How Much Good is Good? Designing to Enable Impact Envisioning Practices for Social Enterprises

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Contents

Abs	tract		I		
Ack	nowle	dgments	ii		
Glos	sary		iii		
List	of Fig	ures	iv		
Pref	ace		٧		
01	Intro	<u>duction</u>			
	1.1	Background			
	1.2	Project Partner			
	1.3	Problem Statement and Research Aims			
02	Cont	Contextual Review			
	2.1	Social Enterprises			
	2.2	The case for Impact measurement and management(IMM)			
	2.3	Theory of Change in Today's Practice			
	2.4	Social Strategic Foresight			
	2.5	Co-Design in social impact measurement			
03	Meth	nodology			
	3.1	Rationale and Overview			
	3.2	Systemic design framework - Moving beyond the Double Diamond			
	3.3	Phase 0: Groundwork and Project Partner Recruitment			
	3.4	Phase 1: Explore - Understanding the Problem Space			
	3.5	Phase 2: Reframe - Problem Framing			
	3.6	Phase 3: Create - Ideation, Prioritization, and Prototyping			
	3.7	Phase 4: Catalyse - Testing and Feedback			
	3.8	Ethical considerations throughout the design process			
04	Resu	<u>Results</u>			
	4.1	Phase 1 & Phase 2: Key Findings and Insights			

- 4.2 Phase 3: The Prototype A digital impact envisioning tool for social entrepreneurs
- 4.3 Phase 4: Testing and Feedback
- 05 <u>Discussion</u>
 - 5.1 Contribution to Design
 - 5.2 Value to the wicked problem
 - 5.3 Limitations
- 06 Conclusion and Future Work
- 07 <u>Bibliography</u>
- 08 Appendix

Abstract

With the increasing prevalence and complexity of systemic challenges like climate change, social entrepreneurs focused on tackling them need to have clarity on how the existence of their venture is creating positive change. This master's thesis, PurposePathways, is a web-based tool that helps first-time early-stage entrepreneurs clarify the impact of their business operations and communicate it effectively to relevant stakeholders in the impact ecosystem. The intervention guides them visually in building a theory of change that incorporates industry standards, their relevant metrics, evidence, and common assumptions by providing prompts and recommendations.

Currently, impact-focused accelerators take on the responsibility of equipping their incubated social entrepreneurs with the training and resources needed to incorporate the foundations of impact strategy and management practices into their businesses. These practices help entrepreneurs maintain transparency and accountability with stakeholders and access impact-linked investments by regularly showcasing relevant data. Despite many resources from global organizations catering to most sectors, first-time social entrepreneurs navigating these practices need additional support from impact management consultants to build their impact thesis. This traditionally service-based approach needs scalable systems to cater to the exponential growth of social entrepreneurship for the climate space in India.

Integrative designers are well-positioned by their ability to identify shortcomings by applying systemic design frameworks to create artifacts for this multi-stakeholder impact ecosystem. PurposePathways has been co-designed with Impact Dash, an India-based product-led impact consulting start-up, and numerous social entrepreneurs, impact investors, and portfolio managers in the Indian impact ecosystem. While initial testing with stakeholders shows a clear need for the tool and additional applications across communicating with stakeholders, potential future work includes the development of the functional prototype and piloting with interested impact accelerators.

Keywords: Theory of change, Tools for Impact strategy, Digital product design, Social entrepreneurship, Co-Design, Systemic design framework

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Glossary list

Climate-Tech: The array of technology solutions designed to address the effects and causes of climate change.

Early-Stage Entrepreneurs: An early-stage entrepreneur is an entrepreneur who grows an early-stage company or one that has recently been founded. Research development, marketing, Idea-stage, and product business development characterize the early stage.

Enablers: Stakeholders in the entrepreneurial ecosystem who help entrepreneurs scale. In the context of this project, it most commonly impacts accelerators and investors.

Impact accelerators: Accelerator programs that support social entrepreneurs in their early stages with the purpose of positively impacting society through grants, mentorship, resources, and access to networks.

IMP 5 Dimensions of Impact: According to the impact measurement project, the five dimensions include what the intended outcome is, who experiences it, how much of the effect is experienced, the contribution of the business to that outcome, and the risk that the impact doesn't happen as planned.

Impact Dash: Impact Dash, the project partner for this thesis, is a small-sized for-profit impact management consultancy that aims to bring social development by strengthening impact leaders through research and technology integration. Their expertise in social and environmental sectors helps them build insightful data models and efficient digital products to drive community-centered solutions.

Impact Investing: According to the Global Impact Investing Network (GIIN), Impact investments generate positive, measurable social and environmental impact alongside a financial return. Specific metrics and outcomes depend on the sector and the lens of the investment. They can be made in both emerging and developed markets and target a range of returns from below market to market rate, depending on investors' strategic goals.

Impact Measurement and Management (IMM): Impact measurement and management includes identifying and considering the positive and negative effects one's business actions have on people and the planet to figure out ways to mitigate the negative and maximize the positive in alignment with impact goals. According to the GIIN, the most common stages of IMM are setting the vision through goals and expectations, defining strategies, setting targets, selecting metrics, managing performance, and analyzing results to communicate appropriately.

Impact - Linked financing: Financial rewards for market-based organizations to achieve positive social and environmental outcomes. It effectively aligns positive impact with the economic viability and lies at the intersection between blended finance, impact investing, and results-based finance.

Impact Strategy: An impact strategy is a detailed roadmap to achieve the impact vision. It showcases how the impact goals will be achieved and how an impact investment will be measured through specific social and environmental metrics at different business sections.

Impact Vision: Impact vision refers to an organization or individual's broad, long-term vision or goal for the positive impact they want. Impact vision acts as a guiding direction to define the detailed, trackable, and specific impact strategy of a social enterprise.

Incubatees: Participating entrepreneurs in an accelerator or incubator program to scale up their business and receive mentorship and access to resources like funding, networks, and training.

IRIS+: IRIS+ is the generally accepted system for impact investors to measure, manage, and optimize their impact that the Global Impact Investing Network has set up.

GIIN: The Global Impact Investing Network (GIIN) is the global champion of impact investing, dedicated to increasing its scale and effectiveness worldwide. The GIIN has been a trailblazer in establishing guidelines for impact investing globally.

Metrics: Metrics are quantitative measures commonly used to assess, compare, and track performance. In the context of this project, they are the most widely used environmental and social metrics.

Needs Assessment: A needs assessment is a systematic process for determining and addressing needs, or "gaps," between current and desired conditions or "wants" of the customers or users of the product or service of a social enterprise.

SDGs: The Sustainable Development Goals or Global Goals are a collection of seventeen interlinked objectives designed to serve as a "shared blueprint for peace and prosperity for people and the planet, now and into the future," as defined by the United Nations.

Social Entrepreneur: A social entrepreneur is a person who pursues novel applications that have the potential to solve community-based problems. They aim to create positive changes in society through sustainable ventures.

Theory of Change: According to the Center for Theory of Change, A Theory of Change is a comprehensive logical flow of how and why a desired change is expected to happen in a particular context. It does this by identifying the desired long-term goals and then working back from them to identify all the conditions (outcomes) that must be in place (and how these relate to one another causally) for the goals to occur.

List of Figures

Fig 1:	Position of the design artifact of the thesis in overlapping contexts
Fig 2:	Range of social enterprises' impact intentions by the Impact Management Project
Fig 3:	Motivations of impact measurement (Kristi Yuthas and Marc J Epstein, 2014)
Fig 4:	Investor-level theory of change (Ivy So & Alina Staskevicius 2015)
Fig 5:	Barriers for organizations to engage in impact management practices
Fig 6:	Example of a traditional theory of change diagram for a youth mental health promotion intervention
Fig 7:	The landscape of available resources that support entrepreneurs in building their theory of change
	Fig 7a: Static DIY Worksheet
	Fig 7b: Workshops at accelerators - Here by the Center of the Theory of change
	Fig 7c: Dylomo (Left) and TOCO Software (Right)
	Fig 7d: Interface of Changeroo
	Fig 7e: Product feature comparison of commonly used digital tools used to build the theory of change.
Fig 8:	Visual depiction of the systems design framework
Fig 9:	The overlay of co-design methods used alongside the systemic design framework with stakeholders involved
Fig 10:	Stakeholder map of the ecosystem with Impact Dash's interactions
Fig 11:	Phase 1- methods overlay with stakeholders involved
Fig 12:	Journey map framework layout used during the conversation with readers
	Fig 12a: News article from the future
	Fig 12b: Miro board after the first activity - future vision
	Fig 12c: Miro board after the second activity - mapping current scenario
	Fig 12d: Final planned activity to dot vote on common methods used and requests for services received
Fig 13:	Insight for project Intervention positioning
Fig 14:	Phase two methods alongside stakeholders involved in the process
Fig 15:	Synthesizing all the data from the qualitative interviews
Fig 16:	Experience map of Impact measurement and management in the ecosystem
Fig 17:	Phase 3 - Overview of the methods with stakeholders involved
Fig 18:	Participants fill up ideas on the Creative matrix based on awareness, product, service, or program offerings.

Fig 19:	Arranging the ideas in a priority map based on the most important and the least effort
Fig 20:	Design guidelines for the product
Fig 21:	Primary persona for the tool: A first-time social entrepreneur in the early stages of building his venture
Fig 22:	Information Architecture and User Flow
Fig 23:	UI Components for the screens
Fig 24:	Wireframe V1 -Problem Tree Analysis
Fig 25:	Wireframes V1 - Stakeholder map
Fig 26:	Wireframes V1 - Theory of change
Fig 27:	Moodboard and illustration references for the final prototype
Fig 28:	Screen from the final product
Fig 29:	Overlay of Design methods used in Phase 4 - catalyze with stakeholders
Fig 30:	Interface of PurposePathways
Fig 31:	Project levels
Fig 32:	Problem tree analysis
Fig 33:	Stakeholder mapping
Fig 34:	Right Sliding pane for prompts, guiding questions, and categories to think in
Fig 35:	Text box suggestions for Outcomes, Outputs, Activities, and inputs.
Fig 36:	Final Visual Output - Theory of change image link that can be shared post information being filled up
Fig 37:	Linkage causality strength by data evidence type
Fig 38:	Market Positioning of PurposePathways
Fig 39:	Product feature comparison of PurposePathways with existing tools
Fig 40:	Updated Systemic design framework, including measure and evaluation

Preface

This project stemmed from my intrinsic motivation to choose work that positively impacts the world to promote socially equitable and environmentally sustainable futures. I wanted to use this project to follow that motivation, understand the ecosystems I want to serve, and explore how the design process can accelerate the growth of purpose-driven organizations.

As an undeclared environmentalist, when I graduated from architecture school and delved into the practice as a licensed architect, I got deeper into understanding environmental sustainability in the context of the built environment. I also became more conscious of my everyday life to align with my values of work. I turned vegetarian and started composting and investing in green companies. While it has been over three years since these lifestyle changes, they did not seem enough as the prevalence of climate change constantly rises. I wanted my bubble of influence on addressing this global crisis to go beyond lifestyle choices and be ingrained with my interdisciplinary design practice across the physical and digital realms through the built environment, tech-enabled products, and persuasive visuals.

I looked to social entrepreneurs and impacted innovators at the forefront of addressing systemic issues. As I learned more about the climate crisis and how the start-up ecosystem was addressing the biggest challenge of our lifetime, I needed to differentiate the internally motivated impact-first ventures from greenwashing ones confidently. I wanted to contribute, but whom could I pick in such a diverse and equally inspiring set of entrepreneurs and enablers of the impact ecosystem? Through many conversations with peers who wanted to invest their time, energy, and money towards addressing the climate crisis, I realized that most struggled to navigate, contributing to an entire era of change-makers and positive trailblazers across sectors.

Thus began my exploration of understanding - What kind of good is good? How much good is good?

Introduction

1.1 Background

Climate Change is one of the most pressing wicked problems that current and future generations will face. Unlike tame problems, where the problem can be framed, wicked problems are difficult to define and are never solved; they can only be resolved repeatedly (Rittel 1983). Systemic challenges like this are too complex for a single discipline to fix and allude to unifying society's scientific, technological, managerial, and ethical competencies through integrative methods (Jenkins 2013). The multidimensionality and multiple feedback loops of wicked problems like climate change and poverty are multi-causal and interconnected. Integrative designers act as agents of wholeness - bringing together relevant pieces of crucial information critical to the success of a project from varied lenses (Kolko 2010). They bring a specific form to the multiplicity and ambiguity of technical, economic, social, cultural, sustainability-related, and other factors of wicked problems (Birkhäuser 2019).

With the increasing relevance of unpredictable and extreme weather events, climate change is affecting almost every sector and industry known to humanity across the globe. To avoid irreversible damage and meet climate objectives set by the UN, by 2030, the annual financing for climate tech must increase by at least 590% to USD 4.35 trillion. (Climate Policy Initiative 2021). There has been an exponential inflow of investments in climate tech (technologies that reduce greenhouse gas emissions from the atmosphere and enable adaptation to an altered climate) and social enterprises (socially and environmentally impactful organizations with core mission values) to tackle this.

India is among the countries most vulnerable to the impacts of climate change - being affected by altering seasons that affect almost 50% of Indians working in agriculture (Mani et al. 2018) and extreme water shortages, which could affect more than a billion people by the 2050s (Krishnan et al. 2020). New lean business models demanded by these challenges, focused on reducing the negative impacts on society, the environment, and the efficient use of goods and services, give rise to entrepreneurship projects within the green economy (Schaper 2016). Social entrepreneurship is most applicable in nations like India, which have developmental challenges that the government alone cannot address at the grassroots level. (Panday, Sahay 2022). As of

September 2022, the Securities and Exchange Board of India (SEBI) announced a social stock exchange - an innovative model of financing for social enterprises to access additional avenues of raising funds similar to an Initial Public Offering where shares of a private corporation are offered to the public in a new stock issuance for the first time. This is a significant step toward providing additional capital to mission-driven organizations (SEBI 2022). Establishing the social stock exchange includes a framework that calls for an Annual Impact Report (AIR) and traditional financial reporting, capturing both quantitative and qualitative aspects of the social impact generated by social enterprises and social impact funds where the underlying recipients of funds are social enterprises. This reformation is timely, as the need for transparency and accountability across all stakeholders, from end beneficiaries to investors, has risen in prominence in the social sector, backed by accurate methodologies and stringent impact measurement and monitoring practices across the industry.



Fig 1: Position of the design artifact of the thesis in overlapping contexts

Attempts to address environmental and social problems often lead to unforeseen, socially complex consequences and rarely involve the singular responsibility of a particular organization

(Conradie 2020). This surge in private investments to address systemic challenges also creates a demand for meaningful evidence from all stakeholders of social enterprises to support positive outcomes — like greenhouse gases avoided or reduced, increase in income for small-holder farmers, number of female jobs supported, etc. (Reisman, Olazabal, and Hoffman 2018). With greenwashing rampant in the social sector, the growth of the impact investment community needs to be met with an adoptable infrastructure to assess the social and environmental impact of sustainability accurately. This calls for an integrative approach to co-design tools, processes, and resources that can be adopted for increased data transparency across the varying hierarchy of social and technological ecosystems. As suggested by the Climate Policy Institute, tracking impact and promoting standardized and comparable approaches to defining sustainable investments is a crucial action that all financial institutions must take to meet targets (Pinko et al. 2021).

Today, few incentives exist for the early-stage entrepreneur to engage in impact strategy and management practices. They are seen as an added burden for early-stage entrepreneurs to engage in while constantly trying to stay afloat as a viable business. Many case studies showcase how entrepreneurs who can articulate their impact vision gain trust among multiple stakeholders, have strategic market advantages and tend to receive access to impact-first funds (Rosado & Figueroa 2016). However, the push for impact strategy, measurement, and management comes mostly from impact investors' due diligence processes and accelerators' training. Despite popular misconceptions, creating the concept of impact measurement is not extremely resource-heavy and is a common expectation from impact investors. This is why there is a need to educate and nudge social entrepreneurs to develop their fundamental frameworks so that they may access funding and resources to create robust systems for measurement and management in their business operations. The theory of change (a logical framework of how and why a desired change is expected to happen in a particular context) is one such fundamental framework that allows social entrepreneurs to visualize how the components of their business operations lead to the impact that their mission states. This thesis creates an intervention to educate first-time early-stage social entrepreneurs by helping them build their theory of change through clearly visualizing pathways that communicate their impact vision effectively to relevant stakeholders.

1.2 Project partner

Within this decade, companies will have to be fully transparent to hold trust with stakeholders, report data to back up all social and environmental impact claims, and have an explicit incentive mechanism built into the company culture to be purpose-driven. This shift demands collaboration across regulators, enablers, and practitioners to integrate their practices and paves the opportunity to co-design interventions for multiple lenses. Impact Dash, an Indian start-up working in the non-profit sector to make environmental and social impact measurement easy and accessible for social entrepreneurs, embodies a collaborative approach in their workflow. They co-designed an end-to-end product to monitor and manage grant-giving processes by CSRs and foundations. Impact Dash has consulted for 100+ projects over the past five years to conduct multiple monitoring and evaluation studies to understand and validate outcomes of socially impactful projects across India. As they move from the regulated non-profit sector to the exponentially growing impact investing sector, they are looking to upgrade their platform to specific needs of Impact Measurement and Management for the Impact Investing sector. This project was created in collaboration with Impact Dash to create interventions that empower social entrepreneurs with accessible impact management practices by leveraging research, design, and technology.

1.3 Problem Statement and Research Aims

First-time early-stage social entrepreneurs are juggling the complexities of breaking even in their business and need additional bandwidth for perceived non-essentials like impact management practices. They need additional support to identify relevant industry metrics that can be tracked and measured at the stage of their venture. Lack of funding and resources is the most significant barrier to incorporating impact measurement best practices into daily operations. (ASPEN Development Network 2022). The inability to articulate their impact strategy results in the inability to access funds and investments linked with the impact thesis of impact investors and accelerators. It continues a loop of low prioritization for impact management practices for early-stage social enterprises. This project will examine how early-stage social entrepreneurs can be equipped with the fundamentals of creating their impact strategy and vision to access resources that can scale their mission. The overarching research question guiding this inquiry is:

How might we help early-stage social enterprises develop and communicate their impact strategy across the Indian multi-stakeholder impact ecosystem?

Within this inquiry, I aimed to answer the design problem:

How might co-design support the development of a tool to envision the impact of social enterprises and increase their adoption of Impact management practices?

While working with Impact Dash and other stakeholders on this project, the following themes and questions surfaced:

- **Industry Standards:** How might we identify relevant industry standards and practices in impact management and demystify them for first-time early-stage social entrepreneurs?
- **Education:** How might we educate social entrepreneurs to understand the business value of impact measurement and management?
- **Strategy:** How might we make the foundational blocks of impact management accessible to early-stage social entrepreneurs based on their current capacity?
- **Best Practices:** How might we co-design tools to scale impact accelerators' fiduciary role in hand-holding social entrepreneurs through impact management best practices?

This thesis discusses a tool to develop the theory of change as a medium to help multiple stakeholders clarify a venture's impact and communicate it effectively. It uncovers the barriers to building an impact strategy using an integrative design approach to incorporate different stakeholders' needs in the impact ecosystem. The thesis is divided into four sections. First, the contextual review section discusses current barriers to adoption, the case for impact measurement, the theory of change, the current landscape of tools and resources available to build a theory of change, and the application of design in the social sector. Second, the Methodology section situates the project in the systemic design framework and explains the project phases that led to the development of the tool. Third, the Results section describes the tool and its applications. Lastly, the conclusion section elaborates on the limitations, future work, and discussion on the current prototype of the tool.

2. Contextual review

2.1 Social Enterprises

Despite no formal definition of a social enterprise, they are revenue-generating organizations operating in a non-profit or for-profit model with a purpose-driven mission to create a social and environmental positive change as the core reason for existence (Galera and Borzaga 2009). The depth of that positive change, while at the discretion of the founding team of the enterprise, has been classified broadly into three categories by the Impact Management Project — Act to avoid harm, Benefit Stakeholders, and Contribute to solutions. This framework connects high-level philosophies of social enterprises to classify impact motivation levels before moving on to more granular data categories and measurements for impact (Impact Management Project 2018). Based on where the enterprise lies in these categories, motivations for impact measurement can vary in fidelity and depth. A — mainly around negative screens to avoid harm, for example, having explicit rules to only onboard partners who do not engage with fossil fuel companies, firearms, tobacco distribution, etc. B— to benefit stakeholders involved in the business operations, for example, employing female workers from traditionally underrepresented communities in factories and giving access to actively upskill through training programs. C— Contributing to solutions, for example, enabling the shift towards a sustainable post-harvest method than the traditional crop burning used by farmers in north India, which annually release a significant amount of greenhouse gasses.

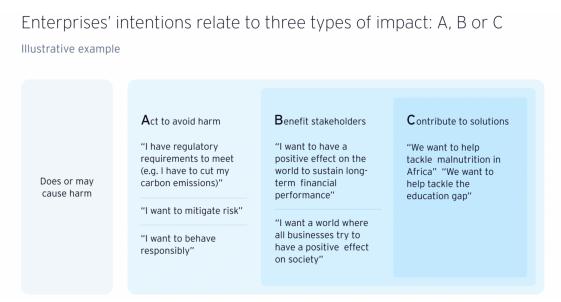


Fig 2: Range of social enterprises' impact intentions by the Impact Management Project

2.2 The Case for Impact Management

While it is challenging to measure long-term social outcomes, the conceptual vision of entrepreneurs needs to be laid out using foundational impact frameworks to ensure that the outcomes are achieved. Some critical questions that impact measurement frameworks help answer are (Ruebottom 2011)

- 1. What criteria should assess outcomes, processes, inputs, and structures?
- 2. At what level should the criteria be evaluated? Individual, organizational, community, and industry?
- 3. What is the time frame of each cycle of evaluating impact?

Setting these frameworks early on for a social enterprise early in the process helps set the foundation for each operation's reasons. It makes navigating complex technical measurement and data collection practices easier. It also helps communicate critical concepts to relevant stakeholders early on to help onboard mission-driven teams and impact investors. It helps to prioritize business activities that are high in value for end beneficiary satisfaction, optimize for operational efficiency, and strategic alignment in the market by mitigating risk. The exponential rise in impact investing in the climate-tech space calls for mitigating unintentional and otherwise greenwashing by strictly measuring and tracking the social and environmental metrics across sectors for every purpose-driven investment. Further, without increased rigor in impact measurement and a push to maximize impact, impact investing risks become a term used merely as a marketing tool (Ivy So & Alina Staskevicius 2015).

There have been multiple cases of social innovations and enterprises that did not account for the outcomes of social impacts in the long term like Tom Shoe's Buy One to Give away one model, the play pump, One Laptop per Child projects, etc., which have had high enthusiasm and from stakeholders and funding in the early stages, but went on to not achieve the positive outcomes that were planned for in the communities that they wanted to support. Research on TOMS shoes showcased that the distribution of shoes in developing nations, like EL Salvador, did not have the intended impact of higher education but lowered rates of homework and higher rates of injuries, along with a negligible impact on folks who already had access to footwear. (Wydick et al. 2018). Establishing the logic model and theory of change early on to understand an enterprise's end outcomes would avoid scenarios.

2.2.1 Motivations for IMM

Current-day motivation for impact measurement and management and tracking metrics primarily comes from the limited partners (Non-operational) of impact investment funds with a specific impact mandate for all investments to lead to specific outcomes like gender equality, reduced greenhouse gases, and improved livelihoods in rural areas. This pressurizes fund managers to track and report on the outcomes based on regular updates from start-ups in each portfolio. Despite the top-down push for impact measurement, trends showcase how authenticity will be pivotal for stakeholders of mission-driven businesses. This pushes for internally impact-incentivized organizations whose operations are intentionally impactful by the nature of their existence. For example, Loop Worm is a waste-to-value company that converts organic food waste into fertilizers and animal protein by using insects, thus meaning that their increase in sales would result in lower amounts of organic waste reaching landfills.

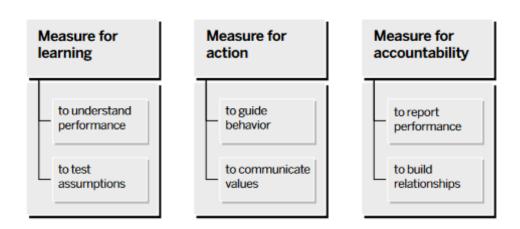
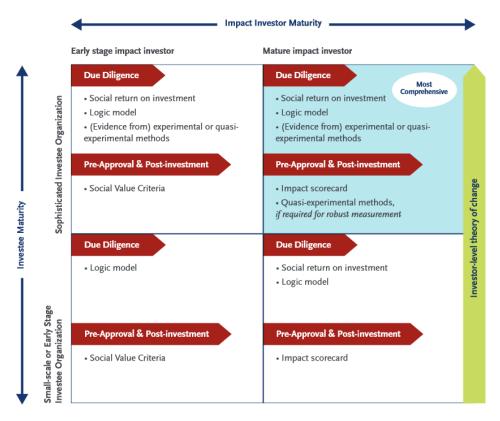


Fig 3: Motivations of impact measurement (Kristi Yuthas and Marc J Epstein, 2014)

For the shift in motivation for startups to adopt Impact management best practices to be internal and embedded in daily business operations, a clear business case for impact measurement and monetization needs to be developed along with actionable steps for understanding what systems need to be in place for ESG best practices and measuring potential outcomes and how they can be set up in a common resource-intensive way. Methodologies and tools are relevant in which stage of operations need to be easily understandable.

2.2.2 What entails the traditional processes of IMM

While the types of impact measurement practices can be incorporated in multiple stages of a company with varying levels of fidelity, some of the common ways to incorporate them, which are lower in cost but also have a weaker causal link, could be in the form of customer interviews, case studies, and satisfaction surveys. The initial step towards impact measurement would be to have a needs assessment, small representative sample surveys, and conduct before and after studies of an intervention in the specific location. The common misconception of smaller early-stage social enterprises is that impact measurement is costly due to having high-cost experiments, like quasi-experimental studies and experimental tests with randomized control trials, that take up more resources and time from the entrepreneurial organization. While such methods have a high evidence-causality link, minor interventions can be integrated into existing business operations to get feedback in a low-cost and sustainable way before moving on to complex tests or hiring a full-fledged impact measurement consultant. Depending on the purpose, the fidelity of incorporating best practices changes. Below is a landscape map of what specific requirements look like:



Note: Investee maturity should be determined by the impact investor based on the investee's size, reach, budget, or years in existence

Fig 4: Investor-level theory of change (Ivy So & Alina Staskevicius 2015)

2.2.3 Reasons why impact measurement is not adopted easily

While investing in measurement practices comes with barriers to adoption like cost, resource intensiveness, and lack of expertise, many social enterprises cannot go beyond identifying a few initial metrics. One of the start-ups' most significant concerns is that impact measurement as a practice is too costly to implement and requires additional funding. This is due to a need for knowledge of systems in place that are required to measure simple data points that help validate outcomes based on the enterprise model. Looking closely at what the assistance with impact measurement looks like, over 94% said that they would be interested in receiving additional impact resources. Some of their top priorities are supported in conducting a needs assessment of their customers, measuring the social impacts of their products and services, and researching new product designs.(Spencer MacColl 2022)

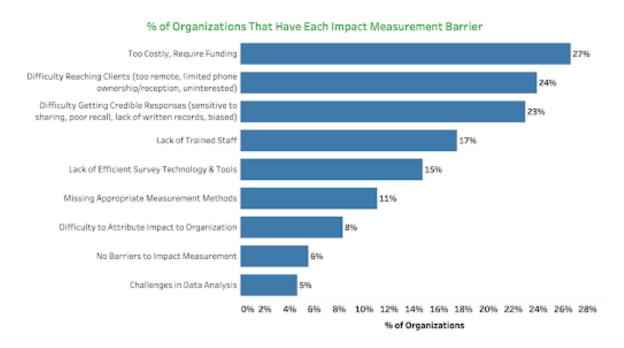


Fig 5: Barriers to organizations to engage in impact management practices

2.3 Theory of Change in Today's Practice

The Theory of Change is a common framework used in the social sector to map the steps needed to achieve their desired impact. It showcases the pathway for a particular mission to be achieved in terms of impact (Long term systemic change due to the venture's presence), outcomes (intended and unintended effects that stakeholders experience), outputs (immediate results of our activities or products), activities (All programs, products, services, and crucial operations) and inputs (Resources or investments needed to ensure that the activities take place) for the

venture. By breaking down complex social issues into manageable components, social entrepreneurs can more effectively target their efforts and communicate their goals to stakeholders. It outlines the underlying assumptions about how their interventions will lead to desired outcomes and creates a roadmap for monitoring and evaluating progress.

One of the main difficulties social entrepreneurs face when trying to build a Theory of Change is balancing their long-term vision with short-term goals. The Theory of Change requires social entrepreneurs to think critically to identify potential barriers to success. This process can be time-consuming and require significant resources, which can challenge social entrepreneurs with limited funding. Social entrepreneurs must engage with stakeholders, including beneficiaries, donors, and partners, to build a practical Theory of Change. This can be difficult when stakeholders have varying priorities and goals. To overcome this and ensure buy-in and support for the intervention, the theory of change helps each stakeholder see how their outcomes, output, activities and inputs are interlinked with those of other stakeholders in the ecosystem that the social venture is operating in. Thus, enabling all stakeholders to see a systems' perspective and communicate by aligning themselves with the context of the venture. The Theory of Change can help social entrepreneurs make more informed decisions and also maximize their impact by providing a clear roadmap and a basis for evaluating impact.

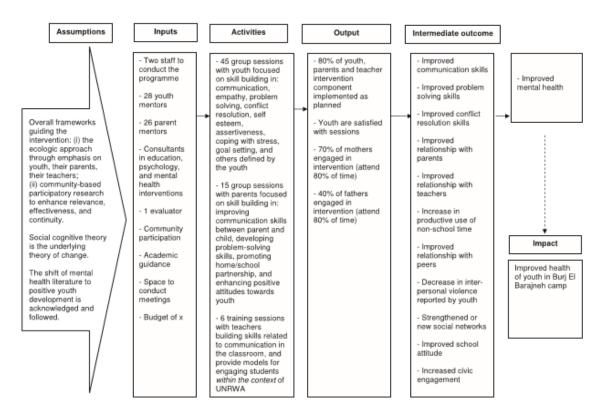


Fig 6: Example of a traditional theory of change diagram for a youth mental health promotion intervention

2.3.1 The landscape of current-day tools

The current availability of open source and subscription-based tools vary across modes from catering to a one-time activity format like the DIY Paper-based Theory of Change Worksheet and workshops in accelerators to digital software that allows users to map their theory of change by using conceptual mapping. In Fig 7, these tools have been laid out based on accessibility to early-stage founders (based on affordability and first-time user-friendliness) and the dynamic nature of the tool (that accounts for iteration and flexibility of editing information).

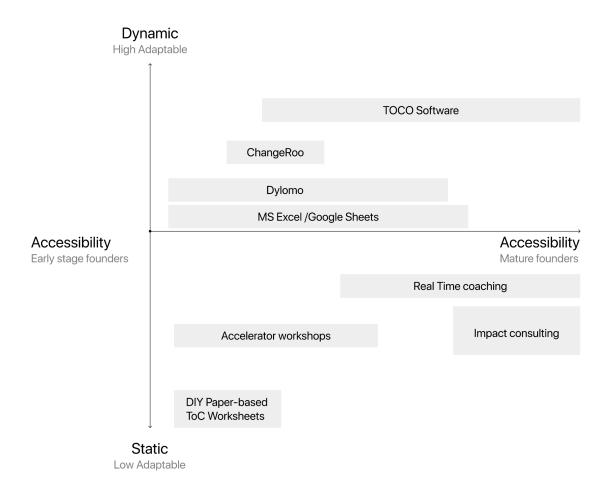


Fig 7: Landscape of available resources that support entrepreneurs in building their theory of change

While providing good starting points for a first-time social entrepreneur to think through different components of the theory of change, these static tools do not cater to iteration and the dynamic nature of an early-stage business model.

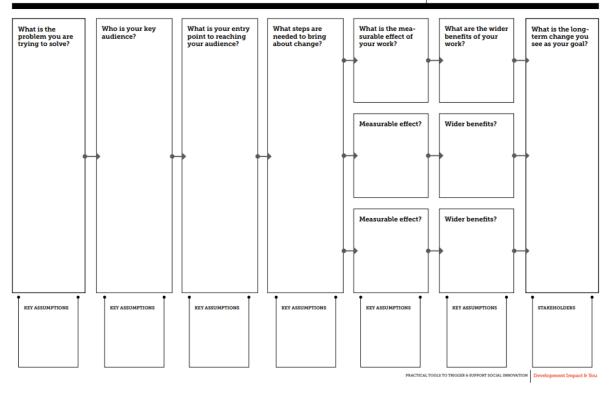


Fig 7a: Static DIY Worksheet



Fig 7b: Workshops at accelerators - Here by the Center of Theory of change

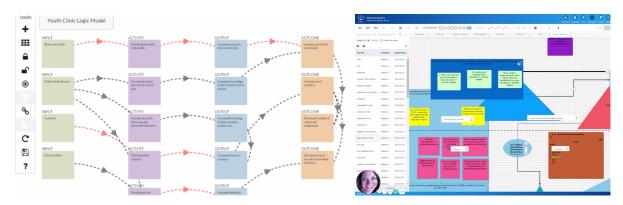


Fig 7c: Dylomo (Left) and TOCO Software (Right)

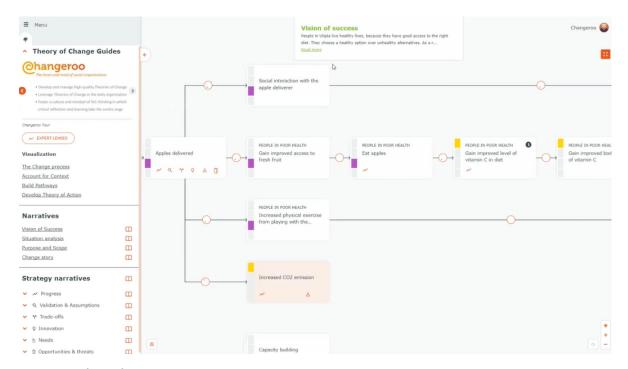


Fig 7d: Interface of Changeroo

Digital tools that help create an editable theory of change include Changeroo, Dylomo, and TOCO Software. While all of them support their users in creating visual maps of all the components of their theory of change, they depend entirely on the users' input. This leaves room for inappropriate use not aligned with industry standards and metrics. While the current tools allow for iteration, they need to guide the user on best practices that are relevant to them.

	Visual mapping	Industry standard practices	Educational - Prompts	Open Source/Free	IRIS+ Metric overlay	Evidence links
ChangeRoo			Not sector relevant or user specific	×	8	×
Dylomo			8	8	8	8
TOCO Software		8	8	8	×	×
MS Excel /Google Sheets	×	8	8		8	8

Fig 7e: Product feature comparison of commonly used digital tools used to build the theory of change.

2.4 Social Strategic Foresight

While Strategic Foresight has had many definitions over the years, the broad representation for this project is seen as the ability to create and maintain a high-quality, coherent, and functional forward view and to use the insights arising in organisationally practical ways; for example: to detect adverse conditions, guide policy, shape strategy; to explore new markets, products, and services. Though foresight has been applied across diverse sectors and industries, its potential to play a significant role in serving the social sector still needs to be fully explored(Floyd and Zubevich 2010). Adopting foresight in technology and innovation could cause it to play a broader role in social change more than in economic growth (Pietrobelli and Puppato 2016; Şener and Saridoğan 2011). Similar to an evidence-backed theory of change, it allows the discussion to explore the unintended consequences of introducing new elements through cross-impact analysis (Heuer and Pherson 2014). The social implications of technology foresight could catalyze social change to discuss whether to adopt, reverse or regulate certain technologies for their expansion in society. (C.Mao et al. 2020). The 3Ps foresight model (Rohrbeck and Kum 2018) includes Perceiving, Prospecting, and Probing, which is similar to the process of developing a compelling theory of change:

- Perceiving: To identify the factors that drive environmental change, to identify (weak) signals ahead of the competition to gain a lead-time advantage (Ansoff 1980; Van der Duin and Hartigh 2009).
- Prospecting: Engaging in sensemaking and strategizing to gain an insight advantage for
 the right time to act by identifying tipping points by working with analogies, scenario
 analysis, systems-dynamics mapping, and backcasting (Gavetti 2012; Gavetti and Menon
 2016),

 Probing: Legitimizing and starting a new course of action by exploring new markets through experimentation like prototyping, R&D projects, consumer tests, internal venturing, strategic initiatives, or external venturing (McGrath et al. 2006; Michl et al.2012; Rohrbeck et al. 2009).

This is similar to laying out outcomes, outputs, activities, and inputs by understanding the needs of beneficiaries and comparable to making relevant connections across the different components of the theory of change. Making sure there is evidence backing for each component of the theory of change allows for experimentation and documentation of all causes across the links of various components of the theory of change.

2.5 Co-design in social impact measurement

Co-design has a broad reach with varying applications. However, the fundamental tenet has been that the users and providers of goods and services are experts in their own experiences and needs, therefore, can contribute to their design and redesign (Sanders 2002). The advantages of co-design in the short run include generating unique solutions to problems, gaining a better comprehension of the user's requirements, improving decision-making efficiency, and boosting collaboration between partners. Furthermore, co-design can have long-term benefits, such as fostering more significant support and enthusiasm for innovation and change, as well as a higher commitment toward actions that have been co-designed (Mackenzie and Davis 2019). Co-design in this project has been used to improve collaboration between partners — to express tacit knowledge and latent needs in the impact industry. The goal of co-design in the context of this project has been to create an intervention that is both accessible and informative for social enterprises while being considered rigorous enough for its outputs to be valued by impact funders.

A few precedents exist for co-design in impact measurement and management. One is an environmental and social labeling system that Quantis, a sustainability consultancy, co-designed with the key players at Unilever, Henkel, IVMH, and Natura&Co. Co-creating the labeling system with standard tools, databases, methods of measurement, and a harmonized scoring system helped pilot the labels across the EU with multiple companies. The SHARE IT tool used co-design to create a sustainability impact assessment framework for urban food-sharing initiatives in

Dublin. Based on feedback from the co-design process, the tool went beyond providing an indicator-based reporting framework. It facilitated collective learning and knowledge sharing for food-sharing initiatives (Mackenzie and Davis 2019). These projects' success indicates promise for applying co-design approaches to designing interventions to create educational tools for adopting impact best practices.

3. Methodology

3.1 Rationale and Overview

The broad aim of the project was to improve the transparency of how the impact is defined across different organizations in the Indian impact ecosystem by communicating it effectively to multiple stakeholders, as shown in Fig. 8. As the project moved forward with a holistic understanding of the resources available to different stakeholders, barriers to adoption, and motivations across the impact eco-system, the need to co-design tools that can educate social entrepreneurs while communicating their theory of change effectively emerged. The design intervention would have to cater to the various stakeholders with different motivations in the impact ecosystem. This meant that co-design had to be applied from beyond an end-user perspective.

While the interactions in the entire ecosystem have been primarily in the initial inquiry and testing of the artifact, my conversations with varying teams at Impact Dash, my project partner, have been constant through all the phases of the project—the initial exploratory research, specifying objectives, the generation of strategy ideas and brainstorming features. I have tried to promote the growth of the diverse capabilities of my project partners by facilitating design workshops using co-design practices. However, varying organizational changes, regulations, and economic conditions have impacted the constant involvement of the same team members from Impact Dash throughout the project duration. Active involvement of the social entrepreneurs occurred during the explore phase and the feedback and testing phase of the project.

3.2 Systemic design framework - Moving beyond the Double Diamond

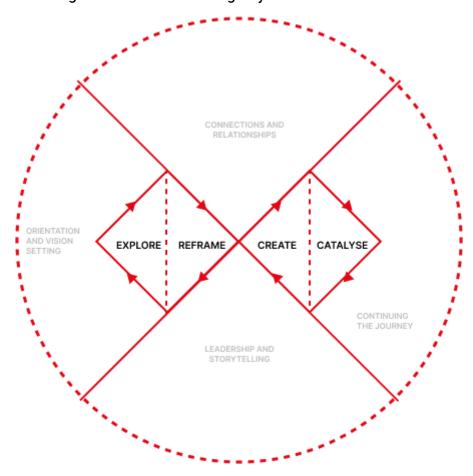


Fig 8: Visual depiction of the systems design framework

The systemic design framework has been created to support the multi-disciplinary roles that a designer plays in addressing society's wicked problems through design. Designers who are deliberately working to address climate mitigation and adaptation have been increasing in number, and they need a framework that allows them to think holistically in the systems they are working in.(British Design Council, 2021) The systemic framework has laid out principles to guide activity, core roles of the design team working on systemic issues, ways of working, the design process, and the design activities to achieve more sustainable futures while working in the complex ecosystem of initiatives. The framework has resulted from research done to improve design standards to promote sustainable development. In the face of the climate crisis, there has been a recognition of the complexity of the problems designers work on to bridge the research and innovation in their adoption.

3.2.1 Systemic Design Process

The British Design Council has defined four key elements of the systemic design process (1) Orientation and vision setting, which comes first, (2) Leadership and storytelling along with (3) connections and relationships, which loop throughout the process and (4) continuing the journey. These elements encompass the more linear stages of explore, reframe, create, and catalyze that keep looping constantly.

1. Orientation and vision setting

Orientation and vision setting process encompass the explore phase (Fig 6), alongside discovery in researching and gathering insights - systemic designers need to go beyond specific information relevant to user needs, behaviors, and attitudes. The focus is to gather a broad understanding of the problem context, stakeholders, and potential opportunities for design by exploring the unknown and generating multi-stakeholder insights. This phase emphasizes a values-driven approach to creating a positive and hopeful vision of the desired outcome and a shared vision. Developing a set of values and design principles is beneficial. Understanding what needs to be valued, measured, or noticed is critical to demonstrate progress in environmental, social, and cultural change. This stage helps orient the exploration of the system and reframe the problem with what vision you want to achieve instead of jumping into a 'problem-solution' lens (British Design Council 2021).

During this phase (Bottom Left- Fig 9), along with conducting semi-structured interviews with relevant stakeholders, I conducted a workshop using design fiction with Impact Dash to envision their path as a company. Also, I set a foundation for the vision of the project.

2. Connections and Relationships

Relationship-building is a crucial part of the systemic design process, often just as important as the design itself. The idea is to develop empathy and incorporate the viewpoints of all the parties involved, including the stakeholders, communities, and nature itself, to establish a trust to boost people's confidence to dream big and create and connect various organizations that can collaborate innovatively. Designers mediate, helping people work together and see things from different perspectives. Although this

aspect may not be immediately quantifiable, it's undoubtedly significant and provides value beyond the project. New partnerships and platforms that allow people and nature to interact, exchange ideas, and build trust by creating inclusive spaces for people to speak the same language ensure the longevity of the interventions. Co-Design practices fuel such open dialogues across skill sets and networks. Making connections and relationships is especially crucial during the Reframe and Create phases (Fig 8). During these phases, I tried to leverage some of the relationships I developed through the Explore phase of the project to see how the design artifact could be used in the context of the accelerator programs I spoke to. This later supported Impact Dash to conduct a build your theory of change workshop for an impact training program for over 200 early-stage entrepreneurs at an impact accelerator who was an interview participant in the explore phase.

3. Leadership and Storytelling

Leadership reflects through personal actions more than the position within an organization. Leaders must have a vision rooted in their values carried out at all levels to influence the wider system by finding and sharing stories that inspire change. To constantly stay aligned with the purpose of the work and identify what personal changes can be made to achieve the overall goal, we need to practice self-care, self-reflection, and learn from failures. Being open about the approach supports others by sharing skills, stories, and mindsets while helping build a community to keep going in the face of ambiguity. This is especially important in the Reframe and Create phases (Fig 8). Through the ideation workshop with Impact Dash, I used storytelling to showcase the insights in the explore phase and reframe the problems from different lenses to identify new opportunities that reflect regenerative values. It helped expand the brief to show how everything is connected and impacts multiple groups. The focus is on thinking big and creating a portfolio of interventions at different system layers. The spectrum of possibilities from the workshop ranged from small practical steps, like introducing case studies at each step, to larger ambitious ideas that would take years to materialize, like Smart analytics with precise benchmarking for various companies.

4. Continuing the Journey

There's always more work in dynamic systems. As a project concludes in the particular context it was started in, It's essential to reflect on what went well and what didn't to learn from any mistakes that can be applied to working in the same system. The focus must be on creating and sharing knowledge for future endeavors with open-ended outcomes. It's crucial to consider what was measured, how successful the project was based on the vision that it was started with, and what needs to happen next. Celebrate success, reflect on mistakes, notice the impact on the system, share knowledge, and strengthen connections and alliances to develop future projects together. This will help build sustainable approaches for all businesses to adopt. Continuing the journey encompasses the Catalyze phase (Fig 8.). Making prototypes of the ideas generated helps move forward to overcome the overwhelming feeling of thinking systemically. It shows a tangible way for new visions to test them and understand how they connect with other interventions. Testing the clickable Figma prototype with multiple stakeholders showcased the exact positioning of the tool in the market while also understanding additional features required to make the functional prototype that can have a lasting impact on the early-stage enterprises that it serves, to ideally inculcate best practices as they move forward in their ventures.

3.2.2 The Rationale for the systemic design framework

While the double diamond has been a constructive frame to ground the phases of the work, it didn't feel sufficient to articulate the complexity of navigating the wicked problem space in which this project was situated. The interdisciplinary nature of understanding different sectors of impact investing, the stakeholders, and their power dynamics demanded additional roles I had to play as a designer laid out in the framework — That of a builder, storyteller, connector, and leader. The process of thinking with a multi-stakeholder perspective in a system with varying objectives and relationships is overwhelming. The systemic design framework helps move beyond producing a single design artifact and looks at interventions that can help address larger goals in a multi-layered approach. It showcased that while this thesis's end tangible design artifact is a digital tool, it would be most effectively deployed in conjecture with workshops and consulting.

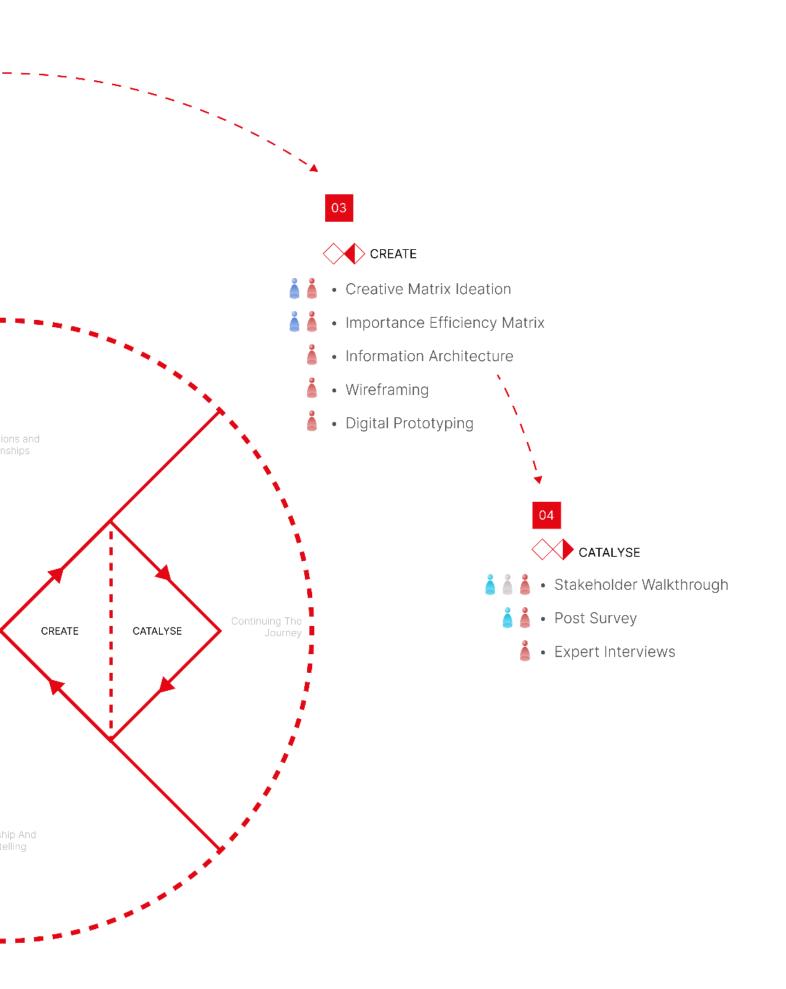
3.3 Phase 0: Groundwork and Project partner recruitment

The motivations for this project began with my broad interest in the intersection of entrepreneurship, design, and climate change earlier in the summer. I wanted to work with an organization that could help me gain insight into this space and gauge the on-ground impacts of different start-ups to understand if my contributions would effectively make any difference. This phase resulted in the starting point for Phase 1 - It helped orient the project within the specific niche of impact management practices from the broad interests that I started with.

Due to a lack of clear regulations, standardized practices, and low implementation, I recognized that impact measurement and management in the area needed to be much more transparent. While I repeatedly conducted multiple rounds of desktop research in this space and had exploratory calls, I realized that the overlap of multiple start-ups, accelerators, investors, and other enablers was on regenerative and climate-resilient agriculture for smallholder farmers and navigating the impact measurement space in this intersection was difficult for all stakeholders. I spoke to multiple enablers like Villgro, WRI, and Acumen while giving them a brief one-pager (Appendix A) to set the context of my possible contributions and the project and signing up for being a Terra.Do fellow, learning for climate action. I transitioned from focusing on choosing an accelerator as a project partner to recruiting an impact measurement and management expert to act as a co-designer for interventions that can help democratize concepts for higher adoption and incorporation in operational cycles. I recognized that many of these enablers were non-profits stretched in bandwidth to develop additional tools. The project's longevity beyond the academic timeline was limited in such environments through the Terra. Do Community. I spoke to Deepankar Panda, the Head of Product at Impact Dash, a product-led Impact measurement and management consultancy based in India. Our goals and interests aligned, and they could potentially realize my work by supporting any software development required to develop the end artifact and make it accessible at scale. Impact Dash, also a remote-first company, was set up for me to collaborate from being in Michigan. Meeting with Swagatam Patnaik(CEO), Deepankar Panda (Head of Product), and Abhishek Bhardwaj (Head of Research at the time) to speak about common pitfalls and insights in the industry and potential to collaborate over the next year showcased that there was high synergy and alignment for the project.



Fig 9: The overlay of co-design methods used alongside the systemic design framework with stakeholders involved



3.4 Phase 1: Explore

After partnering up with Impact Dash, through multiple discussions with the founding team, there was a clear understanding that the team was moving from serving the regulated non-profit market in India to the impact investing sector, which currently has low regulation or guidelines from the government. They have partnered with over 100 organizations, including corporate foundations and non-profit accelerators, to monitor the progress of the projects they were funding. Impact Dash has been doing this by combining both consulting on an ad-hoc basis and developing tools to track the progress of multiple projects. As they transition to capturing the impact of investing and the for-profit market, the objective was to understand how their offerings can be tailored for decision-making rather than measurement.

Our first steps were understanding the market requirements and trends for impact measurement and management across the ecosystem. Through the explore phase (Fig 8, Bottom left), multiple cycles and forms of primary research have been intertwined with secondary desktop research to understand different phases, motivations, and barriers of these practices. The objective of this phase was to understand what underserved areas are to increase the adoption of impact measurement and can there be ways of creating interventions that improve transparency in the ecosystem. As the stakeholder map (Fig 9) showcases, the most prominent influencers in the ecosystem for impact data have been the funders-including limited partners and general partners within impact investing funds, Managers of Corporate social responsibility/Philanthropic Funds, and Grantmakers in the governmental bodies. Impact Dash has been the most connected with these stakeholders as they act as deployers or enablers of their consultancy services and digital products. They ensure that their funding translates to the impact outcome targets set and that the project is on track once a grant has been issued. Impact managers, who are also portfolio managers - monitor and track the progress of the program or project that has been funded every week. The solid red line in Fig 9. denotes all the stakeholders that Impact Dash is currency working with. The blue dotted line showcases the connections to the stakeholders they wanted to serve in the immediate future.

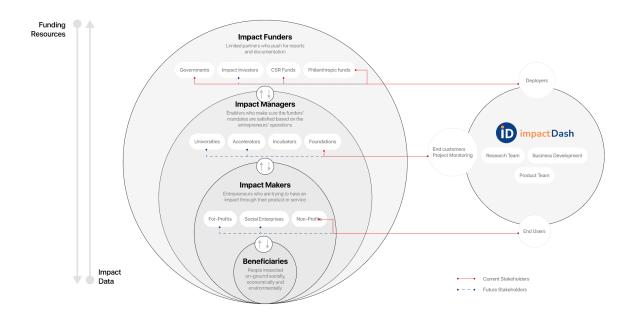


Fig 10: Stakeholder map of the ecosystem with Impact Dash's interactions

3.4.1 Aims

Through this phase, the Impact Dash team and I aimed to focus on understanding the following aspects of the Indian impact ecosystem:

1. Map out the motivations of all the stakeholders engaged in impact measurement and management or monitoring and evaluation.

Rationale: Understand the attitudes, motivations, and reasoning about the IMM practices that support and increase the adoption of IMM Practices. Understand the role and weightage of impact information in Investors' decision-making throughout the impact investing process.

Map the current on-ground practices seen as essential and how they differ from theoretical best practices

Rationale: Determine the best practices and how they are adopted to understand what methods and processes are most in demand

3. Comprehend the challenges faced in the process, other needs, and future perspectives.

Rationale: Minimise the challenges and barriers to adoption for impact measurement

4. Current go-to solutions throughout the processes

Rationale: Understand the competition in the market that is currently catering to the stakeholders' needs and identifying gaps that need to be filled

5. Inquire about the decision-making for buying a service or a product in impact measurement and management

Rationale: Understand the positioning of the intervention, specifications, and unique value proposition for the user to capture the attention of the decision-maker while gauging industry norms

To ensure the longevity of the project in development and also provide value to the community partner that I was working with, it was important to understand multiple constraints and plans that the founding team had for the business offerings and products. With multiple conversations and workshops, I aimed to understand the following from Impact Dash:

1. VISION.

Impact Dash's vision of expanding its services in the future

a. Rationale: Determine the project direction to align with Impact Dash's long-term goals.

2. SERVICE AND PRODUCT OFFERINGS.

Impact Dash's current services and product offerings that the team perceives as currently most valuable to their clients and what could be most valuable based on their vision for the future.

a. Rationale: Determine the project direction and positioning within the current offerings and the purpose it would serve them.

3. SCALE.

Impact Dash's current challenges to scale

a. Rationale: Determine the project direction and positioning based on the constraints of their business, the opportunity to be viable, etc.

4. COMPANY ROAD MAP

The rationale and process that they currently had for their product and service road map

a. Rationale: Determine overlaps on existing products in the pipeline and understand the gaps that they would want to address

3.4.2 Methods



Fig 11: Phase 1- methods overlay with stakeholders involved

3.4.2.1 Semi-structured Interviews

The discussions with Impact Dash and the exploratory research before setting the aims and objectives of the project provided context for formulating semistructured interview protocols for the generative qualitative research. The semi-structured interviews use open-ended questions to gain an in-depth understanding of settings, processes, relationships, systems, or people in an area of interest. (Muratovski 2016) The protocol, interview guides, and recruitment methods are in the appendix.

I conducted sixteen one on one interviews that ranged from 45 min to 1 hr 15 minutes with multiple stakeholders in the Indian impact ecosystem, including Limited Partners, General Partners, Portfolio managers, Impact managers, first-time social entrepreneurs in pre-seed and seed stages over Zoom during October and November 2022. For this phase, a purposive sampling strategy was used to recruit the participants. A lot of the interview recruitment was

done through connections that the Impact Dash team provided and by reaching out to common connections on LinkedIn to describe my research area briefly and asking participants for a time slot if they were willing to participate. The research protocol (Appendix A) was developed in collaboration with the research team at Impact Dash, post discussion of objectives and aims, particularly questions about market needs, motivations, and barriers. The team wanted to specifically know what was different when projects were monitored or assessed in the impact investing space compared to the philanthropic decision-making process.

Co-creating a Journey map

As a part of the interviewing phase, I used Miro to create journey maps of the impact measurement process from different stakeholder lenses - Investors and consultants. Based on conversations with the entrepreneurs, their experience was extremely varying based on the stage of their business. After asking some initial warm-up questions, I directed them to Miro to use as a visual tool for note-taking that could help investors who were hesitant to talk about the details of their process, to speak more specifically about the processes, expectations, and frameworks during the screening process, due diligence and also the reporting practices. Engaging with external stakeholders on Miro in the first meeting helped create transparency. Since these stakeholders were unfamiliar with the project, I expected some reluctance to use Miro. I briefed the participants and said there wasn't any pressure for them to move things around, even though they could. I also conducted similar sessions on Zoom with the research team at Impact Dash to map out and understand the process in the non-profit space.

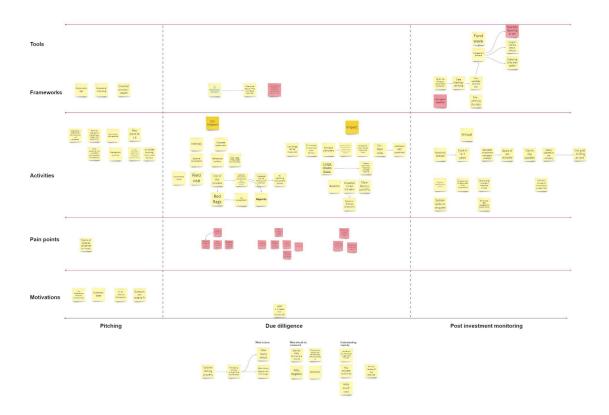


Fig 12: Journey map framework layout used during the conversation with readers

3.4.2.1 Design Workshop — Design Fiction scenario for Impact Dash

This was the first workshop planned with Impact Dash's internal team to understand their vision cohesively as a team. Scenarios help us study and imagine where we may be headed - by imagining where we are going, we reduce compressibility and the unpredictability that comes with the volatility of a business (Schwartz 1996). The goal of this workshop was to get a deeper and more specific context of the priorities of the business, to understand the trends the team was seeing and what success looked like, by also getting insight into current-day practices, challenges, and successes.

This was a 2-hour workshop that I had planned with the core team at Impact Dash. Before the workshop, I sent out some pre-work to make sure all the logistics for Miro were sorted out and gave out prompts to think about where they thought the impact sector should be heading and where there are gaps in people doing impact-oriented work vs. being oriented more on

profitability. After a quick introduction about why we were doing the workshops, a walkthrough of Miro, and an ice-breaker activity to choose an avatar for themselves, the first activity started with a news article prompt from 2027. Using design fiction as a medium to visualize a future, I placed a Forbes news article about how Impact Dash was valued as a billion-dollar social enterprise. I then split the participants into two different groups and asked them to lay out, sketch out who they were serving, what they were doing as a company, and also talk about the impact that they have had over the past few years.

The second scenario mapping activity mapped out activities, relationships, and feelings across the journey of pitching to a client and delivering on the project. The participants did not hold back from sharing some harsh feedback that they've received from clients, along with opening up about specific examples of encounters they've had through this process, realizing that even though they were subject matter experts, their product features still had a long way to go. Through voting, a second activity was introduced to understand the kind of service requests they received most often and methods they saw that they would need to cater to soon. This last activity was designed to understand where concrete examples of industry trends exist clearly. However, I was unable to execute this activity in time and had to include it in the next workshop that was planned.

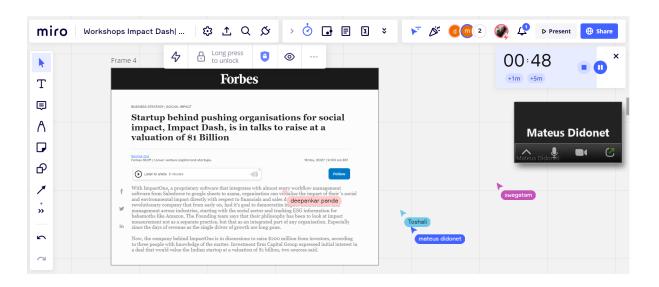


Fig 12a: News article from the future



Fig 12b: Miro board after the first activity - future vision

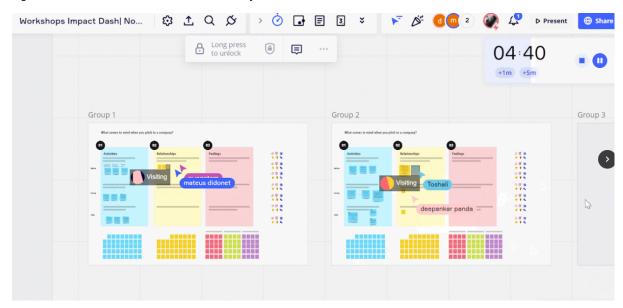


Fig 12c: Miro board after the second activity — mapping current scenario

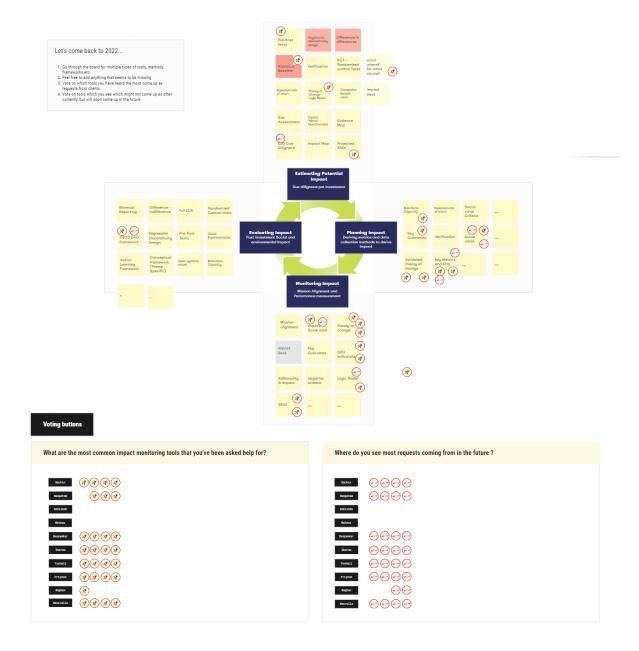


Fig 12d: Final planned activity to dot vote on common methods used and requests for services received

3.4.3 Key Findings and Insights

3.4.3.1 Interview analysis and Findings

Through my interviews in the social sector ecosystem with accelerators, impact investors, and social entrepreneurs, it was clear that the purpose-driven businesses sector is evolving for higher transparency, accountability, and internally incentivized missions. However, The application of

impact measurement and management strategies and methods to move towards such a future is still developing rapidly towards standardization. A key observation was that the motivation to apply these best practices was split into two types of groups: Enablers and Entrepreneurs. Enablers, in this case, are mentors, investors, and portfolio managers in accelerators in the impact space who fuel and help scale the effort of the entrepreneurs. Social Entrepreneurs, while generally in multiple stages of building their ventures, for the case of this project, we will focus on early-stage first-time entrepreneurs.

INSIGHT 1

The intervention should support first-time social entrepreneurs in understanding the early stages of impact management practices that enable them to unlock additional impact-linked financing opportunities.

Findings:

The social entrepreneurship sector is divided into various groups based on their business stage and motivations. Mission-first social entrepreneurs who have been in business for over three years use impact measurement methods (IMM) to make crucial decisions that optimize their business and ensure customer satisfaction. Early-stage social entrepreneurs often lack the resources to conduct IMM and rely on investors or accelerators to guide them. Impact-focused accelerators provide training on impact measurement practices to entrepreneurs but are driven by the impact investors in their network. Finally, impact investors are motivated by the reporting requirements of limited partners and seek to showcase that their investments go beyond just financial returns. Each group plays an essential role in the social entrepreneurship ecosystem and contributes to positively impacting society.

INSIGHT 2

The intervention should be usable in multi-staged layers to cater to social entrepreneurs with varying levels of bandwidth and have appropriate recommendations.

Findings:

Social entrepreneurs often view impact strategy, assessment, and measurement projects as complex processes with methods they do not have the resources or time to implement,

which can hinder their adoption. However, social entrepreneurs have different needs regarding the depth of impact measurement practices that can be integrated into their business operations based on their enterprise's stage. The responsibility of educating entrepreneurs on the significance of impact measurement and management is taken by impact accelerators. They help social entrepreneurs raise capital from impact investors, make strategic business decisions using impact data, and provide ad-hoc hand-holding to portfolio companies with varying needs. Additionally, investors and enablers often define a roadmap of impact practices when they onboard or invest in a social enterprise. It is essential to have a tailored approach to impact measurement and management that fits the specific needs of each social enterprise to promote adoption and success.

INSIGHT 3

The project's scope needs to serve a specific part of the impact strategy to measurement process as different stages of impact management practices have wide-ranging processes. Findings:

During the early stage screening process, it is not advisable to have high expectations for impact measurement and management (IMM) from social entrepreneurs. Thus, impact investors look for the fit of their start-ups' impact vision concerning the fund's thesis at a high level. The expectations can vary based on the fund, ranging from negative screening to assessing foundational concepts like the Theory of Change, Logic Model, and Scorecards. During the due diligence process, most of the impact strategies are verified alongside regular investment due diligence through ESG and Impact due diligence, with the involvement of a third-party consultancy. After the investment is made, there is often a roadmap of metrics to be tracked and criteria to be met in the contract. Investors must work closely with social entrepreneurs to develop data capacity for reporting, bridging the gap between outputs and outcomes. Most of the reporting formatting responsibilities fall on the investors, while the data collection needs to be done by the entrepreneurs. Cyclical reporting is done to ensure that goals are being met. For companies without many outcome-oriented data collection mechanisms, it takes a lot of hand-holding to get to a particular number.

INSIGHT 4

The value of impact strategy best practices should translate to business value for entrepreneurs to adopt.

Findings:

Lack of standardization for impact measurement leads to varying expectations from stakeholders. Entrepreneurs do not see the business case for it, which is viewed as a box-checking activity rather than a practice with positive business outcomes. This makes it difficult for investors and stakeholders to assess social impact, and a standardized approach is needed to improve adoption and increase benefits to businesses.

INSIGHT 5

Enablers act as impact resource providers; for entrepreneurs who are the primary implementers of any impact practices.

Findings:

Social entrepreneurs' willingness to buy any additional impact measurement tools or resources is low since the motivation is generally external. Enablers, conversely, are willing to provide additional tools and resources to their portfolio companies through investment or additional tools that help them to track the progress of their portfolio companies regularly.

3.4.3.2 Workshops with Impact Dash Analysis and Findings

Core emerging theme:

"Becoming a transparent, equitable and accountable ecosystem of providing the right resources at the right time, place, cause and in need"

Profit and impact are not two separate entities when you look at organizations that are authentically purpose-driven for social and environmental impact. The measurement and management process appropriately enables the growth of socially responsible companies by

showcasing how the impact is translated for profit and revenue through transparency and accountability. The goal is to reduce barriers for folks who want to do good but don't know how to by

- Providing a platform of discovery for organizations to understand where funds can be
 prioritized and understanding where the most impactful jobs are by benchmarking across
 the ecosystem amplifying the nuance in the social aspect of both ESG and Impact
 outcomes both qualitatively and quantitatively.
 - Creating a resource pool for CSR Groups, funders, and enablers can be more involved on the field with the NGOs that they have partnered up with for volunteering directly in geographical locations that they don't have prior experience with.
- Optimizing data from multiple sources (Sales, vendors, and other operations from enterprise software partners) to showcase the impact that is easily digestible
- Generate insights that enable decision-making for large-scale philanthropic and international development organizations to address micro-communities that need support to address the effects of climate change.

While much goes into researching client needs, trends, and alignment, the impact management space still evolves with varying requirements. Expectations for digital products in the impact measurement and management space must be set early on based on conversations to understand needs and pains. Demos that showcase specific examples and case studies while walking through help better empathize with users in a constantly evolving field is something that most people find stands out, as per the experience of consultants at Impact Dash. While these interfaces are still subpar in user expectations, what stands out is the subject matter expertise of consultants who can guide them through the process, with or without the product, through consultations that are often free.

While initially gauging expectations was complex, it's been a step in the right direction to engage clients to reflect critically about needs and also hand hold to migrate from manual processes to ImpactOne (Impact Dash's current software product for monitoring and evaluation). The relationships maintained in the sector through trust and thought leadership of sharing their

expertise have been pivotal in establishing credibility for Impact Dash. They see how their empathy-first approach is helping build a product in the market that has not existed before.

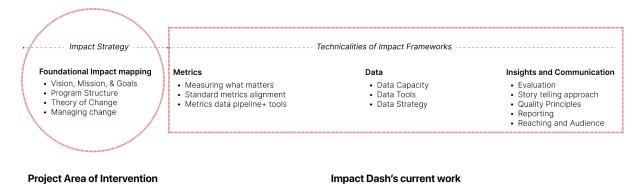


Fig 13: Insight for project Intervention positioning

3.5 Phase 2: Reframe – Framing the Problem Statement

3.5.1 Aims and Overview

Through the reframe phase, the objective was to arrive at the problem space of what we needed to solve for and understand the key stakeholders the design intervention would benefit from. To arrive at this, we needed to synthesize all the research from the explore phase, as shown in Fig 14.

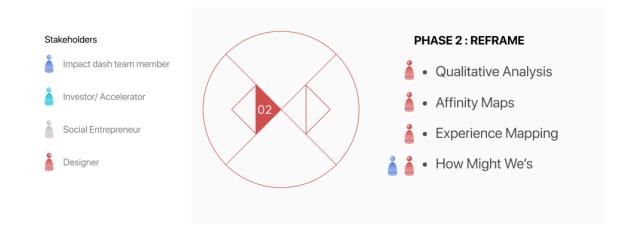


Fig 14: Phase two methods alongside stakeholders involved in the process

3.5.2 Methods

3.5.2.1 Qualitative analysis

Each interview with the industry stakeholder and the conversations from the workshop were recorded through Zoom and otter ai to convert the speech to text. Discussions where the interviewee needed to be more comfortable recording the interview included me taking many rigorous notes. These notes and transcription were then analyzed using a combination of structural coding, process coding, axial coding, and affinity mapping. Structural coding was used to organize the entire collection of data from the user research and interview questions to bucket them into broad categories (Saldaña 2021). I then moved to process coding to capture the steps involved based on motivations and goals (Saldaña 2009). The next step was to use axial coding that helped identify connections between them. Look for causal conditions, the context behind observations, and the consequences of phenomena (Corbin, J, & Strauss, A. 1990). Finally, affinity mapping uses the visual infrastructure for analysis, interpreting their significance, clustering with similar excerpts, forming into larger groups, and giving rise to themes and insights (Martin and Hanington 2019).

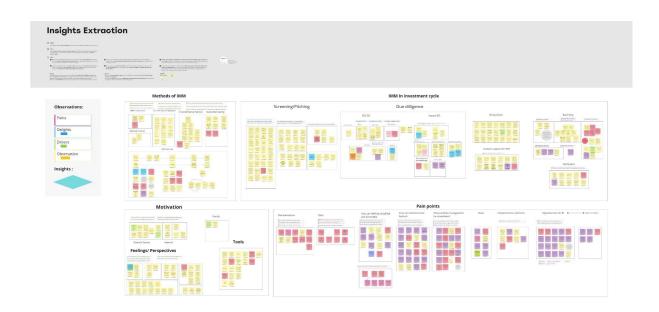


Fig 15: Synthesizing all the data from the qualitative interviews

3.5.2.2 Experience mapping

All the analysis of the interviews and the workshop with Impact Dash led to synthesizing the key insights and observations into an experience map as a visual artifact to specify where along the experience the different questions we were asking lay. An experience-centered journey map visualizes the overall experience from multiple perspectives while getting to a particular goal while layering information about perceptions, pain points, and emotions (Stickdorn and Schneider, 2011). The Experience map (Fig 14) was employed as a synthesis method to forge connections between the interview data in the entire ecosystem and the observations from the workshop with Impact Dash's team (Kolko 2010). The experience map in Fig 16 lays out the pain points from different perspectives of stakeholders in the ecosystem - Impact investors, social entrepreneurs in the for-profit space, and the non-profit area along the different phases of an impact measurement journey. The goal of using this experience map was to identify the fundamental problems that could be addressed within the scope of the thesis project that could also align with the long-term goals of Impact Dash. This contextualized the barriers to adopting multiple stages of practices and showcased numerous opportunities and points of intervention for the project.

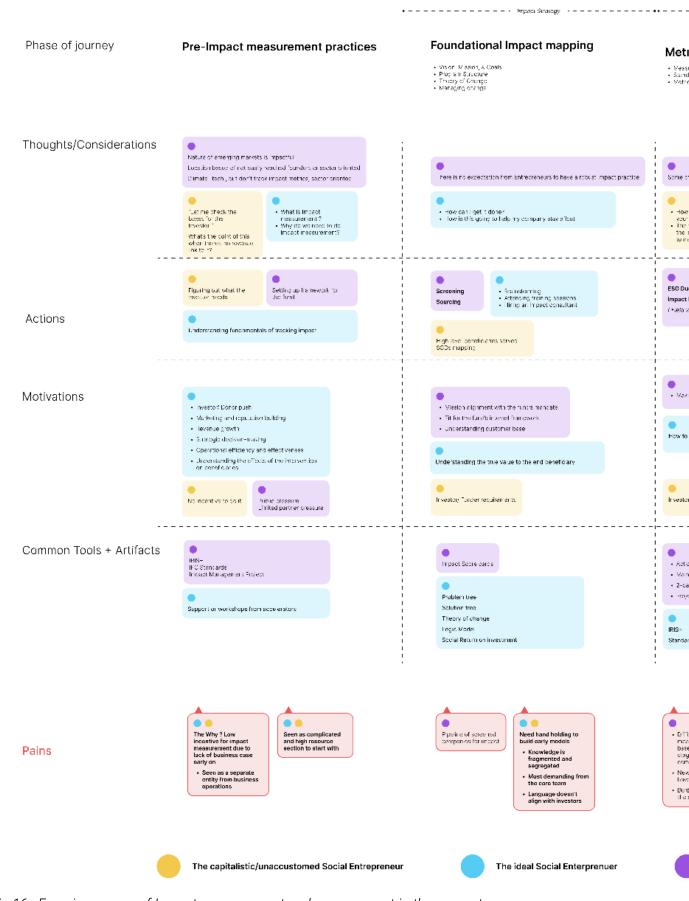


Fig 16: Experience map of Impact measurement and management in the ecosystem

Impact Investors/ Enablers

ics Data Insights and Communication uing what matters are metrics alignment is pata pipe ine – tools Evaluation Stary Inling approach Outry Principles what to include in an incast Report Reaching and Audience Date CapacityDate ToolsDate Strategy these are too demanding and have been set up adoptiong to western contexts. Need to look for sudden spikes or acnormalities Important is the metric to intesting to include a control of the property of t "Every carbon auditor is using their own methodology. Theirs too confusing." I can use this for marketing now How can I make this information credible or verified? " cont have enough resources for this " "If I pay for this data to be measured in eed it to add monetary value to the comany." \star . Can I make so with estimation right now ? How can I find a groxy for this?' "immediating corretning similar, but the language is different." Constant work for action plan to be implemented. Measures only Business indicators Unintentional misrepresentation of data Dilligence Post-Investment reporting land holding through system setting process Due Dilligence laits, external Auditora, Additional documents and questions J. Follow through the action plan-Daily to weekly calls with investment manager Setting up systems for data polection - surveys, assigning impact measurement tasks. ng sure everything is verified and accurately represented Regular weekly dodates to make sure everything is on track for an exit track progress or on ground impact. Limited Partners pushing for impact reports Revenue growth Strategic decision-making · Operational efficiency and effectiveness Varketing and reputation building. Revenue growth / Funder requirements Strategic decision making • Operations efficiency and effectiveness r Pan Fund Management software or Excel Morros and KMA ge impact thesis for internal committee approval chans for 2-3 years based on financial projections. mpact Consultant Audits and impact assessment studies on ground mpact Management software Impact Management software d metrics directory based on sector and user out. for data surement to on the eliof the pany No understanding of the depth needed for IMM What data for what capacity? How do we have one comprehensive platform for all stakeno ders Metrics can't be prodicted easily. Cannot put in additional time and people focused on measurement only • Developing a roadhaap for it All metrics are not relevant, so choosing the right ones are key and need guidance Date is not a reantified a lot of the times, so we need to take raw date clashrit up and uplead them separately into our tools. Data is not suparnlined allot of the times processes to be set up lensome for itan, up Hard to understand easy methods to measure How do you Jump from sales metrics to impact metrics? Hard to understand easy methods to measure

3.5.2.3 Framing How-might-we statements

Looking through the Experience map (Fig 14) and understanding different intervention points, we could identify that the entrepreneurs were the most underserved in the market and focused on the insights at the intersection of how impact measurement can be genuinely integrated into practices. I broke down the insights from the qualitative analysis into four key how-might-we statements to ideate on different feasible interventions to discuss with Impact Dash's team. Constructing How-might-we questions helps to set the stage for brainstorming to advance from insights to brainstorming potential concepts following generative and exploratory research. They simultaneously narrow and broaden the design direction moving from convergent to divergent thinking, and can be effectively used to map proposed solutions back to the intended goal. (Martin and Hannington 2019)

3.5.3 Key takeaways

3.5.3.1 Key How-might-we questions

Insights from the entire discovery process led me to create 11 How-might-we statements (Appendix 7) that fell under four main How-might-we questions I took to the ideation workshop with the team at Impact Dash. This helped structure the creative matrix and ideation process.

- 1. **Incentive:** How might we highlight the business value for social enterprises through impact measurement and management to truly integrate social and environmental impact into the business model?
- 2. **Educational:** How might we build the awareness of the capacity to identify, collect and analyze the right data based on the phase of the social enterprises?
- 3. **Accessibility:** How might we make foundational impact strategizing practices easily implementable for social entrepreneurs in India's climate and agricultural sector?
- 4. **Industry Multi-Stakeholder alignment:** How might we create a comprehensive platform as a transparent pane of glass into the social sector?

3.6 Phase 3: Create — Ideation, Prioritization, and Prototyping

3.6.1 Aims and Overview

With the insights from the qualitative research, pain points determined, and how-might we question as guiding statements, I took these how-might-we questions to the next design workshop that was aimed to generate multiple ideas. This phase aimed to generate ideas, prioritize them accordingly and produce the prototype of the conceptualized intervention.



Fig 17: Phase 3 - Overview of the methods with stakeholders involved

3.6.2 Methods

3.6.2.1 Design Workshop 2: Ideation and Evaluation

The goal of this workshop was to use a collaborative approach to brainstorm, understand which ones have the most support, and prioritize them according to what is feasible for the project based on academic constraints.

The workshop was conducted with 6 participants from Impact Dash's team, including the members in the previous workshop. After a quick Ice-breaker, I conducted a dot voting activity to map what the biggest service requests were. I presented the insights generated from our research until then to provide context about the key insights, opportunities, and gaps in the current impact management landscape in the for-profit sector within India. The first exercise was to ideate for each How-might-we question across different directions of the solution regarding an awareness piece, product feature, service offering or event, or program. Creative matrixes

generate many ideas before they can be rationalized or judged (Martin and Hannington 2019) quickly by stimulating cross-pollination in a structured way relevant to the context we are designing for. (Luma Insititute 2012)

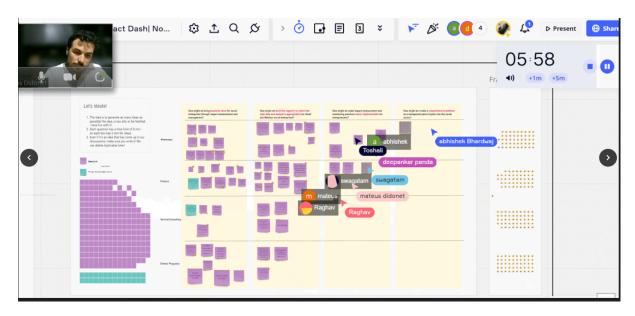


Fig 18: Participants fill up ideas on the Creative matrix based on awareness, product, service, or program offerings.

Post the generation of ideas, we sIndia'sned all the outcomes and used gold stars to indicate which each team member agreed with. The group members' hierarchy was broken by democratizing the decision-making process, and everyone's input was given equivalent value before final decisions were made (Luma Insititute 2012). The discussion was converging as team members discussed why they most appreciated a particular idea. We then moved on to collect all the ideas that received stars to organize them across an Importance-Difficulty matrix, which is used as a charting mechanism for teams to reach a consensus on feature decisions according to the value proposition and the effort it would take. (McQuaid and Bishop 2001). Based on the collective positioning of different ideas, we spoke about the ideas that were perceived as necessary but were low in the effort for implementation.

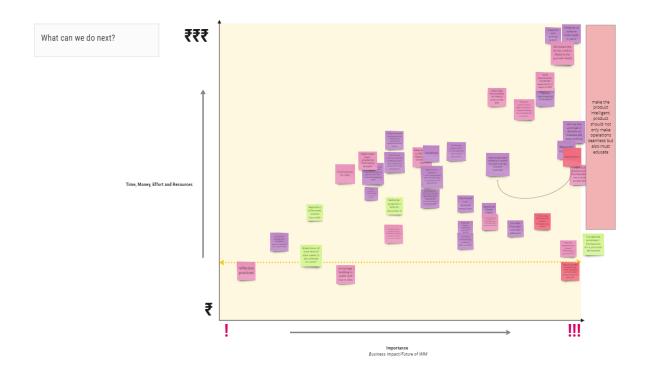


Fig 19: Arranging the ideas in a priority map based on the most important and the least effort

3.6.2.2 Concept decision-making

With these intervention opportunities identified, the statements that seemed to be an essential but low effort in implementation were evaluated using the following criteria:

- Impact Dash's Bandwidth for the viability of the intervention: Would Impact Dash be
 willing to maintain the intervention post the academic timeline and promote/ incorporate
 it as a part of their product set? Does Impact Dash have the time and resources to
 support a particular intervention while prototyping it?
- Timeline: Can we prototype and test the intervention within the bounds of the academic calendar?
- Capabilities of the designer: Does the designer have the skillsets to prototype the intervention without a significant burden on Impact Dash's team?
- Alignment research findings: Does the intervention address the barriers and enablers uncovered in Phase 2?
- Evidence from the exploratory tool benchmarking: How much of the tool exists in the
 market already based on the early stage benchmarking studies? How accessible are the
 existing ones based on the findings during the explore and reframe phases?

After multiple conversations about the tool, we recognized that the most feasible intervention would be to create an educational tool for first-time social entrepreneurs to build and maintain their theory of change. This could be used as a marketing tool for Impact Dash to help in educating their stakeholders and also helping to create a tool that could help entrepreneurs build their theory of change that could support the foundation of building their impact measurement practice, help them gain access to funds from impact investors and align with the market trends.

3.6.3 Key Outcomes

3.6.3.1 Ideation Brainstorm and Prioritization

The most prominent themes that showed up during the ideation and prioritization workshop were around making impact measurement simple and fun to use as a way to incentivize users to engage in it and making digital software intelligent in recommending best practices to users along with templates and tools that are easily fillable. While making the process fun was primarily seen as a behavior change issue in how interactions with clients are done, the need to empathize that impact measurement is not an internally motivating process for clients and making sure the journey brings smiles to the clients needs to be reflected in Impact Dash's ethos.

To make the product intelligent, there could be pre-defined templates and frameworks that help users get that foundation of creating an impact dashboard or profile in a simplified way. With massive possible integrations, there's scope for a multi-tiered approach based on the maturity level of the organizations. In an Ideal world, measurement and assessment should not exist as an independent practice outside business operations. Data collection needs to be granular from a customer or a service and not higher up in the value chain, with minimum human effort in the field. Processes must be set up to capture the source cost-efficient and quickly. Then it can be refined and analyzed appropriately based on the use case. The balance of self-assessment and external assessment should be precise, with a clear distinction of relationships between qualitative and quantitative data where they enhance and explain each other.

3.6.3.2 Design Principles

Through all the ideas and insights, I narrowed down four key design principles to help design the tool. Creating a digital tool made the most sense regarding scalability, virtual collaboration, and project longevity.

- 1. Compliance: With standards and frameworks in the industry
- 2. Educational: Guiding through recommendation and prompt
- 3. Incentive through Business Value: Impact data must lead to business strategy
- 4. Adoptability: Simple practices and methods integrated into business operations.



Fig 20: Design guidelines for the product

3.6.3.3 User Personas

Before jumping into the product specifications, I created 3 Personas that would majorly interact with the interface and the tool's outputs: an early-stage social entrepreneur would be the primary user using the tool to build their theory of change. At the same time, the investor or the service provider would be the secondary personas who interact with the end visual of the link of the theory of change provided to them. Personas attempt to ground the designer based on the behavioral patterns, motivations, and themes recorded commonly during the generative research

phase. While they are fictional characters, personas are rooted in distinctive themes that emerge from interviews. (Cooper 2003)They typically create a narrative story of the current situation where they would use the product or service being developed to help communicate the scenario to various stakeholders involved. (Goodwin 2009).



Akash

Male, 28yr Mumbai, India Co-Founder, Food Loop

- FoodLoop is a waste to value company that converts organic food into fertilizer
- They have bootstrapped till date and completed a pilot test. They want to reach out to incubators, accelerators and angel impact investors for initial funding

BACKGROUND

- Akash is a first time entrepreneur and is the inventor of this
 methodology. As a part of his masters in Biotechnology, he
 conceptualized the current waste to value loop to use insects to
 convert regular organic waste into high quality nitrogen dense
 organic fertilizer that is lower in cost than the traditional fertilizers
 that small holder farmers use.
- He has intensive research background but wants to clearly communicate the concept of his operations to multiple stakeholders

TASKS/ACTIVITIES

- Finding and pitching to accelerators, incubators
- Vendor discovery and onboarding partners for materials and operations
- Networking and attending events
- Strategizing for business model, sales and marketing

QUOTES

"I often get asked for an impact Deck by investors, that is not defined and keeps varying on their perceptions."

PAINS/PROBLEMS

- Impact measurement is too complicated into operations right now for us. Investors ask for ESG criteria and it doesn't
 make sense for us being such a small team.
- There's a different standard for everything in impact measurement, everyone seems to be doing their own thing-I don't
 have a clear idea what I should be using.
- It's difficult to understand what level of depth we need to go to understand or get a particular number that investors
 ask us for, sometimes it's not feasible to put too many resources to get the number than actually focus on operations.

GOALS/MOTIVATIONS

- We want to access funding from impact accelerators and impact investors.
- I want to onboard vision and mission aligned members onto the team who have a full picture of what our operations and impact look like
- $\bullet\,$ Onboarding vendors who also better understand what our needs as a company are.
- To understand what is strategically important for us to focus on from a business perspective.

Fig 21: Primary persona for the tool: A first-time social entrepreneur in the early stages of building his venture

3.6.3.4 The Concept: Building a digital tool to create a dynamic theory of change.

The intervention is a digital web-based tool designed to help early-stage social entrepreneurs in India's climate, and agricultural sectors understand the importance of impact measurement by assisting them in building their theory of change and sharing it with stakeholders. It aims to bridge the information asymmetry and align the language of impact measurement across stakeholders. The tool features a step-by-step process with selectable terms, activities, and metrics, making it easy for those without experience. The tool also includes educational resources such as guiding questions, reflection prompts, and case studies to help users understand the impact measurement process. To make the information more accessible, the tool features an exportable graphic and live viewable link that showcases an organization's impact. It includes a progress tracker visually illustrating progress and providing hints and prompts for each step. The tool aligns with several frameworks, including the Theory of Change, IRIS Metrics, and SDGs. It aims to provide an easily understandable framework for impact measurement that reduces risk, attracts and retains talent, improves stakeholder relations, and enhances PR and storytelling.

As discussions emerged with the product team at Impact Dash, I put together a brief product requirement document to specify goals and features for everyone to stay aligned on the outcome. (Appendix 8). A product specification document provides clarity, reduces risks, enhances collaboration, manages time efficiently, and ensures high-quality deliverables before developing any concept in the early stages. (Ogrodnik 2013) While a Product specification document is meant to be more detailed, I chose to leave out the technical components and focus on the front end, which was defined based on my scope as a designer. The rationale for a digital tool evolved from the fact that the theory of change from an early stage keeps evolving. With multiple accelerators handholding the start-up founders through the process - it provides a space that can be accessed by start-ups that are not incubated by an enabler and also reduce their commitment by them.

3.6.3.5 Information Architecture and User Flow

Before getting onto the tool, I created a quick quiz that a user can take to ensure that the user is the right person who might need the tool. This was done to understand the users' position based on their stage of implementation, experience with impact measurement, and their

goals/expectations for the tool. Post moving to the tool. There is a step-by-step walkthrough of each step of the theory of change while ensuring the three components of educational prompts, compliance with standards, and adjustable features are maintained through the user flow. Each step has an educational part talking about definitions, prompts, guiding questions, and examples so that users with no idea of a theory of change can also learn while they walk through the tool. The prompts and guiding questions ensure that the user tries to answer the questions in a syntax that aligns with the industry standards. There are multiple components to select from or skip based on the users' bandwidth in terms of methods of evidence they can use, metrics they can attach with each section, and categories of assumptions they could be making.

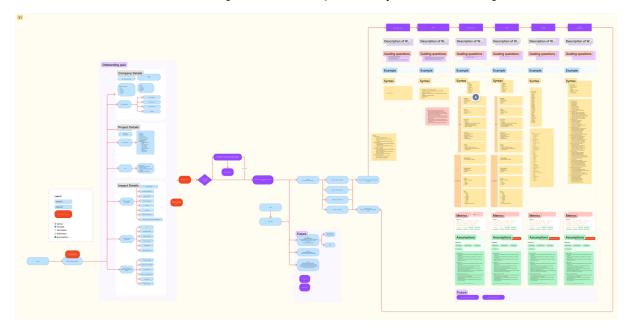


Fig 22: Information Architecture and User Flow

3.6.3.6 Wireframes

Post the construction and discussion of the information architecture of the tool, I received feedback that each section needed to be highly adaptable for users and not overwhelming with information. I created multiple components required on each screen to understand progress, educational content, fillable areas, etc., then moved them around to optimize the interface through wireframes.

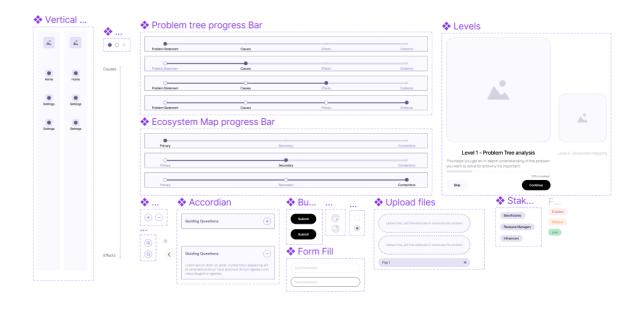


Fig 23: UI Components for the screens

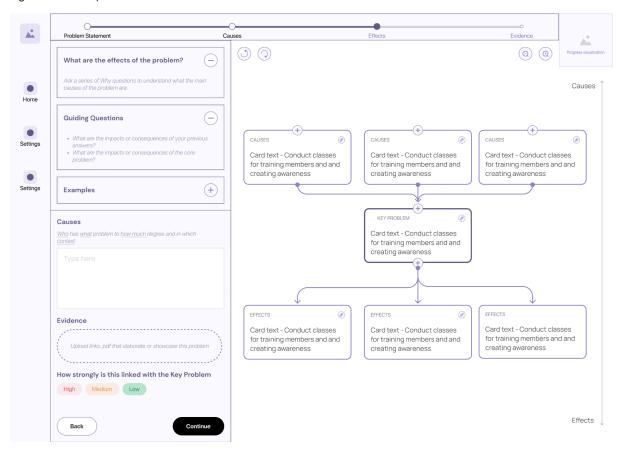


Fig 24: Wireframe V1 — Problem Tree Analysis

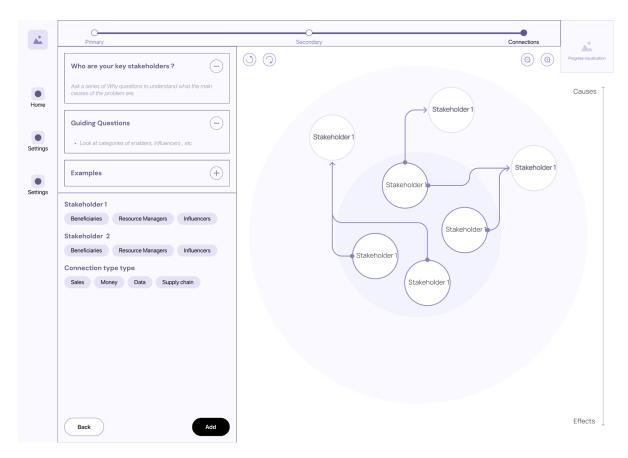


Fig 25: Wireframes V1 – Stakeholder map

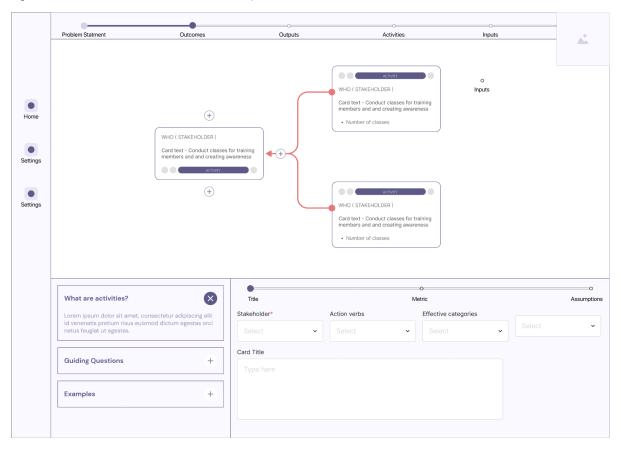


Fig 26: Wireframes V1 – Theory of change

3.6.3.7 Visual Identity

The tools we benchmarked earlier didn't have graphics, illustrations, or interactions to help users remain engaged. I chose colors and imagery (Shown in Fig 27.) to ensure that the tool's visual language could be relevant to the sector of operation wherever possible. Post discussion with Impact Dash's product team, I created Hi-fidelity prototypes of the screen after taking in the input of the wireframe, and the visual language was consistent across the platform.



Fig 27: Moodboard and illustration references for the final prototype

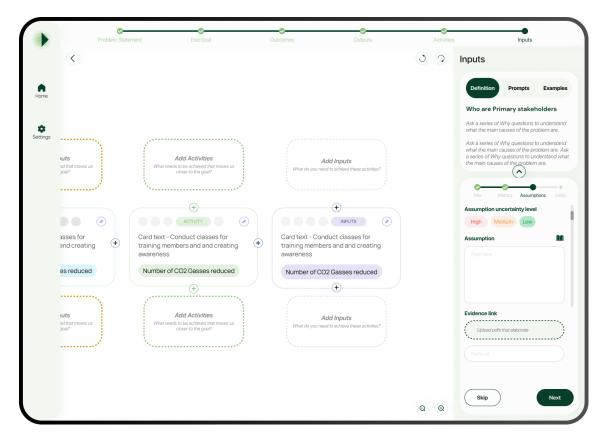


Fig 28: Screen from the final product

3.7 Phase 4: Catalyze – Testing and evaluation

The digital interface, including all the user flow and some primary content, was created in Figma and prototyped to be clickable. Though its interface could not be clickable or have the ability to input information due to limitations of time and bandwidth, it was positioned to be the first proof of concept to understand critical values that the tool could provide and act as a visual aid for discussion on usability, clarity, value, and use cases. I conducted a Stakeholder walkthrough with three entrepreneurs and three facilitators from accelerators to understand how educational it is and what could be done when building the functional prototype. Through the 45 min sessions, I first asked a few priming questions to the stakeholders about their journey with impact measurement. Then I gave them the link to the Figma prototype to do a think-out-loud exercise to understand the unclear user flow, clarity of content, and effectiveness of the value proposition of the tool. Finally, using a semantic differential, I asked them to complete a survey to rate the interface across ease of use, clarity of language, and willingness to use.

The Protocol for the testing sessions is listed in Appendix 9. The participants from this test were picked from the pool of participants from the explore phase, who resonated most closely with the ideal personas for the tool based on the stage of their enterprises and role in the ecosystem.

I wanted to answer the critical questions through this exercise:

Will they find the impact visioning process insightful to understand where they need more evidence of their hypotheses?

Asking first-time social entrepreneurs whether they would find the impact visioning process insightful is meant to gauge their understanding of the tool and the basic concepts of impact measurement. The impact visioning process helps social entrepreneurs to develop a clear understanding of their impact goals and how they plan to achieve them. The question seeks to understand whether the entrepreneur sees the value in using the impact visioning process to identify gaps in their thinking about translating the effects of their business operations and areas where they need to gather more data or evidence. This helps the social entrepreneur reflect on their understanding of their theory of change and whether they are confident in their ability to achieve their impact goals. It also helps the designer better understand the entrepreneur's needs and to provide more tailored support or guidance.

Will first-time entrepreneurs find the tool valuable and adoptable as a best practice to build on their impact measurement practices?

This question is essential to determine first-time social entrepreneurs' potential uptake and adoption of the tool. It probes their opinion on the potential value of the tool and whether they see it as a valuable addition to their toolkit. It also provides feedback on the tool's perceived usefulness and ease of use and any potential barriers or challenges to adoption. Understanding these factors can help improve the tool and tailor it to the needs of first-time social entrepreneurs, ultimately increasing its potential impact and reach.

Will impact assessment practitioners and enablers in the ecosystem endorse a tool like this to their incubatees?

This question assesses the potential for broader adoption and uptake of the tool beyond an accelerator program. The question asks whether the manager believes that impact assessment practitioners and enablers, likely to have more experience and expertise in impact assessment and measurement, would endorse the tool and recommend it to their own incubates. It questions the potential value and utility of the tool to a broader audience of impact-focused organizations. It tries to understand if the tool reduces their workload in educating their incubatees on the foundations of impact measurement. This question is crucial because it helps to determine the potential for broader adoption and dissemination of the tool. This would ultimately increase the tool's potential impact and reach and help improve impact measurement practices more broadly across the ecosystem.

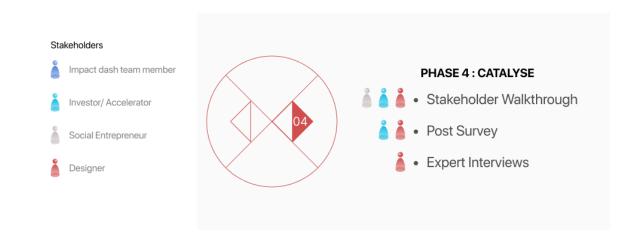


Fig 29: Overlay of Design methods used in Phase 4 - catalyze with stakeholders

3.8 Ethical Considerations Throughout the Design Process

The systemic design framework demands ethical considerations throughout the design process. In the impact investing and social entrepreneurship space, during the explore phase, it was important to protect organization information like frameworks, theses, and methods used that were highly confidential. While synthesizing interview notes, I eliminated names. I coded each conversation based on the size, maturity, and role in the ecosystem to make sure that during my conversations with Impact Dash as well, the source of each quote would not be released. Each quote was given equal weightage in generating an insight despite the power dynamic of the interviewee in the ecosystem or the hierarchy of their role in the organization they worked for.

Ethical issues become apparent when co-design participants share their experiences, discuss problems, envision desirable situations, develop and evaluate alternatives, and make final decisions. (Steen 2013) One of these ethical considerations pertains to the mutual respect among the co-design team members rather than solely the ethical responsibility of researchers to patients. As a co-designer and facilitator, I value the opinions of my team members and encourage them to work collaboratively with me, recognizing that working as a team rather than as individuals is a crucial ethical point that many co-design practitioners often overlook.

The research methods conducted through this process did not qualify for an IRB review, as this study was primarily conducted to improve existing services and products, not to generate new knowledge. Any participation from the entire team at Impact Dash and industry stakeholders was completely voluntary, and they could modify their participation at any time. Before jumping on to a solution, I perceived the role of a conversation facilitator, not the field expert. I looked through multiple online tools that are available, paid, and open source to make sure that a similar tool did not already exist, to understand what is already working at the industry level, and build on it. In product design, I identified usability issues and prioritized them to allocate redesign efforts appropriately (Goodman-Deane et al., 2014, p. 892).

4. Results

4.1 PurposePathways: A digital impact envisioning tool for social entrepreneurs

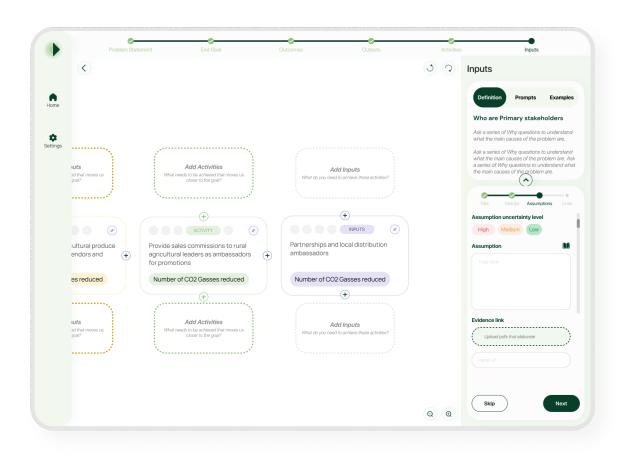


Fig 30: Interface of PurposePathways

PurposePathways is a web-based tool designed to educate social entrepreneurs in India's climate and agricultural sector on visualizing their impact in an accessible and engaging way by guiding them in building their theory of change. It addresses the pain points of social entrepreneurs who need help understanding impact expectations during fundraising, accelerators who need additional support, and investors who feel like impact articulation needs to align with their internal frameworks or mandates. The tool features a step-by-step process that includes use cases and case studies alongside frameworks and tools to identify, evaluate, and articulate impact. It complies with IRIS metrics and SDG selection and has a syntax oriented with IMP 5 dimensions in each step. It is easy to use, with selectable terms, activities, and metrics, and provides educational guidance through prompts and questions. Users can level up and showcase

use cases as they progress, receive incentives and rewards for each level achieved, and share their progress across social platforms with an exportable graphic that illustrates their impact. Overall, this tool aims to bridge information asymmetry and align the language of requirements across stakeholders, helping social entrepreneurs create real change in India's climate and agricultural sector. The term user broadly describes social entrepreneurs and teams building their impact strategy.

4.1.1 User Scenario:



Raj is a first-time entrepreneur of Food Loop. As a part of his master's in Biotechnology, he conceptualized a methodology to convert organic food waste to high-quality nitrogen-based fertilizer, cheaper than traditional fertilizers, by using insects. In the process, he is collaborating with smallholder vermiculture farmers in the rural, generally drought-prone regions of Tamil Nadu.

Goal:

To create a Theory of Change diagram around his business/methodology that converts organic food waste to fertilizer, showcasing the top metrics for raising funding with pre-seed impact investors.

Steps without PurposePathways

01 Discovering the need:

A. Raj is asked to develop a theory of change when he first pitches to the top corporate social responsibility (CSR) partners and pre-seed impact investors.

02 Self-learning best practices:

- B. He does a quick Google search to learn how to build a theory of change, finds a free online worksheet, and fills it out based on a rough idea of his concept.
- C. Based on his Google search, it takes him a couple of hours to understand what components must be included and what can be avoided. He creates a conceptual theory of change diagram and adds it to his slide deck.

03 Understanding Industry expectations:

D. During the next round of pitches, he is asked how he would track these components in his theory of change and how he knows that specific actions would lead to the outcomes he expects them to have. They ask him specific questions about his company's potential to impact the number of smallholder farmers and how he is confident about the increase in their income. He talks about the prospect of their impact but doesn't have evidence to back it up during due diligence.

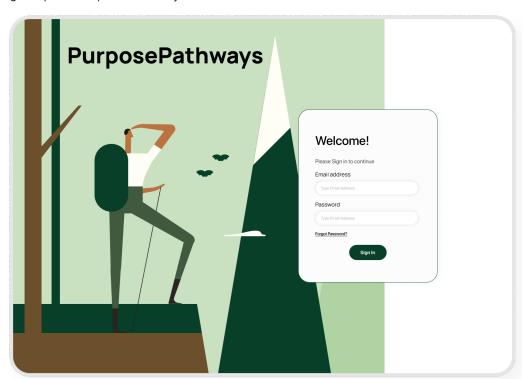
04 Accommodating for impact management:

E. He has a basic idea about some key metrics to track, but they don't reflect the theory of change. He doesn't have the knowledge and bandwidth to understand what methods he can use to measure those metrics based on his current capacity. He feels the need to hire a consultant, but that would cost him a significant amount he didn't budget for.

Steps with PurposePathways

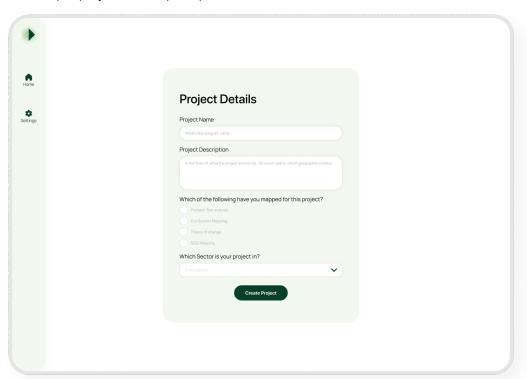
01 Discovering the need and push from enablers:

A. Post request from corporate social responsibility (CSR) partners CSR Partners, Raj signs up for PurposePathways.

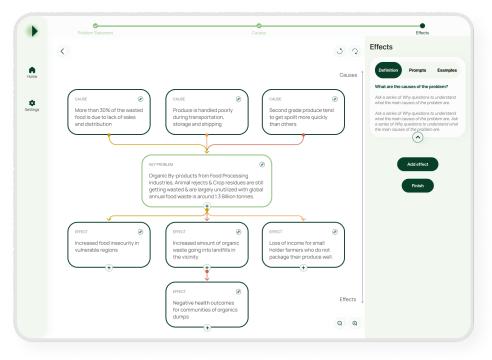


02 Learning commonly used frameworks through the tool:

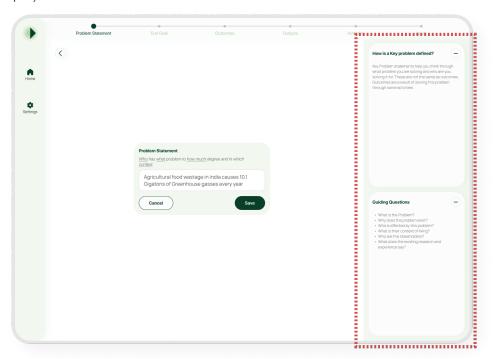
B. He sets up a project and is prompted to list details about the sector he works in.



a. Following the prompts, he reviews the problem statement. He completes the initial exercises of a Problem tree analysis (shown below) and stakeholder mapping.

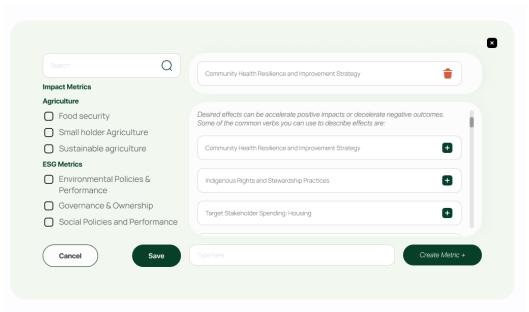


b. He then begins building his theory of change using the PurposePathways tool. He looks at the right sidebar, where he finds clear prompts that explain each step to enter the text for each component (outcome, output, activity, and input).



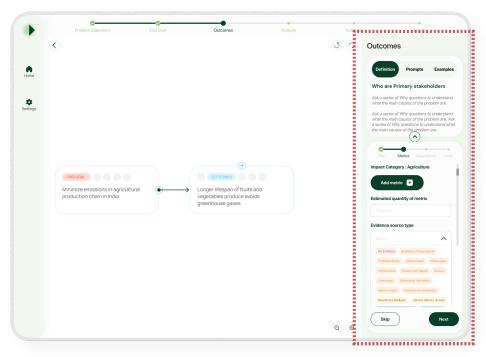
03 Clarifying impact in each step with industry compliance and evidence:

C. He can then browse for relevant metrics from the list of metrics loaded from the IRIS Catalog and select the ones relevant to that component.



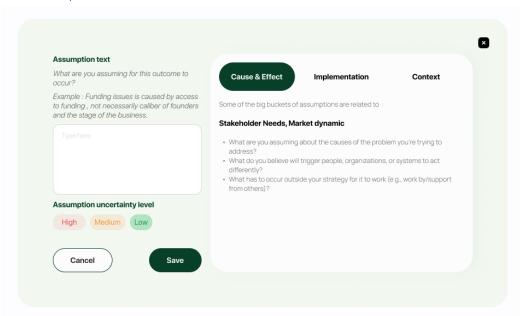
a. He also links a journal article that he had read with the particular component about the income levels of vermiculture farmers being 25% higher than traditional farmers. He receives suggestions on other methods relevant to his

sector to have solid evidence for measuring the statements on each outcome, output, input, and activity.



04 Showcasing progress through assumptions made

D. He then lists his assumptions for writing that link. Marks how high the uncertainty of that assumption is.



E. Based on the relationship between different outcomes, outputs, activities, and inputs, he makes connections to each component on the screen. The viewport reflects the

Problem Statement

End Coal

Outcomes

Add Outputs

Add Outputs

What recess to be achieved that moves as character for moves as character for moves as character for moves and some that the gray?

Add Outputs

Add Outputs

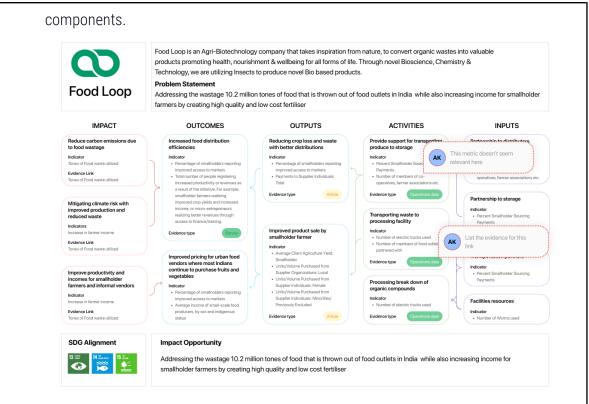
What recess to be achieved that moves as character for moves as character f

Q Q

strength of causality between the components based on the method used.

05 Communicating effectively with stakeholders:

F. He then creates a shareable link for the finalized theory of changing his assumptions from the incubator he has been working with. They comment on specific areas about what is and is not realistic and appropriate to present for his pitch with an upcoming impact investment fund. Raj then adjusts the link hierarchy to his theory of change to only showcase what is relevant to the fund's mandate and hides the visibility of other



G. Sharing the theory of change helps him have a more directed conversation after he pitches at IP Ventures. He can understand which metrics the investors are most inclined to track.

06 Iterating based on feedback:

H. As he goes through multiple pitches and conversations with his customers, he incorporates feedback in real-time and iterates on the theory of change as the Food loop moves closer to product market fit.

07 Integrating impact management practices to daily task management:

I. Post his pitch, Raj connects his now evidence-backed theory of change from PurposePathways to his daily task management software to observe which business component gets the most focus from him and his team. As new team members join Mushcover, they review past theory of change files and understand what strategies were used and why they didn't work.

4.1.2 Tool Components

4.1.2.1 Foundational concepts

To cater to the critical educational components of building the theory of change, the tool is structured through 4 primary levels — The Problem Tree analysis, Stakeholder mapping, Theory of change, and SDG mapping. These components are structured to feed into the theory of change. The Problem tree analysis begins with identifying the fundamental problem the venture addresses and moves ahead to identifying common causes and effects using a mind mapping technique. While entrepreneurs commonly do this exercise, it's crucial to understand the customer's problems for whom the enterprise is solving. This helps identify root causes and also shares with stakeholders. Each of the sections can link specific evidence to a cause or effect. This allows founders to see how strongly they have seen the proof in a problem space and establish a strong connection for evidence. Next, The stakeholder map is created to understand the primary and secondary stakeholders for the venture's ecosystem. It helps identify the links and potential influences on each other to understand motivations in the ecosystem. Identifying stakeholders helps map each section of the theory of change with a stakeholder and identify the job to be done.

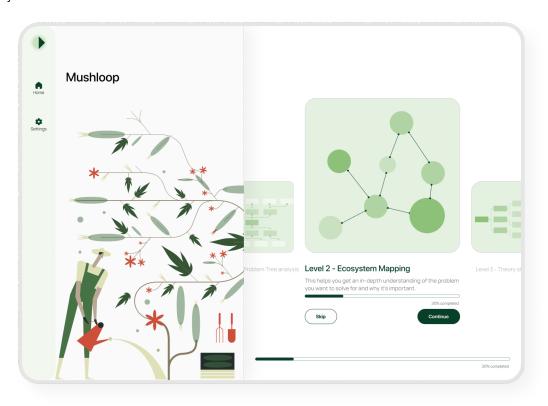


Fig 31: Project levels

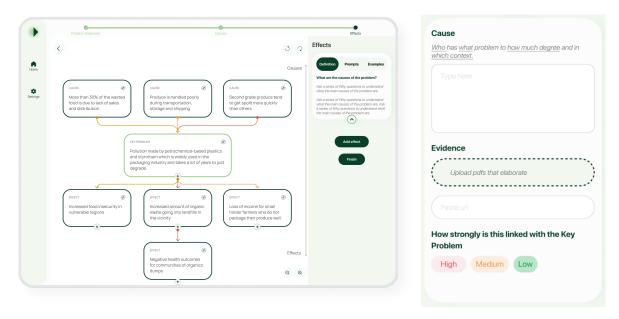


Fig 32: Problem tree analysis

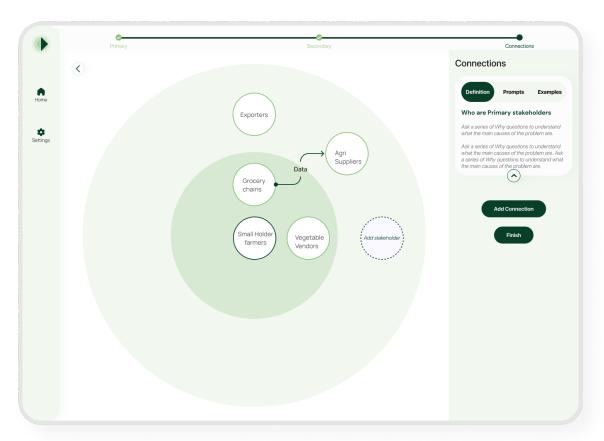


Fig 33: Stakeholder mapping

4.1.2.2 Prompts, questions, questions, and recommendations

Each screen is laid out to have an educational piece to it. Each component or concept has a specific space for guiding questions, prompts, and suggestions. When the user sets up a project, the sector and preferences of the project ideally lead to appropriate prompts based on the sector and industry type. For educating the user, there are clear examples along with the information input space so that there is a clear understanding of the ideal way or best practice to write down the content of the theory of change. Along with guiding questions, there are clear definitions of terminology that first-time social entrepreneurs might need to be more familiar with or be easily confused with. For example, outputs and outcomes are the most easily miscalculated in general.

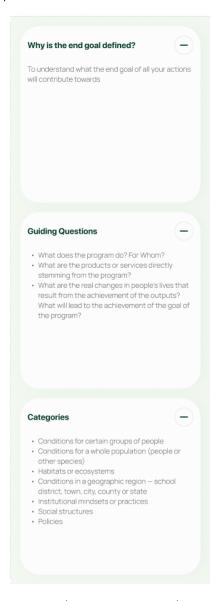


Fig 33: Right Sliding pane for prompts, guiding questions, and categories to think in

4.1.2.3 Information Input

In the Theory of Change section, each block created can input the relevant text, stakeholders involved, metrics, assumptions, and connections with adjacent components. This helps understand which action or goal a team or individual is working towards in their vision for impact.

The compliance with best practices also in a way that encourages the user to use specific syntax that is aligned with the IMP 5 dimensions of impact in a way that all the essential components of input information are covered. This ensures that the final Theory of change speaks in a similar language as impact enablers. Each block, whether an outcome, output, input, or activity, can be connected to a metric that can be tracked to understand the impact pathway. These metrics are drawn from the IRIS Catalog by the Global Impact Investing network. Based on the project or venture sector, relevant metrics are pulled and can be mapped in the theory of change. If a block doesn't have a relevant metric, it can also be used to create your metric. If necessary, these metrics can also have a quantitative input and support rough calculations with the relevant connections.

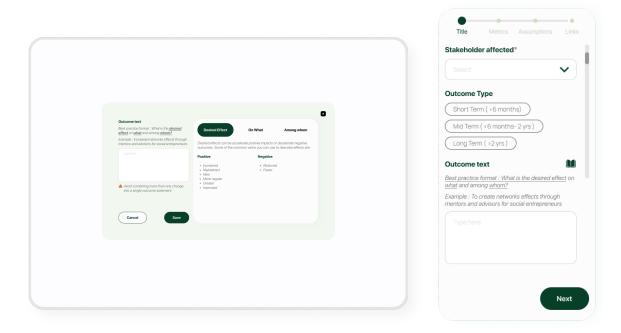


Fig 33: Text box suggestions for Outcomes, Outputs, Activities, and inputs.

Each block can also be measured with the assumption made for that particular block - high, medium, or low. There's also information about how an assumption can be made - and understand clearly how high their risk is. Finally, connections between different blocks of inputs, activities, outputs, and outcomes can be made. While this is a lot of information through varying

connections, a live link can showcase which components are based on high-risk assumptions, the proof of the evidence, and what the metrics being tracked look like.

4.1.2.4 Visual Output

While the end outcome of using the tool is to build the foundations of impact management that entrepreneurs can easily adopt into their daily operations, the most tangible exportable outcome is a visual graphic of the venture that shows a detailed view of what it's the theory of change is, which SDGs it aligns with and what evidence is available to talk about this infrastructure. It is to communicate with stakeholders concisely - both internal and external. For incoming team members, studying the transformation or evolution of multiple theories of change will provide them with a clear context of what has already been done in the past and how there were pivots. Externally enablers in the ecosystem - mentors, investors, and accelerator portfolio managers can use it to communicate visually and discuss specific pivot points and discussions. The final visual is listed below, which can be exported as a pdf and sent out a link with varying hierarchies and formats.

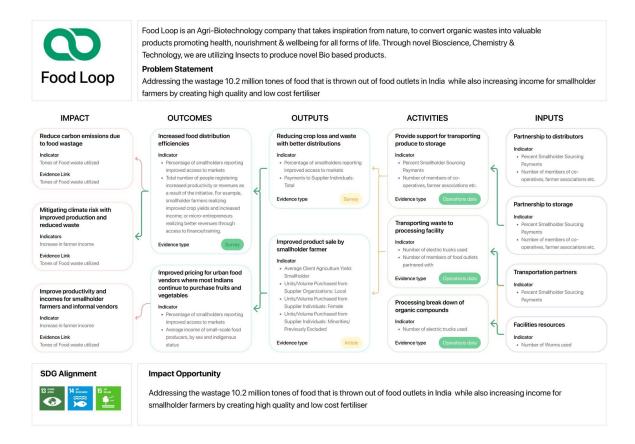


Fig 35: Final Visual Output - Theory of change image link that can be shared post information being filled up

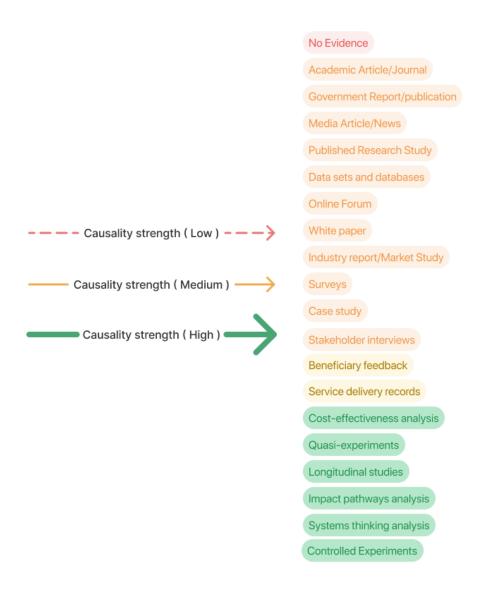


Fig 34: Linkage causality strength by data evidence type

4.2 Position of PurposePathways in the landscape of existing tools

PurposePathways fits in the opportunity space identified early on in the landscape of tools available in the market. It is designed to be dynamic in providing prompts and recommendations and iteratively building the theory of change and accessible to first-time users with little or no knowledge about building a theory of change.

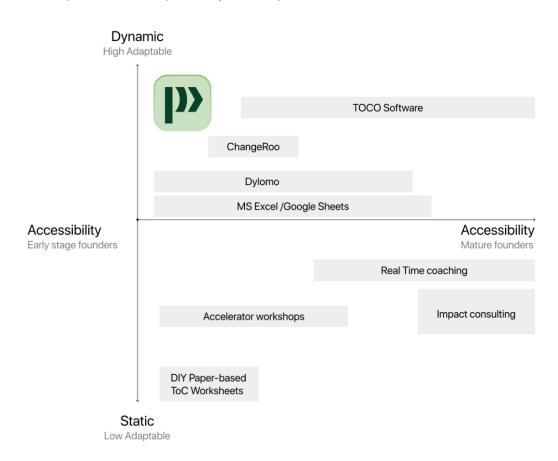


Fig 35: Market Positioning of PurposePathways

Fig 35. also shows the comparison of it with standard features of the other tools in the market. PurposePathways stands out as it uses traditional industry practices to provide educational prompts specific to the visual map. It also allows mapping metrics, assumptions, and transparent evidence files to support each claim with proof.

	Visual mapping	Industry standard practices	Educational - Prompts	Open Source/Free	IRIS+ Metric overlay	Evidence links
		Ø	Ø			
ChangeRoo	Ø	Ø	Not sector relevant or user specific	×	8	×
Dylomo			8	8	8	×
TOCO Software		8	×	×	×	×
MS Excel /Google Sheets	×	8	×		×	×

Fig 35: Product feature comparison of PurposePathways with existing tools

4.3 Phase 4: Testing and Feedback

Will they find the impact visioning process insightful to understand where they could improve the evidence of their hypotheses?

While the entrepreneurs saw the process as insightful and looked at multiple components as requirements to be learned about, multiple stakeholders mentioned having video explainers or product walkthroughs integrated throughout the process to support basic concepts without additional support.

Will first-time entrepreneurs find the tool valuable and adoptable as a best practice to build on their impact measurement practices?

Testing with entrepreneurs showcased that the approach in the theory of change was not seen as an impact vision tool but rather a link between daily task management and how it links to the overall mission. The ability to see progress and track what has been done so far is advantageous to make strategic business decisions and visualizing which approach is not working for people.

Will impact assessment practitioners and enablers in the ecosystem endorse a tool like this to their incubatees?

The emphasis of enablers in the ecosystem was mainly on content design. The extreme relevance of the tool to provide specific recommendations is the essential value prop they saw that it would bring to entrepreneurs while also seeing the progress on agreed-upon impact goals.

4.3.1 Product Feedback:

Content Design: The tool's most crucial and impactful part is the specific prompts it would provide to the user. The recommendation system should have curated content based on the sector, industry, and venture stage.

Walkthrough: An essential piece of feedback was to integrate micro product walkthroughs and videos into the visualization to have lower handholding and a clear understanding for entrepreneurs.

Connection with task management software: The entrepreneurs saw this as connecting the program's primary mission to the venture's daily activities. This would constantly question the alignment of daily tasks with larger goals and the vision of the company

Case studies: In each walkthrough, it would be helpful alongside examples to have a sample project as a case study. This would clarify for entrepreneurs to see how the tool can be leveraged.

Customer centricity of Problem tree analysis: Enablers noted that the problem tree analysis needs to revolve around the customer and their problems, not just through a macro perspective of ideas and facts. This would help maintain the focus on the issues we as solving for a paying customer.

Al-Powered: Through development, since we would need clear recommendations, some feedback talked about how Al can be leveraged by generating prompts relevant to a specific type of business, sector, and venture stage.

Output image: Through a sample project, the output image should be showcased to set expectations for the user and give a detailed understanding of how the ideal theory of change could look. It was also suggested to make the model top-down rather than sideways so that the readability is maintained easily and the hierarchy of importance is visible.

Hierarchy is essential - As users input information, the theory of change will get complicated and messy. In this case, it is easy to maintain the hierarchy and importance of specific pathways working the most to identify. What's working the most, and how impactful it is. Through this, there could be ways to filter out information and be selective as to what can be seen by end stakeholders.

Design for iteration - A user will keep returning to the tool if they would have a form of instant gratification; the tool must be designed for repetitive use. If not, it risks becoming only a surface-level communication tool to please investors and stakeholders. A possible way to do that could be to maintain certain levels of depth based on the input. Connecting it with task management would help facilitate that shift.

Data Privacy - Since these are strategic decisions for a business, it is fundamental for the tool's back end to account for standard security encryption to maintain confidentiality.

While much of this feedback is crucial to meet the goals of the tool, it's also important to understand that some of these would get resolved through software development. Using a Figma prototype has been limited to only inputting the front-end design rather than a complete picture of the databases and information required.

5. Discussion

5.1 Contribution to Design

The co-creation of PurposePathways with Impact Dash broadly demonstrates the role of integrative design in increasing the adoption of impact management practices for social enterprises within the Indian context. Co-selecting features for the tool and co-designing with varied stakeholders in the impact ecosystem led to a more informed intervention design than present-day tools available to early-stage social entrepreneurs. Below described is the value of applying co-design in combination with the systemic design framework and the potential of the tool created to impact design in complex social systems.

5.1.1 Co-Design with systemic design framework

In this process, integrating co-design with the systemic design framework has proven to show promise in increasing the adoption of impact-envisioning practices for early-stage social entrepreneurs. Impact Dash team's involvement throughout the project as active collaborators has proven helpful as they first hand interact with the user persona of PurposePathways regularly. Thus, acting as co-designers with the expertise of perspectives from multiple users. In the Explore phase, involving interviews from the ecosystem and conversations with Impact Dash's research team provided the additional context of varied perspectives. Through the Reframe phase, Deepankar, an active collaborator, helped draw boundaries to the problem's scope by assessing their capabilities and my skillsets as a designer. In the Create and Catalyze phase, having multiple stakeholder walkthroughs helped me understand the effect of the intervention on different stakeholders. This showcased that the systemic design framework is employed to tackle systemic challenges, the design interventions for which are often in interaction with more than a single user persona. PurposePathways has been co-designed and tested with industry partners in the impact ecosystem - with impact managers from accelerators, social entrepreneurs, consultants, and investors. While the co-design methodology reduces the number of high uncertainty assumptions, the tool's impact can only be determined by the functional prototype's adoption rate and frequency of use. Thus, involving stakeholders beyond the final end-user through the systemic design framework is required to develop practical design interventions.

5.1.2 Impact Envisioning for systemic designers for Social and environmental impact

As the number of designers working or wanting to work deliberately to support the green transition increase, many practitioners have a limited conception of the tools and approaches necessary to design for sustainability and other important emerging issues. This work demands designers to play a much more multi-disciplinary role in the projects we are involved in than traditionally limited to. We must set visions and be leaders, storytellers, connectors, and catalysts in our ecosystems. For designers increasingly inclined to operate for complex societal issues like climate change and social inequity, there is a clear need to gain clarity on how the design interventions produced can have the impact they are perceived to have. While PurposePathways enables early-stage social entrepreneurs to create and visualize their theory of change, it also helps designers for social and environmental impact think through the potential outcomes of the design projects they are working on. It questions creators to think critically about the intended impacts and outcomes of the created design interventions.

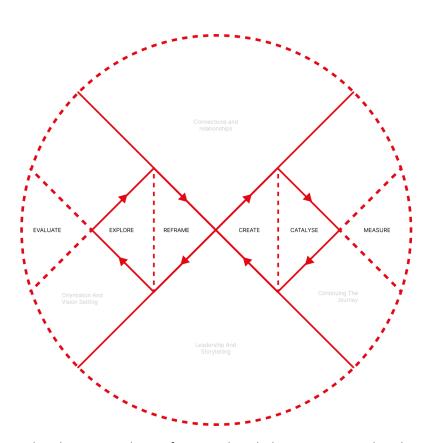


Fig 36: Updated Systemic design framework including measure and evaluation

We are in a time of history where every intervention needs to be inspected to ensure they are solving the root causes of problems and are not curated based on high uncertainty of

assumptions. Although the design process by default has an evaluating and prioritizing nature to it, designers need to ask how the efficiency of a design intervention feeds into the exploratory phase of similar projects - Is there a possibility to have additional design activities to measure the impact to feed into future projects? (Dotted line of measuring impact diamond - with a range of multiple design methods for it?). In a professional setting, this is complex to execute, where the scope of projects might not support projects to be evaluated on a longer-term basis post-client handover. Is there a way to imbibe measurement as a standard phase in the designerly practice-that goes beyond the role of a design consultant who proposes a viable idea or intervention? Applying the systemic design framework to this project highlighted the value of measuring the effects of an intervention. This can be evaluated and used to inform the exploration phase of a design project with similar contexts - forming a continuous look within the systemic design frameworks, as shown in Fig 36.

5.2 Value to the wicked problem

5.2.1 Value to the Impact Ecosystem

Increasing the adoption of impact strategy and measurement activities amongst early-stage social enterprises is a wicked problem (Rittel and Webber 1973). It is in the context of an even more significant super-wicked problem (Lazarus 2009) of Climate Change. The wickedness of climate change and sustainable development spans almost every sector and industry. We must consider that the landscape of climate and social enterprise policy varies across contexts and fluctuates based on regulations, protocols, and standards being used. While the Macroeconomic contexts are rapidly evolving, we need to understand that for these policies to be truly implemented on the ground will require a push for best practices from multiple actors in the ecosystem. This project did not set out to assume that having stringent execution for impact practices would solve climate change or help everyone understand where to divert their efforts and resources.

The aim was to make impact management practices accessible to social entrepreneurs so that they could feed into their business practices and not just remain an on-paper box-checking activity that fulfills regulatory requirements. While initial testing showcases that the value provided to entrepreneurs would be beyond the focus of impact visioning and strategy practices,

but also to effectively communicate with all stakeholders and tracks the progress of the rapidly evolving ventures. Authentic adoption of the tool can be understood post-creation of a functional tool that allows inputting individual information. The high dependency on the venture-specific content providing key value to the user also provides the risk of needing help understanding the value and adoption of the tool. Future work developing the functional prototype would include appropriate content specific to users in varying sectors. A fully functional prototype would supplement existing workshops and training programs for impact management across the social sector and climate-tech space. Using the tool as a screener in crowdfunding platforms and marketplaces would allow for more transparency amongst donors, investors, and volunteers.

5.3 Limitations

Although this study has generated preliminary findings through preparation, some typical caveats must be noted. First, the study partnered with an Impact management consultancy, a stakeholder in the ecosystem rather than a user of the end design outcome. This led to a limited opportunity to co-design with users in a way that would impact them. Impact Dash, a product-led company, helped me understand the support to create a functional prototype and the project's long-term development. This meant that there was a pre-condition to create a digital tool as an artifact that could be used across different locations and regions rather than a different intervention. Through my discussions with Impact Dash, the initial bias was to think about interventions and solutions that would create an additional monetary return for Impact Dash in the long term. In the end, however, we decided that it could be an educational tool that would be used for marketing by them rather than expecting a project with high financial return within the bounds of the academic timeline. We had to ensure a tangible outcome for Impact Dash, a start-up with low resources, contributing their time outside regular duties. This showcased that the team's bandwidth impacted getting guick feedback and also meant that there was a clear bias on how we could collaborate virtually and how the intervention would have to result from my existing skillsets as a designer. Lastly, there is scope for future work to be done to understand who the buyer of the tool would be and how decision-makers or funders could help support the distribution of this tool.

6. Conclusion & Future Work

The study's goal was to co-design an educational tool that could help early-stage first-time entrepreneurs build their foundational impact strategies. Thus, furthering their mission by accessing additional impact resources and also gaining clarity on the impact of their daily activities. The barriers in this space showcased how current practices are done superficially due to external motivations and not genuinely incorporated into daily operational practices. While the final tangible output of the tool has been to create communications around a company's current and future impact, gaining clarity for it and building a solid foundation through the process is the main objective of the tool. This would lead to making potentially higher returns and strategic business decisions for entrepreneurs to stand out in the market, potentially leading to the right impact at the right time for the right amount of money. The tool's success hinges on several critical factors, including the ease of language accessibility, technical efficiency, the quality of documentation generated, and the availability of resources for supporting its use and incorporating user feedback. Following the launch of the Beta version, the co-design process will persist, with a specific testing and evaluation phase that involves the original co-design partners and a broader range of food-sharing initiatives.



Fig 37: The theory of change for PurposePathways

6.1 Future work

Software development

The prototype in this study was a mock Figma prototype, clickable but not functional to give out appropriate recommendations or prompts to fillable with text. Through the testing phase, the interest in a similar tool has shown to be relatively high, which would help achieve the study's goal. This is why it is vital to develop the tool using whatever medium is accessible to have multi-staged components. The quickest way to achieve this would be to use no-code platforms to build the prototype. While I had given it a shot to build a functional prototype during the study, it proved time-consuming and beyond my skillsets as a designer.

Workshops and Consultations

As Impact Dash was invited to produce a Theory of change workshop for over 200 social entrepreneurs on April 24, the flow and agenda of the workshop have been extremely close to the tool's user flow. This has helped validate that impact experts deem the tool's usability extremely high. As I support Impact Dash in developing their workshop, I recognize that the tool can be distributed with consultation or workshops to many audiences.

Distribution through accelerators

While the goal has been primarily to support social entrepreneurs, the process of helping social entrepreneurs build their impact thesis has been primarily adopted by enablers in the ecosystem. The distribution of the tool could be done by providing access to accelerators so that they can use it for their incubatees. They act as channel partners or distributors for the tool. This would relieve their work as the incubatees need lower support from their side.

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8. Appendix

One pager_ Partner conversations and recruitment



Enabling effective climate adaptation

We need accelerated innovation in the climate mitigation, resilience and adaptation space more than ever. While India is no short of innovators, the scaling of these innovations across communities requires a thorough undertanding of the effectiveness of their business and operating models. Social entrepreneurs need tools to evaluate or measure climate impact of their enterprises in a holistic way and adapt towards circular and close looped models.

How we help

We are a <u>pro-bono</u> design consulting group that is creating a <u>workshop</u> and <u>accompanying insights tool</u> that helps identify, evaluate and articulate the holistic impact of climate focused early stage start-ups to fine-tune their climate resilience and adaptation thesis.







Assessing current strategies

Mapping impact zones in current ecosystems Generating actionable insights

Why this matters

01 Navigating a space of ambiguous climate resilience metrics is complex.

03 Measuring the holistic impact (social, environmental and economic) throughout the product's lifecycle is essential for maximizing net positive impact

02 Refining and adapting models to community needs varies with socio-economic contexts

04 Effectively articulating impact helps in building better brands, teams and traction for investment opportunities

How you can support

As the facilitators of change in this space, you can support by letting us:



Receive regular feedback

once a month to discuss progress and ideas



Shadow as silent observers

in conversations that revolve around impact measurement and stakeholder engagement.



Network with participating startups

through co-designing sessions to help build the tool

2. Semi-Structured interview guide

Goals	To understand the current context regarding impact measurement and management from multi-stakeholders involved in the social and environmental sectors.	
Objectives	 To understand the stakeholders engaged in IMM / MEL and their motivations; To understand the processes used for Impact measurement and management and the challenges faced What solutions are available presently (competitor study /market size) To comprehend the challenges faced in the process, other needs, and future perspectives. To inquire about the decision-making for buying a service or a product: Type of buying process - Single person / collective decision making. Setting budgets and specifications of services/products needed - User-oriented/ Organisation specific Industry norms 	
Who wants to measure and manage the impact?	 Organization Type Role Qualifications Experiences/Background 	
Why do they want to measure and manage the impact?	 Motivation 	

How do they measure and manage the impact? What is their daily routine at work with respect to impact measurement?	 Planning Standards/Benchmarks/Frameworks used Data sources Data quality management/Data Integrity Reporting Broad activities Time devoted to each activity How they prioritize their activities
	 Time, efforts, priority, Funds devoted to Impact Measurement and Management Activities carried out for IMM
What challenges do they face in measuring?	 Gaps - Knowledge, Attitude, Behaviour - Practices, Resources available Challenges with upstream and downstream management?
What challenges do they face in managing impact?	 Managing measurement projects; Filling gaps; reporting;
How are they coping with those challenges currently?	 Steps were taken by them to address challenges (personally) Steps were taken by the organization to address the challenges Steps were taken by industry/consortiums etc., to address challenges
Are the current solutions that they are	 Nature of Solution - Technology, Process, Costs Gaps - Time taken/Efforts/Clarity/Capacity Building/Technology

using meeting their needs?	
 How will you solve it? What would you need to solve the same? 	• Ideas, Resources

3. Workshop 1 Agenda

Strategic planning	 To understand the futures of Impact Dash and what their priorities are What are the biggest problems they want to focus on? What are their priorities in terms of business creation? What are feasible ways, and what is ID open to? 		
Workshop learning	Understanding the goals and phiectives of Impact Dash as an		
objectives:	Understanding the goals and objectives of Impact Dash as an organization and how it aligns with its mission of making social		
osjedared.	development programs more accessible and efficient.		
	Create alignment on how Impact Dash wants to move forward		
	in Market expansion		
	• Where do they see themselves in 5 years, 10 years?		
	O What does success look like?		
	O What impact do they want to have?		
	What are first-hand experiences they see that make this		
	necessary? (Apart from market trends)		
	 Have they gotten requests? What sorts of requests? 		
	 Understand approach, challenges, and successes when they 		
	have been trying to pitch for new clients in the impact of		
	investing space		

	Whom have they pitched to 2 Companies Organization		
	 Whom have they pitched to? Companies, Organization 		
	types.What have their relationships in that community		
	been like already?		
	 What's the approach? How did they find them? How did 		
	they pitch to them?		
	i. What do they do for awareness?		
	ii. How are they providing value first before		
	selling?		
	 What have they proposed in the past? What are the 		
	price ranges that they've quoted? To do what activities?		
	Create alignment in problems and opportunities		
	Ideation of potential products and services that we should		
	have		
	o Prioritizing what products can come in into the pipeline		
	 What does the current product roadmap or pipeline 		
	look like?		
Workshop Outcomes:	Summary of learnings and Outcomes		
	 Clear problem statement to work on for the next 5 months 		
	'		
	Who is our customer?		
	 Initial ideas for potential first interventions 		

Co-Design	n workshop for reflecting and strategizing for the future
Who?	Participants:
	Impact Dash's Core team:
	CEO - Swagatam Patnaik
	Co-founder, Head of Product - Deepankar Panda
	Head of Research - Toshali Mohanty
	Senior Researcher - Mataeus Didonet
	Facilitator: MDes Student facilitator, Akhila Kosaraju

What?	Mapping both future and current scenarios for creating an ecosystem of impact			
Where?	Remote Collaboration from Ann Arbor and several parts of India using Miro whiteboard collaboration			
When?	November 25, 2022,			
How?	Activities and Agenda			
	Intro -My Background, Role, Workshop Series - Agenda,			
	Intro to Miro (5 min)			
	 Walking through photo capture 			
	 Learn from doing it, so warm up activity 			
	o Parking Lot			
	Warm Up Activity (10 min)			
	 Pick up an Animoji character for yourself for today 			
	 Choose the one that you think you are today 			
	 Place it next to your names. Tell us your first job and what you 			
	learned from it			
	Future Scenario prompt (30 min)			
	Group activity - Template for each person - If using a breakout room, give			
	one person the power to record and tell them that early on.			
	When we do this, there's nothing unrealistic, we are just trying to			
	look at possibilities, feel free to use your imagination, there's no			
	right or wrong			
	■ Maybe everyone has a blockchain that helps us track			
	supply chain data and predict positive and negative			
	outcomes			

- Maybe have a system that helps each data point from software like sales force, or even asana feed into an impact calculator?
- Prompt: This is 2027, 5 years from now and Impact Dash is at a \$1 Billion valuation company, a market leader in this space, and has over 500 team members
- Toshali, Mataeus and I need help from you, to record your break out room discussions for me.
- Share out into the break-out room

In Groups, Work on these templates, and prompts - in break-out rooms

- Who are we working with? (10 min)
 - Company names
 - Organization types
- What are the activities we are doing for them? (10 min)
 - o Large-scale activities within each bucket
 - o Smaller-scale activities within each bucket
- What have we achieved for these people that we are working with? (10 min)
 - Efficiency -
 - Accessibility -
 - Testimonials from clients
- What impact have we had in the large scheme of things? (10 min)
 - Our own metrics
 - Revenue
 - Number of companies impacted
 - Positive outcomes of ID

5 min Stretch break

Current Scenario prompt (30 min)

 What comes to mind when you pitch to a company? (feelings, attitudes, experiences) (10 min)

- Different color sticky notes will represent different things:
 - Activities you pitched (in Zoom meeting, cold email, met at a conference)
 - Approach to the person you've pitched ID to or related to whom you've pitched to
 - Pains Red, Positives in green
 - Anecdotes/situations or things that have happened in the past the feel notable/important (i.e. an example of something that has happened)
- Draw lines, arrows, etc. whatever you want to show connections
- Share your thoughts and ideas out with your group as you go (write it, share it)
- Share out maps to a larger group (10 min)
 - Each group can give everyone an overview for 2 min -
 - What did your group say were the major challenges? What did they say that was going really well?
 - Give the opportunity to talk about what is going well
 - While each group is speaking, feel free to walk around their board and use your emojis or other optional emoji stickers to show the feeling of a certain sticky note or point in the process

(5min) Preview of Synthesis for next session, Next session agenda. Talk about how today's information is going to be used

4. Workshop 2 Agenda

Co-Design workshop for reflecting and strategizing for the future			
Who?	Participants: Impact Dash's Core team:		
What?	Mapping both future and current scenarios for creating an ecosystem of impact		
Where?	Remote Collaboration from Ann Arbor and several parts of India using Miro whiteboard collaboration		
When?	November 25, 2022,		
How?	Activities and Agenda 5 min - Workshop summary, goals, and objectives, outline 5 min - New folks, please pick your Animoji, while they do that I want everyone to think for 1 min about your first job and what you learned from it. We can let the new folks choose their animojis and we can then. - My first job out of college was in architecture, and one thing I learned was that it's not what you do that sells, it's the "why" reasoning that people buy into. 5 min - Big things that came out of yesterday		

Current Scenario prompt

(10 min) (Group activity with different groups than before - make sure there is a head in each group)

Team Story mapping

- What are the most common requests received on the for-profit side of things? What sorts of requests? (10 min)
 - Go through the board for multiple types of tools, methods, frameworks, requests from clients, keywords, etc (2 min)
 - Feel free to add anything that seems to miss (2 min)
 - o On the right you can find buttons to vote
 - Let's use the next 2 min to vote on which tools you have heard the most come up as requests from clients (2 min)
 - Let's use the next 2 min to vote on tools which you see which might not come up as often currently, but will soon come up in the future based on trends, market signals, regulation changes, etc (2min)
 - o Each of us talks about the biggest one that has come up

10 min - Synthesis Presentation

5 min - Break

75 min - Ideation creative matrix

- Look at different questions, see whatever seems like you can best think of solutions for (2 min)
 - Add them on stickies and drag them to the box
 - The goal is to have as many ideas as possible!
 - Make sure you all each have at least 12 ideas! One for each box, or. have multiple in each box
- Let's take 2 min each to talk about our ideas briefly. If there are ideas you like, add a gold star to them.

• Silently go through everyone's stickies and gold stars to ones that you really like (3 min)

20 min Importance/Difficulty matrix

Out of all the ones that we see have been upvoted, let's move them to the importance matrix

- Let's map them across the x-axis first, based on what you all think is important.
 - Please share why you think it is placed that way. If anyone has anything to challenge, please add arrows to the direction that you think it should be in (10 min)
 - Now let's move them up based on how much time or effort you think this would take (5 min) - This can be time, logistics, complexity
 - Now that everything is out there, Let's take a minute to dot vote with the red dots, which ones you think have the most uncertainty and please share out what uncertainty factors you see adding to this (5 min)

Axes for mapping - Most aligned - Least aligned, High impact - low impact, biggest and lowest in scope

5. HMWs

- How might we bring business value for social enterprises through impact measurement and management to truly integrate social and environmental impact into the business model?
 - o HMWs
 - How might we create awareness for social entrepreneurs to understand the value of impact measurement and management?
 - How might we incentivize social entrepreneurs for impact measurement and management beyond investor requirements?

o POVs

 Social entrepreneurs need a clear business case for impact measurement to adapt it

Insights

- Early-stage social enterprise start-ups don't find it helpful to invest in IMM practices since they find more value in allocating those resources to other pressing parts of the business to stay afloat
- Since revenue is given the most importance, most key metrics revolve around business metrics. To showcase impact, only high-level key metrics from IRIS are identified and estimated for
- With the exponential increase in the climate-tech sector, the need for transparency and accountability calls for clear articulation of verified impact by increasingly aware stakeholders like investors, team members, etc. who are skeptical of greenwashing (knowingly or unknowingly)
- Even though there is a rise in impact consultants and accountability, the data is not strategized in a way that it can feed into revenue directly apart from box-checking for investors and reporting
- As a company grows, to onboard passionate folks into the team,
 they need to understand and align with the core mission of team
- How might we build the capacity to collect the right data and analyze it appropriately for the climate and agriculture-oriented small and medium social enterprises in India?
 - How might we educate social entrepreneurs in the climate and agricultural sector to understand the right data to be collected based on their current capacity?
 - How might we create awareness for social entrepreneurs in the climate and agricultural sector in India to build a solid foundation for impact measurement?
 - How might we simplify the understanding of resources needed
 with the value created for impact measurement and management

for social entrepreneurs in the Indian climate and agricultural sector?

- How might we make impact measurement and monitoring practices easily implementable for social entrepreneurs in the climate and agricultural sector in India?
- How might we analyze impact data appropriately for insights into decision-making and reporting to varied stakeholders?
- Insights
 - There is a low understanding of how there can be ways of simple measurement for the company without too many additional resources or adding too many systems
 - There is a low understanding of how far the companies can go to get the data based on their capacity What is the data that they need to get the right information and insights that are relevant to impact capacity building?
 - There is no streamlined way of data capturing, especially for SMFs
 - A lot of the time, companies don't even know if the information that they are collecting is useful
- How might we create a comprehensive platform as a transparent pane of glass into the social sector?
 - How might we enable stakeholders across the industry to see benchmarks of various impactful companies to understand where they can provide the most value?
 - How might we create a transparent and unified system of understanding a company's true impact
 - Whys
 - Because there is low transparency in who is doing the good
 - There is a low understanding in the sector of how much good is good.
 - Insights

- There is low transparency of industry benchmarks across sectors about what are baselines and different impactful businesses per dollar value of investment and revenue comparison
- There is a low understanding of how far the companies can go to get the data based on their capacity What is the data that they need to get the correct information and insights
- There is a need for continuous monitoring for the next 10-15 years to be able to see precise results in a streamlined way structured for multiple stakeholders with various needs.
- There is no defined way to assess all companies simultaneously for a particular sector. This would help create a common baseline to benchmark against

6. Tools of Request

Phase of IMM	Method	Current request points	Future request points
Estimating Potential	Pre-post tests	1	
Impact	Needs Assessment	1	
	Historical Baseline	1	
	Who, Where, and For what cause?	1	
	Theory of change model	1	
	ESG Due diligence		1
	Projected SROI	1	
Planning capacity	Build data Capacity	1	
	Key Outcome	1	
	Validated theory of change	2	
	Key Metrics and KPIs	2	2
	Score cards	1	2
Monitoring Impact	Impact score cards	1	1
	Theory of change	5	
	SDG Indicators	2	
	Logic Model	1	1
	SROI	2	
Evaluating Impact	OECD DAO Framework	1	1

7. Personas



8. Product Requirement Document

Bringing clarity of impact across multiple stakeholders in the social and environmental entrepreneurship

Problem Statement	How might we create awareness for social entrepreneurs and stakeholders interested in the climate and agricultural sector in India to build a solid foundation for impact measurement in an engaging way?		
Pain Points	 Persona oriented: Social entrepreneurs not having a clear understanding of impact expectations during fundraising Accelerators have to provide additional support by walking through impact measurement practices for their incubates Investors feel like the articulation of impact doesn't align with their internal frameworks or mandates sometimes. General Jargon-oriented methodologies Siloed information - too many books, and videos A single overview of proof is not present in how an organization's mission is translated through on-ground activities 		

	 Low clarity on the confidence level of each level of impact translation Lack of clear evidence of data and linkage/connections of evidence 		
Goals	 To create an accessible way to easily understand the first steps toward impact measurement Bridging the asymmetry of information and language used and aligning language of requirements across the stakeholders To showcase impact into an easily understandable graphic across stakeholders Creating an easily understandable tool without jargon in a step-by-step process Having use cases and case studies alongside the frameworks/ tools available for use A tool that allows entrepreneurs to identify, evaluate and articulate their impact in ways that can reduce risk, attract and retain talent, improve stakeholder relations, and enhance PR and storytelling. 		
Fidelity	Figma Prototype / Interactive prototype		
Who	 Users: Early-stage social entrepreneurs - Climate and Agritech sector First-time entrepreneurs Early stage - trying to raise funds from impact investors Distribution partners/ Buyers: Climate+ Social impact accelerators Impact Investors 		
Frameworks	 Problem Tree Analysis - What is the problem, cause for those problems Questions/Prompts What? Why? Who? Stakeholders / Ecosystem Daily context Drivers and barriers(Preventers) General understanding of the problem Product management resources/ Framework/Approach 		

	Theory of Change		
	 Inputs 		
	 Activities 		
	o Outputs		
	Outcomes connections Drabing questions (Prompts)		
	 Probing questions/Prompts Poffecting on how to come towards an output 		
	Reflecting on how to come towards an outputHow do you arrive at your output?		
	 Could be a web, could be multi-directional 		
	 Dynamic connections 		
	 Feedback loops 		
	 Logic framework planning 		
	 Branched directions 		
	 IMP Standard 5 Dimensions vs ABC goals 		
Features	Compliance:		
	 IRIS Metrics selection 		
	 SDG Selection 		
	 Syntax oriented with IMP 5 dimensions in each step 		
	Easy to Use		
	 Selectable terms, activities, metrics 		
	Activities, verbs list		
	Drop-down oriented for the most part		
	Educational		
	 Prompts 		
	 Guiding questions, reflection prompts 		
	 Assumptions 		
	Verifying/ Proof		
	 Evidence type 		
	 Evidence linkage 		
	Business Incentive/ Proof		
	 Case studies 		
	 Exportable graphic/ Live viewable link - Showcase to 		
	stakeholders, investors		

Gamified UX

- 1. Level up
 - a. The level check is based on an early quiz
 - i. Creating a Theory of Change
 - ii. Assessing Needs
 - iii. Evidence for support
 - iv. Assessing implementation
 - v. Monitoring performance
 - vi. Measuring Impact
 - b. Progress of impact capacity
 - c. Showcasing use cases as you level up or what each step will help you achieve in terms of strategic goals
 - d. Illustrations indicating progress Bridging the evidence gap of impact?
 - e. Hints and prompts for each step
- 2. Incentives for each level
 - a. Exportable graphic
 - b. Shareable across social platforms
 - c. Badges/rewards

9. Stakeholder Walkthrough Protocol

Phase 1: Welcome | 5 min

- Note in the calendar invite that the session will be recorded for research purposes It will
 not be sharing it anywhere.
- How they are feeling/doing. This is important information to understand the mood they
 are in. If people are stressed, it might take them longer to get into the feeling of
 participating, so letting them vent for a minute or 2 could be useful.
- During this session, I want to understand your perspective as a social entrepreneur, how valuable a tool like what I've made is for you, and in what way

Phase 2: Pre-Walk through | 5 min - Questions

During the setup, you will give a brief explanation of what is going to happen in the session, and you will also set the ground rules for the session.

Warm-up exercise

To get people in the right mindset of thinking about the design you're about to show you could look at a competitor's product first or a previous version of the design you might have. You can quickly have the participants discuss what the issues are/were in that design. This will help the participants think more product-led ways and give them context for evaluating the design you will show in the next phase.

Pre-Questions:

- Challenges
- Funding
- What has your experience been in creating an impact strategy?
- Do you have plans to raise money for your start-up?
- Do you feel ready from an impact vision and showcasing perspective to raise funds?
- Have you ever built a Theory of change?
- I will take you through this tool all the text boxes are supposed to be fillable
- Tell me what you are thinking as you go through it Just think out loud

Phase 3: Tasks | 15 min

So, I've given you a <u>Figma link</u> for you to walk through, the tool is supposed to help social entrepreneurs envision their impact and think through when they are still in the concept phase

Examples of good ground rules can be

- Think out loud just say what you're honestly feeling
- Share your ideas, don't hold back -
- consider all ideas equally valuable There are definitely no bad ideas

Things you need during the session

Here's a <u>quick survey</u>, If you can quickly share your screen and talk to me about your reasoning for feedback you are that would be really great.

- A defined user and goals
 - Get educated about building a theory of change Getting clarity of thought
 - See the value of creating a visual like a theory of change
 - Be confident in sharing with stakeholders
- Tasks you want your participants to perform aligned with user goals
 - Understand what the flow entails
 - Understand if the prompts seem helpful
 - Does it feel too intimidating
 - Get to the end of building the theory of the change process
- A list of questions to ask to facilitate the stakeholders in their thinking.
 - Why did you choose that route?
 - What does this tell you?
 - What do you feel is the next step?
- Some example questions could be
 - What is the primary user goal for this screen?
 - What is the business goal for this screen?
 - What is the main call to action?
 - O What would you do next?
 - O How does this compare to a competitor's similar screen or workflow?
 - Are there any distractions that move users' focus away from the primary goal of the screen?
 - Are there standout usability concerns?
 - O What are the main issues?
 - O What do we need to fix?

Phase 4: Wrap up | 5 min

Thank you for joining the session; this input and feedback are valuable. I'd love to keep you in the loop as this develops. Hopefully, it can be a free tool that can support entrepreneurs like you who are doing such important work.