

Project Circular +

Case Study: Prototyping and Piloting an Inclusive Circular Business Model

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Contents

Case Study: Prototyping and Piloting an Inclusive Circular Business Model.....	3
Introduction: Project Circular+	3
PART I – Getting to the collaborative prototype and defining prototype objectives.....	3
PART II – Design and delivery of the prototype and its activities.....	8
PART III - Outcomes achieved through the prototype.....	12
PART IV - Lessons from the Prototype.....	17
Way Forward: Priority Lenses for Future Program Intervention Design	18
About Circular Apparel Innovation factory (CAIF)	20

Case Study: Prototyping and Piloting an Inclusive Circular Business Model

Introduction: Project Circular+

As we envision the fashion (incl. textiles and apparel) industry's transition towards a circular economy, the adoption of circular business models that have both planet and people positive impact, is crucial.

Project Circular+ (conceptualized, designed and realized with support from Laudes Foundation), launched by Circular Apparel Innovation Factory (CAIF) in May 2020, was born from that vision. Circular+ aimed to create a model for collaborative and innovative prototyping around inclusiveness in circular business models in India.

This case analysis/study captures the journey from arriving at the collaborative prototype (through an industry working group), from outlining the objectives of the prototype that informed the pilot design, to executing the pilot and learnings from it and finally articulating a few priority lenses that we believe can significantly inform the design of future interventions to scale planet and people positive impact through circular business models – both in India and beyond.

In short, the case study is structured in four (4) parts:

- PART I - Getting to the collaborative prototype & defining prototype objectives
- PART II – Design and delivery of the prototype & its activities
- PART III –Outcomes achieved, and the potential to scale
- PART IV – Learnings from the prototype

PART I – Getting to the collaborative prototype and defining prototype objectives

We believe that to galvanize collective action on designing for inclusion in circular business models required a coordinated (a structured process) and collaborative (an environment for co-creation) efforts.

A stage-gated approach was adopted (anchored in human-centered design) that laid the platform for the members of the industry working group (a diverse and carefully curated group) to engage virtually. The stage-gated process was set up with three (3) key components

- An “Innovative ideas challenge” (*the common agenda*)
- An industry working group designed around “Idea labs” & enabled through multiple technology platforms (*the enabling environment*)
- A Human-Centered Design process that provided a unified approach for the industry stakeholders to collaborate with each other (*the unifying process*)

The common agenda – Innovative Ideas Challenge: An Innovative Ideas challenge was conceptualized and hosted on CAIF's digital platform (circularapparel.co). The Ideas challenge was informed by secondary and primary research (1:1 industry consultations) which allowed us to narrow down 3

circular business models (rental, repair, and resale) that represented a higher potential for scale in India. The Ideas challenge was modeled to scope out and surface enterprises with circular business models who also demonstrated high intent in designing for inclusiveness in their business models while being part of an open collaboration process with their industry counterparts.

From an initial outreach to CAIF engaged 20 such enterprises through 1:1 conversation, 13 of which were identified as the longlist of applicants (who submitted applications to be part of the ideas challenge). The 13 applicants (that made the longlist) then passed through a 2-stage evaluation process – one by team CAIF and another through an external panel of experts (to whom each of the enterprises pitched their enterprise and ideas on inclusion). The ratings of the enterprises through this were stacked using a weighted average score. This helped us identify the Top 4 rated enterprises which represented the highest potential.

This shortlist of 4 enterprises / innovators was provided entry into the industry working group and their ideas formed the basis for the collaboration amongst the working group members. The working group members, through the idea labs co-created with the innovator and helped arrive (through fortnightly Design thinking led sessions) at a few prototypes (within each Idea lab – *please see below*) and helped the innovators test key underlying assumptions (for their prototypes) with actual customers and beneficiaries on the ground.

The enabling environment – Industry working group: Parallel to the ‘innovation ideas challenge’, we curated a diverse group of industry stakeholders who represented points of view from brands, manufacturers, ecosystem enablers, venture capital, policy research and think tank, accelerators, and technology enterprises who were directly or indirectly part of the fashion value chain. A total of 28 members (after several rounds of 1:1 consultations) were on-boarded onto the working group, of which 5 industry leaders recognized for their expertise were identified and nominated as co-chairs for the working group. The co-chairs were carefully curated so that they represented a balanced view in shaping the conversation and the proceedings of the working group – 2x co-chairs from brands (Marks and Spencer and H&M), 2x co-chairs from ecosystem enablers (Ellen MacArthur Foundation and Fashion for Good) and 1x co-chair from social enterprise (Industree Foundation) and 1x special advisor (Jaipur Rugs).

Two key elements laid the basis for creating an enabling environment that was essential for an effective engagement amongst the working group members (including the co-chairs and the 4x shortlisted innovators)

- **Idea Labs:** The entire working group was split and organized around 4x Idea labs, each Idea lab anchored around 1 innovator who they would collaborate and co-create with through the working group process. The cohort for each idea lab was carefully curated around the mix of expertise and experience (from the working group members) that would be most relevant to the innovators and their ideas. While the working group members were fixed for the period of the working group process, the co-chairs were assigned to all the idea labs on a rotational basis – so that they could provide insights, guidance and shape the collaboration process equally across the idea labs. Each Idea lab had approx. 7 - 8 members which made it ideal for breakout sessions, and was managed and moderated by a designated CAIF team member.

- *Leveraging multiple tech platforms:* To enable a seamless collaboration within and across each of the idea labs, we evaluated and identified 3 platforms that would complement each other and ensured both online and offline conversations in a virtual environment (especially as everyone was adapting to the remote working mode imposed by the COVID pandemic). **BlueJeans** was used for video-conferencing and remote connecting, **Mural** was used as a virtual and visual collaboration platform and **Slack** served as a community space (for knowledge sharing and learning) while also serving as a medium for a specific idea labs team to connect and continue co-creation work in-between two virtual working group sessions.

The results of the rapid prototyping and assumptions testing on the ground were followed by a presentation of their findings and presentation of the prototype at the demo-day. The demo days (spread over two consecutive days) involved an external panel of industry experts (including the working group co-chairs) to evaluate the final prototype basis their design and results of the assumptions testing with customers and beneficiaries.

Twirl.Store (Twirl) was the jury's unanimous choice as the select prototype which represented a great potential for creating evidence for the scalability potential of an inclusive circular business model. Twirl has a business model focused on extending the life of clothing. Twirl is positioned as a zero-waste upcycling and resale model geared to minimize post-consumer waste by providing a new life to unused clothes and diverting textiles / apparel waste away from landfills. It provides a solution for collecting and upcycling unused clothes lying in consumer wardrobes into aspirational handcrafted products. With a strong focus on social impact, Twirl places strengthening of livelihoods of women artisans at the core of its purpose which underscores its inclusive circular business model idea.

The unifying process – Stage-gated process anchored in the human centered design: For the curated working group (diverse industry stakeholders) to collaborate and co-create around a specific challenge, it was crucial to have a unified approach. Human centered design (or design thinking) with its methodologies and tools offered such a process, which made for an interactive and iterative approach to arriving at a collaborative prototype. The industry working group (with its component Idea Labs) process was structured around 4 key phases of the design thinking process:

- **Problem definition:** Identifying the right problem to solve and capturing who we solve for. Tool used was the Creative Q
- **Defining what success would look like:** Identifying and articulating the key customer benefits and metrics (to enable measurability of the customer benefits) that provided a clear line of sight to what success would look like for the customers / consumers. Tool used was a matrix of Customer benefits and Metrics
- **Ideation:** A combination of divergent ideation (exploring multiple solution spaces to solve the defined problem) and convergent ideation (narrowing down to the top solutions that best solved the problem). Divergent tools included Biomimicry (using nature inspired solutions) and Brainstorm cards (using 4 sources of innovation – market, technology, customer, and regulation). Convergent Ideation tool used was a 2x2 matrix where the axes were defined using the customer benefit metrics to evaluate the divergent ideas and shortlisting to a few that best solved the problem

- **Rapid testing for critical assumptions:** Using a level 1 prototyping tool (Storyboard), the top 3 ideas (within each Idea Lab) were storyboarded, and each team then voted for the top idea for which the respective teams identified critical assumptions that needed to be rapidly tested with actual customers / consumers.

Identifying and setting the prototype's objectives

CAIF team conducted several rounds of 1:1 consultations and discussions with Twirl's team and identified two key criteria for success. To achieve scale of an inclusive circular business model and to use the prototype to provide early evidence of success, the prototype had to meet two objectives:

1. Skill building and capacity building amongst Twirl's women artisans to improve their income potential.

Twirl is a women-led and women-run organization employing artisans from low income semi-urban and rural backgrounds. It currently employs ten (10) full-time women artisans at its main production center and outsources work to additional forty (40) women artisans on an as-and-when needed basis.

Upskilling and training of these women artisans would be key to enhancing income potential in the medium to long term, in two possible ways. Firstly, the enhanced skills and capacities will enable the women artisans to create better quality products at improved efficiencies in the medium to long term. Part of the enhanced revenues that will accrue to Twirl from unlocking of new marketing channels for such products will be directly passed on to the women artisans. Secondly, the skills training will augment their overall employability and competencies, preparing them for evolving industry needs.

2. Identifying and establishing market linkages that would generate demand for upcycled products made from post-consumer waste

Prior to the prototype design and testing, Twirl marketed and sold the upcycled products primarily through its own website and occasional pop-up showcases. Low discoverability and limited thrust on marketing considerably restricted customer outreach. The products were either catering to B2B needs such as cloth bags for packaging or were largely to meet ad hoc purchases by retail consumers. While Twirl had strengthened its post-consumer waste collection process at the backend, a key challenge to scale its business model was limited market access from lack of sustained customer (brand) partnerships that could ensure consistent orders.

Market-linkages were critical to enhance product visibility while unlocking a wider access to retail market.

Defining prototype scope and limitations

The expected success of the on-ground prototype was defined in terms of a set of directional outcomes. Factoring in the limited duration of the prototype and challenges and restrictions imposed by the pandemic, the outcomes were identified to garner **directional evidence** around how an inclusive circular solution delivering both positive environmental as well as social impact can be scaled. The table below lists a set of directional evidence along with related exclusions and limitations that informed the prototype design.

Directional Evidence	Description	Exclusions/Limitations
1. Enhance production process efficiency	At the organization level, this included both quantitative aspects such as reduction in production time, improved ratio of post-consumer waste collected and utilized, decrease in waste generated, among others. It also included qualitative aspects such as lesser errors and reduced need for supervision.	
2. Improve product quality and ensure quality management	This included qualitative aspects for a select range of products i.e. bags. It included aspects such as enhancing product finishing, worker specialization, improving design and pattern making and developing production/ quality consistency	This did not include any new product development.
3. Improve existing skills of women workers / workers involved in the value chain	This included improving current skill sets related to production such as pattern cutting, stitching, hemming etc. To improve design sensibilities, workers were encouraged to replicate designs chosen by themselves from online resources	This did not include technical design skills.
4. Capacity development of women workers through new skills training	This included capacity development on new hard skills such as product photography and digital literacy to navigate video training, web search etc., as well as softer aspects such as self-confidence and communication	
5. Increase channels of distribution and market access to end-customers through partnerships with SME brands and enterprises	The focus was to establish partnerships with online retail brand partners that run marketplaces for SME enterprises committed to sustainability.	This did not include offline brand retailers
6. Enhance income generation and livelihood of women workers	As a culmination of efforts to strengthen Twirl at an organizational level, the prototype aimed to directionally capture the potential increase in worker income and capabilities	Given the short prototype duration, tracking actual increase in income was not a viable indicator and hence, was not included in the scope

PART II – Design and delivery of the prototype and its activities

In line with the above two (2) objectives the on-ground prototyping activities were designed under two broad heads – capacity / skill building and strengthening market linkages.

The outreach and evaluation of partners (for both the capacity building and brand partnerships) were initiated simultaneously, but the prototype activities were modeled to gather inputs, requirements and expected deliverables from potential partners to inform the design, structure and content of the capacity building programs.

a. Strengthen market linkage and demand generation

The project team identified two (2) distinct ways to accelerate demand generation and scale Twirl's business model. Firstly, by increasing orders volume from existing partners on a more sustained basis and secondly, by unlocking alternative sales channels through brand partnerships. These partnerships were, potentially, marketplaces that will showcase and sell Twirl's portfolio of upcycled products.

Marketplaces (that aligned with Twirl's brand identity and/or selling similar products) were identified and engaged in discussions to explore partnerships. These conversations were led and facilitated by the CAIF project team. While some of these marketplaces had a strong sustainability focus, others embodied principles around promoting handicrafts and traditional craftsmanship.

In addition, the prototype tested new B2B partnerships and collaborations that have the potential for creating a strong pipeline of regular orders. Unlike direct selling of Twirl products, such a partnership allowed the utilization of scrap materials to be used as inputs for a brand's final product. We were also able to successfully initiate and facilitate conversations with more brands – discussions are currently underway.

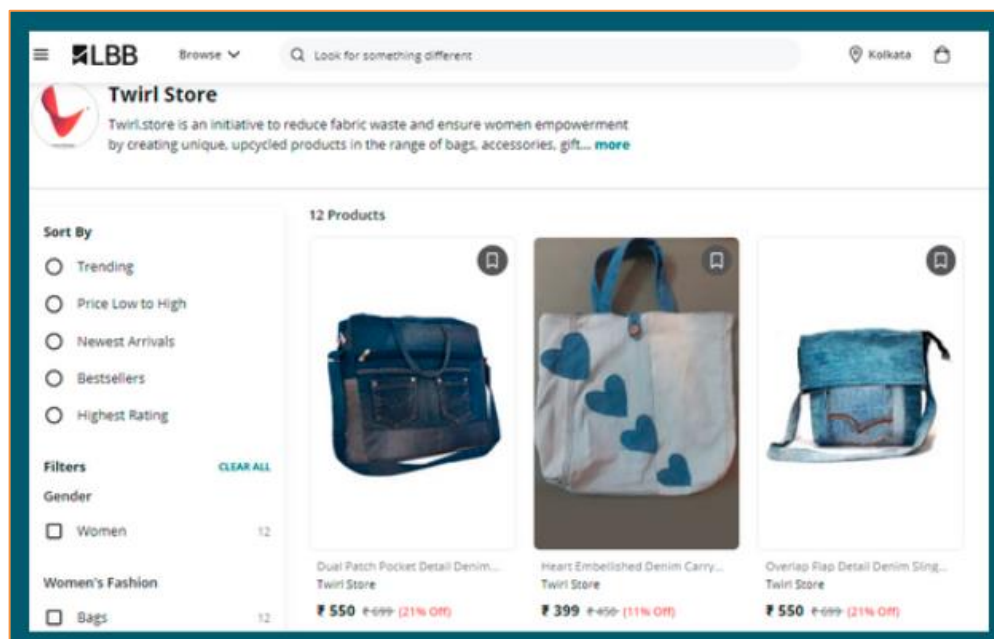


Figure 1: Twirl.Store products showcased on LBB

b. Capacity building and Skill Development

To deliver to the partners' design and quality requirements, it was crucial to invest in building capacities and skills within the in-house women artisans and workers. The capacity building program was modeled around market-responsive training, awareness generation and supplementary competency building.

Market Responsive Training and Capacity Building

To ensure the training was effective, the project team focused on developing a bespoke program and curriculum necessary to equip Twirl with enhanced in-house capabilities to meet customers' product requirements – be it in terms of design or manufacturing process or product quality that met market expectations. In short, the training needed to ensure that the team had skills that delivered market-ready products. Below is a detailed description of the interventions that went into designing this bespoke training program for Twirl.Store.

Identification of training partner: While training for typical tailoring and stitching are provided by several organizations (for e.g., NGOs or non-profits), but the training organizations that had the proficiency and specialization to meet Twirl's customer requirements were limited. Through an extensive due-diligence that involved understanding organizational capacity, their previous work experience, curriculum design, and other factors of potential training partners, the team identified **Master-G as the best-fit for Twirl's requirements.** MasterG is a social enterprise that focuses exclusively on providing a design and skill development ecosystem for the apparel industry and has rich experience of working with multiple brands including upcycled brands, brought professional skills and expertise to develop a bespoke training module that would be best suited for Twirl's needs.

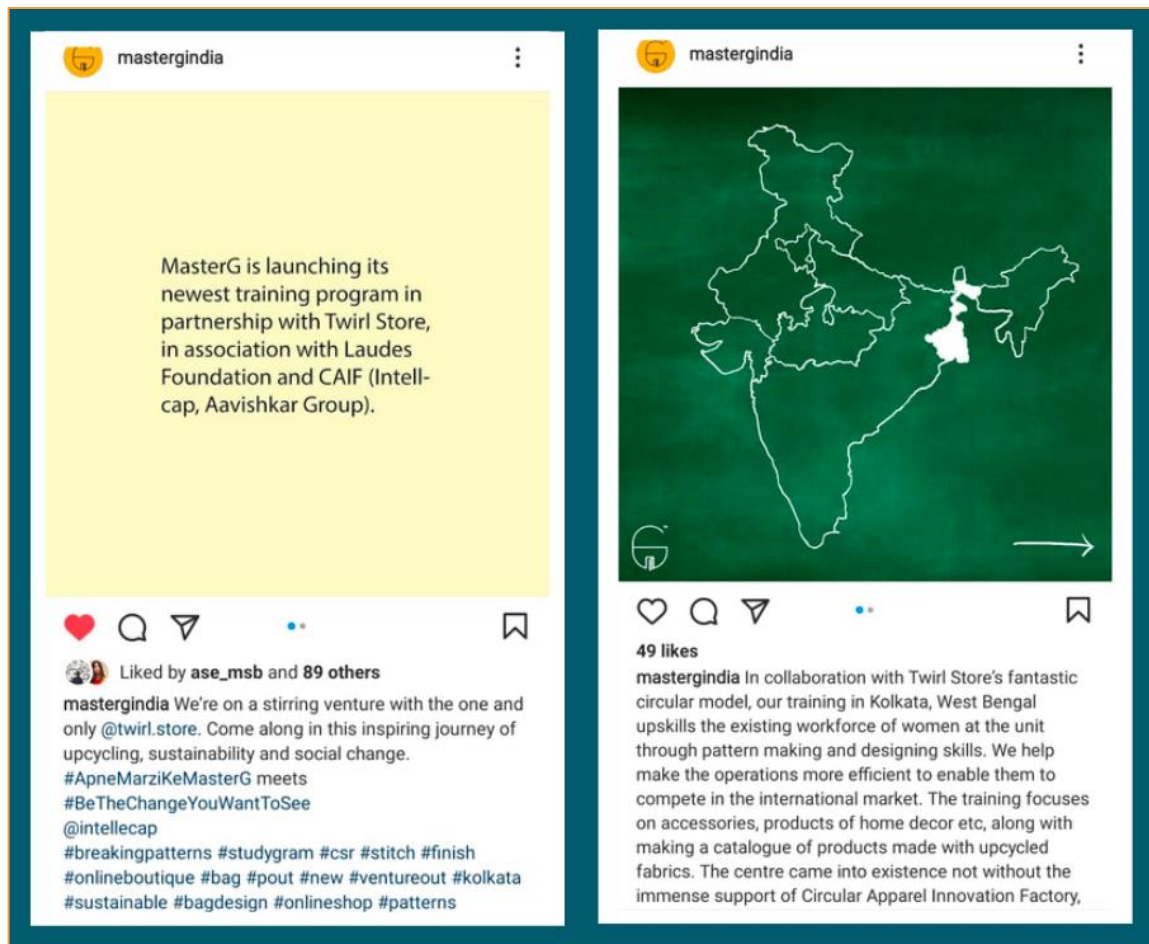


Figure 2: MasterG X Twirl.Store partnership announcement

Design and delivery of training curriculum: With the help of Master-G and in consultation with Twirl's team, we designed a 3-month training program to be conducted virtually for six (6) days a week. The program was modeled to accelerate skill building for a batch of six (6) women. These women were both senior and junior workers, with varying competency levels and handled the core responsibilities of production at Twirl. The training captured several aspects of production starting with basics to advanced level modules.

At the base level, the training included aspects such as basic drawing, tucks, seam finishes, piping, and binding among other things. For the advanced level the training dived into designing of diverse products including tote bags, laptop bags, and travel pouches among others.

One of the key challenges the training addressed was to build specialized skills for working with diverse materials and patterns that came from different second-hand clothing collected by Twirl.



Figure 3: Highlights of the training

With the collected second-hand clothing as a primary input, the training was designed to build know-how for maximizing utilization of post-consumer waste and in turn, establish Twirl as a 'zero-waste' business.

The program and curriculum were developed through a combination of inputs from potential brand partners and interest areas highlighted by the women artisans and workers, ensuring high level of interest and commitment from the women workers. With lockdown following COVID second-wave in India, the project team closely worked with MasterG to adapt and improvise the curriculum design and delivery. As Twirl pivoted to remote-working mode, coupled with the workers' health and logistical challenges, MasterG was able to shoot, produce, translate (into the workers vernacular language Bengali) and deliver pre-recorded capsuled training modules daily.

The training was delivered seamlessly despite the significant challenges associated with India's second-wave of COVID.

Awareness generation and supplementary competency building

Adequate awareness generation and delivery of skills that would improve the employability of workers with additional competencies beyond production were also included as a component of capacity building. Hence, the team developed a **photography training** program for the women workers. The photography training introduced basic photography skills to develop understanding of the dos and don'ts of product photography through smartphones. The training also touched upon aspects such as composition, photo editing and product copy writing. The three-day course was prepared as a high touch support program that allowed the group to learn, apply and receive feedback on these new skills in real time.

▶ PreWork Assignment	Baseline skill assessment: Take photographs of anything you desire
▶ Understanding Lighting	Making White Box Technicals : Sweep vs Corner; Flash Vs Non Flash; Soft vs Hard shadows
▶ Understanding Backgrounds	Contrast, Angles, Textures Photography using White Box
▶ Photo Compositions	Composition of products photographed, correction and colour variations, photo editing and descriptions

Figure 4: Photography training curriculum

Additionally, a **gender training** workshop was also conducted for all workers at Twirl. The workshop used activities and games to deep dive into the conceptual understanding of gender, its difference with sex and other dimensions like gender discrimination, stereotyping, double burden, division of labor etc. It provided a forum for all the women to share live experiences,

"Before the gender workshop we never had a forum to discuss gender related issues. Through these games, it gave me an opportunity to think about the societal pressures we face every day as women and also learn about my colleague's challenges."

Rina, Twirl artisan

beliefs, and opinions on some of these key aspects including the challenges they face in their daily lives.

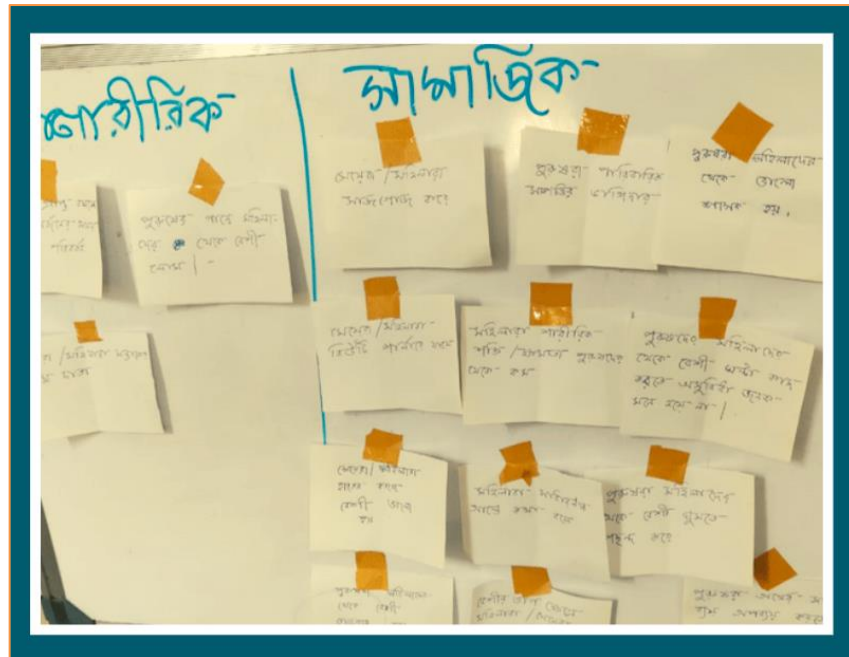


Figure 5: Gender Training - Activity Snapshot: Understanding Gender and Sex

PART III - Outcomes achieved through the prototype

The objective of Project Circular+ (on the whole) was to establish evidence of the potential to scale of an inclusive circular business model in delivering both planet and people positive outcomes. Hence, we assessed the outcomes and present it through the three lenses – business model (scalability), environmental (planet positive) and social (people positive).

Business model outcomes: market linkages and partnerships that established sustained demand (through orders)

Environmental outcomes: extending life of post-consumer waste and reclaiming higher value (ability to utilize / convert most of the post-consumer waste collected into upcycled products)

Social outcomes: design and delivery of market-responsive training that could improve income potential of low-income women artisans and workers.

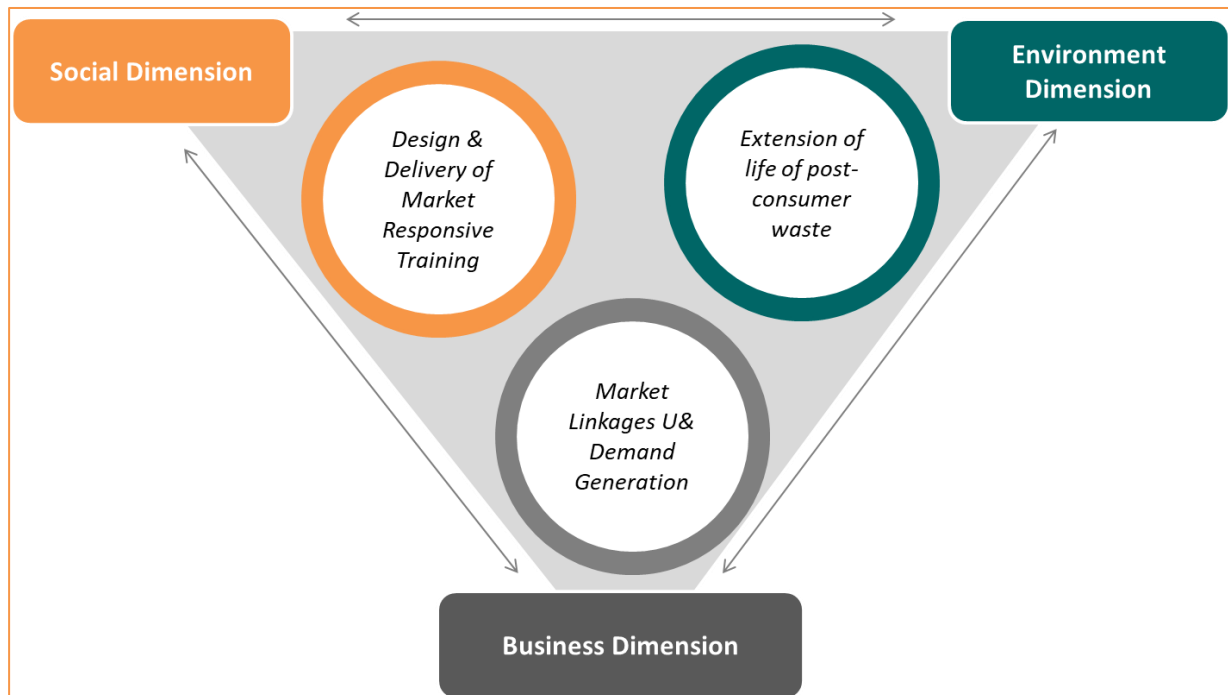


Figure 6: Prototype Outcomes

Business model outcomes

During the pilot phase of the prototype (over three and a half months), we helped foster partnerships with partners that have a strong potential to increase Twirl's brand visibility while increasing sales channels. The team was successful in helping Twirl launch its products on two online retail marketplaces - Kakul and LBB and is in the process of delivering products to a third platform called Kiabza.

- Kakul is an ecofriendly, handcrafted and designer gifting solutions platform that sources from women-owned, women-managed businesses who in-turn work with artisans, self-help groups (SHGs) and crafts designers to create sustainable products.
- LBB is a curated discovery marketplace for local products specializing in the lifestyle segment. It currently serves more than 22 million customers who discover and shop from over 100,000 unique products and brands.
- Twirl products will also be showcased on the Kiabza (working group member) platform and the orders for selected products have been placed. However, order fulfilment is temporarily delayed due to the lockdown measures coinciding with India's COVID second-wave.

On the B2B partnership front, the team supported Twirl to enter into a B2B partnership with Sirohi, a growing sustainable luxury brand, to supply ropes made from textile waste. These ropes will be used by Sirohi to create its range of home décor and furniture products. After several rounds of sampling, Sirohi has already placed an order for 100 kilos of ropes and will subsequently increasing its volume order in the coming months.

During the prototype, Twirl has developed several key brand collaterals in the form of a catalogue and a business introduction deck that will help Twirl codify its new partner outreach and collaborations for enhancing its market access. The CAIF project team demonstrated strong initiative in proactively leading conversations with key partners and in the process has been able to transfer knowledge to Twirl on aspects like business development, partnership structuring, due diligence processes, onboarding procedures for different types of brands /platforms etc. which will help in wider showcase of its offering.

High potential to scale the business model outcomes

The early success from the partnerships (already established) signals a latent demand for upcycled products. The CAIF project team is confident that, with time, the visibility garnered through these platforms will generate further interest amongst brands like Kakul, LBB and Kiabza, and Twirl may leverage the interest to unlock additional sales channels.

This on-selling model through brand partnership exhibits a high scale-up potential and promises to result in significant revenue increase for Twirl. This will further provide an impetus to the Twirl team to replicate this partnership model.

On-going discussions with other brands also show early promise and willingness to partner soon. The deeper market insights and know-how along with the marketing collateral created positions Twirl on a strong footing.

Environmental outcomes

Twirl's purpose is to reduce textile waste and find solutions for maximizing utilization of post-consumer waste, including discarded clothes, bedsheets, curtains etc. During the prototype period, we witnessed that at a monthly collection rate of 500 pieces of old clothes, 60% was successfully utilized to create a diverse range of upcycled products (such as bags, totes, wallets, travel kits, bottle pouches etc.). Products such as table mats, wall décor, cushions and cushion covers were other popular items sought by brands.



Figure 7: Products handcrafted from pre-owned clothes

Through the prototype process, Twirl also developed a new category range of products made from denim waste that will significantly contribute to reducing environmental footprint. While the remaining 40% of the collected waste was largely unusable for upcycling, the prototype surfaced the opportunity of converting a significant portion of this waste into smaller ancillary products such as ropes, and packaging solutions for other business partners. Through the prototype, Twirl has made significant strides in moving towards its goal of becoming a zero-waste enterprise.

High potential to scale the environmental outcomes

As a model, the increase in business partnerships and demand generated for Twirl's upcycled products has a direct bearing on reducing textile waste and gives a new lease of life to post-consumer waste. While there is no foreseeable challenge in scaling collection of this waste, the utilization ratio has been an impediment for Twirl to realize its full potential in terms of reducing environmental impact of the collected waste. The team is confident that as Twirl grows, progress made towards increased production efficiency, coupled with enhanced business opportunities; this utilization ratio will likely improve. Moreover, efforts to introduce new categories of products from specific materials (with high environmental footprint) will also enable Twirl (and others similar to them) in reducing both the leakage of post-consumer waste into the environment and also reclaiming value from waste.

Social outcomes

Through the bespoke training program, the women artisans at Twirl underwent 120+ hours of training through 19 structured modules to augment their skill sets and capacities related to different production aspects.

Such extensive training (and handholding) has helped these women gain expertise in improving the quality of products aligned to market requirements and also to enhance their self-

development. The virtual format required the women workers to adapt to digital learning and develop familiarity with digital skills including running Zoom meetings, searching for design references on Pinterest, Google, communicate via WhatsApp etc. In a short time period this high-touch training helped them gain confidence in their work and individual capabilities.

"In the starting, we used to find it very difficult to learn. But within a couple of days, we got comfortable. Now we know how to operate the computer and learn new things. Going ahead, this will be very helpful to find other interesting trainings, YouTube videos and continue learning different patterns and designs."

Madhu, Twirl artisan



Figure 8: Training workshops in progress

The photography workshops saw high enthusiasm from the group. At the end of the workshops, women gained expertise on elements of product photography such as lighting, background, composition etc. and have developed an image bank of photographs taken by them. The photography workshops have made the group excited to explore other aspects of business such as marketing, brand communication, and cataloguing.

"The photography lessons helped us understand so many other things about the products we make. Small nuances about angle, lighting etc. helped us improve our product finishing and make them more beautiful for customers."

Shantana, Twirl artisan

High potential to scale the social outcomes

The holistic training approach emphasized on the importance of both technical and soft skills. It provided Twirl a starting point to continue similar programs and develop capacities of the women in diverse roles and responsibilities. The team is confident that as Twirl scales its revenues through new brand partnerships, the benefits will directly percolate down to its women workers in the form of improved earnings and strengthened livelihood opportunities. With increased demand, Twirl will also have the opportunity to employ more women workers and artisans, including them into its growth story.

At a macro level, the prototype has demonstrated early and promising evidence that inclusive circular business models have the potential to scale – both in operations and scale.

PART IV - Lessons from the Prototype

The discussions during the industry working group (establishing a common view on the challenges and opportunities) as well as the execution of the on-ground prototype have helped in distilling a few lessons that are crucial for structuring a pathway for scaling inclusive circular business models.

Catalyzing “access to market” is crucial to establish sustained demand

Currently, most circular business models are bootstrapped and have limited bandwidth to invest in marketing. As a result, they suffer from low discoverability and limited customer traffic. The threshold investment required to generate enough demand from end-consumers is very high. Exploring and establishing partnerships with SME's which offer their customers with a similar portfolio of upcycled / recycled products is more efficient in creating sustained demand. This would eventually lay the foundation, and provide bandwidth, to the enterprise for investing in direct-to-consumer marketing. Sustained demand also helps increase an enterprise's capacity to hire and train more women and other individuals from underserved communities to fulfil orders.

Exploring B2B marketplaces and platforms establishes early market acceptability

Mainstream brands have shown limited willingness to experiment and partner with micro- and small enterprises as they prefer higher volumes and consistency of designs. This poses a challenge as upcycled products have higher variance due to differences in materials, fabric quality, prints etc., due to which the products tend to be more unique – challenges in a volume construct vs. a value construct.

Achieving wider consumer reach and threshold market acceptability requires a longer runway as it involves a shift in consumer behavior – a challenge for micro- and small enterprises to invest in. Through our experience with the on-ground prototype, we believe B2B partnerships (especially marketplaces and platforms) provide a significant opportunity for these early-stage enterprises to create a customer following and market recognition for their brand (s) and products.

Structured “market responsive skill building” could create circular jobs at scale

Placing people at the center and designing for social inclusion with intent into their business models

requires a structured approach to skill and capacity building. Different clusters of artisans, home-based workers and waste workers bring basic skills sets that can be leveraged by enterprises with circular business models. In the transition to a circular economy, there is an increased need for investing in skills and capacities – as there is no dearth of jobs but a dearth in skills relevant to such circular jobs. Micro and small enterprises have a significant opportunity in laying the foundation by investing in skills that will be relevant to a circular economy. Adding these skills amongst the individuals and groups from the underserved communities is the low hanging fruit. In the transition to innovative business models, repair, rental and resale offer mainstream brands also a low-hanging fruit opportunity to extend services to existing consumers.

Circular business models have the potential to mainstream consumer sentiments on sustainability

With very little intent and investment from mainstream brands in experimenting or adopting innovative business models in India, early stage or micro / small enterprises have the potential to increase consumer pull on sustainability. While much of the gap is attributed to lack of consumer awareness and knowledge on sustainability, circular business models like rental, recycling / upcycling, repair and resale actually have the ability to raise consumer awareness on how they can participate in the circular economy narrative – through small, deliberate actions. Such a shift in consumer sentiment might eventually help bridge the intent-action gap amongst mainstream brands and manufacturers. But, raising consumer awareness or educating consumers requires intent and interventions.

Way Forward: Priority Lenses for Future Program Intervention Design

When we envisioned Project Circular+ we imagined how barriers are addressed and opportunities are created at the convergence of access to capital, knowledge and networks along an innovators journey.



Figure 9: Overall project outcomes

Through the conceptualization, design and delivery of the project, including the working group as a platform for diverse stakeholders to collaborate and co-create and the execution of the on-ground prototype, we gathered a few insights on what priority lenses need to be applied in designing future interventions that allow for an accelerated transition towards scaling inclusive circular business models.

We look at these priority lenses from each of the above dimensions – capital, knowledge and networks.

Networks | A consortium approach for mainstream brands to adopt circular business models

There is a dire need for establishing a business case for circular business models to trigger adoption of such models by mainstream brands and manufacturers. From a CAIF perspective, we believe taking a consortium approach does two things – 1. Make circularity within reach and 2. De-risks the participation of mainstream brands, wherein a consortium allows for sharing of both, risks and rewards. Designing multi-stakeholder pilot programs between mainstream brands and micro and small enterprises will help establish the business case for faster adoption.

Knowledge | Small smart experiments that test the value added by emerging technologies

While technology solutions like 3D printing, demand forecasting, mixed reality (Virtual Try-Outs - VTOs) etc. are being tested at different scale – it's happening in silos and like the residual effect of operating in a linear model / economy, much of the learnings are not disseminated. On the other end of the spectrum, the other brands are overwhelmed by the effort needed to test and adopt these technologies. We believe the key is to bring a paradigm shift from 'making big bold moves' to 'designing small smart experiments'. Key to designing such experiments is designing the programs to democratize knowledge and learnings.

Capital | unlocking access to capital instruments

While it is evident that much of the innovations in sustainable products, services and business models are being driven by MSMEs (esp. in India / South Asia), their growth and ability to scale (both operations and impact) is limited by lack of access to capital – capital that is timely while also being risk tolerant. A program that allows for designing, testing and adoption of such 'access to capital instruments' certainly will lay the foundation for a longer and stronger runway that is available for MSMEs to make inroads into the circular economy.

About Circular Apparel Innovation factory (CAIF)

CAIF is an industry-led initiative, seeded by and within Intellectap. Intellectap in turn is the impact advisory arm of Aavishkaar group. In 2018, Intellectap seeded CAIF in collaboration with The DOEN Foundation and Aditya Birla Fashion and Retail Ltd (ABFRL) – both are CAIF’s anchor partners.

CAIF's **purpose** is to enable the Textile and Apparel industry to become **Resource efficient** (reduced carbon footprint) and **Responsible** (creates sustained and dignified livelihoods), through circular economy as a pathway. In line with this purpose, we set for ourselves an ambitious mission to build the ecosystem and capabilities to accelerate the transition of the textile and apparel industry towards circularity. To deliver on this purpose and mission, we leverage the Aavishkaar group approach of creating impact at scale through providing access to capital, knowledge, and networks throughout an innovators journey. Our programs and initiatives are designed for and cater to primarily 3 stakeholder groups:

- **Corporates, Brand and Manufacturers:** Enabling adoption and implementation of circular business practices, while driving industry wide alignment
- **Innovators and impact enterprises:** Enabling partnerships with brands while creating opportunities for access to capital (investor readiness and showcases), knowledge (partnerships for pilots and prototyping) and networks (participation in CAIF's industry working groups to inform and shape collective view on progress towards circularity)
- **Ecosystem enablers and policy actors:** We engage them to directly or indirectly inform and influence policy advocacy and interventions to help create enabling environment for circular economy.

While seeded within Intellectap, CAIF is an independent and neutral industry facing body with an independent governing body comprising a Governance Council and an Advisory committee.

- **Governance Council (GC)** comprises of organizations that inform and shape CAIF as an institution
 - **Dr. Naresh Tyagi** (Chief Sustainability Officer, ABFRL), **Saskia Werther** (The DOEN Foundation), **Nidhi Dua** (Head of India and Sri Lanka region, Marks and Spencer) and **Venkat Kotamaraju** (Director, CAIF)
- **Advisory Committee** comprises of global leaders and experts who advise the GC and CAIF on industry priorities, CAIF roadmap and a common action pathway
 - **Punit Lalbhai** (Exec. Director, Arvind), **Ashish Dikshit** (MD, ABFRL), **Harsha Vardhan** (Global Environment Manager – Production, H&M), **Atul Bagai** (Country Director, UNEP), **Dr. Rene Van Berkel** (Regional Director, UNIDO), **Douwe Jan Joustra** (ex-Head of Circular Transformation, erstwhile C&A Foundation) and **Vikas Bali** (CEO, Intellectap)