Building Evidence for Inclusive Circular Business Models in the Indian Fashion Industry

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Project Circular +

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Background

Textile waste from the global fashion industry is estimated to increase by about 60% between 2015 and 2030 to reach 148 million tons — equivalent to an annual waste of 17.5 kg per capita globally[1]. For India, the problem of textile waste is two-pronged – 1. Waste from domestic manufacturing (pre- and post-production waste) and 2. Post-consumer waste imported from US and Europe for recycling, in addition to the waste generated in India. Estimates suggest that 10%-30% fabric waste occurs at various stages of the textile production process in India. On the other hand, India is also a leading importer of used clothing and imported old clothes worth USD$ 182 million in 2013[2].

The sheer magnitude of negative environmental footprint of the textile industry points towards an urgent need for the industry to innovate and adopt circular economy practices. In India, circular practices have historically been a part of the culture, reflected in second hand trading, tailoring, repair and customization as well as swapping, sharing and passing on clothes from one generation to the next to extend their usage. However, adoption of such practices has largely been informal. The mainstream textile and apparel industry until recently, exhibited little effort towards incorporating circular practices to shift from the existing linear models of production and consumption to alternate models that would help deliver on both planet and people positive outcomes.

While the need to address environmental risks remains the key motivator for the textile and apparel industry to accelerate adoption of circular economy models, it is equally important for such models to factor in the human aspect. This is particularly relevant in the context of India where the industry employs around 45 million people across the value chain, a majority of them being women[3]. Given the industry's deep social implications on aspects such as gender equity, economic parity and the future of work, it is imperative for initiatives focusing on circularity to be designed to further social inclusion.

In 2019 Circular Apparel Innovation factory (CAIF) launched Humans of Circularity (HoC), a Working Group that convenes stakeholders of the Indian textile and apparel industry on collaboratively driving the agenda around a 'just & fair' transition towards circularity - balancing economical & environmental sustainability while delivering positive social outcomes.

Project Circular+ was launched as a Sub-Working Group within HoC, with support from Laudes Foundation with the objective of exploring how circular business models in the Indian textile and apparel industry can be designed to deliver social inclusion and impact at scale. This report captures lessons from the design and implementation of the project as well as insights from the Working Group.

The first section presents a repeatable approach and methodology to surface inclusive circular business models that can inform the design of future initiatives. The section provides a detailed overview of the project design and approach along with methodologies used to drive a highly collaborative and sustained co-creation process with a diverse set of ecosystem stakeholders.

The second section includes insights generated from the Circular+ Working Group which served as a platform for knowledge exchange amongst a diverse set of industry stakeholders to create a shared and unified understanding of the circular business models landscape in India and beyond. The section contains insights on the role and current state of a set of circular business models in India, associated gaps and challenges, and explores the whitespaces and opportunities for scaling their adoption.

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[1] Pulse of the Fashion Industry, 2017
[2] India emerges top importer of used clothes, Business Standard
[3] India – Knitting the Future, Invest India

This section of the report describes the approach and methodologies adopted for implementing each phase of the project along with the corresponding phase-wise outcomes. It also highlights some of key lessons which emerged in course of project execution, especially in the backdrop of the COVID 19 pandemic.

Designing inclusive circular business models and building evidence around their impact potential, required coordinated and collective action. CAIF adopted a stage-gated and phase-wise approach to identify, refine, and test solution ideas that harbor potential to deliver impact at scale. An industry working group-led engagement model was adopted to implement a high-touch design thinking-based co-creation process. The Circular+ Working Group comprised of a diverse and carefully curated set of industry leaders and practitioners across different stakeholder groups. Their sustained engagement and inputs over a span of 5 months contributed significantly to the solution building process.

We are confident that the approach and methodology adopted for execution of the project will serve as a reference case for future programs around surfacing inclusive circular business models across regions, stages of enterprises and sectors. The repeatable approach recognizes potential execution challenges that may arise and factors in remedial actions and improvisations that may be required to address such challenges.
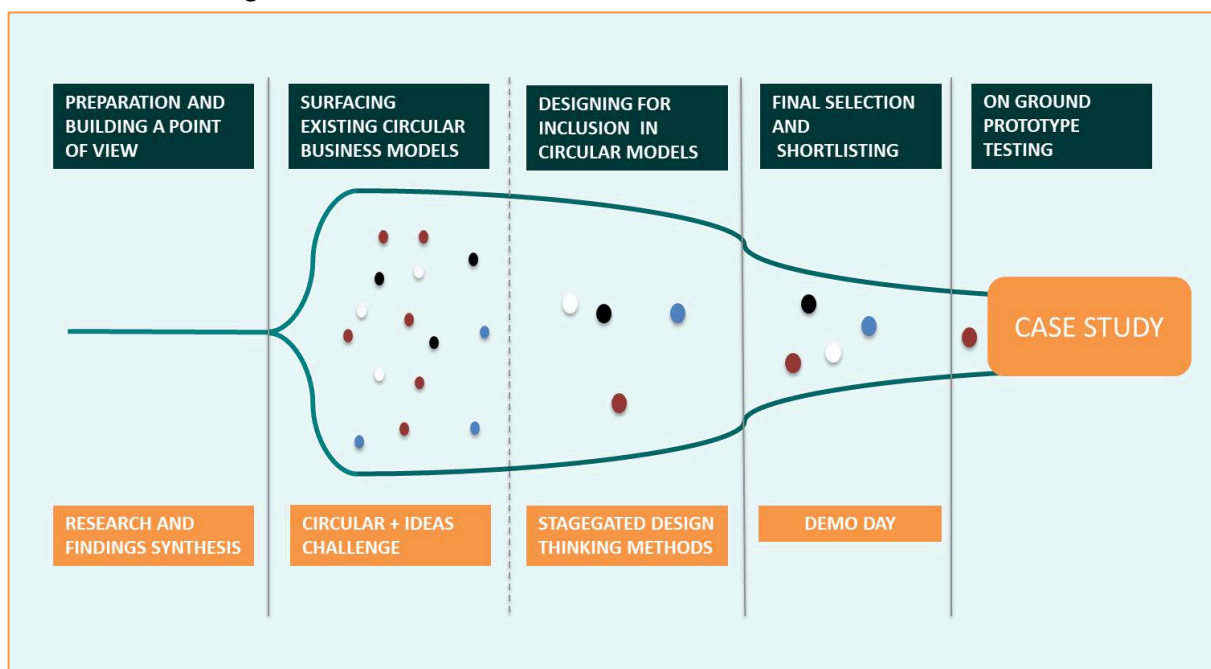
Figure 1: Phases of Project Circular+

Phase 1 – Preparatory research for building a point of view

To inform the project design, its scope and to identify key stakeholders, CAIF undertook an evidence-based approach to map and understand the existing circular business models landscape in the Indian textiles and apparel industry. This initial scoping and preparatory phase included a combination of secondary and primary research.

Methodology: Primary and Secondary Research and Synthesis of Findings

The secondary research comprised of review of industry reports, websites, articles, and case studies[4] to develop a point of view around how the project should be scoped in terms of types of circular business models it should focus on, stakeholders who need to be engaged and the most effective engagement approach. The secondary research was complemented by 1-on-1 consultations with a diverse set of industry stakeholders such as innovators, brands, investors, and enablers to validate our findings and emerging point of view.

The preparatory research highlighted that while there is significant interest on circular innovations around aspects like alternate materials, sustainable dyes and dyeing techniques, and alternative recycling methodologies, they require significant investments towards R&D and commercialization and economic models underlying related initiatives are yet to be proven. Secondary research and stakeholder consultations provided further validation that the project needed to be designed around circular business models that are gaining traction globally at the retail end of the textile and apparel value chain. Alternative retail-focused models such as resale, rental and repair that promote extending the life of clothes and closing the loop of textile waste, exhibit significant potential for adoption and scale as well the ability to deliver significant social impact and inclusion.

Figure 2: Indicative market potential for circular business models in India

The project, therefore, deep-dived into examining these models to generate insights around dimensions such as existing challenges, barriers to scale, partnerships required, current levels and potential for delivering social inclusion.

Phase 1 Outcomes

The secondary research and stakeholder consultations enabled us to develop a framework of analysis for circular business models associated with rental, resale, and repair. Our research highlighted that the existing circular business solutions around these models at a very nascent stages in India. While these solutions focus on creating positive environmental impact, delivering social impact is largely a peripheral focus area or an incidental outcome for them. However, they do exhibit notable potential to be designed for social impact, and hence, ideal candidates for project focus.

These findings along with the insights from examining the above mentioned three models around dimensions such as existing challenges, barriers to scale, partnerships required, current levels and potential for delivering social inclusion, informed the design of 'Circular+ Ideas Challenge' in the next project phase. The table below captures key insights around these dimensions of the three models.

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[4] A detailed list of all secondary resources reviewed during this phase is added to the Annexure Section

Model	Indian context	Challenges	Barriers to entry	Partnerships to Scale	Social Inclusion Potential
Rental	a) Emerging as an alternative to access fashion easily b) Currently the luxury wear is the primary target segment c) Business models are also allowing peer to peer leasing on their platform	a) Preference for physically checking clothes before leasing b) Inability to customise fittings with precision and customer hygiene concerns	a) High seasonal demand variations witnessed b) Low financial viability in Tier 2 & 3 cities	a) Retail partnerships for sourcing inventory b) E-commerce marketplaces to showcase products c) Technology parnters to enhance Virtual Reality experiences for customers	Indirect social impact at a model level with tailors, dry cleaning services and ironing staff working at warehouses
Resale	a) Second hand reselling through formalised market places b) Informal thrift shop promoting preowned clothes	a) Quality management and maintenance of hygiene practices b) Low customer trust and hesitancy	a) Social stigma commonly associated with pre-worn clothes b) Availability of brand variety/options	a) Brand partnerships as an extension to retail b) Partners to incentivise secondhand buying, eg: cashback partners, loyalty points etc.	Creating formalized jobs related to mending, inventory management and logistics Potential to integrate artisans to create one of kind pieces
Repair	a) Highly unformalised and fragemented sector b) Emerging need for e-tailor marketplace and hyperlocal repair services	a) Financial viability for repair is only at scale b) 'Repaired' clothes is construed as a signal for economic hardship	a) Low readiness from customers as well as brands to invest repair	a) Brand partnerships to mainstream repair services b) Technology enabling smart measurement and fitting	High potential to integrate home based workers and provide livelihood opportunities at scale

Figure 3: Insights from Analysis of Circular Business Models

Phase 2 - Surfacing of inclusive circular business model ideas

The findings from the research helped lay the foundation for the **Circular+ Ideas Challenge** as a mechanism to surface existing circular business models focused on rental, resale, and repair. To generate wider interest and to ensure diversity in the pool of identified solution providers, the project team conceptualized and hosted the Challenge as an 'Ideas Challenge'. The Challenge garnered interest and responses from both established and new players in the market.

Criteria for applicants as a part of the challenge design:
• **Business models that focused on the extension of lifecycle of clothes i.e. resale, rental and repair**
• **Willingness to design social inclusion into their business model / value chain**
• **Open to pre-competitive collaboration and co-creation with industry stakeholders**
• **A for-profit registered entity in India operational for > 1 year**

Methodology – Conducting Circular+ Ideas Challenge

The research undertaken helped us to frame the Challenge statement as **"How Might We design for inclusivity such that circular fashion models increase the active life of clothes and create positive socio-economic outcomes?"** The project team leveraged its online platform circularapparel.co to design and host the Challenge.

The Circular+ Challenge was positioned as a doorway to a co-creation journey rather than merely a point-in-time competition. It was designed to identify solutions that harbor the potential to deliver significant positive socio-economic outcomes. It aimed to provide applicants the opportunity to become a part of the Circular+ Working Group, co-create and sharpen their inclusive circular business model ideas with sustained inputs from working group members and test them on the ground to build evidence of their scalability and impact potential.

Unlike a typical innovation challenge, applicants were encouraged to visualize a collaborative system-level business idea that had potential for scale and social impact. At this stage it was not necessary for these ideas to exhibit a proven business model. This flexibility appealed to early stage enterprises who were still establishing a product – market fit.

> *Improvisations as a response to COVID induced circumstances*
>
> *With the outbreak of COVID 19, the focus of most enterprises interested in applying to the Challenge shifted to survival, with the emphasis on sustainability and inclusion as an agenda running the risk of losing traction to competing and more immediate business priorities. While the target enterprises were keen to participate in the co-creation journey, they lacked the bandwidth to undertake the entire online submission process.*
>
> *In this backdrop, the team had to improvise its approach towards sourcing applications and conducting the Challenge. The team adopted a high-touch approach by stepping up personal outreach to entrepreneurs and providing them customized handholding support to complete the application process. In some instances, the team scheduled detailed interviews with the entrepreneurs to gather their thoughts and information around their inclusive business model ideas, to create their detailed applications that were reviewed by them before final submission.*

At the end of the submissions process, the challenge applicants (and their ideas) were part of a two-step evaluation process. As a first step in the evaluation, the project team evaluated how each of the

ideas measured against a given set of criteria. In the second step, the ideas were independently evaluated by an external panel of industry/subject matter experts. The evaluation criteria were arrived at in consultation with industry experts and a weighted average of the scores across the two steps (internal and external evaluation) was considered for the overall ranking of the ideas (applicants) and their potential.

Phase 2 Outcomes

A total of 13 idea applications were received. Of these, 4 ideas were finally shortlisted after the internal and external evaluations. Idea Labs within the Circular+ Working Group (in the next project phase) were formed around the four selected innovators for further fleshing out and sharpening pf their ideas.

Phase 3 – Setting up an industry Working Group as a pre-competitive collaboration platform

In parallel to the challenge, the project team launched the Circular + Working Group and on-boarded members from industry stakeholders representing brands, NGOs, experts in social inclusion, early-stage investors, established circular solution providers, policy advocacy organizations and other enablers. As a part think tank and part community of practice, this Working Group served as a test bed for step-by-step progress from idea articulation to paper prototype creation. Through sustained engagement, it enabled knowledge sharing among members and identified possible collaborations that can drive collective action on ground.
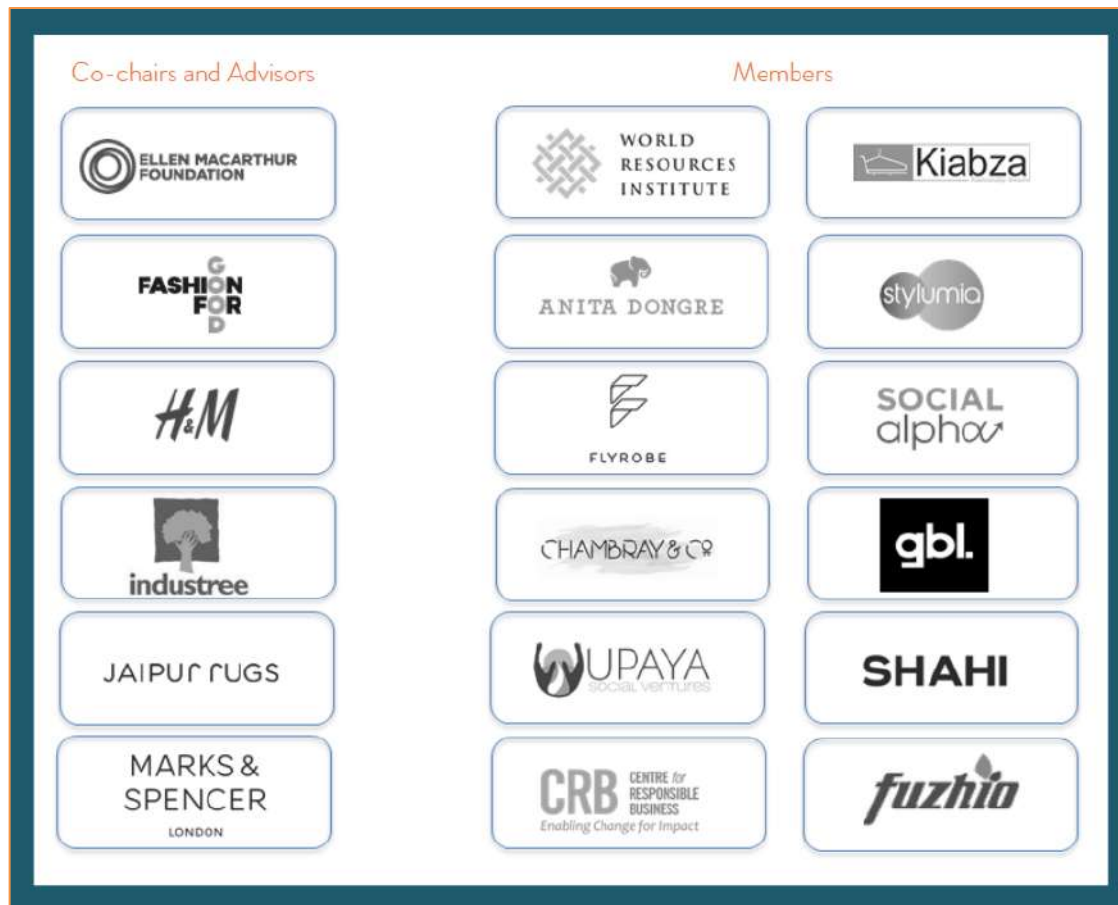
The Working Group was subdivided into four small groups – the **Idea Labs** to enable closer collaboration. Each Idea Lab comprised one of the four shortlisted innovators from the Ideas Challenge and other working group members with relevant expertise. To avoid confirmation bias, the Chairs of the Working Group participated in each Idea Lab on a rotational basis.

The Circular + Working Group met virtually across the five (5) months to build four (4) distinct collaboration projects. These meetings designed as two-hour long workshops used design thinking tools and methodologies to co-create inclusive circular business solutions. The members extensively used Mural and Slack to work together virtually during and in-between successive workshops, given COVID-induced circumstances.

Improvisations as a response to COVID induced circumstances

The project team adopted a high touch engagement with the members of the Working Group to ensure their sustained participation and contribution over the entire duration of the co-creation process. Advanced planning coupled with clear communication about workshop agendas were instrumental in ensuring the success of the virtual process.

The project team worked continuously to offer the required flexibility with respect to date and timings of the workshops. The members appreciated the proactive effort of the team towards incorporating feedback from the members with respect to the design and structuring of the workshops and providing them timely pre-reads and reminders before the workshops. Continuous effort to objectively define the role of each member and acknowledging and emphasizing the criticality of their contributions helped create a sense of bonding and ownership in the minds of the Working Group members.

Co-chairs and Advisors

- ELLEN MACARTHUR FOUNDATION
- FASHION FOR GOD
- H&M
- industree
- JAIPUR RUGS
- MARKS & SPENCER LONDON

Members

- WORLD RESOURCES INSTITUTE
- ANITA DONGRE
- FLYROBE
- CHAMBRAY & CO
- UPAYA social ventures
- CRB CENTRE for RESPONSIBLE BUSINESS Enabling Change for Impact
- Kiabza
- stylumia
- SOCIAL alpha
- gbl.
- SHAHI
- fuzhio

*Co-chairs in the Working Group provided guidance and inputs to all the four Idea Labs and served as a sounding board for solution building. They also played an active role in evaluation for ideas by the enterprises, at different junctures of the project.

Figure 4: Organizations represented in the Circular+ Working Group

Methodology – Stage-gated co-creation approach leveraging design thinking methodologies

The Idea Lab co-creation process was divided into four broad stages. Design thinking tools and frameworks were introduced at each stage to facilitate focused deliberations and an efficient co-creation process.

Identifying and defining the right problem to solve: Defining the 'right problem to solve' was a critical first step to avoid bias towards a specific solution(s). While the problem of transitioning to circular business models to deliver on planet and people positive outcomes was broad, each of the shortlisted enterprises (and their ideas for designing for inclusion into their business models) had a unique business model and was serving distinct constituencies – direct and indirect beneficiaries. Hence it was crucial for each innovator (enterprise) to identify a specific problem to solve (in the context of their business model and customers. The Creative Q tool (a simple problem statement framed starting with the three words 'How Might We…." was used to kick-start the co-creation process. The illustration below captures the 'How Might We' core problem statements that were identified, discussed and fine-tuned by the innovators (in collaboration with their idea lab co-participants).

Idea Lab 1
HMW set up a profitable business that extends the life of dead stock in the fashion industry and increase the acceptance of upcycled clothing among customers?

Idea Lab 2
HMW make preowned fashion aspirational, loved, and mainstream by employing artisans and people from marginalized backgrounds in a way that is fair and cares for well being?

How Might We...

Idea Lab 3
HMW improve the livelihoods of weavers in India (starting with the north east) by connecting them to a global audience?

Idea Lab 4
HMW We reduce wastage from consumers while improving livelihoods for craftswomen and artisans at large?

Figure 5: Idea Labs Problem Statements

Customer Benefits and Metrics: As against the norm of crafting a value proposition after ideation, identifying a clear customer benefit was crucial to offer a clear line of sight to imagining what success looks like for the customers and beneficiaries. In addition to the customer benefit for the end users of their solutions, the Idea Labs also identified the core benefit that the business will create and pass onto beneficiaries such as artisans and vulnerable communities employed and/or impacted by them. The customer benefits would be the north-star for evaluating the solutions (that were to follow) and be the basis for comparing and evaluating the several solutions. Identification of the specific customer benefit metrics was critical to define how the solution providers will measure customer satisfaction, business traction and social impact delivery.

Divergent and Convergent Ideation: A clearly defined problem statement (right problem to solve) and customer benefits and metrics laid the perfect foundation for identifying solutions. Knowing what problem each of the innovators was solving and who they were solving for, while envisioning what success would look like (customer benefits) helped them explore solution spaces. The ideation process was also done in two stages – a divergent ideation stage which allowed for a broad exploration of possible solution spaces and convergent ideation which involved narrowing down to a shortlist of solutions that solve for the (identified) problem and narrowed down on the basis of the customer benefit metrics. Tools such as biomimicry cards and brainstorm cards were made available to each Idea Lab to stimulate an open inquiry of ideas.

The Idea Labs used these tools to generate multiple solution ideas resonating with the identified customer benefits to be delivered. Following this process of open inquiry, the ideas were clustered and shortlisted to form solution themes.
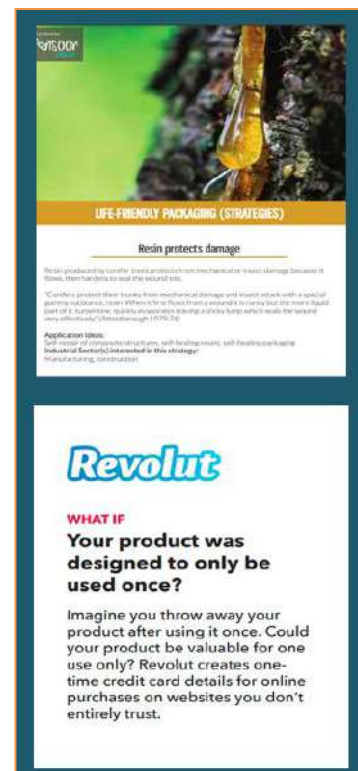

Figure 6: Examples of Biomimicry Card and Brainstorm Card

The emerging solution spaces were then mapped against a 2X2 matrix with the end-customer benefit and the social impact related benefit. This mapping helped identify the top solution space emerging from each idea lab that was best placed to balance social and environmental impact delivery.
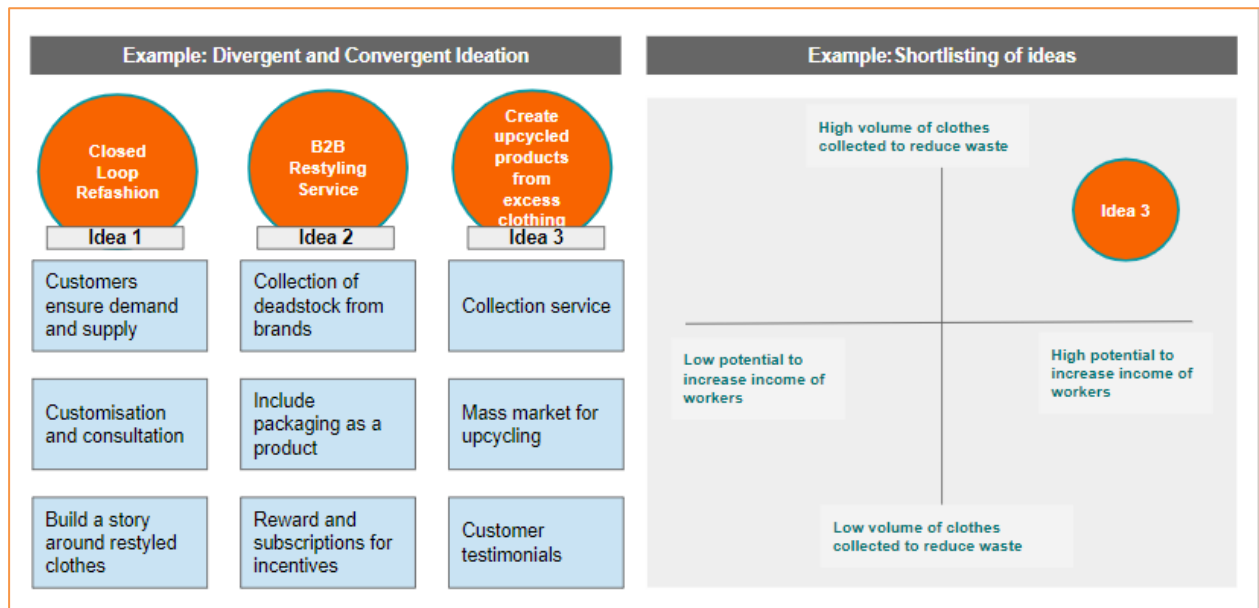
Figure 7: Divergent and Convergent Ideation- Illustrative Example from Idea Labs

Storyboarding and Rapid Testing: To allow for rapid testing of the ideas with customers and consumers, storyboarding was used as a tool for level 1 prototyping. Each grid in the storyboard as shown in the exhibit below had a question that needed to be addressed by an Idea Lab while articulating the solution idea.
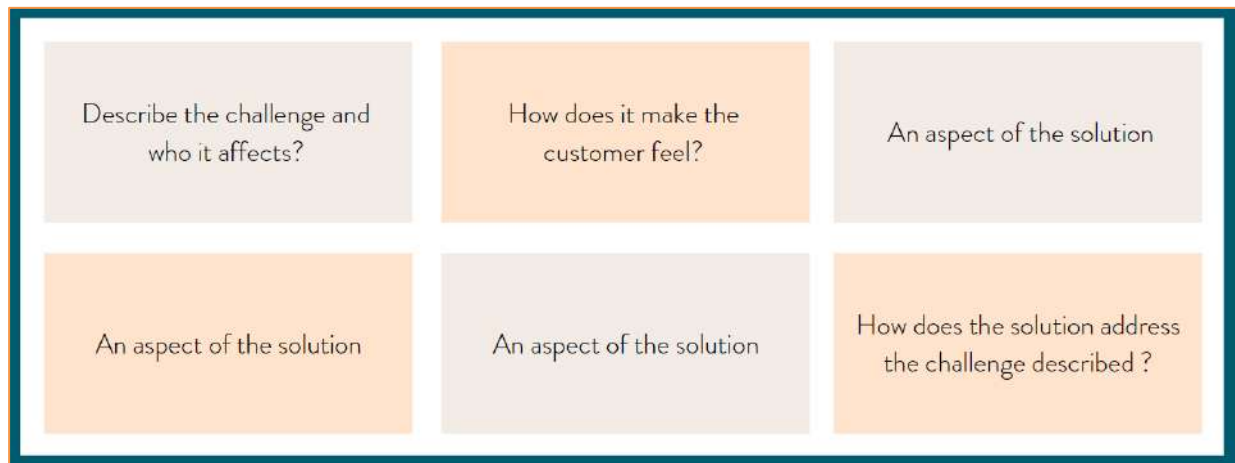
Figure 8: Storyboard Framework

Once the storyboarding was complete, it was important to test the inclusive circular solutions developed with real customers. Rapid paper-prototype experiments were designed and conducted for each top idea/solution space emerging from the four Idea Labs. Insights from these experiments based on collection and analysis of data and customer feedback were used by the solution providers to strengthen and refine their respective solution ideas and develop rollout plans.

The following table captures the paper prototype experiment design created and tested by the solution providers in the four idea labs.

Table: Design for Rapid Experiments

Idea Labs	Key Questions Tested	Rapid Experiment design
#1	What is the key motivating factor for consumers to give away their clothes that are in good condition for resale?	A randomized survey was designed to understand the 'key motivations' of consumers to give away pre-owned clothes (while still in good condition). The survey allowed consumers to choose from three (3) scenarios: a) All proceeds support charity b) 50-50% split between charity and customer c) All proceeds are returned to the customer
#2	Can the uptake and demand for pre-owned fashion be increased through curated style boxes?	In this experiment, the innovator introduced a new service offering in the form of curated style boxes for existing loyal customers
#3	Are consumers willing to pay a premium price for higher transparency about the product value chain?	A beta site was developed to showcase sustainable home decor products. Website displayed two products side by side, one with the information regarding product's making journey and the artisan, while the other one displayed only product information. Innovator measured the number the views and pre-orders for each product.
#4	Is there a mass market for people to give away old clothes and buy upcycled products?	An interactive quiz was designed and hosted on the enterprise website and was shared with the customers. It covered specific questions about the volume of unwanted clothes in customer wardrobes, frequency of disposal, clothes condition, among others. As a second part, the enterprise offered points to customers sending in old clothes. In exchange, these points could be redeemed to purchase products available on the enterprise platform.

Phase 3 Outcomes

Four (4) distinct inclusive circular business model solutions emerged at the end of the five (5) month collaboration process. These solutions were refined and sharpened by the respective Idea Lab innovators based on feedback from industry stakeholders and customers before their final presentation on the Demo Day.

Phase 4 – Final Idea Selection for On-ground Prototype

This phase entailed presentation and assessment of the inclusive circular business model solutions that emerged from the co-creation and paper prototyping process. The Demo Day was structured to be a closed door, consultative process with a jury comprising of a set of Working Group members and external experts.

Methodology – Demo Day

The Demo Day, spread over two days saw participation from multiple stakeholders in addition of an expert jury comprising of a few members from within the Working Group as well as a set of external experts. The jury assessed each of the four solutions to eventually select one solution idea for on-ground prototype testing. During both days, there was high willingness from the various stakeholders to provide support to the solution providers on aspects including brand connects, marketing, mentorship and product design and quality improvement support.

The table below shows the evaluation metrics used by the jury to assess the four solution ideas.

Table: Evaluation Metrics for collaborations projects presented by Idea Labs

Idea assessment criteria	Idea description
	The ideas were scored on the scale of 1 to 5 on each criterion *(1 – strongly disagree; 5 – strongly agree)*
Understanding of consumer demand	The solution proposed is well thought through. The story board captures the understanding of the overall consumer experience, and the learnings from rapid experiments have been factored in
Market Viability & Revenue potential	The solution demonstrates potential to capture market opportunity and be scaled and replicated across India. The partnerships required for scalability have been identified.
Social Impact Outcome Potential	The solution has potential to deliver clear measurable social impact outcomes, which might be by way of creating jobs, increasing incomes, gender inclusion, better working conditions, skilling etc.
Environmental Impact outcome Potential	The solution clearly exhibits a pathway and the extent to which it will help reduce the negative impact on the environment by extension of lifecycle of clothes, resource efficient production etc. The overall solution is anchored in circularity.
Pilot Readiness	The innovator understands the competitive landscape and potential risks to failure. Alongside the partnerships that may be needed for execution.
Entrepreneur's Leadership Capabilities	The innovator's experience, skills and background indicate that she/he can lead and drive partnerships to execute the idea on ground.

Phase 4 Outcomes

The presentation and detailed assessment of the four inclusive circular business model ideas culminated in selection of one of the ideas for on-ground prototyping in the final phase of the project.

Phase 5 – On-ground Prototype Testing

In the final phase of the project, we worked closely with the shortlisted enterprise - Twirl.Store (Twirl) to design, execute and test its solution idea through on-ground prototyping over a four month period.

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.

CAIF's project 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:

a) Skill building and capacity building amongst its women artisans to improve their income potential
b) Identifying and establishing market linkages that would generate demand for upcycled products made from post-consumer waste

A detailed analysis of this phase has been captured in a separate dedicated report titled "Case Study: Prototyping and Piloting an Inclusive Circular Business Model".

Key Working Group Insights

An industry working group was designed and established as a mechanism for high touch engagement which allowed for coordinated and collaborative efforts amongst a diverse and carefully curated set of industry stakeholders. In addition to serving as a platform for co-creation with the shortlisted innovators, the Working Group also served to inform a common and shared understanding on the need for and the potential of circular business models – both in delivering planet and people positive outcomes within the textiles and apparel industry.

We have captured the key learnings and insights from the industry working group along three (3) broad dimensions:

- *Role of circular business models (Circular business models) in making access to fashion inclusive while influencing responsible consumption*
- *Gaps and challenges associated with designing for inclusion in circular business models*
- *Opportunities and whitespaces for driving a broader adoption of Inclusive Circular Business Models (Inclusive circular business models).*

A) Role of Circular business models in expanding customer inclusion and influencing responsible consumption

Circular business models in India represent the opportunity to evolve fashion from being just aspirational to being accessible.

India, in addition to being a major manufacturing and recycling hub, is a significant and growing consumption hub. Unlike other manufacturing economies (in South Asia and SE Asia), India also boasts of established home-grown brands, manufacturers, and retailers. According to McKinsey's Fashion Scope, the Indian apparel market is estimated to be worth USD 59.3 billion in 2022, making it the sixth largest in the world. The Indian consumer, particularly the bulging middle class, is the key driving force behind such growth. The aggregate income of individuals in this segment of the population (with over USD 9,500 in annual income) is expected to triple between now and 2025.

> *"Rental apparel market is at a nascent stage in India but many new startups are coming up in this space. With increase in online shopping and the middle class aspiring to use high-end fashion clothing, there is a lot of growth potential in this segment"*
>
> *Aanchal Saini, Founder Flyrobe*

This growing middle class, especially in tier 2 and tier 3 cities, is highly aspirational. Increased digitization, influencer marketing, heightened information about fashion trends and growth of popular cultures, are key factors fueling this aspiration. Given this backdrop, circular business models such as rental and resale as emerging alternatives to retail purchase, have significant potential to fashion from being just aspirational to being within reach for this consumer segment.

Marking a shift from the traditional ownership model, such models delivering fashion as a service are gaining consumer interest in India. Enterprises such as Flyrobe and Stage 3, pioneers in introducing such models in India, point out that high street fashion is now garnering increasing interest particularly from middle class consumers. Interestingly, half of such demand is emerging from non-metro tier 2 and 3 cities in India.

Circular business models are allowing for experimentation on 'fashion as a service' to not just offer new services to existing consumers but also expand the consumer base (through accessibility)

Several circular business model experiments are unfolding in India to cater to the needs of existing and new customers though more sustainable approaches. Leasing or subscription-based models by enterprises such as Stylenook and Krate for example, are seeing demand from consumers who aspire to keep up with fashion trends. Krate for instance, introduced India's first Men's Clothing subscription box allowing consumers to use 2-3 items with branded apparel items at a monthly subscription of approximately USD 20.

Similarly, resale models offering the options to purchase and sell second-hand clothing are also gradually gaining acceptance, particularly among young shoppers (under 35 years of age) who exhibit greater buying frequencies and environmental consciousness. [5] Start-ups such as **Kiabza**, **Stylflip**, **Etashee** for instance allow customers to both buy and sell branded apparel on their platform. While some of the re-commerce enterprises like **Rewear** and **Ziniosa** have created platforms for luxury wear, others like **Saltscout** are adopting approaches to mainstream resale of fashion. Saltscout for instance, focuses on resale of garments from celebrity wardrobes to cater to the quintessential aspirational

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[5] Input from a working group member

Indian customer.

Embedding technology into circular business models not just empowers consumers but also influences responsible consumption in the long run.

A key common characteristic of circular business models is the fact that they are designed to empower consumers by providing them with alternate and more responsible choices and in effect, influence a shift towards conscious consumption. Deploying technology to enhance transparency and generate product awareness is a popular approach being adopted by brands that focus on sustainable fashion and circular practices. For instance, By Rotation a UK based peer to peer rental fashion start up provides customers an 'Impact Scale' feature that allows them to track the 'positive savings made by renting rather than buying'. With detailed research on the environmental impact of different items including clothing and accessories, users can use the data to make their own fashion choices.[6]

On similar lines, **Saltscout**[7], an Indian social enterprise recently launched its new brand **'Dolce Vee'** - 'pre-owned' or 'pre-loved' fashion brand with its own Environmental Footprint Calculator. Embedding technology QR Codes or Product IDs within products, brands to make consumers aware of the product's journey. Such on-product technology enables digitization of wardrobes and has high potential to influence the adoption of circular business models. [8]

Figure 9: Salt Scout Environment Calculator

Additionally, transparency regarding pricing compositions is another interesting strategy that brands are turning towards to establish openness and connect with their customers. Flourish, a new ecommerce platform (currently in its beta stage) for instance provides customers a detailed insight into the price of their products. Customers on the product page get information about how much of the final price is towards raw materials, artisan wages, profits, among other factors.

COST BREAK-UP

Raw Material Cost	₹ 675
Artisan Wages	₹ 945
Producer Group Margin	₹ 351
Flourish Margin	₹ 729
MRP	₹ 2700

Figure 10: Cost Breakup Structure from Flourish website

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[6] By Rotation
[7] Saltscout.
[8] For H&M the future of fashion is both 'circular' and digital by McKinsey & Company

Circular business models engender stronger consumer loyalty through mass personalization through digital and technology solutions.

With the proliferation of digital fashion and online retail, product differentiation and adoption of innovative customer retention strategies have become paramount. Brands are increasingly working towards developing intimate relationships with customers by delivering personalized product experiences. Offering such bespoke experiences is a key characteristic of circular business models as they aspire to change consumer behavior and help them transition to responsible consumption. Circular business models are experimenting with several approaches to deliver personalized buying experiences and secure customer loyalty. Enterprises like **Bare Anatomy**, **Better India** and **Sirohi** use subscription models to deliver bespoke experiences like capsule launches to develop a loyal customer base. Some enterprises focus on high touch consumer engagement through initiatives like video unboxing, personalized stylists' tips and in cart follow ups. Few of them also leverage technologies like Virtual Reality and Augmented Reality to deliver a virtual, yet seamless trial room experience.

B) Gaps and Challenges associated with designing Circular business models for inclusion

Lack of integration and design for inclusion and social into a business model is limiting scale of operations and impact.

While the commitment to environmental sustainability is the key driving force behind the design of Circular business models, efforts by innovators to integrate the social impact dimension into this design is limited. The primary reasons that emerged from the working group sessions were either a lack of clear and organic opportunity to integrate the social lens or a lack of clear understanding, particularly in the early stages of experimentation and growth, as to how best to integrate this dimension and whether it makes business sense to do so. For instance, a resale startup typically employs workers to carry out low-skill tasks like sorting, ironing, and laundry to meet its basic business operations requirements. However, upskilling programs involving advanced competencies such as merchandising, photography, and design for such workers are rather limited.

Having said that, for Circular business models which have deep engagement with artisans and local communities as a key underlying pillar, upskilling these communities and improving their livelihood and economic earnings become stated objectives. Innovators such as Twirl, which upcycles old and unused garments into attractive products by employing and upskilling women artisans from local communities, have the social impact lens deeply ingrained in their business models.

Areas of action identified by 13 circular business enterprises sourced through the Circular+ Challenge are shown below.
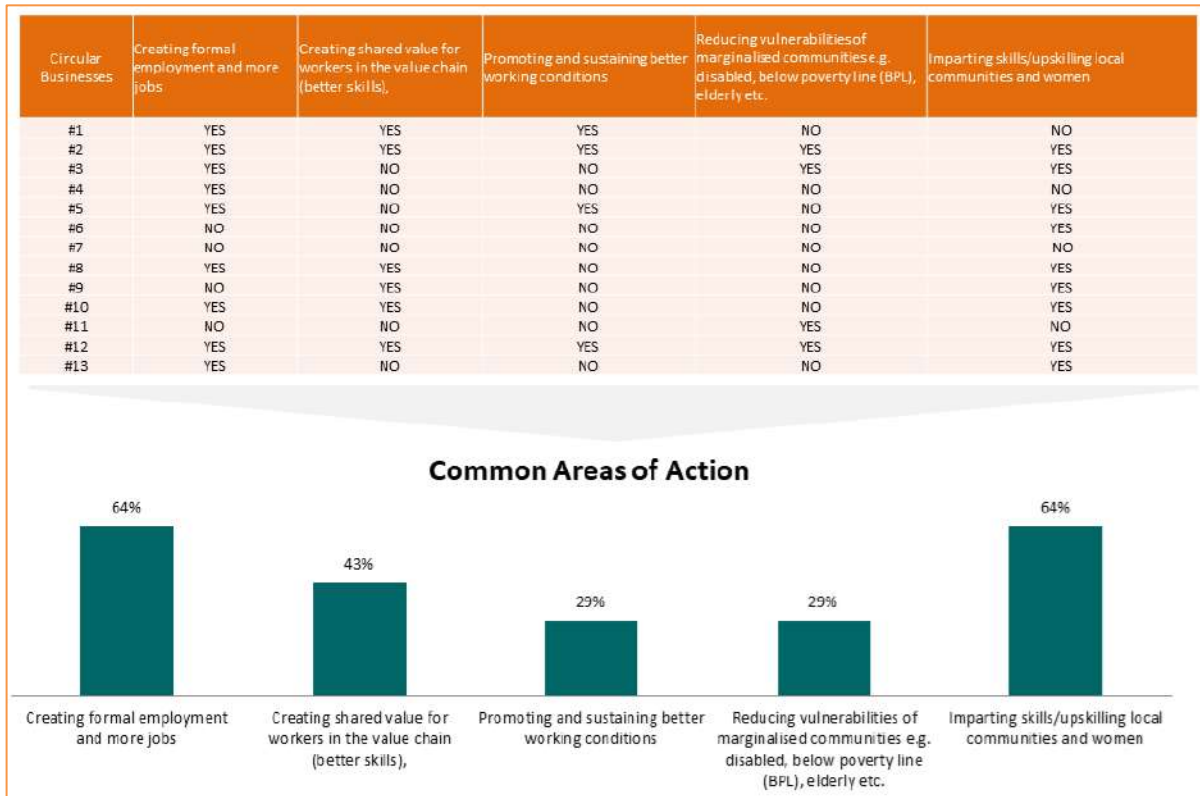
Circular Businesses	Creating formal employment and more jobs	Creating shared value for workers in the value chain (better skills),	Promoting and sustaining better working conditions	Reducing vulnerabilities of marginalised communities e.g. disabled, below poverty line (BPL), elderly etc.	Imparting skills/upskilling local communities and women
#1	YES	YES	YES	NO	NO
#2	YES	YES	YES	YES	YES
#3	YES	NO	NO	YES	YES
#4	YES	NO	NO	NO	NO
#5	YES	NO	YES	NO	YES
#6	NO	NO	NO	NO	YES
#7	NO	NO	NO	NO	NO
#8	YES	YES	NO	NO	YES
#9	NO	YES	NO	NO	YES
#10	YES	YES	NO	NO	YES
#11	NO	NO	NO	YES	NO
#12	YES	YES	YES	YES	YES
#13	YES	NO	NO	NO	YES

Common Areas of Action

- Creating formal employment and more jobs — 64%
- Creating shared value for workers in the value chain (better skills), — 43%
- Promoting and sustaining better working conditions — 29%
- Reducing vulnerabilities of marginalised communities e.g. disabled, below poverty line (BPL), elderly etc. — 29%
- Imparting skills/upskilling local communities and women — 64%

Figure 11: Common Action Areas for Circular Business Models

Lack of formal skill and capacity building among vulnerable communities increases socioeconomic risks across the value chain.

Black swan events like COVID 19 have surfaced serious vulnerabilities and highlighted the critical need for ensuring social mobility and social protection. Two key aspects of social inclusion which require special attention, particularly in the aftermath of COVID-19, are social mobility and social protection. These aspects are integral to achieving long term social returns to ensure vulnerable participants in the value chain such as workers and women artisans are equipped with skills to meet future of work needs and are protected against socioeconomic risks.

In most cases, initiatives undertaken for training and skill building are largely geared towards improving immediate production efficiencies. There is a need for businesses to inculcate longer term emphasis on aspects like job satisfaction, improved working conditions and creation of opportunities that allow these vulnerable communities to secure value addition in terms of higher order skills and capabilities.

Such approach has the potential to also contribute towards the business returns in the form of talent management, retention, and improved future productivity. For example, informal workers like artisans and home-based workers who form important constituencies of textile value chains may be trained in aspects of

A recent survey revealed that one in five garment workers - who normally earn about INR 10,000 (USD 137) per month in India have seen their earnings drop by over 20%. In view of this, the Indian government has been urged to step up social protection of garment workers have been the hardest hit financially by the pandemic.

Ecotextile, November 2020

business management and leadership that equips them to shoulder greater responsibilities such as supervisory roles and become micro-entrepreneurs.

Furthermore, the COVID-19 pandemic has also illustrated the heightened need for brands, circular businesses, and manufacturers to invest in social security coverage of these informal vulnerable communities as well as formal garment workers.

Lack of unified gender disaggregated data limits acknowledgement of the scale and scope of the problem (on worker rights and working conditions)

To build an inclusive circular textile industry, there is a common acknowledgement amongst stakeholders about the importance of integrating gender considerations in their business strategies. However, despite women playing crucial roles in the workforce, operations and supply chain, the industry lacks credible gender data. The World Benchmark Alliance's Gender Benchmark, 2020 in its study covering 36 apparel companies revealed that gender efforts are "woefully insufficient" with basic information regarding actions to promote gender equality remaining publicly unavailable.[9]

Additionally, there is a significant need to improve the type and quality of data that is required to be collected. Most stakeholders view collection of gender data as an exercise of 'counting' the number of women, largely driven by regulatory obligations or meeting declared commitments. Stakeholders at each level currently lack adequate incentives to capture, collect, analyze, and use nuanced sex disaggregated data and fail to recognize it as a business need. However, to truly design for inclusion the data collection approach needs to radical change to generate business insights and inform strategic action towards gender equality.

(C) Whitespaces and opportunities for driving wider adoption of Inclusive circular business models

With increasing attempts by brands on the global stage to integrate circular business models within their core businesses, the time is ripe for them to test these models in the Indian context, given the country's importance to the global fashion industry.

The McKinsey "The Next Normal: The future of Fashion Report" highlights that "Consumers will increasingly expect and demand an emphasis on sustainability from fashion brands. Circular business models won't be optional."[10] Globally, established fashion retail brands are increasingly exploring avenues to integrate circular business models like rental, resale or repair/refurbishment within their core businesses.

> *"The best estimate over the next three years is $50 billion out of existing brand and retail sales in the US if there was a one-to-one trade-off between people buying used or renting versus traditional ways of buying new items from brands and retailers."*
>
> *CEO, Yerdle (Yerdle provides brands like Patagonia, REI, and Eileen Fisher with platforms for buying and selling used goods)*

Several global brands including luxury brands like Gucci and H&M have recently followed pioneers like Patagonia (Worn Wear), Eileen Fisher, North Face, to launch their own secondhand resale platforms, while others like **Kering** and **LVMH** are exhibiting strong interest in this space. For instance, Levi's Second Hand, the brand's first buy-back program allows customers to purchase secondhand jeans and jackets on Levi.com while also giving customers the opportunity to turn in their worn jeans and jackets

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[9] Gender data is invisible, World benchmarking Alliance
[10] The next normal, McKinsey & Company

in Levi's stores in exchange for a gift card that can be used for future purchase. In the offline retail space, Vestaire launched a first of its kind initiative by introducing its resale collective at Selfridges London last year. All these players are focusing on scaling and integrating such circular models with their businesses which allow them to decouple business growth from resource use.

In India however, large retail brands are yet to test circular business models. While innovators and startups have begun introducing these models, participation of retail brands is currently very low, primarily due to high consumer demand elasticity and their sensitivity to price changes. However, with the increasing influence of global fashion trends on the Indian market, there is a significant opportunity for global as well as domestic brands to test and introduce circular business models unfolding on the global stage to the Indian context.

Integrating repair as a service with brand offerings could be an entry point from brands into inclusive circular business models

Besides designing products that are 'made to last', 'repair or refurbishment services by brands can ensure reduction in waste as well extending the life of clothes. While repair has largely been seen as an integral component for the re-commerce or resale, innovative approaches that position repair as an independent business model, are emerging. In the global landscape, several brands are exploring ways to integrate repair/ refurbishment with their brand ethos and business philosophy. Many of them are enabling customers to access their own repair services and facilities, either as an independent service or coupled with their resale initiatives.

In the Indian context, repair also has the potential to create formal jobs by tapping into the wide homebased worker network available. Brands can also collaborate with third party e-tailoring services to meet regular repair or alteration services. **TechTailor**, an Indian e-tailoring service pointed out repair as a business model can only be viable at scale, through brand partnerships.

Some examples of brands that have integrated repair within their business models

FilippaK Repair Service
If a garment is broken, it can be brought back to the store to be repaired. In addition, they have a special garment care service, which advises you on how to care for your garment to push its life cycle. Lastly, they are offering workshops (only in Stockholm) for garment repair and advice.

Nudie Jeans Repair Offerings
Every pair of jeans by the company comes with the offer of free repair throughout the life of the garment. The Nudie Jeans Repair Shops are hubs for jeans to be repaired, resold as second-hand or even donated to the their recycling program.

Patagonia – Worn and Tea Tours
In order to ensure that customers across the United States and Europe are also given access to Patagonia's repair facilities, the apparel retailer has launched 'Worn Wear Tours'. During these tours, Patagonia drives a repair truck through a number of states and cities, offering free repairs on Patagonia products, as well as quality, second hand items for sale.

About Circular Apparel Innovation factory (CAIF)

CAIF is an industry-led initiative, seeded by and within Intellecap. Intellecap in turn is the impact advisory arm of Aavishkaar group. In 2018, Intellecap 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 Intellecap, 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, Intellecap)

Annexure

List of Secondary Resources

1. *Pulse of the Fashion Industry by BCG and Sustainable Apparel Coalition, 2017*

2. *India – Knitting the Future, Invest India, 2018*

3. *For H&M the future of fashion is both 'circular' and digital by McKinsey & Company, 2020*

4. *Gender data is invisible by World Benchmarking Alliance, 2020*

5. *The Future of fashion: Sustainable brands and 'circular' business models by Mckinsey & Company, 2020*

6. *Online Clothing Rental Market by End User and Clothes Style: Global Opportunity Analysis and Industry Forecast, 2017-2023, by Allied Market Research,2019*

7. *India Sustainability Report 2020 by Ministry of Textiles, Government of India, the Voice of Fashion, 2020*

8. *Ten Trends That Are Altering Consumer Behavior in India by BCG, 2019*

9. *Indian E-commerce industry report by Indian Brand Equity Foundation, 2020*

10. *2020 Fashion Resale Market and Trend Report by Thredup, 2020*

11. *Online Fashion Market in India by Redseer Consulting, 2019*

12. *Garment workers 'hit hardest by the pandemic', Ecotextile 2020*

Working Group Members List

Name	Designation	Organisation
Nand Kishore Chaudhary	Managing Director & Chairman	Jaipur Rugs
Jacob Mathew	CEO	Industree Foundation
Harsha Vardhan	Global Environment Manager, Production	H&M
Francois Souchet	Former Lead, Make Fashion Circular	Ellen MacArthur Foundation
Priyanka Khanna	Manager - International Expansion	Fashion for Good
Ranjeeb Sarma	Head of Compliance, CSR, Plan A India & Srilanka Region	Marks & Spencer India
Aanchal Saini	CEO	Rent it Bae/ Flyrobe
CPC Shekarappa	Director	Fuzhio Health, Catalyst group
Devyani Hari	Director	Centre for Responsible Business
Esha Fernandes	Founder	Chambray & Co
Ganesh Subramanian	Founder & CEO	Stylumia

Gauri Sharma	Organisational Development	Shahi Exports
Jithu Vel	Co-founder	Bioclean
Komal Hiranandani	Co-founder	Saltscout
Lavanya Garg	Senior Manager, Strategy and Development	Good Business Lab
Mansi Kabra	Senior Manager, Marketing and Transformation	Good Business Lab
Nikita Almeida	Founder	Collections Reloved
Nohar Nath	Co-founder & CEO	Kiabza
Priyal Shah	Consultant	World Resources Institute
Priyansha Mehra	CEO	SAND
Rachna Chandrashekhar	Senior Associate	Upaya Social Ventures
Ramanuj Mitra	Program Officer	Centre for Responsible Business
Rohan Batra	CSR & Sustainability	House of Anita Dongre
Shrimayi Kapasi	Founder	Firang
Siddharth Bharadwaj	Portfolio & Innovation	Social Alpha
Sujata Chatterjee	Founder	Twirl.store
Susan Bhaktul	CEO/ Apparel	Industree Foundation
Vishrut Shiv Kumar	Head of Operations	Noble Plastics