unlocking new forms of capital, processes to arrive at DIB terms and structures may have to evolve to accommodate the perspectives of a wider set of stakeholders (above and beyond the early adopters/impact-driven investors, who participated in the EG DIB). For example, DIB stakeholders may have to consider

undertaking risk analysis to establish return payouts for commercial investors and/or structure the investment differently to distribute risk borne by the investor.

Finally, there is a need for catalytic capital to create certain 'public goods' in the outcomes/DIB market, such as platforms for collaboration among stakeholders, funding research into questions around outcomes and measurements, and facilitating knowledge sharing around one-time costs such as legal contracts and frameworks across contexts. Such investments can improve the relevance of DIBs, amplify impact and improve efficiency, thereby improving the sustainability of DIBs.

## II. Introduction

A Development Impact Bond (DIB) is a model for achieving social outcomes in which the outcome payer(s), implementation partner(s), and risk investor(s) participate in a pay for success contract that provides both the investor and the IP incentives for achieving (and also in some cases, surpassing) outcome targets. The investor advances working capital to the IP at the beginning of the program and is repaid by the OP (along with incentives) if outcomes are achieved.

DIBs primarily differ from grant funding in their focus on funding for outcome delivery (as opposed to a focus on inputs and activities) and from other results-based financing models where payments are made only after outcomes are achieved.

The DIB ecosystem is still nascent, with fewer than 10 DIBs globally. Given this, DIBs have so far been viewed through the lens of 'proof of concept' to test their ability to deliver on the hypothesized impact. Experts and practitioners believe that DIBs can be used to:

- **De-risk innovation to improve existing delivery of social impact** either through (a) incentivising greater efficacy (extent of impact) and efficiency (in terms of time, effort, and costs) of existing models, or (b) supporting the scale-up of promising models to larger more varied geographies.

So far, most DIBs have focused on the former i.e., de-risking innovation to improve efficacy and efficiency. For DIBs to deliver impact by supporting the scale-up of promising models, greater transparency (around impact, cost of impact etc.) and adequate capital is needed. These factors will likely grow in relevance as the DIB ecosystem evolves, there is more data around impact and cost, as well as more funding available for such instruments.

- **Increase transparency** around impact and costs of achieving impact across different impact areas and help identify and catalyse funding towards more promising delivery models.
- **Catalyse capital flow from a wider set of actors** including diverse types and scale of investors, philanthropic institutions, government and other players, and redirect existing capital towards interventions that donors and governments may otherwise be unwilling or unable to fund directly.

Through evidence and increased transparency around cost of impact delivery, DIBs can also pave the way for SIBs, which could improve efficacy and efficiency of government delivery. This could be further incentivized by philanthropic capital in the early-stages, which could contribute towards 'incentives' to facilitate the transition of government entities towards mixed models of financing and delivery.

While DIBs hold promise, there are several apprehensions around their utility and viability. A few core challenges are:

- **Lack of evidence.** Given the early stage of the DIB market—only a limited number of DIBs are under implementation and only two that have ended—there is a lack of evidence around the true value of DIBs.
- **High transaction costs.** DIBs have often been criticized for high transaction costs seen in early DIBs like the EG DIB, and the time and resources necessary across the design and implementation phases. Anecdotal evidence suggests it can take between 1 to 2 years to set up these instruments (including time to select implementation partners and stakeholder alignment) implying high opportunity costs at various stages for stakeholders. High transaction and opportunity costs can present a challenge to scalability.
- **Terms unsuitable for long term sustainability.** Many experts believe that terms in current 'pilot' DIBs are not reflective of true market conditions as outcome funders and investors have so far been willing to accept relatively lower returns and higher transaction costs as they view DIBs through the lens of 'proof of concept' for impact delivery. For example, in the EG DIB, while the rate of return was relatively high (15%), the net return to the investor was poor, after other costs were factored in. This raises questions around the acceptability of DIB terms for diverse types of stakeholders, such as investors with varying risk-return thresholds, and their long-term sustainability.

The experience with the EG DIB offers insights into processes which aided EG's success with outcome achievement as well as lessons on processes which can be replicated or adapted by future DIBs to improve sustainability.

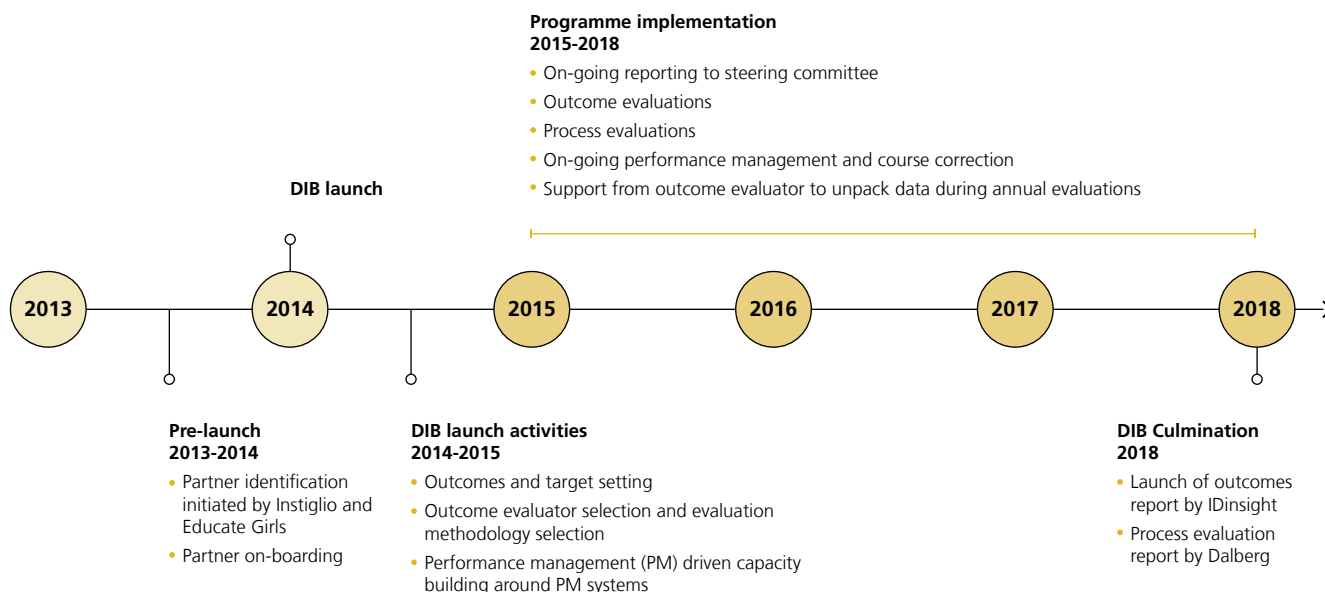
While the EG process learnings exercise is a first step, there is a crucial role for catalytic capital to support learning that takes a wider lens and incorporates findings from other DIBs. Such an analysis can help to address fundamental questions related to the relevance of DIBs, including: (a) the real impact of DIBs, and DIB structures and processes that maximize impact most efficiently, (b) the market conditions which are necessary for DIBs (c) how DIBs compare to or complement other forms of innovative financing mechanisms currently under use.

## III. Background of the Educate Girls DIB

### The Objective

The EG DIB was the first DIB launched in India as well as the first in education globally and ran from 2015 to 2018. The DIB targeted enrolment of girls and learning outcomes for girls

## Exhibit 1: Timeline of Key DIB Activities



and boys in the Bhilwara district of Rajasthan, India. This DIB was a unique pilot which sought to:

- Validate the benefits of a DIB
- Serve as a strong ‘proof of concept’ and generate interest in DIBs among different segments including the government and private sector.

The DIB had five key participants—Educate Girls (implementation partner), UBS Optimus Foundation (risk investor), Children’s Investment Fund Foundation (outcome funder), Instiglio (deal designer and performance manager) and IDinsight (outcome evaluator).

### Summary of outcome evaluation findings

The EG DIB has demonstrated positive impact for both enrolment and learning outcomes. The results show a positive trajectory against DIB targets, with significant gains in the final year, lending credence to the hypothesis that DIBs can drive greater efficacy in delivery models. The detailed results are available in IDinsight’s final outcomes evaluation report.

## IV. Process Evaluation

### Overview

The EG DIB provides a first-of-its-kind opportunity to better understand the true impact of DIBs and how processes can facilitate the outcomes.

Given the pilot and experimental nature of the DIB, the main objective of the process evaluation is to critically look at the EG DIB to draw lessons which can inform the design and roll-out of future DIBs.

### Methodology

For the process evaluation, Dalberg reviewed DIB documents, interviewed key stakeholders in the DIB and reached out to a wider group of impact bond experts and practitioners to do a dip-stick test of how well the EG process learnings resonated with their experience. Where EG DIB stakeholders identified hypotheses on how future DIBs could better the processes followed in the EG DIB, we also tested these with the wider group.

## Exhibit 2: Summary of yearly outcome evaluation results of EG DIB

Outcome	Evaluation Methodology	3-year target	Final result	Performance as % of target
Aggregate learning gains for all students in grades 3–5	Clustered (village-level) randomized controlled trial	+ 5,592 ASER learning levels above control group gains	+ 8,940 ASER learning levels above control group gains	160%
Enrollment of out-of-school girls	Pre-post comparison	79% of all eligible out-of-school girls	92% of all eligible out-of-school girls enrolled	116%

The following report provides process learnings around two key areas:

1. Processes specific to the DIB vehicle that drive innovation and improved performance
2. Processes that should be replicated/adapted to improve the sustainability of impact bonds by reducing overall transaction costs and sparking interest amongst a wider set of investors

## V. Processes that can support innovation and greater impact delivery

EG stakeholders identified various processes in the design and implementation phases as success drivers for the innovation and impact that the DIB achieved. They also identified additional processes that future DIBs can consider to further amplify impact. These are summarized below:

**1. The targets were set to be ambitious** and created an impetus for innovation and delivering greater impact, faster

**2. Performance management support and capacity building** under the DIB augmented EG’s monitoring, evaluation and learning (MEL) capabilities leading to effective course correction.

**3. Sharing detailed outcome evaluation data in a timely manner with EG and providing support to unpack the data,** helped EG better identify gaps, adapt their interventions and fine-tune their internal processes to better measure impact

**4. The risk investor actively monitored progress, but was hands-off and not prescriptive about the deployment of capital or the delivery of the intervention; the outcome payer was also hands-off and left the performance management to the investor**

**5. Recognition by the investor that impact from adaptations is likely to be visible in later years and continued deployment of the risk capital even with a non-linear**

**performance trajectory;** for the same reason, **considering longer time-horizons (4–5 years)** for innovation DIBs may be beneficial to all stakeholders

While future DIBs could consider replicating these success drivers, they could also consider adopting the following additional processes to further improve outcomes and reduce overall costs:

**6. While EG did make efforts to engage the government, greater up-front investment in advocacy by EG and other stakeholders could have helped to lower transaction costs and facilitate improved outcomes** by ensuring adequate government support throughout the DIB

**7. EG could have benefited from a longer lead time and greater handholding support during the initial stages of the bond design phase** to better engage with targets, evaluation methodologies and more accurately budget for resource requirements

The following section lays out these processes in more detail and provides an overview of the changes made within EG during the DIB.

### Effective processes followed in the EG DIB

**1. The targets were set to be ambitious and created an impetus for innovation and delivering greater impact, faster**

Learning targets for the DIB were based on a previous RCT that had been undertaken to evaluate the impact of EG’s intervention in another district in Rajasthan. Learning gains from this evaluation were extrapolated and targets set under the DIB were considered ambitious by all stakeholders. There was buy in across stakeholders to use the DIB as a mechanism to drive innovation and accelerated impact delivery around enrolment and particularly, learning outcomes.

Vikram Solanki, EG’s Senior District Manager for the DIB said: “Under the DIB the learning gains targets were crystal-

Exhibit 3: Summary of findings on facilitative processes

Process	Facilitated success	<ol style="list-style-type: none"> <li>1. Ambitious outcome targets</li> <li>2. Performance management support with MEL systems, processes and capabilities</li> <li>3. Timely, detailed outcome evaluation data sharing with IP and support to unpack it</li> <li>4. Flexible and non-prescriptive approach of the risk investor and outcome funder</li> <li>5. Continued risk capital deployment by investor in consideration of time taken to demonstrate results</li> </ol>
	Potential improvement	<ol style="list-style-type: none"> <li>6. Up-front investment in government advocacy by IP and other stakeholders including investors and outcome funders</li> <li>7. Additional upfront support to the IP to better understand targets, evaluation and resource requirements</li> </ol>



ized—which was not there previously. The DIB provided structure and clarity on what learning gains were and what was the objective.”

The existence of an RCT helped build confidence and a willingness to be ambitious. Future DIBs would also benefit from such market building measures. Funders can consider funding sectoral and IP specific outcome evaluations to help create impact benchmarks.

## **2. Performance management support under the DIB augmented EG’s monitoring, evaluation and learning (MEL) capabilities leading to effective course correction**

**Process:** EG created an enhanced MEL framework and processes under the DIB, with ongoing support from the performance manager. Overall the performance manager,

- Worked with EG to enhance their MEL frameworks by adding relevant metrics, designing the information architecture and feedback loops etc.
- Developed and introduced tools such as dashboards for continuous tracking and data synthesis
- Provided training and support to staff at various levels to improve their data analysis and interpretation capabilities

Vikram Solanki, EG’s Senior District Manager states: “Instiglio helped build capacity to analyze data, set up a process for course correction and helped in overall performance management.”

EG’s internal assessment framework was also upgraded (e.g., by adding tracking metrics relevant to the outcomes like child-wise learning assessment data) and assessments were conducted more frequently to track progress. Instiglio also provided training on hypothesis creation, matching data to hypotheses, identifying insights, and developing dashboards and daily reports to track progress.

“We had some MIS systems for performance management but Instiglio played a key role in helping us rethink it, and built capacity to collect data and draw insights from it” –Suresh Subramanian, former COO, Educate Girls.

“EG had a lot of good data on inputs and activities such as number of visits conducted but limited data to track or monitor how learning in classrooms was happening. We developed new frameworks, added indicators, and started building capacity for the EG team to analyze this data to draw insights. We put in a structure to pull data to the management level and created relevant dashboards” –Avnish Gungadurdoss, Managing Partner & Co-founder, Instiglio.

**While the performance manager was instrumental in helping EG to leverage the unconditional funding and the outcome framework/evaluations, many stakeholders agreed that certain existing capabilities and organizational cultural norms prevailing in EG were critical to success.**

Specifically, stakeholders identified the following as pre-existing success drivers:

- **Target driven culture:** EG was well positioned to leverage the outcomes framework under the DIB since it already applied an outcomes-driven approach for its enrolment intervention. EG’s approach focused on ensuring that a particular geography was saturated for the enrolment outcome before moving to another geography. This involved assessment of existing number of girls not enrolled in school, setting targets and tracking them on an ongoing basis. Under the DIB, it was able to apply a similar focus and approach to target learning gains.
- **Existing MEL capabilities:** The EG team was familiar with MEL processes and was already using data for internal learning and course correction. EG was able to readily adopt the enhanced MEL framework under the DIB, implement and even further develop this framework on its own towards the later stages of the DIB. For instance, EG started conducting its own internal assessments more frequently and used them for quick and targeted course corrections.<sup>1</sup>
- **Entrepreneurial and adaptive culture:** EG was forward leaning and receptive to change for improvements in its program and performance management systems. This enabled them to operate effectively within the outcomes framework and sharpened their ability to leverage flexible funding to innovate. For instance, EG’s field staff had access to MEL data and were empowered to make on-the-ground decisions and course corrections to ensure targeted delivery of the program. This decentralized approach was relatively easy for EG to adopt, given they already had a culture of openness. For example, it was common for frontline staff to reach out to managers to troubleshoot.

Adaptation to the DIB framework typically requires not only programmatic changes and capacity development, but an overall shift in mindset towards focusing on outcomes, regular analysis, and course corrections. Without the attributes described above, EG would likely have found it difficult to adapt to the DIB framework, let alone achieve targets, given the short timeframe.

Additionally, the core leadership team’s commitment to ensure success of the DIB resulted in the creation of a highly capable, dedicated implementation team. The management also provided additional agency to critical individuals like Vikram Solanki to make live decisions and course correct rapidly.

“In terms of performance management, organizations that are good at it get better. For organizations that are not de-centralized and forward leaning, it would take a lot of effort for the performance manager to create that cultural change” –Paul Atherton, Member, EG DIB Advisory Group.

In markets and impact areas where the delivery partner landscape is more nascent and which lack organizations with ca-

<sup>1</sup>Dasra, *Impact @ Scale Case Study: Educate Girls’ Measurement Journey* (April 2015).

pabilities such as those of EG, there may be a need for catalytic capital for capacity building to prime the market for DIB-like instruments.

This was echoed by Abha Thorat Shah, Executive Director (Partnerships and Programs), British Asian Trust: “Individual funders need to create some form of DIB readiness among the implementation partners in the market e.g., getting them to start using more technical tools for measurement. There is a role for catalytic capital here.”

### **3. Sharing detailed outcome evaluation data in a timely manner with EG allowed them to better identify underlying gaps and adapt and fine-tune internal performance management processes to track progress more effectively**

EG used outcome evaluation data to identify gaps in target achievement, delineate areas where greater focus was needed and tailored its program to plug these gaps. For instance, once EG learned that only 50% of learning gain targets had been met by the end of Year 2, it leveraged data shared by IDinsight to identify student groups with poor learning gains and ramped up its course correction by introducing a range of interventions targeting them. Progress tracking metrics were also adapted and tracked more frequently, allowing EG to internally monitor impact better.

“Assessment should be done by the implementer and third party, or the raw data should be shared with the implementer. This is important to understand whether our activities are achieving the desired results and where the gaps might be...in Year 2 outcome evaluation, we had anticipated higher level of outcome achievement based on our own internal assessments, but the actual results were much lower. Post this realization, we started conducting rigorous and more frequent assessments and gap analysis for each child in Year 3 to track outcomes. This helped us figure out micro-errors and child specific interventions were rolled out accordingly” – Vikram Solanki, Senior District Manager, Educate Girls.

“In particular, the evaluation data provided a credible counterfactual not available to EG through their own internal data. For example, while EG’s students appeared to have lower scores in English and Math and higher scores in Hindi, the evaluation data revealed that they were actually strongly outperforming the control in the first two subjects (and by relatively less in Hindi).” – Kate Sturla, Associate Director, IDinsight.

### **4. The risk investor actively monitored progress but was hands-off and not prescriptive about the deployment of capital or the delivery of the intervention; the outcome payer was also hands-off and left the performance management to the investor**

The risk investor’s approach on how capital should be deployed remained unconditional throughout the DIB and was particularly transformative for EG. It provided EG with an environment conducive to innovation and iteration throughout the DIB. This was particularly relevant in Years 2 and 3 when course-correction activities were required and undertaken.

Safeena Husain, Founder and CEO of EG, states: “Post Year 1 results, which were low, UBSOF didn’t prescribe how the money should be spent and what should be done. UBSOF didn’t interfere on how we were implementing the interventions and was aware of all the data, steps taken etc.”

This approach differs from traditional grant funding and even other, common, results-based payment mechanisms, which can be more prescriptive in nature and also see greater management from the funders.

Grethe Petersen, Director (Strategic Engagement and Communications) at ClIFF, states: “From the outcome payer’s perspective, we were being very strict in playing that role—we did not want EG to be constrained in their implementation. We wanted them to be agile and innovative and thus gave them a lot of freedom.” She cautions that this can be a cultural change that future impact funders and investors should be mindful of: “For most donors it is hard to give up control. Donor staff are hired as experts and it is natural for them to feel that they should play a role in giving advice to their grantees.”

### **5. Recognition from the investor that the impact from the innovations/adaptations was likely to be visible in later years; and so, even though significant gains in outcomes were observed only in the third and final year, the investor continued to provide risk capital, despite having an option to withhold funding**

The risk investor remained closely in touch with the implementation partner and the performance manager and was aware of the innovations and model adaptations that EG was rolling out on the ground. There was internal recognition that EG was committed to delivering results and that the adaptations would take time to show impact on the ground. This latter was also borne out of the investor’s prior experience in the impact sector. As a result, despite having the option to withhold funding in the second tranche, the investor continued to provide risk capital.

Safeena Husain, Founder and CEO of EG, states, “Unconditional funding was the primary trigger for the DIB’s success; the presence of patient capital was a key variable in the success of the project as it provided EG with enough flexibility to innovate. UBSOF had a large risk appetite and their actions were extremely supportive in the interventions/ changes we were carrying out.”

Moving forward, investors (impact motivated and otherwise) will have to remain cognizant of the fact that given the nature of the DIBs, and the likely need for implementation partners to innovate to meet efficacy/efficiency targets, it may take time for programmatic changes to show results.

To this end, DIB timelines should account for the type of impact area and the level of innovation and likely adaptation necessary, in the implementation partner’s program.

Buddy Shah, CEO, IDinsight lays this out: “The time horizon needs to be carefully thought about. It takes time for an orga-

nization to understand the DIB, test the intervention, and get it in its DNA. The time horizon should not be very long if the program is proven and is being replicated; but will be longer if adjacent outcomes are being targeted. In case the intervention is being scaled up there are a host of challenges and the time would have to be carefully thought about... Targeting adjacent outcomes, you would want to think harder about longer time horizons. Adapting the program to newer contexts, it can be slightly less long—it depends on how oriented they have been in adapting in the face of real movement in their outcomes. This will be affected by have they been robustly measuring outcomes”.

For education, EG DIB stakeholders and other experts believe that 4–5 year timelines could be effective. Maharshi Vaishnav, Global Development Director at EG explains: “Essentially there were reasons for the build-up and acceleration of results over time, not least the fact that educational outcomes compound over time and this DIB makes a strong case for longer-term funding for education (3–5 year DIB time frame) and a year of lead time to set everything in place”.

### Processes/adaptations that could have been useful

**6. While EG did make efforts to engage the government, greater up-front investment in advocacy by EG and other stakeholders could have helped to lower transaction costs and facilitate improved outcomes by ensuring adequate government support throughout the DIB**

#### Summary of interactions with government:

- An MOU was signed between the Government of Rajasthan (GoR) and EG for implementation of the intervention
- An MOU for evaluation proved difficult to obtain and led to delays; IDinsight finally used a permission letter issued to EG that allowed IDinsight to conduct evaluations
- The EG team ramped up touchpoints with government officials to keep them better informed of progress

Ensuring a comprehensive understanding of the value and objectives of the DIB upfront among relevant government officials and getting their buy-in early would have been helpful, particularly as EG was working within government delivery channels:

- **Potential to improve overall outcomes:** Early alignment can help with improved on-the-ground support from the government during the intervention. This is particularly relevant for implementation partners that work with or rely on government support.

In EG’s case, garnering support from government teachers early on could have made implementation easier besides providing greater insights into a child’s progress.

Vikram Solanki, EG’s Senior District Manager shared that implementation became smoother after government teachers saw progress: “In a few schools, we faced resistance from some teachers who didn’t cooperate with our volunteers... this however changed when they started seeing the positive

effects of our intervention”.

Government buy-in can also help mitigate risks to the intervention or its evaluation. During implementation of the EG DIB, a few non-treatment schools acquired EG’s teaching materials which possibly led to biased results in the control group. Timely government advocacy could have avoided such risks by ensuring that government officials understood the significance of the intervention and factored this into its policy or administrative decisions.

- **Improve sustainability of the intervention:** Factoring in government perspectives on outcomes, targets and evaluation is also essential from a long-term sustainability perspective. This could be from the point of view of the government ultimately acting as the outcome funder or by getting the government to endorse results and support the intervention in the long run or to facilitate the adoption of the model by the government through other structures.

Jared Lee, Principal, Education Outcomes Fund said: “The DIB structure should facilitate government buy-in early on to ensure long term sustainability of interventions (DIBs transitioning to SIBs)”.

Timothy Schur, CFO, Palladium Group echoes this: “In order to deal with some of the risks, especially policy/politics etc., it is essential to get the government involved. Enrolment of the government is critical to ensure that the program has a durable impact beyond the period of a specific impact bond instrument. We recognise that the government may not have the capacity to service the outcome funding obligations initially, but they should be engaged early in program development and ideally they should have some participation in the outcome funding”.

Outcome payers and investors, who may have more experience with impact bonds, can consider supporting implementation partners in these early discussions. Effective government advocacy would require an exploration into the:

- Value of the DIB structure
- Mechanisms of the DIB
- Asks from the government upfront and on an ongoing basis (including for outcome evaluations)

**7. EG could have benefited from a longer lead time and greater handholding support during the early-stages of the bond design phase to better engage with targets, evaluation methodologies and more accurately budget for resource requirements**

EG had prior experience with targets and evaluation methodologies through the pilot RCT conducted for its program in Jalore. The learning targets under the DIB were also extrapolated using data from the RCT. EG was also a part of the early design discussions on the DIB and received capacity building support to better understand key decision points such as targets and the evaluation methodology.

However, EG staff pointed out that while the above was facilitative, implementation partners may require longer lead times up-front to become comfortable with target and outcome evaluations and the associated expectations from them during the DIB.

As evaluation methodologies and target setting can be complex and technical, there may be a need to bring in specialised expertise for capacity building. This may be even more critical for implementation partners who have limited or no prior experience with formal evaluations.

Avnish Gungadurdoss, Managing Partner & Co-Founder, Instiglio said: "In the future, investors and the performance managers should spend time building capacity for the implementation partner upfront and make sure they are progressing up the learning curve."

Similar support may also be required by the implementation partner to estimate costs for their program under a DIB.

EG's budget for the DIB was derived from their experience of program delivery during the Jalore RCT, which was the basis for target setting. The budget estimate was an extrapolation of costs borne under this pilot and suggested that the outcome price offered by the outcome payer was feasible.

However, the actual outlay exceeded this budget due to unanticipated costs resulting from several adaptations and innovations made to the delivery model to achieve the targets.

Investors and performance managers may have to provide handholding support early on to help implementation partners anticipate the need for additional resources and ensure that resource constraints do not curtail impact—the latter may be a concern for smaller organisations that are unable to absorb

such additional costs.

Maharshi Vaishnav, Global Development Director, EG suggests that implementation partners should consider program costs and build in an 'innovation premium' to offset innovation related costs: "To set pricing benchmarks or come up with the budget, the implementation partner needs to not only do a bottom-up estimation of resource requirements in its current delivery model but should also consider adding an innovation premium which can account for programmatic and process innovations. This premium could factor in incremental costs such as those required for improving performance management systems, hiring additional resources etc. among other things...in our case, a pot twice the size of what we had originally estimated could have accounted for several of these costs".

### Snapshot of the EG intervention under the DIB

Building an understanding of the nature of the adaptations and innovations that were made by EG can be an important input for future DIBs. EG's experience can provide important context for stakeholders as they consider DIB processes such as setting outcome prices, determining timelines for innovation and education DIBs, and identifying the type of performance management support needed. It can also provide important context for investors looking to assess the delivery risk associated with innovation DIBs.

Additionally, the EG experience underscores the possible need for additional resources towards innovation and adaptation, which implementation partners may not have factored in their budgets. In the current DIB, some of these costs were borne by the implementation partner, over and above the outcome payments for the achieved impact.

**Exhibit 4: Support needed by implementation partners in design phase and implementation phase**

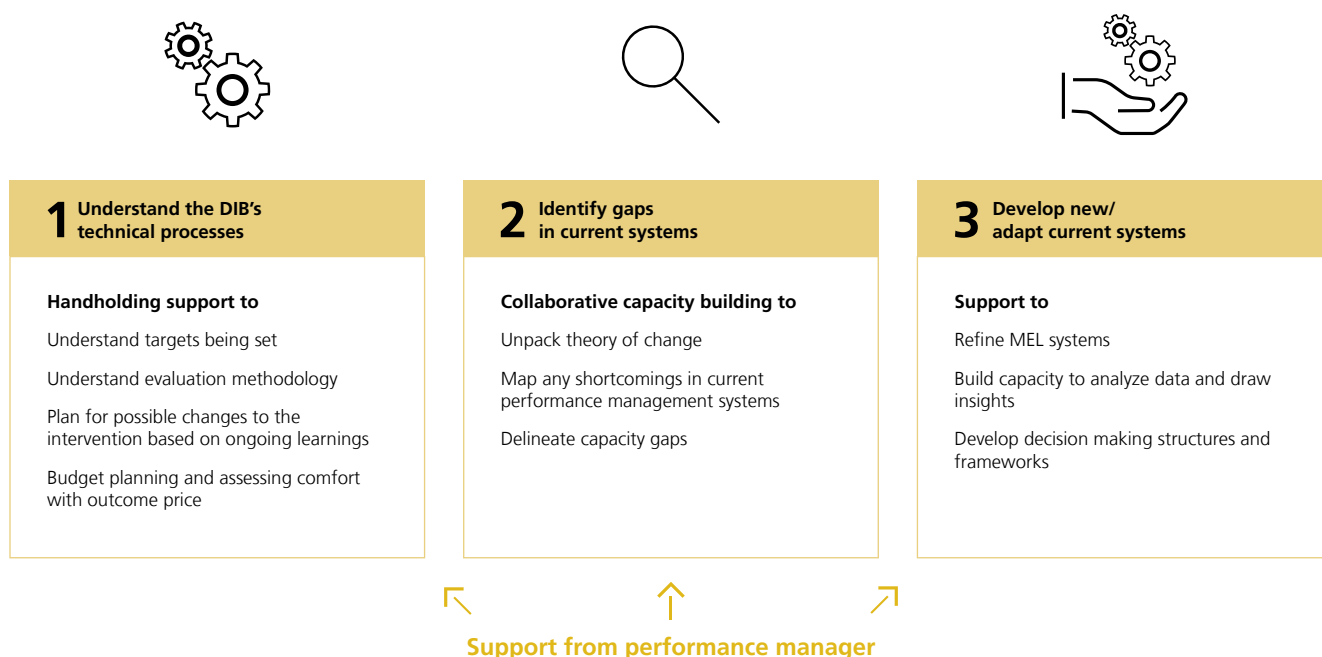
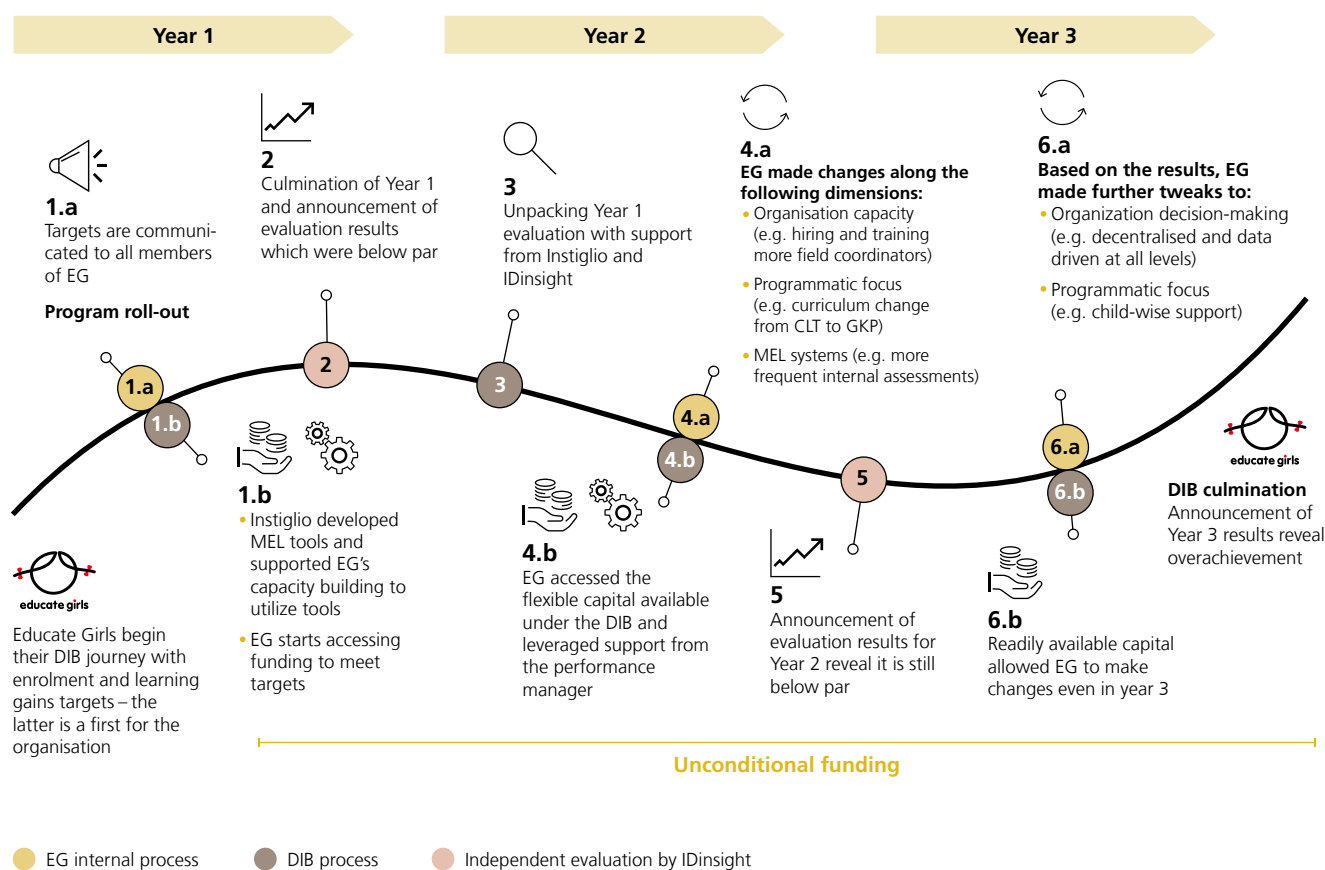


Exhibit 5: EG journey map



Future DIBs that seek to set price benchmarks, may have to consider alternative mechanisms to either track these costs or to build these into outcome prices up front. The latter may result in some degree of price overestimation as certain costs incurred in the innovation process are likely to be one-off fixed costs (such as changes and improvements to performance management systems), which can be leveraged by the implementation partner going forward.

The following section is a brief case study of EG's journey through the DIB.

The key areas of evolution for EG through the EG DIB were:

- Programmatic focus areas
- Resource allocation
- Performance management frameworks and systems
- Decision making processes

**Programmatic focus:**

- **Transition from Creative Learning Techniques (CLT) to Gyan Ka Pitara (GKP):** After the Year 1 assessment, EG saw less than expected change in learning levels among children. They decided to shift from CLT, which followed a classroom focused approach to GKP that was group focused, with each group put together based on the competency levels of children. This was initially introduced in 19 schools at the beginning of Year 2; on seeing positive results it was scaled to all 166 schools during Year 2.

GKP is a modular, structured curriculum and each module is linked to assessment levels of ASER. In Year 2, EG tried new methodologies of classroom teaching using GKP and continued to identify areas of improvement in the curriculum. Training was provided to Team Balika(s) and field coordinators to build their capacity for classroom delivery using new teaching methodologies. This was supported by frequent classroom observations and in class support.

Material used in the GKP curriculum was also designed to be more attractive: activities and games linked to learning objectives were introduced and worksheets were designed with a view to enhance classroom engagement, while building skills.

- **Child centric curriculum:** EG shifted to a child-centric approach which included focusing on each student in the classroom, tracking each child's progress and conducting child-centric exercises to increase learning gains. It finalised and rolled out tools and worksheets in Year 2 and field coordinators and Team Balika(s) worked together to chalk out a customised teaching plan for each child.
- **Increase in number of teaching sessions:** In Year 3, EG began teaching GKP during the holidays and held remedial sessions. Moreover, given the high student absenteeism (25%), EG volunteers conducted sessions in homes to reach students that were unable to come to school regularly.

– **Additional mobilisation for enrolment:** In addition to the prior strategy of community mobilisation drives, EG began conducting one-on-one counselling sessions with parents. EG also aligned with the school teachers with the objective of improved delivery of GKP, and had continued discussions with the teachers about the progress of children across grades.

– **Classroom management:** For larger class sizes in Year 3, students were divided and grouped as per their learning levels and lesson plans were made specially to cater to these classrooms. Field coordinators would explain the objectives and tools for the class, but the Team Balika(s) had the autonomy to adapt rollout based on the contextual needs. Additionally, Team Balika(s) were allocated subject-wise plans according to their skill levels and they were also supported through in-class observations, demos and regular feedback.

“In Year 1, we didn’t see much change in the student learning levels...we shifted from CLT which had a class room focus to GKP which was group (competency levels) focused. In Year 2, for high capacity classes we would divide the class into groups and conduct sessions accordingly. The Team Balika(s) would give feedback to the coordinator who would then come up with solutions. [Also in] Year 2, parents of kids that didn’t perform well couldn’t come for the community mobilization due to their work. We changed our approach and matched activities to the schedule of the parents. We arrived at the parents counselling mode when community mobilization was not working to get students enrolled. The Team Balika’s would go to their houses and speak to their parents” –Bhupendra Kumar,

Assistant Manager, Educate Girls.

“In Year 3, we started home schooling which led to a significant increase in learning gains” –Pratibha, Assistant Manager, Educate Girls.

“We conducted regular rigorous assessments and gap analysis for each child in Year 3 to track outcomes. This helped us figure out micro-errors and child specific interventions were rolled out accordingly” –Vikram Solanki, Senior District Manager, Educate Girls.

**Resource allocation**

EG bolstered the program team at various levels and existing frontline staff also put in more time and effort than anticipated through the course of the DIB. For example, in Year 2, EG hired 3 additional field coordinators and in Year 3 they hired an additional 14 field coordinators and 3 mobile coordinators who operated across regions. Additionally, senior management also invested significant time and effort in supporting the field teams.

“In Year 1, we had only 15 field coordinators, which increased to 29 in Year 3. We also hired 3 mobile filed coordinators in Year 3 to plug vacancy gaps. Moreover, we developed GKP in 2 months as opposed to 1 year due to the structure of the DIB” –Vikram Solanki, Senior District Manager, Educate Girls.

“There was a lot of time spent by the management team (for instance our COO) with the data.” –Pratibha Dubey, Assistant Manager, Educate Girls.

**Exhibit 6: Data sharing and decision-making processes at Educate Girls before and during the DIB**

Before DIB	Organization Hierarchy	During DIB
– Reviewed progress annually	<b>EG Management</b>	– Weekly calls with district team to unpack data; discuss challenges and progress
– Analyzed data on progress of activities, drew insights with support from the Impact Unit – Developed yearly implementation plans and made minor course corrections during implementation	<b>District Team*</b>	– Analyzed trends on efficacy of inputs, progress on outcomes and drew insights with support from the Impact Unit – Developed targeted action plans – Engaged in active, ongoing course correction with cluster teams
– Aggregated cluster level data and communicated requirements to district team	<b>Cluster Team</b>	– Shared challenges with district teams on an ongoing basis and co-created action plans with district teams and with field coordinators
– Collected data around inputs and activities and shared them with cluster team	<b>Field Coordinators</b>	– Collected more targeted data mapped to outcomes – Shared field level insights, suggested solutions and communicated requirements to cluster team – Worked with Team Balikas on action steps
	<b>Team Balika</b>	– Provided insights on underlying reasons on observed trends and shared support required with field team

\* A Regional Team was also formed around the time that the DIB was implemented. However during the DIB period there was direct coordination between the District Team and EG management.

## Performance management frameworks and systems

With the support of the performance manager, EG adapted its monitoring framework to better predict progress and track underlying gaps. The adaptations continued through Years 1 and 2. Key changes included tracking of student and school performance, student errors and the performance of the Team Balika(s).

“The performance management system was technology based (e.g., mobile logins) through which we would know what was happening in each school and what to do in each school. Classroom observations were also known through the system” –Vikram Solanki, Senior District Manager, Educate Girls.

EG also enhanced its internal assessment process to ensure more frequent assessments, increasing from two in Year 1 to six in Year 3. Targeted metrics also helped with the identification of gaps and pointed to areas where course corrections were needed. For example, EG began conducting error analysis to identify specific areas of focus for children.

“We had insights into aspects such as learning levels in schools, identifying schools that needed more intervention, realizing that we did not need to implement the program module by module etc. These insights into gaps came from our internal assessments, and not just IDinsight’s assessments.” –Pratibha Dubey, Assistant Manager, Educate Girls.

“We didn’t change the format of assessment but with more frequent internal assessments, we got to know of issues more regularly” –Pratibha Dubey, Assistant Manager, Educate Girls.

## Data Usage and Decision-making Processes

A key determinant of impact was EG’s move to a decentralized decision-making approach, which was built around two core principles:

- Capacity building of frontline staff to analyse data
- Empowering mid-management and frontline staff to make live decisions based on data

For example, field coordinators were provided training in data interpretation, had access to data and could take decisions around which program elements and activities to focus on, depending on their specific context.

A conscious decision was made by the core management team to be guided by the on-the-ground-team on programmatic iterations. The management team played a more facilitative role to ensure program teams had the support they needed.

“Big gains were seen when the frontline staff learnt how to analyze data effectively” –Safeena Husain, Founder and CEO, Educate Girls.

“Power was given to the team, including at the cluster level and field coordinator level, to make decisions around what can be done better, what will work” –Pratibha Dubey, Assistant Manager, Educate Girls.

## VI. Processes to replicate/adapt to improve the sustainability of impact bonds

### Overview

In the EG DIB, the ratio of monetary transaction costs to overall capital deployed was disproportionately high. The DIB was over a year in the making and anecdotal evidence suggests that it has taken other stakeholders 1–2 years to design, negotiate terms for and operationalize other DIBs.

Furthermore, current DIBs, like the EG DIB, are being piloted by ‘first-movers’ and impact driven investors, and there is concern that the terms and structures of these DIBs may not hold as benchmarks for a more diverse group of stakeholders.

As we transition from ‘proof of concept DIBs’, improving efficiency of DIBs and aligning on more widely acceptable terms will be crucial to bring long-term sustainability and attract different forms of capital.

The EG DIB offers several learnings in this regard, which we have summarized below:

- Stakeholders need to build upfront alignment around the long-term impact that is sought and the associated outcome metric that is appropriate
- When deciding outcome evaluation methodologies, DIB stakeholders may have to consider trade-offs between the degree of rigour and the associated cost; factors to consider for the former include the purpose of the DIB, the type of available data and the need to attribute impact to the implementation partner’s activities
- Future DIBs should look to replicate common frameworks and leverage contract templates and learnings around effective governance structures from the EG DIB experience
- To spark interest amongst a wider set of investors, future DIB stakeholders may have to follow a more bottom up approach (i.e., engaging with the risk parameters and likely benchmarks) to set the rate of return; mechanisms to distribute risk borne by the investor may have to be adapted if risk/return trade-offs are not satisfactory

The following section lays out these findings and the associated processes that can improve the sustainability of DIBs.

### Specific processes

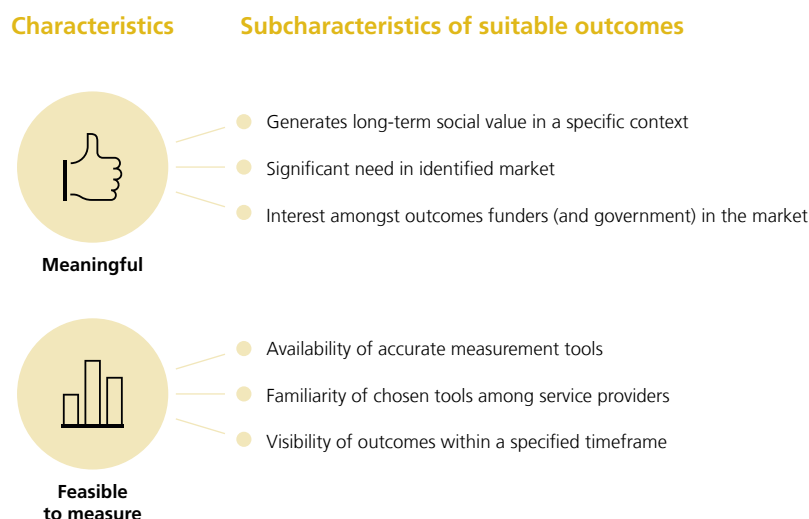
#### 1. Stakeholders need to build upfront alignment around the long-term impact that is sought and the associated outcome metric that is appropriate

In the EG DIB, payments were made against two outcomes: enrolment and learning gains. However, opinion across DIB stakeholders and advisors remains divided on the more effective outcome for two reasons:

- Perceived correlation to long-term impact
- Suitability of outcome for the DIB framework

Some stakeholders believed that enrolment is an input that is necessary but does not guarantee learning gain, the long-term

**Exhibit 7: Characteristics and sub-characteristics of suitable outcomes<sup>2</sup>**



impact that should be prioritised. Yet there are others, within the EG DIB and outside, who felt that enrolment can be a critical outcome to pay for, particularly in contexts where behavioural change is needed to bring about enrolment.

“Enrolment is a process rather than an outcome—it doesn’t capture a lot of things that are actually of interest—it doesn’t get to the heart of what everyone will say is the core of the program.” –EG Working Group Member.

“The metrics will depend on what the education challenge is. If getting girls into schools is in itself such a problem, then enrolment will matter as an outcome.” –External Expert.

Additionally, DIB stakeholders and external experts and practitioners identified the need for easy measurability of paid outcomes, a necessary condition for their suitability within the DIB framework. In this context, some EG DIB stakeholders, felt enrolment is a very suitable outcome.

“Enrolment is an easy and measurable outcome, but learning gains are not, so enrolment is more suited to a DIB” –EG Working Group Member.

Based on the EG experience, stakeholders could consider setting outcomes that satisfy the parameters of meaningfulness and measurability, outlined in exhibit 7.

“The outcomes and indicators we target have to be easy to measure and easy to understand for the private sector while being linked to the greater good i.e., they should make sense for society” –Abha Thorat Shah, Executive Director (Partnerships and Programs), British Asian Trust.

Investing time and effort upfront to align on identifying outcomes and measurement tools that are replicable and relevant to a wider audience of outcome payers in a specific market, is useful for longer term sustainability. Alignment is relevant at

both the individual DIB level and at the level of the DIB ecosystem. The need for alignment has been echoed across implementation partners, outcome payers, and investors:

“For outcomes that are relatively technical the outcome funder would want some sense of understanding among stakeholders which needs to be built...In the long term, for a few high potential sectors the next logical step would be to get a set of people to align on what the outcomes are and place a price benchmark on them” –Radana Crhova, Development Impact Bonds Advisor, DFID.

“Experts need to come together to align on a fairly robust set of outcomes and price benchmarks” –Andrea Phillips, Founder & Managing Partner, Maycomb Capital.

“The process of arriving at the outcome targets still needs to be thought through and greater alignment must be ensured. There is a need for upfront investment in terms of time in setting targets...as more projects take place, the issue of a lack of data can be solved” –Suresh Subramanian, former COO, Educate Girls.

It can take time and money for investors, implementation partners, government actors, and subject-matter experts to agree on the terms of an outcomes-based financing project, and particularly on the outcome metrics. The effort spent to fine-tune the terms and find robust outcome metrics that are grounded in rigorous research is well spent—especially if the terms can be used again and again across different interventions and geographies.

Andrea Phillips, Maycomb Capital Founder and Managing Partner, received seed funding specifically earmarked for the research and development work of building replicability and standardization into outcomes-based financing. She explained, “Flexible capital that funds the market development work to ultimately bring outcomes-based financing to scale is incredibly

<sup>2</sup>Source: Dalberg Analysis; Gustafsson-Wright, Emily et. al (2015)



valuable. We've been lucky enough to receive seed funding that allows us to proactively work with government partners to build projects that are specifically designed to be replicable across jurisdictions."

### Recognising the challenge of data poor environments when setting targets

In emerging market contexts, where DIBs have been primarily used, public data may not be available, and where available, may be unreliable. This can lead to potential challenges around assessing the quantum of need and setting appropriate targets. An upfront assessment of data availability/quality and the ways in which gaps can be mitigated helps avoid additional transaction and opportunity costs arising from subsequent re-negotiations around targets.

For example, in the EG DIB, targets for the number of children to be impacted by the learning interventions were based on government data that overestimated the number of students in a geography, leading to inflated targets. Once this came to light, there was a re-negotiation of targets among stakeholders leading to increased time lags and resource utilization, which was further exacerbated by the lack of a formal negotiation process.

Outcome payers and investors should be mindful of these challenges in the design phase and where possible, consider risk mitigation strategies in consultation with implementation partners and outcome evaluators.

Based on the EG DIB experience, stakeholders may consider

investing in upfront validation of public data, to assess whether the data source is sufficiently reliable for setting targets.

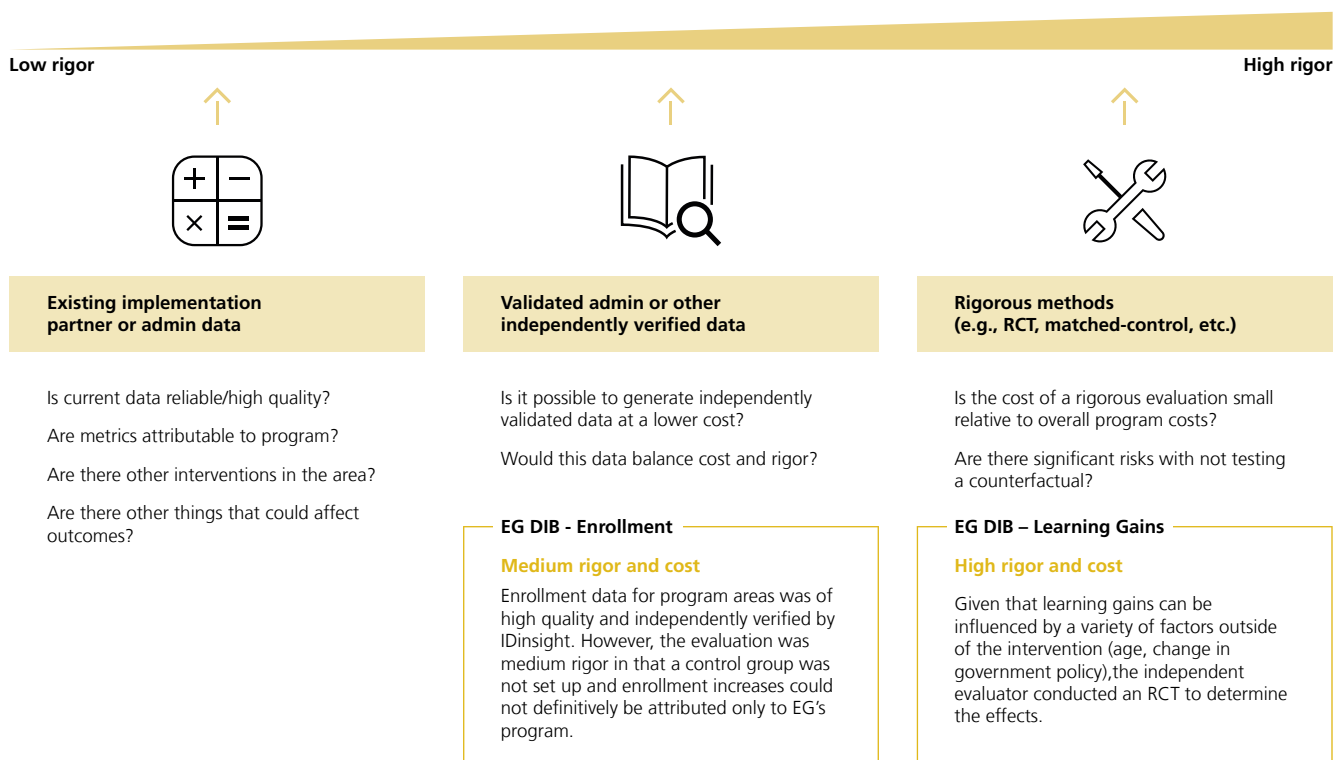
Where there are concerns around the reliability of existing data, stakeholders can consider investing in a baselining exercise upfront to gather data and essentially adopt a bottom up approach to identifying the beneficiary pool and its characteristics. This may result in additional costs to the DIB. If baselines are planned as part of evaluations, as was the case in the EG DIB, there is merit to carrying out this exercise upfront, before targets are set.

When setting the quantum of learning gain targets, the EG DIB benefited from the results of the Jalore RCT. However, there is limited availability of this type of data across delivery models, impact areas and contexts.

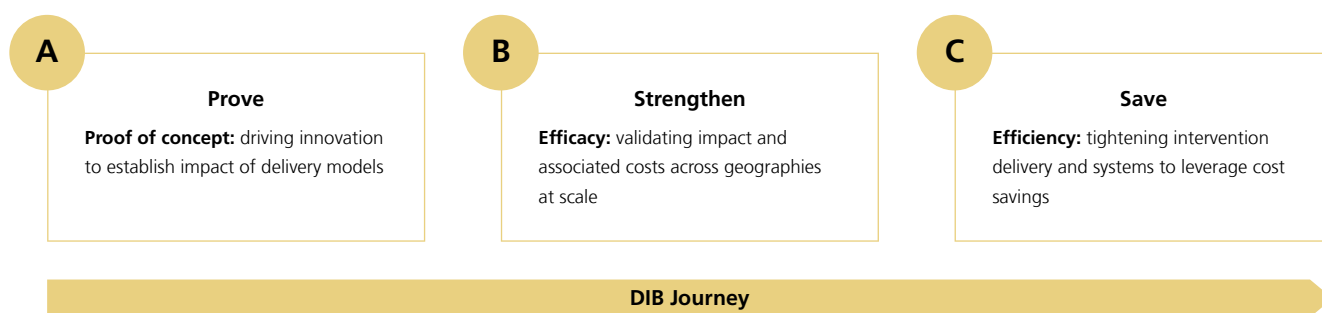
A possible intermediate solution could be setting relative targets/ thresholds e.g., percentage of students who graduate. While this type of target setting has the benefit of leveraging existing implementation partner data, experts and practitioners point out that there may also be challenges such as adverse incentives for implementation partners.

As Paul Atherton, explained: "Threshold measurements are simple to measure, are easier to prove impact with, since they involve simple before and after measurements. However, they carry an increased equity risk since there's a risk of gaming [the outcome] by targeting those in the beneficiary groups that can achieve the thresholds...there is merit in having a simpler threshold measure when data is not available...it is also a more cost-effective measure of evaluation."

### Exhibit 8: Considerations for the rigor of evaluation



There exist three broad goals for DIBs in their journey to maturity



Another solution could be the use of catalytic capital to fund evaluations across existing delivery models to generate data that can be used by the wider outcomes ecosystem. Upfront alignment around impact areas, outcomes and measurement tools used for evaluations can help to amplify relevance of these evaluations.

**2. When deciding outcome evaluation methodologies, DIB stakeholders may have to consider trade-offs between the degree of rigour and the associated cost; factors to consider for the former include the purpose of the DIB, the type of available data and the need to attribute impact to the implementation partner’s activities.**

**Parameters to consider when identifying appropriate evaluation methodologies:**

Selection of the right outcome evaluation methodology for a DIB presents a trade-off for funders which is to balance rigor with cost. There are several benefits of conducting a rigorous evaluation such as increased confidence in attributing results achieved to the implementation partner’s intervention and generating multiple data points which can help funders to identify the most suitable range for targets in the future.

Rigorous evaluations also create positive externalities as they provide implementation partners contextualized data that can help to diagnose gaps in intervention models and ongoing performance management systems within the organization. In the EG DIB, in addition to the baseline and end line, yearly evaluations were also carried out, which proved helpful to EG.

While the ability to course correct based on independent evaluation is a positive externality, DIB stakeholders need to determine where the costs of such an externality should sit. Maharshi Vaishnav from EG points out: “External data points around performance are valuable and we did benefit from the data provided by the yearly IDinsight evaluation. However, data for course correction does not have to be based on as exhaustive an exercise as the evaluation. The investor and the implementation partner can decide what form of counterfactuals could be most useful for calibration and course-correction and the cost for such an activity could be part of the innovation premium that an implementation partner builds into their budget.”

While considering the level of rigor needed from the evaluation, outcome funders can consider three important factors:

- Past validation for the model being implemented
- Presence of existing data
- Overall objective of the DIB

The first two are summarized in exhibit 8:

**a. Past validation for the model being implemented**

Whether the implementation partner’s model has prior validation through previous studies is a useful parameter. For a model which has not been validated in the past or for which it is not possible to generate independently verifiable data, the outcome funder may want to opt for a more rigorous evaluation to establish the efficacy of the model. On the other hand, models proven through past studies may offer a level of assurance regarding their ability to deliver on the outcomes being targeted and funders may then choose to opt for lower rigor to save on costs.

“In instances where there is a lack of authentic data outcome funders are hesitant and having a robust evaluation may be essential” – Suresh Subramanian, former COO, Educate Girls.

**b. Presence of existing data**

If reliable and high-quality data around the right metrics is being captured by the implementation partner during the course of their intervention, then opting for less rigorous methods such as verifying the data through independent spot checks, conducting simple pre and post assessments or other less rigorous methodologies may provide sufficient confidence in the results for all stakeholders involved.

Timothy Schur, from Palladium Group believes this is likely the way forward: “Our observation is that in many of the pay for results structures such as impact bonds, the total program budget applied to evaluation and validation has been disproportionately high. It is critical for the program design to have clear results metrics such that the outcome-based payment criteria achievement can simply be independently, and cost effectively verified. Without clear/quantitative outcome metrics and associated systems implemented for program inception for tracking, the additional costs detract from program value. Ultimately, a validation model delivers the best value”.

It is also useful to consider how important it is to establish the attributability of impact to the intervention. For instance, other interventions present in the same geographic region as the implementation partner or external factors such as change in government policies may influence results. In such a scenario, the outcome funder may not want to over pay for results not achieved entirely by the implementation partner.

“The challenge comes when you are trying to attribute gains. It is important to see what is driving the change. Teasing out what is EG’s impact and what is the government’s impact was super important” –Buddy Shah, CEO, IDinsight.

### c. Overall objective of the DIB

The overall objective of the DIB should also be considered while aligning on the level of rigor for the outcome evaluation methodology. Some possible focus areas for DIBs:

- Driving innovation to increase impact of delivery models
- Validating proven models at scale and establishing price benchmarks
- Driving innovations for cost savings in existing models

If the purpose of the DIB is to establish a proof-of-concept or create a benchmark for impact delivery and cost of delivery, then more rigorous evaluations may be needed whereas in the third case i.e., when the objective is improving efficiency, pre-existing data or low cost, low rigor evaluations may suffice.

An additional strategy to reduce evaluation costs is using separate evaluations (varying degrees of rigor) for delinked outcomes. In the EG DIB for example, enrolment was evaluated via pre and post assessment while learning gains were evaluated

using an RCT.

The evidence base on the suitability of different methodologies to DIB contexts and their associated costs is still developing. There is an opportunity for catalytic capital to support coordinated and targeted research to bring more transparency around the effectiveness and costs associated with each methodology at scale. This will set the stage for stakeholders to effectively use and leverage such data, whether at the DIB level or in the wider outcomes ecosystem.

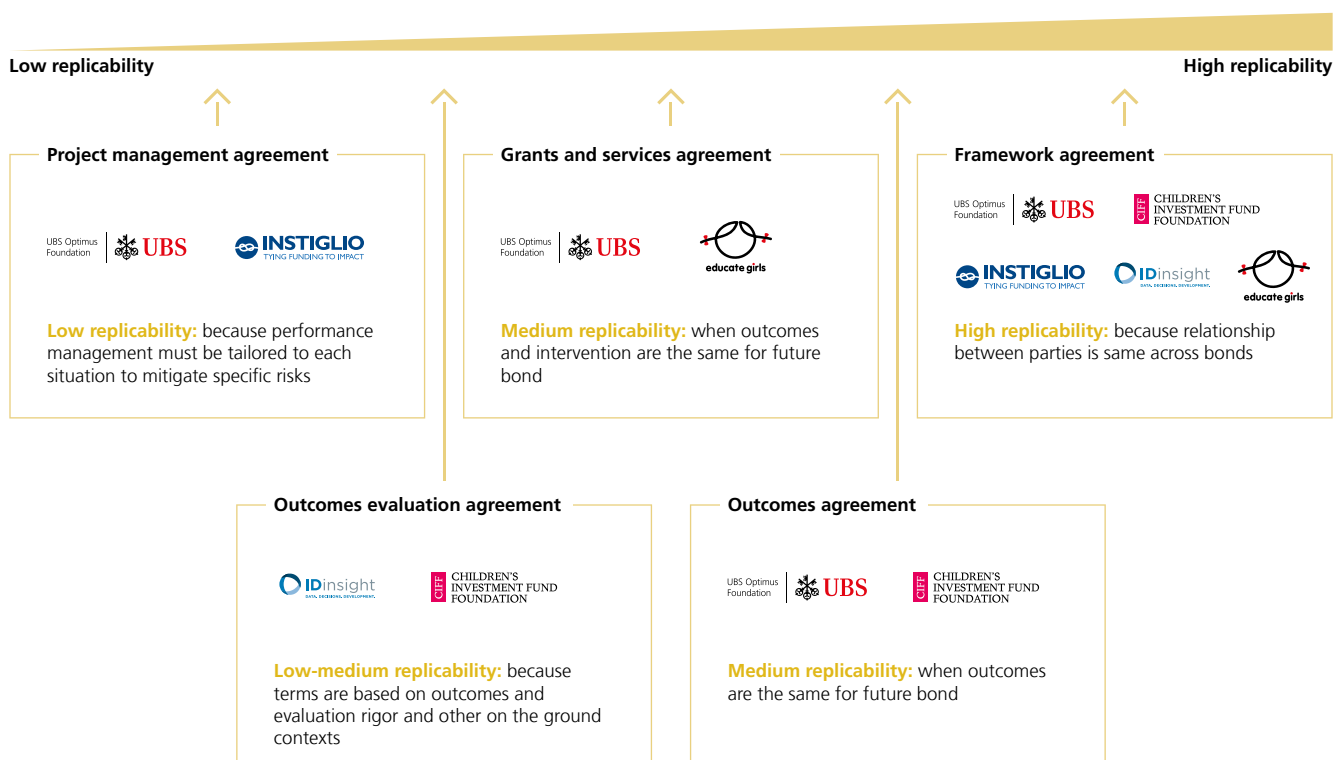
### 3. To reduce transaction costs, future DIBs should look to replicate common frameworks and leverage contract templates and learnings around effective governance structures from the EG DIB experience

Transaction or administrative costs are primarily costs for designing and setting up the DIB (such as legal fees to develop contracts) and costs related to ongoing execution (such as fees paid to the performance manager, outcomes evaluator and ongoing coordination costs). Smaller transaction costs can imply higher returns to the investor and lower outcome payments for the outcome funder. Opportunity costs refer to the time and effort commitments made during the DIB which could have been otherwise utilized in other funding initiatives.

In the EG DIB, and more generally too, transaction costs and the time and effort spent in DIB design and implementation are viewed to be disproportionately high.

Ways in which transaction and opportunity costs can be reduced or made more acceptable to investors broadly relate to using replicable elements from other DIBs (such as certain

Exhibit 10: Replicability of EG DIB contracts



## Exhibit 11: Learnings around governance structures from the EG DIB



**Working group**



**Advisory group**

Aspects to replicate (i.e., benefits)	Recommendations for future bonds
<ul style="list-style-type: none"> <li>– Forum for all parties to come to key decisions during design</li> <li>– Regular opportunity to discuss on-ground implementation and course correction</li> <li>– Point for reflection and sharing learnings</li> </ul>	<ol style="list-style-type: none"> <li>1. Sub-groups that focus on specific areas such as technical advisory</li> <li>2. Greater clarity in who leads discussion</li> <li>3. More local meetings</li> <li>4. Varying levels of participation across stakeholders (formal checkpoints for OP rather than continuous engagement)</li> </ol>
<ul style="list-style-type: none"> <li>– Provides expertise in diverse areas, primarily during design phase</li> <li>– Advises on technical decisions like evaluation methodology</li> <li>– Informs key external stakeholders</li> <li>– Improves visibility of bond</li> </ul>	<ol style="list-style-type: none"> <li>1. Greater representation from finance and government</li> <li>2. More focus on bond commercial viability and less on evaluation</li> <li>3. Rotating chairmanship depending on topic</li> </ol>

The steering committee comprised of the outcome funder, investor, performance manager etc., met on an annual basis to a) review progress, b) discuss any issues requiring decisions, and c) provide oversight. It also served as an important forum to keep key stakeholders aligned.

contracts or clauses), applying learnings from the experience of other DIBs, and using structures or processes that can reduce costs within the DIB (such as by cost sharing or by leveraging technology). These are outlined below:

**Replicating frameworks and contract templates:** Depending on the nature of the bond (i.e., number of participants, payment structures etc.), stakeholders can leverage existing templates built in the EG DIB to varying degrees. For example, UBS Optimus Foundation, the investor on the EG DIB has since taken part in two additional bonds where they have observed significant time savings by leveraging existing frameworks and templates.

Maya Ziswiler, Head–Innovative Finance, UBSOF, talks to their experience: “Investors would not want DIBs to be customized for each transaction as it would be cumbersome and cost more in terms of time and effort...as an organization, we have been involved with three DIBs so far and each time it has taken us lesser time to come up with contracts due to learnings from the previous one. It took us 28 months to set up the first [EG] DIB and only 5 to set up the third one”.

### Exhibit 10 lays out findings on replication possibilities around contracts from the EG DIB.

- **Governance structures and processes:** The EG DIB experience also offers learnings around effective processes for governance and dispute resolution that can be replicated/ adapted and help reduce transaction costs, time and effort and facilitate better coordination across stakeholders. The exhibit 11 summarizes our learnings from the EG DIB around supporting governance structures.
- **Dispute resolution mechanisms:** An important learning from the EG DIB is the need for clear pathways to escalate and resolve issues that come up during a DIB’s implementation. For some issues, the performance manager or internal

advisory committees can play a greater role, such as in advising the implementation partner on practical issues relating to program implementation. For other types of issues such as disputes around the validity of outcome evaluation which can potentially derail payments, formal dispute resolution processes such as a pre-agreed arbitration panels could be more relevant. It is important to clearly outline the timelines for dispute resolution and clarify what the payment mechanisms will be in the event of a dispute.

### 4. Additional avenues to reduce transactions costs include setting up larger funding pots that pool risk and transaction costs, using technological solutions to lower PM and outcome evaluation costs and the use of catalytic capital to drive knowledge sharing and learnings across DIBs

**DIB funds:** DIB funds refer to the pooling of outcome payments as well as risk capital by a consortium of donors and investors.

Funds such as these can potentially lead to varying types and degrees of efficiencies depending on how the fund is set up. For example, if there is broad consensus on outcomes and targets upfront between the outcome funders and fund manager, the type of implementation partners to be targeted (such as based on their size and maturity), or ticket sizes, the time taken in searching for implementation partners may be significantly lower. Similarly, the existence of larger funds can also help lower costs associated with ‘partner’ identification (i.e., outcome funders finding investors and vice versa).

As explained by Marcie Cook, Vice President–Social Enterprise, PSI: “The benefit of the fund is that upfront alignment time between the outcome funder and investor is negated”.

Funds also offer opportunities for cost efficiencies driven by economies of scale, for costs associated with performance

management and outcome evaluation. Costs associated with baselining or outcome evaluation could be shared, particularly in a DIB fund scenario, if there are two or more implementation partners running similar types of interventions or different interventions for the same population group, in the same geography. Furthermore, funds benefit from the opportunity to leverage common templates and learnings, and to use built-in structures and processes such as specialized and dedicated teams for diligence and deal structuring.

This resonated with funders and investors across the board:

Munich Re Capital Partners stated: “The management fees ratio should generally not exceed a low single digit area and scale is very important to reduce costs”.

Abha Thorat Shah, Executive Director (Partnerships and Programs), British Asian Trust said: “I believe that as the market evolves, DIB funds will be the way to go because for a single entity the costs will be too high. In a DIB fund, with a larger scale and investment pool, the transaction costs will reduce, and it will have a ripple effect on cost efficiencies for the entire value chain”.

**DIB knowledge hub:** To build long term sustainability and capitalize on synergies, there is a need to invest in increasing collaboration and knowledge sharing.

At a basic level, the knowledge hub can offer repository of replicable templates and structuring options for DIBs, outcome and outcome price data as well as process and impact learnings across DIBs. It can also provide a platform to bring together DIB stakeholders and facilitate collaboration.

Alignment on outcomes and measurement may take away from nuanced DIB-specific contextualization but may be more practical as well as catalytic for systemic change. As put forth by Andrea Phillips, CEO at Maycomb Capital: “Outcome metrics and other terms of agreement can often be used across different jurisdictions for projects with a similar intervention in the same issue area. While each specific project may require some amount of bespoke construction, the standardization of the majority of the terms can in turn help pivot to scale.”

Catalytic capital is needed to support the creation of the knowledge platform—there is growing momentum towards addressing this gap. For example, members of the Impact Bond Working Group (IBWG), a group of public and private sector donor organizations, have come together to consider ways in which catalytic capital can support the growth of the DIBs market.

**Technology use.** The use of technology can bring down data collection and analysis costs for performance management and, in many cases, for outcome evaluations. Tom Adams, Chief Impact Officer at Acumen says, “For certain sectors, there is merit in using technology in evaluation to reduce costs. For example, in the education sector, under appropriate conditions, you could administer an online test to gauge learning changes”.

Further, evaluations tracking outputs rather than outcomes, such as in a recent healthcare focused DIB, may be better suited to technology use. For instance, the use of mobile based data collection and dashboards can aid real time data collection and analysis to reduce performance management costs as well as data validation costs.

DIB stakeholders are involved in varying degrees of intensity along the DIB timeline, resulting in varied levels of time, effort, and expense incurred. Mechanisms such as the DIB fund or knowledge hub can help with reducing this investment.

**5. To spark interest amongst a wider set of investors, future DIBs may have to either consider higher return payouts and/ or structure the DIB differently to distribute risk borne by the investor; alternative mechanisms that allow the pooling of risk and transaction costs can also be considered**

Impact-driven investors are the first movers and catalysts for an emerging impact bond market in developing economies as was the case in the EG DIB. Such investors have so far often been willing to accept moderate returns and work with a high degree of risk to create ‘proof-of-concept’ DIBs to demonstrate the value of such an instrument.

Gul Mukhey, CEO at Mentor Growth Capital, summed it up well: “Investors view DIBs as a high friction investment. So far, investors have been more willing to take on some costs and risks but going forward they will not be as forgiving”.

While some impact investors may continue to find the current DIB structure relevant given the possible higher rate of ‘impact return’ (as demonstrated by the EG DIB), to open the market to other kinds of investors, it is important to:

- a. Identify the types of risks faced in emerging contexts
- b. Estimate the level of transaction costs likely to be incurred
- c. Identify opportunities to distribute risk and lower transaction costs, if return expectations cannot be met by outcome payers

As more data from DIBs that are currently underway emerges, it may be useful for investment in research that establishes ‘return ranges’ for DIBs, taking into account risk/return ratios and expectation of transaction costs.

#### **a. Parameters for risk analysis**

Future DIBs can consider identifying return parameters based on an assessment of risk factors which include:

– **Likelihood of delivery by implementation partner:** To unpack the degree of certainty around delivery, investors, and outcome payers should consider the following factors:

- **Maturity of implementation partner market,** i.e., number of organisations and relative size and scale of potential partner(s)
- **Current level of sector performance against identified targets**

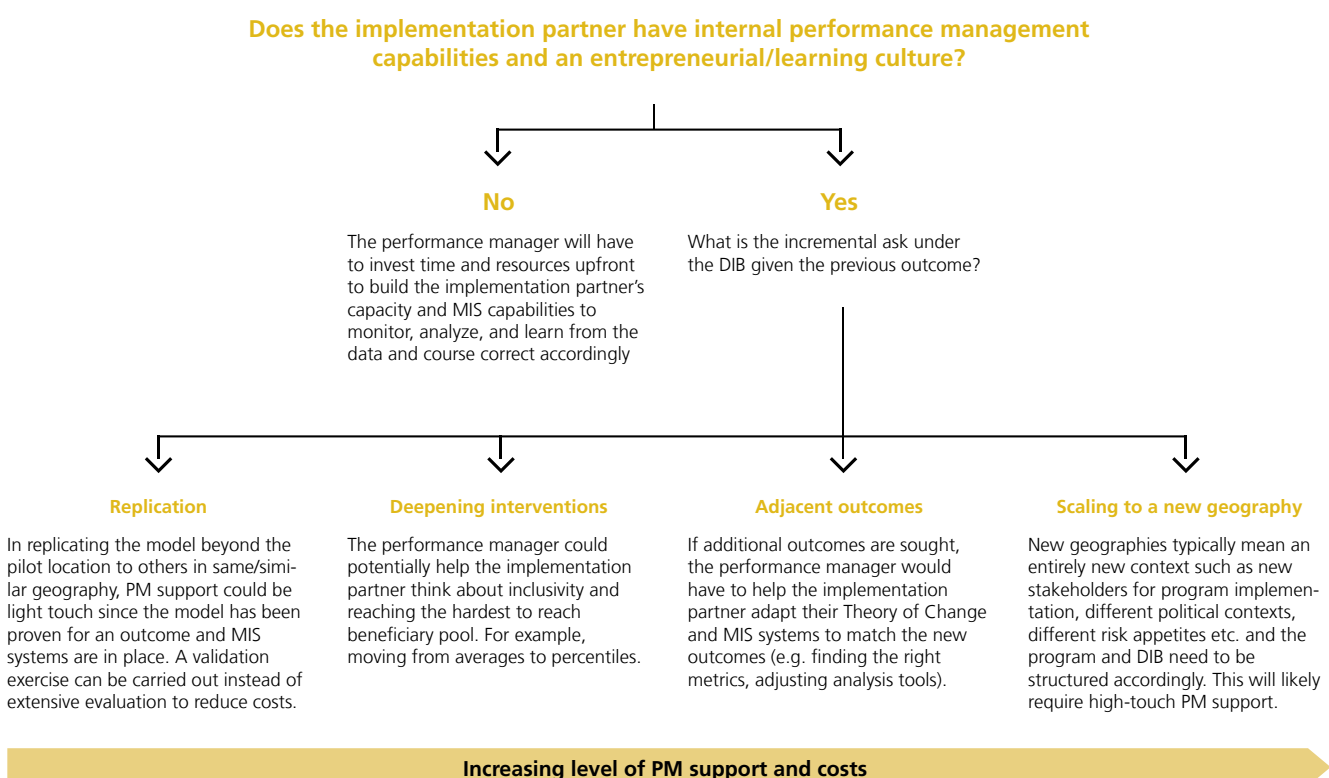
- **Relative degree of innovation over and above existing delivery models.** For example, if potential implementation partners have traditionally focused on a few geographies only, investors are likely to grapple with more risk if the DIB is seeking innovations around delivery-at-scale rather than a deepening of outcomes.
- **Ability of outcome payer to pay on time:** While most current DIBs are being piloted by forward leaning philanthropic actors, context specific factors such as ability and feasibility to commit and deploy funds over the medium term should be considered. This parameter is likely to be of even greater relevance if local-government funding is sought for outcome payments.
- **Availability/ validity of data for target setting:** Setting targets in data poor environments is challenging and there is a risk of setting targets too high (a risk for the investor) or low (problematic for the outcome funder and possibly detrimental to the market as a whole). Emerging market contexts can pose a real risk to investors as there is a high-likelihood of limited and/or poor quality public data to:
  - Identify the scale of impact that can be made (as was experienced in the EG DIB for enrolment targets)
  - Benchmark the relative target for different intervention models locally.
- **Uncertainty in operating environment conditions:** Operating environment risks will vary across markets but can pose significant challenges to execution. For example, the relative political stability and the likelihood of ongoing gov-

ernment support can be a critical success factor where implementation partners are working through government delivery channels.

- **Time frame of the DIB:** Longer timeframes are typically associated with greater uncertainty, and consequently, higher risk. They may also involve higher overheads and opportunity costs which may reduce returns e.g., longer DIBs may require the investor to expend more time and resources during design phase to map the risks as well as during implementation to provide oversight. In addition, commercial investors locking in their capital for a longer time may also expect a higher rate of return.

While longer term instruments are expected to result in higher costs, these can be partially set-off against efficiencies resulting from larger scale. As stated by Timothy Schur, CFO, Palladium Group: “Longer term engagements may be necessary for more complex engagements or in situations where outcome achievement requires longer periods for realisation. Inherently, those longer-term engagements typically include a higher risk profile. At the same time, the longer engagements are generally larger in scope which provides an increased base to amortise program development and third-party validation costs. Those costs will scale the program scope and duration but not in a linear manner. Our view is that efficiencies are created through the larger context such that percentage of program expenditure actually declines in long-term/larger programs provided the outcome metrics are well defined and quantitative”.

**Exhibit 12: Framework to assess the level and type of performance management support needed by implementation partners**



- **Foreign exchange risk:** This risk is specific to situations where payments from the investor to the implementation partner and from the outcome payer to the investor, are in different currencies. For instance, if in a particular DIB, funder-investor payments are in USD while the working capital payments by the investor to the implementation partner are in INR, the investor runs the risk of losing a part of the investment due to exchange rate fluctuations and can be especially detrimental for large ticket investments.

“It is difficult to standardize risks, but they should be placed in different buckets such as political risks, risks such as delays in construction, lack of demand, delays in hiring staff etc. and evaluated separately. One bucket should be for unknown risks, but this should be kept as small and precise as possible...the cost of capital depends on the risk profile. The higher the risk - the higher the cost of capital. Cost of capital will be lower where majority of the risks are identified upfront, and the performance management is straightforward. Also, if there is a clear pathway and historical data is available, this cost can be lower” – Munich Re Capital Partners.

“There are several concepts for risk rating [including] the duration of the engagement, the past experience of the performance manager and implementation partners, the complexity and clarity of the outcome metrics, available baseline and intervention data relevant to the program objectives and targeted geographic scope, potential for program disruption (government engagement, policy/regulatory changes, environmental changes/conflicts), currency fluctuations, operating costs changes, to name but a few” – Timothy Schur, CFO, Palladium Group.

## **b. Estimating transaction costs (associated with performance management)**

### **Performance management needs to be contextualized:**

The type and extent of performance management and associated costs are likely to vary across DIBs; assessing the quantum of investment and capabilities needed for performance management and tailoring support can lead to improved performance, effective risk mitigation/management and avoidance of unnecessary transaction costs, in turn implying higher returns for investors. Performance management capabilities and the quantum of investment required in performance management depends on:

- The implementation partner’s performance management capabilities and
- The extent of adaptation needed to meet the DIB outcomes

Investors can potentially use the framework in exhibit 12 to assess the performance management capabilities and quantum of investment required based on the context of the DIB.

According to Avnish Gungadurdoss, Managing Partner and Co-Founder, Instiglio: “The smallest leap in terms of performance management is when we look at just changing context

or deepening the intervention, the largest leap is when we look at moving to a new outcome”.

## **c. Process strategies to improve investor returns**

Strategies to make returns more attractive to investors can be built around the following principles:

1. Where risk perception and the consequent return expectation is too high for outcome payers, stakeholders can consider processes that help to reduce the risk borne by the investor
2. Lowering transaction costs

### **1.Reducing risk borne by the investor**

- **Distribute risk amongst DIB stakeholders.** The investor can advocate for a more even distribution of risk among the outcome funder, investor, and implementation partner. This can be achieved by agreeing upon contractual measures which limit the downside for each stakeholder. For instance, to limit the risk arising out of forex rate fluctuations, a possible risk distribution strategy could be to contract with implementation partners in the local currency. At the same time, the investor and the outcome funder agree to a fixed rate of exchange at the time of contracting; if there are any fluctuations in the exchange rate, the investor and outcome funder are equally at risk based on direction of movement in the exchange rate.

Another risk distribution strategy is to engage implementation partners (who have the capacity) as co-investors. This approach has been taken in the ongoing DIB for maternal and new-born health in Rajasthan (Utkrisht DIB) in which the implementation partners contribute more than 20% of the capital requirement<sup>2</sup>.

- **Develop alternate DIB structures.** Innovative structuring such as securing guarantees for partial capital protection or using a mix of senior and subordinate investments can limit the extent of risk an investor takes on.

- Guarantees protect and de-risk investor capital. Mike Belinsky, Manager, Bridgespan (ex-Partner, Instiglio) explains: “In some impact bonds, such as the New York City Rikers SIB, there are capital guarantees that help crowd in more risk-averse investors that may not have participated in the project otherwise”.

Another example is the Humanitarian Impact Bond with Munich Re as an investor, in which a significant part of the investor capital is protected through a guarantee, limiting the “downside” for Munich Re. As explained by Munich Re Capital Partners: “In the Humanitarian Impact Bond, we are the major investor and have a capital guarantee to get back a significant part of what we have invested, the return at the higher end then is in the mid-single digit area per annum. If not for the capital

<sup>2</sup>Utkrisht Impact Bond Brochure (November 2017)

guarantee, we would need to have contracted for a higher return”.

- Another structuring option is to have senior and subordinate investors participate in the bond as has been used in SIBs, with these investors differentiated by their levels of investment, risk appetite, and returns (in the SIB context, subordinate investors typically invest less than the senior funder and are repaid only after the primary funder has received their success payments<sup>3</sup>).

– **Hedge by diversifying portfolio.** Investors can diversify their portfolio to hedge risk by spreading risk capital between multiple implementation partners in the same vehicle or across DIBs. In situations of under/overperformance, investors can then redirect capital to optimise for both financial and impact returns.

– **Contractual safeguards.** Building safeguarding clauses in contracts can provide flexibility for an investor to protect their interests and hedge against losses. These may include:

- **Force majeure.** Force majeure conditions such as floods, earthquakes etc. may prevent the implementation partner from achieving their targets under the DIB and consequently affect investor returns. Force majeure clauses can safeguard investor interests by ensuring they (or the implementation partner) are not penalized for circumstances beyond their control. For instance, the investor’s basic capital (i.e., to cover for the working capital provided to the implementation partner) can remain protected in a force majeure event.

“Risks borne out of political uncertainty or other such risks need to be shared by all parties, if they cannot be priced in.” – Maya Ziswiler, Head, Innovative Financing, UBS Optimus Foundation.

- **Renegotiation opportunities.** There may be situations where features (such as targets) or processes (outcome evaluations) of the DIB need to be renegotiated. For such situations, stakeholders should upfront lay out and agree upon clear and time-bound processes for dispute resolution/arbitration and the identification of next steps. For example, investors could contract for the right to dispute the outcome evaluations, with a pre-agreed understanding on the timelines and the conditions for the release of funds.

- **Building in go/no-go milestones.** This provides the investor the option to withdraw from the DIB in exceptional cases of unanticipated underperformance by an implementation partner or where reputational risks arising from continued involvement with the DIB will adversely impact the investor. Stakeholders can also consider building in ‘intermediate’ options, which allow to sell its position in the bond to third parties subject to approval by other stakeholders.

“All parties should ensure that the risks transferred to investors are appropriate and can be managed. Wherever possible both contract terms and governance arrangements should incentivize investors to support service adaptation and improvement in the event of underperformance. In extreme circumstances, however, investors may wish to reserve the right to pull out if outcomes are not being delivered.” – Louise Savell, Director, Social Finance.

## 2. Lowering Transaction/Administrative costs for investor

Processes and strategies to reduce transaction and opportunity costs have been discussed above.

An additional process that is specifically relevant to investors is **using blended finance to support some types of costs.** Some emerging market and DIB contexts may require greater investments in performance management to build capabilities within implementation partners. Where these costs are not commensurate with feasible rates of return, bringing in philanthropic grant capital for the explicit purposes of capacity building also can be considered.

## VII. Conclusion

The EG DIB showcases an over-achievement of DIB targets for both learning gains and enrolment of out of school girls. The DIB’s processes supporting outcomes achievement as well as EG’s unique position to leverage the DIB through its existing targets-driven approach, entrepreneurial culture, and MEL processes, were instrumental for this achievement.

While the EG DIB experience was significant in demonstrating a ‘proof of concept’ of the DIBs’ transformative ability to achieve impact, this is but one instance and a broader evidence base around DIBs’ efficacy and efficiency is needed. Learnings from the EG DIB experience also point to opportunities to improve overall sustainability of DIBs, whether by reducing transaction and opportunity costs or improving DIB terms for greater acceptance across different stakeholders.

An important step to move the DIB ecosystem forward is collective action to seek broader alignment on outcomes and their measurement and share knowledge around replicable elements (such as contracts). This can catalyze the DIB market by promoting efficiency and sustainability and also arrive at outcome delivery and price benchmarks for DIBs going forward. There is an opportunity for catalytic capital to play a primary role here by creating a platform for collaboration, funding research into questions around outcomes and measurements, and facilitating knowledge sharing.

<sup>3</sup>Brookings, “The Potential and Limitations of Impact Bonds: Lessons from the First Five Years of Experience Worldwide” (July 2015).



## VIII. Annexure

### List of stakeholders/experts interviewed

<b>Name</b>	<b>Organization</b>	<b>Stakeholder type</b>
Safeena Husain	Educate Girls	Implementation partner
Suresh Subramanian	MiracleFeet (formerly with Educate Girls)	Implementation partner
Vikram Solanki	Educate Girls	Implementation partner
Pratibha Dubey	Educate Girls	Implementation partner
Bhupendra Kumar	Educate Girls	Implementation partner
Maharshi Vaishnav	Educate Girls	Implementation partner
Neil Buddy Shah	IDinsight	Outcome evaluator
Avnish Gungadurdoss	Instiglio	Performance manager
Maya Ziswiler	UBS Optimus Foundation	Risk investor
Grethe Petersen	The Children's Investment Fund Foundation	Outcome Funder
Paul Atherton	UK Department for International Development	Advisory Group
Nicholas Burnett	R4D	Advisory Group
Gul Mukhey	Mentor Growth Capital	Advisory Group
Louise Savell	Social Finance	External expert
Andrea Phillips	Maycomb Capital	External expert
Timothy Schur	Palladium Group	External expert
Marcie Cook	Population Services International	External expert
Michael Belinsky	Bridgespan Group	External expert
Hanna Zwetering	ABN AMRO Social Impact Fund	External expert
Alex Goodenough	Big Society Capital	External expert
Organisation Representative	Munich Re	External expert
Jared Lee	Education Outcomes Fund	External expert
Priya Sharma	Center for Accelerating Innovation and Impact at USAID	External expert
Radana Crhova	UK Department for International Development	External expert
Andrew Levitt	Bridges Fund Management	External expert
Tom Adams	Acumen Fund	External expert
Abha Thorat Shah	The British Asian Trust	External expert

## IX. Contributors to the report

### Dalberg Advisors

**Dalberg Advisors** is a strategy and policy advisory firm focused on global development. Dalberg was established in 2001 with the mission of bringing the best of private sector strategy to address global development challenges. We do so by combining rigorous analytical capabilities with deep knowledge and networks across emerging and frontier markets. Our clients span the public, private and philanthropic sectors, and we work collaboratively with them to address pressing global problems and generate positive social impact from programs, investments and initiatives.

Dalberg brings global perspectives firmly rooted in local realities. Dalberg has 17 offices located in Abu Dhabi, Addis Ababa, Brussels, Copenhagen, Dakar, Dar Es Salaam, Geneva, Johannesburg, Lagos, London, Mumbai, Nairobi, New Delhi, New York, San Francisco, Singapore and Washington, D.C. We have served clients in more than 90 countries across Africa, Asia, Europe, the Middle East, and North and South America. Our teams have worked across rural and urban settings in all of these geographies. This combination of deep local roots and extensive international experience enables us to develop strategies that blend the best global ideas and innovations with local practicalities and partnerships that enable effective implementation.

For more information please visit website [www.dalberg.com](http://www.dalberg.com)

UBS Optimus  
Foundation



**UBS Optimus Foundation (UBSOF)** is the foundation arm of UBS, staffed by leading experts in philanthropy and has a client offering designed to deliver measurable, long-term benefits to the world's most vulnerable children. At the Foundation, we recognize that our clients want to use their wealth for good and to catalyse positive social change. By connecting them with outstanding entrepreneurs who share that vision, we help them achieve their philanthropic goals.

We take the business-minded approach to philanthropy you'd expect from UBS. Our global coverage, proven expertise and unrivalled knowledge enable us to transform good ideas into great projects. We know that even the best concepts need the right guidance, and we never assume a project will work just because it seems like the obvious solution. In fact, we challenge project assumptions rigorously—only 5% meet our tough standards and UBS co-funds these projects. This maximizes our projects' reach and ensures they make a sustainable and significant impact.



**Children's Investment Fund Foundation** is an independent philanthropic organisation, headquartered in London with offices in Nairobi and New Delhi. Established in 2002, the foundation adopts a rigorous business-like approach to philanthropic funding focused on clear returns for children from the outset. We work with a range of partners seeking to transform the lives of vulnerable children and adolescents in developing countries. Partnerships are critical, because it will take the combined efforts of many to tackle urgently the challenges faced by children and their families every day. Our programmes are designed to support bold ideas to seemingly intractable problems.

We know that the returns on smart investments in areas such as children's early development and adolescent girls are especially high. So we aim to play a catalytic role as a funder and influencer to deliver urgent and lasting change at scale. Areas of work include maternal and child health, adolescent sexual health, nutrition, education, and deworming, tackling child slavery and exploitation, and supporting smart ways to slow down and stop climate change.



**Gaurav Gupta** is Partner and Regional Director for Dalberg Asia. He established the firm's first Asia office in Mumbai and currently co-leads the Energy and Environment team at Dalberg. He serves clients across education and gender empowerment, energy and environment, financial services, and health care among others.



**Vismith Bansal** is a Consultant at Dalberg's Delhi office and has worked on strategy and MEL projects in education, water, sanitation and hygiene (WASH), adolescent health and youth engagement. He holds a graduate degree in Engineering from University of California, Berkeley where he received the Fung Excellence Scholarship.



**Swati Chaudhary** is a project manager at Dalberg Asia, where she has recently been driving their impact bond initiatives. She has diverse experience across the development sector in areas such as education, healthcare, BOP consumer behavior, innovative finance and social enterprise development.



**Esha Rao** is an Analyst in Dalberg's Mumbai office and has worked on projects focusing on education and skilling, data protection and privacy, healthcare, and urban planning. She holds an undergraduate honors degree in Economics from Lady Shri Ram College for Women, Delhi University.



**Yamini Srivastava** is a Senior Consultant at Dalberg and has worked on strategy and evaluation projects across health, nutrition, education, and water and sanitation. She holds a B.A., LL.B. (Hons.) degree from the National Law School of India University and LL.M. from the Georgetown University Law Center and has previously worked as a corporate lawyer.

UBS Optimus Foundation

Management

Augustinerhof 1

P.O. Box, CH-8098 Zurich

Tel. +41-44-237 27 87

Fax +41-44-237 27 43

[sh-ubs-optimus-foundation@ubs.com](mailto:sh-ubs-optimus-foundation@ubs.com)

[ubs.com/optimus](http://ubs.com/optimus)

[twitter.com/ubsoptimus](https://twitter.com/ubsoptimus)

