

The Ecology of Innovation in the Fashion Sector

Pioneering a Circular Fashion Brand
Using Smart Sustainability

Rosa Fracassa

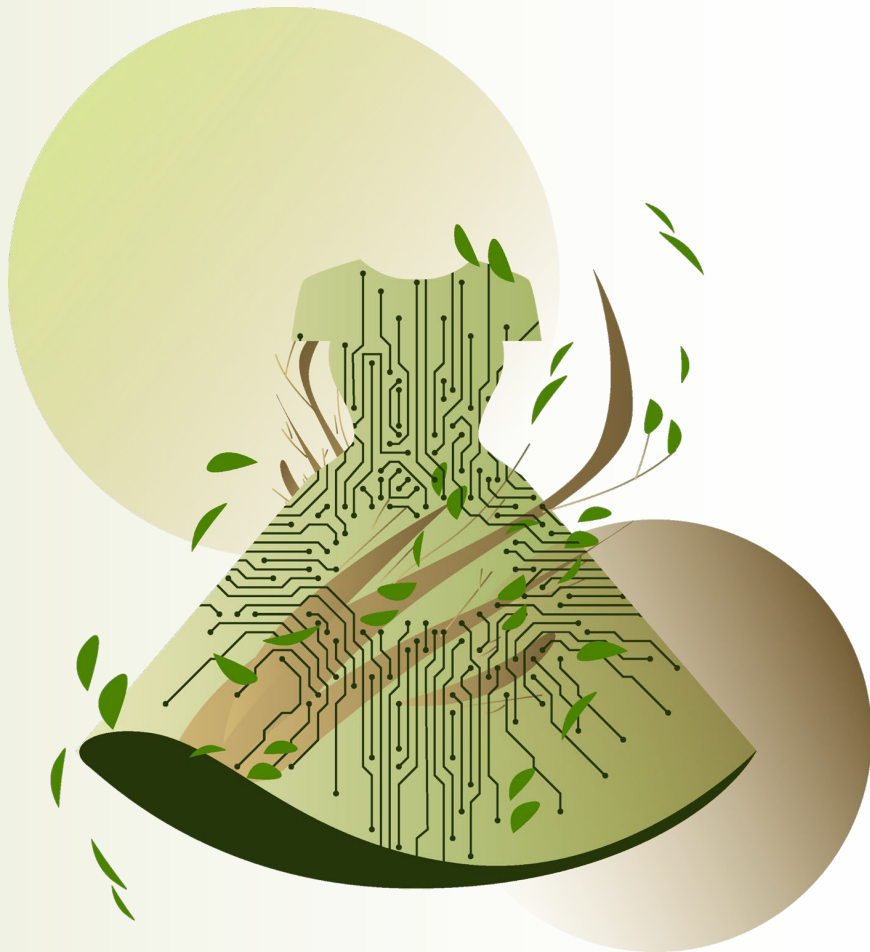
George Brown College– Chair School of Fashion & Jewellery / Fashion Exchange

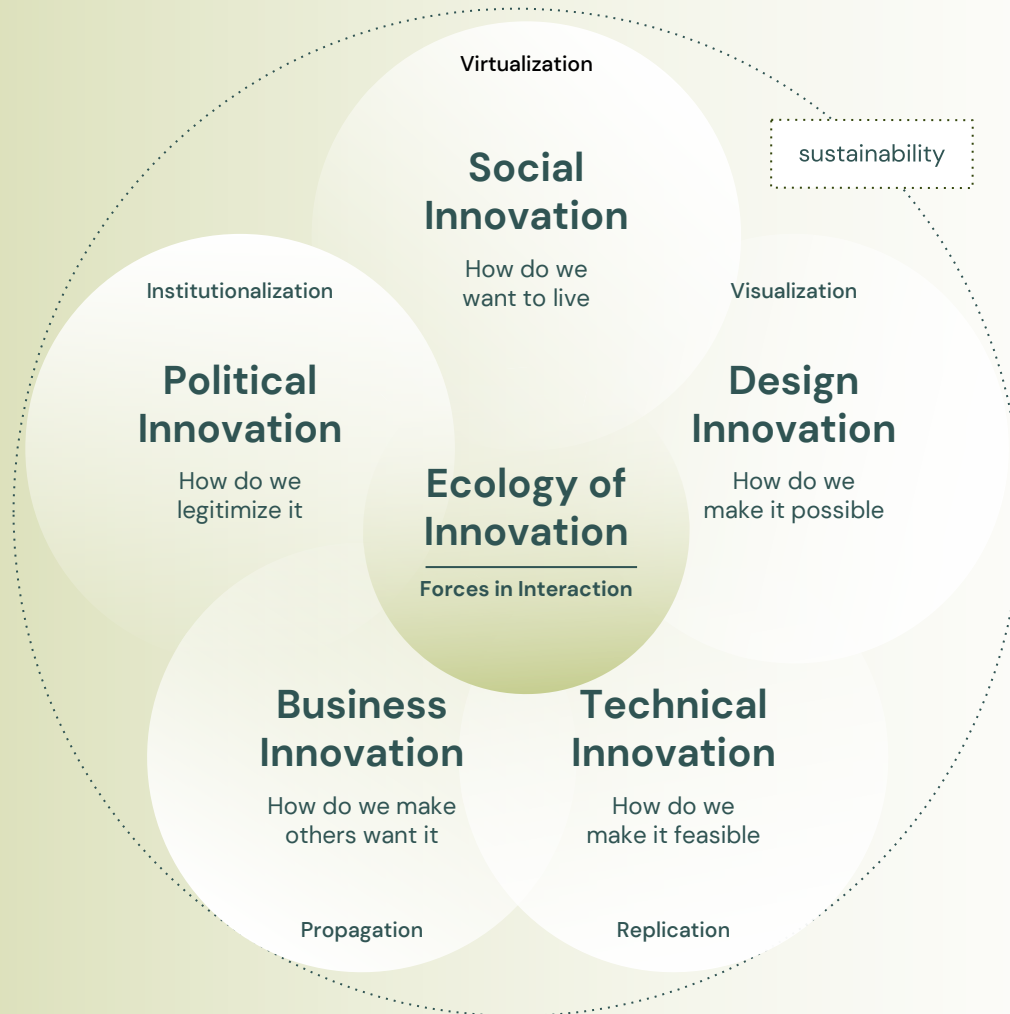
Gagan Singh

Consciously– Co-Founder, Clean Planet– Co-Founder

Matt Hexemer

Brookfield Sustainability Institute– Global Solutions Director,





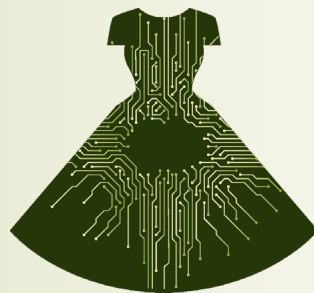
Innovation

The embodiment, combination, or synthesis of knowledge and technology in original, relevant, and valued new products, processes, or services.



Incremental

Feature level improvements



Disruptive

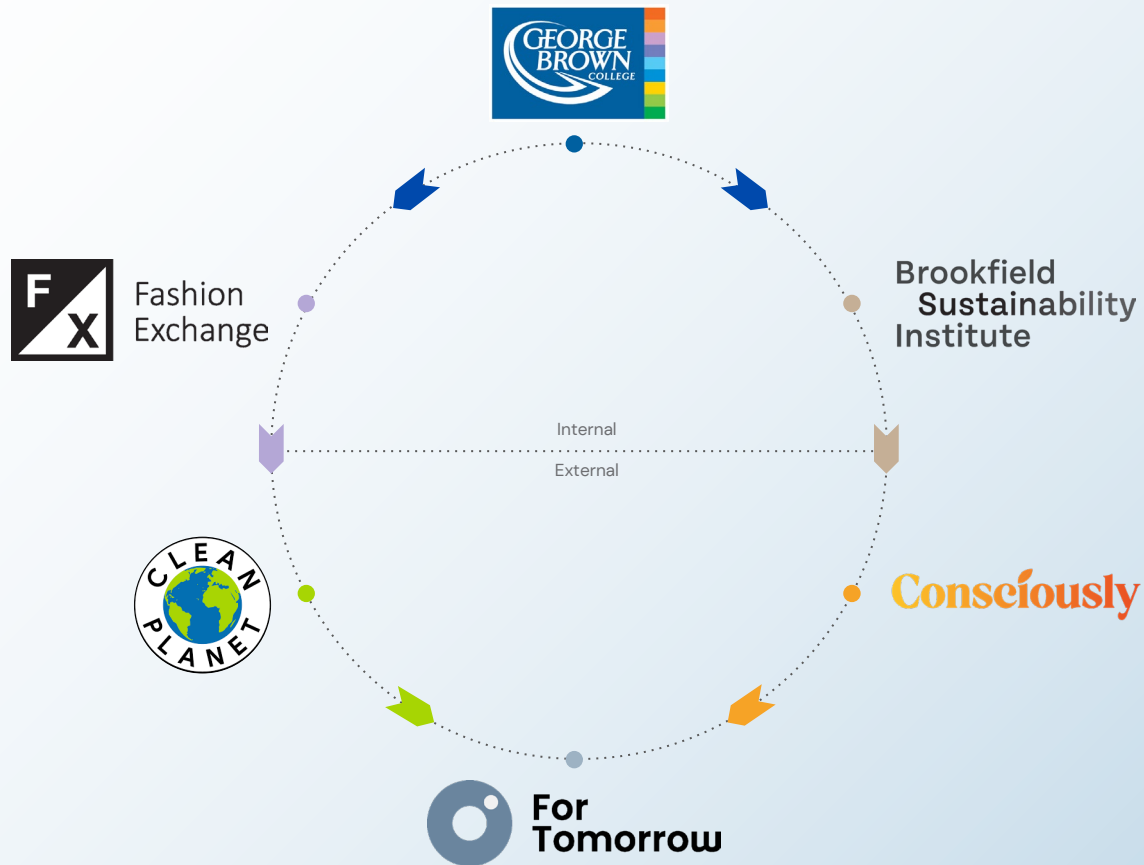
Category changing advancements



Transformational

Breakthrough systems & new industries

Create the right conditions for innovation to flourish.





Global Partnerships

Industry Participatory Learning

Co-ops

Education

Work-integrated Learning

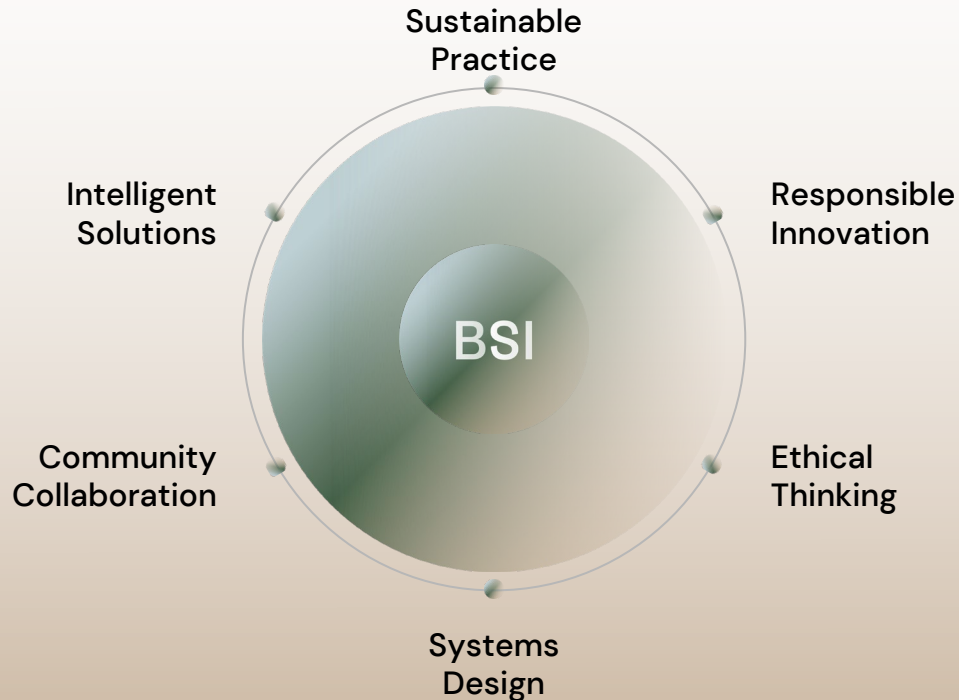
Applied Research Projects

Field Placements



Brookfield Sustainability Institute

We are imagining a smart and sustainable future.



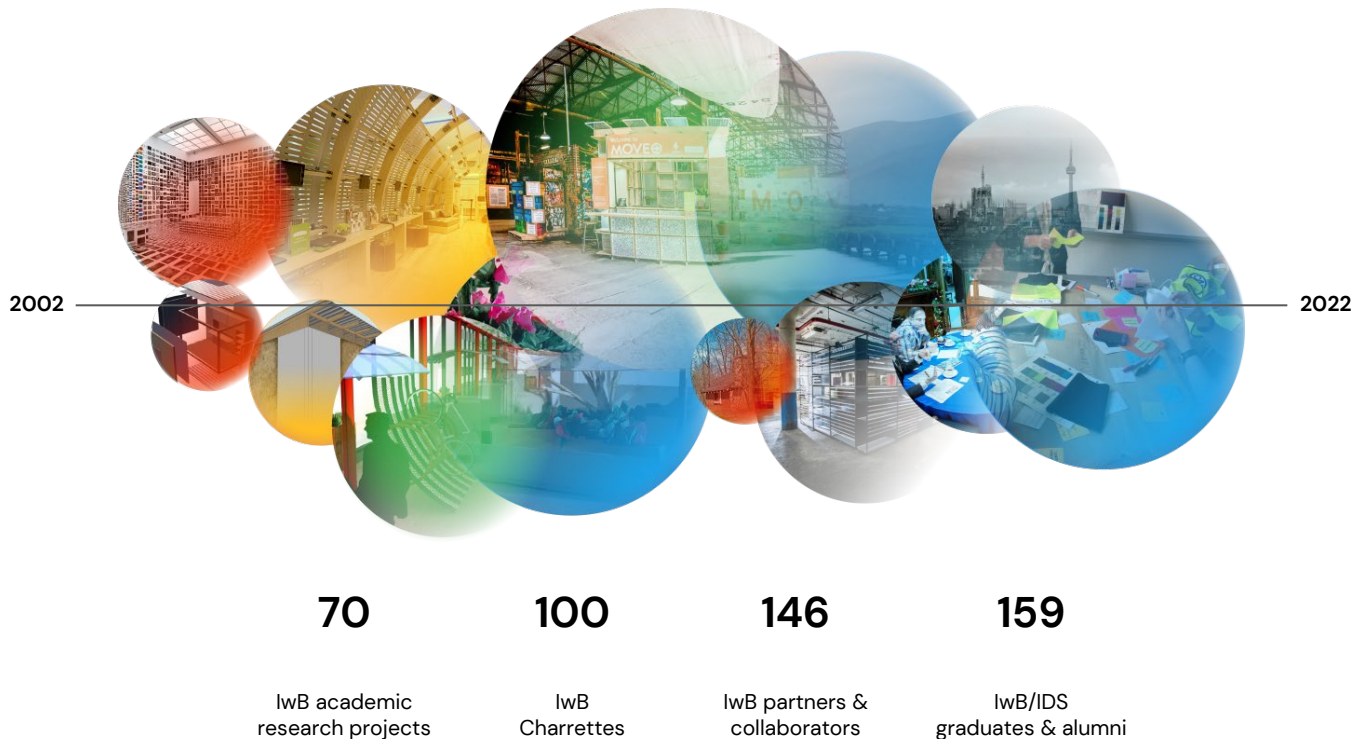
Our Mission:

- Help companies move to net zero with applied solutions → Via the development of applied smart sustainability solutions
- Develop talent for the future → Via a talent development program
- Share knowledge about smart sustainability → Via an observatory & research hub

Engage academic institutions, businesses, governments, nonprofits and foundations across sectors including:

- Circular Economies
- Green Energy & Infrastructure
- Sustainable Building Systems
- Smart Transportation Solutions
- Urban Food Security Initiatives

Built on a 20yr legacy with The Institute Without Boundaries



Limberlost Place

The Brookfield Sustainability Institute is a research and innovation center focused on identifying, understanding, and developing smart sustainable solutions to help fight climate change.





Fashion Exchange

Community + Students + Industry = Apparel Exchange Hub



**Industry and
Community
Services**

Education

Research



Education

- Youth Skills Programs
 - Industrial Power Sewing
 - Apparel Fit Technician
 - Women in Fashion Technology

- Post-Secondary
 - Apparel technical design
 - Sustainable fashion production



Industry and Community Services

- FX is embedded in community fabric
- Industry events
- Community engagement
- Hidden Talents project
- Industry leadership & mentorship for students
- Production resources for start up designers

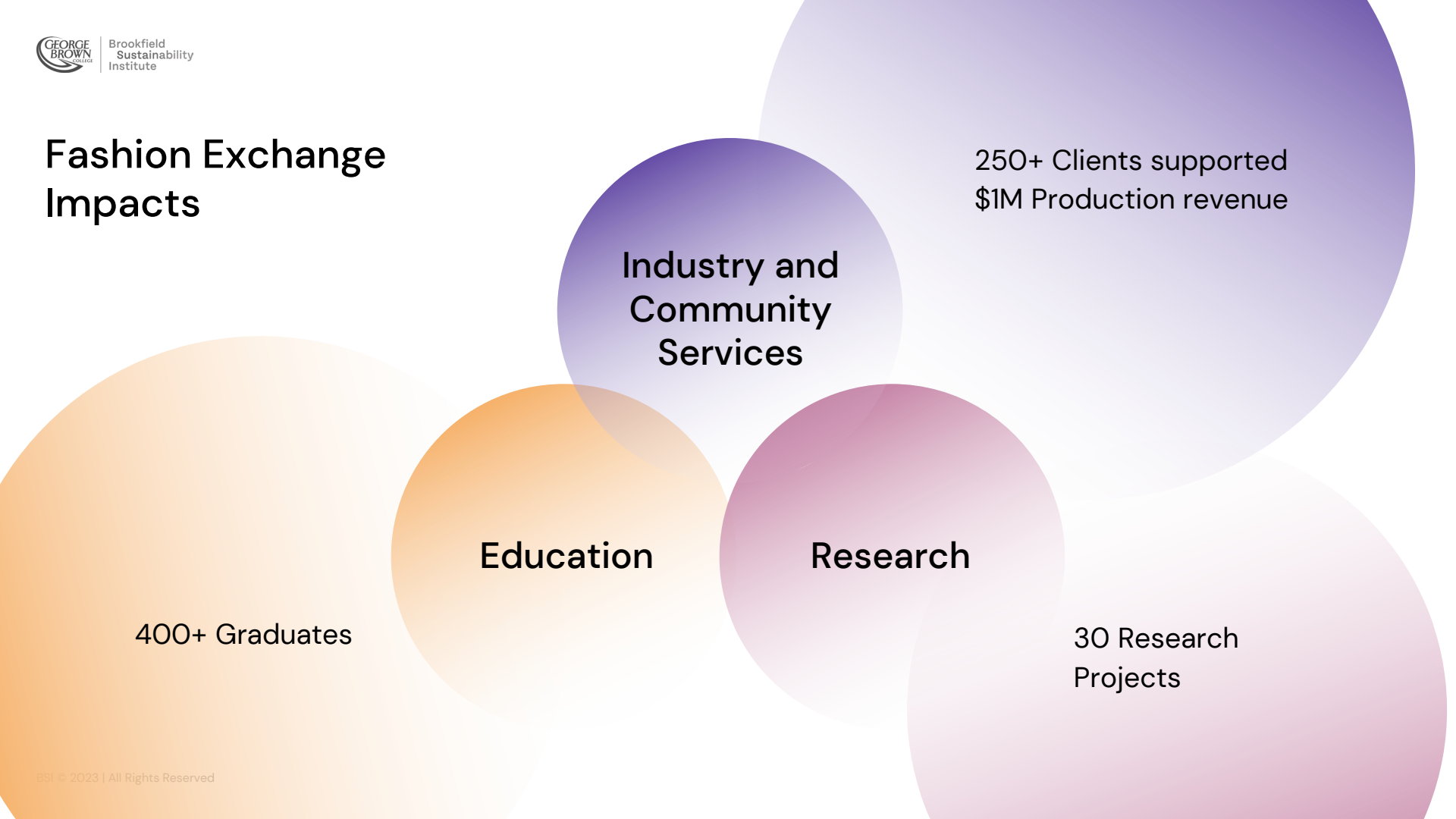


Research

- Research and Innovation GBC + Fashion Exchange + Industry Partners
- Research: Dye Sublimation, 3D Scanning, Textiles Lab, Embroidery Technology
- Examples: product development, 3D scanning, textile testing, fibre content
- Brookfield Sustainability Institute + Fashion Exchange + Consciously
- For Tomorrow



Fashion Exchange Impacts







Starting a relationship

- Hired as Dir. of the Fashion Exchange
- Small batch clothing runs
- Our visions were aligned

Teaching sustainability at GBC

- Medical gowns were in high demand
- Left the Fashion Exchange
- Started "Clean Planet" with a partner

The Pandemic hits

- Pandemic shuts down GBC
- Gov't reopens FX to make PPE
- Made over 20,000 masks

A new venture

- Medical gowns were in demand
- Left the Fashion Exchange
- Started "Clean Planet" with a partner

The business was a roller coaster ride.

An
unpredictable
pandemic

Supply chains
were stressed

We were making
120 gowns a day
per person

But we were
losing money

We were faced with a brutal challenge...
Find a way to make at least 200 gowns per person or close our doors.

I proposed an incentive. Pay employees per gown.

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And it worked.

1

Motivation

2

Empowerment

I proposed an incentive. Pay employees per gown.

And it worked.



Suddenly it clicked.

This is how we motivate people to recycle apparel.

- Clean Planet delivered 25,000 medical gowns in 2 weeks.
- In 6 months, we became the largest MFG of medical gowns in Canada.
- We hired 250 staff members in 6 months.
- Delivered 3 million gowns.

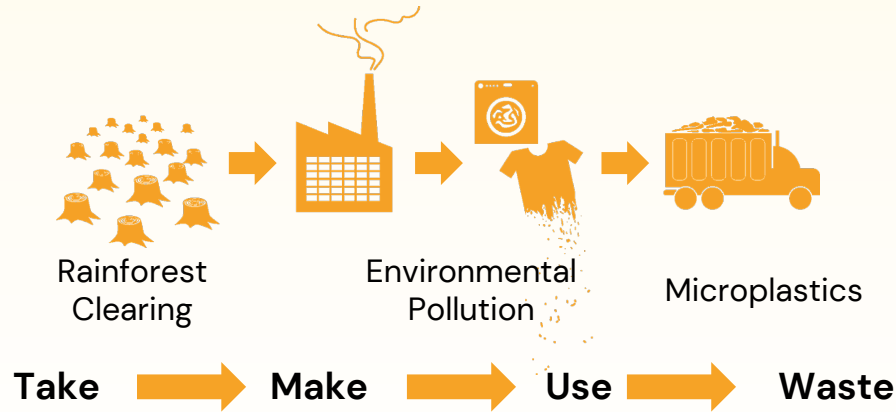




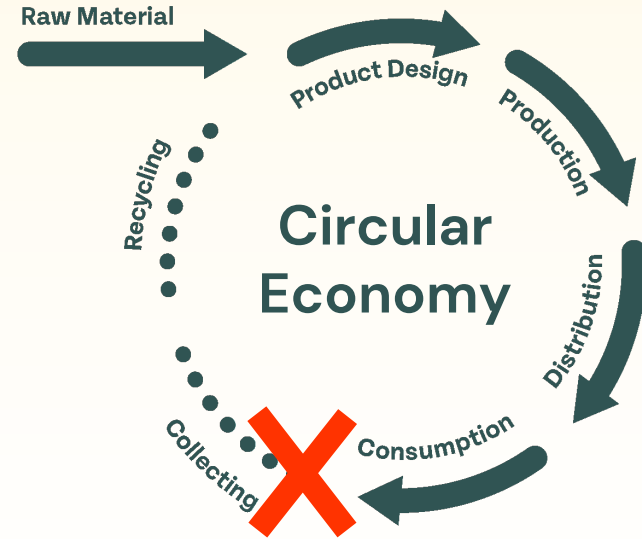
By **2030**, the fashion industry will increase production **63%**, consuming resources equivalent to two earths.



A shared vision for **circular fashion innovation** in the face of one of the most complicated problems in the world today.



A linear economy is not sustainable.



The circular apparel economy **breaks after consumption.**

Provide a financial incentive for people to recycle apparel.





Consciously

Close the loop on ~~fast~~ fashion.

Mission.

Enable a circular economy for apparel brands.

Value.

Incentivise & reduce the effort for apparel recycling

Consciously

1.

Apparel Accounting

- Garment traceability
- Financial incentives
- Product lifecycle data

2.

Apparel Marketplace

- New apparel discovery
- Used apparel discovery
- Circularity community

3.

Recycling Logistics

- Garment reclaim & ship
- Repair, reuse & recycle
- Facility logistics

**In order to launch Consciously,
we needed the first product
for our marketplace.
A Hoodie.**

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Fashion
ExchangeBrookfield
Sustainability
Institute

Consciously

An intensive co-creation event. The Fashion & Information Technology Charrette.

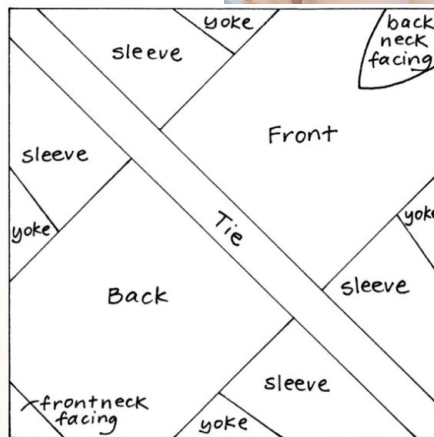
- **Multi-disciplinary teams.** IT, Fashion & Jewelry, School of Design
- 3 design challenges
- 30 students & 5 days
- 10 industry advisors



The solution... A zero-waste pattern.

Design Principles

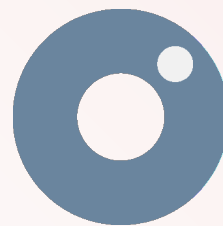
1. Recyclable, Sustainable Fibres
2. Zero Waste & Designed for Disassembly
3. Just In Time Production
4. Physical & Emotional Durability
5. Equitable Labour & Impact Accounting



Zero Waste
Pattern



Initial 3 prototypes
produced by FX
students



For Tomorrow

The hoodie that pays you back.

So how does a garment pay you back?

When a garment has outlived its usefulness, we take it back!

1. Partnering With Brands.

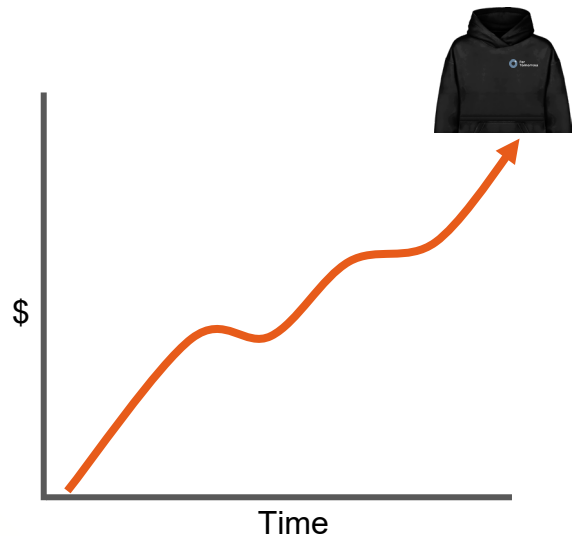
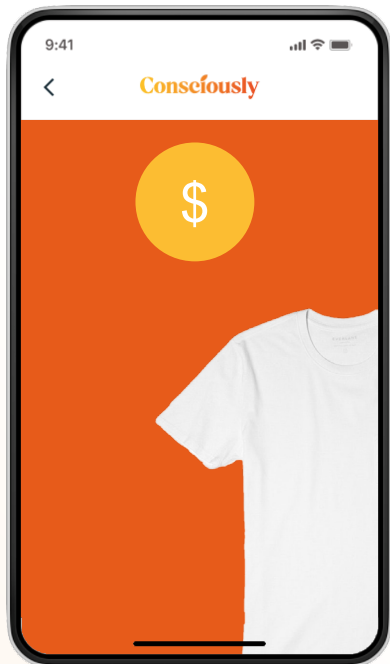
Apparel brands large & small will partner with us to activate the Consciously service.

1. An Investment.

Once customers return their used garments they receive credits. Consciously will invest up to 50% of profits into a green energy fund.

1. Incentivisation.

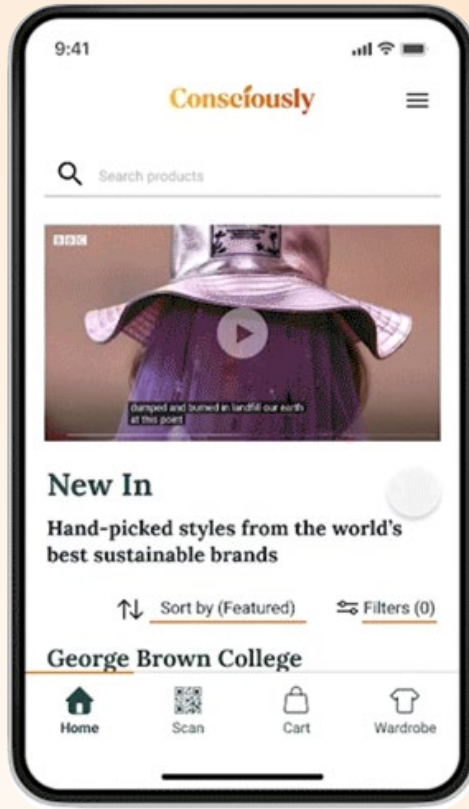
Customers can use their credits to shop in our marketplace.





A QR Code for traceability.

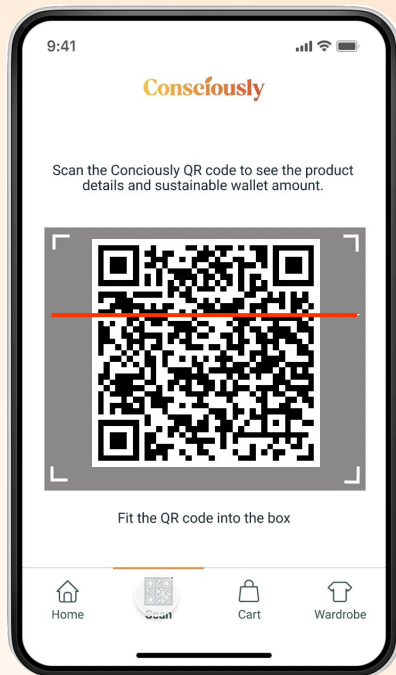
1. How should it be recycled.
2. MFG & production location.
3. Certifications information.
4. Content & care instructions.
5. Size/color & spec of the item.
6. Item history (private).
7. Incentives that you earned (private).



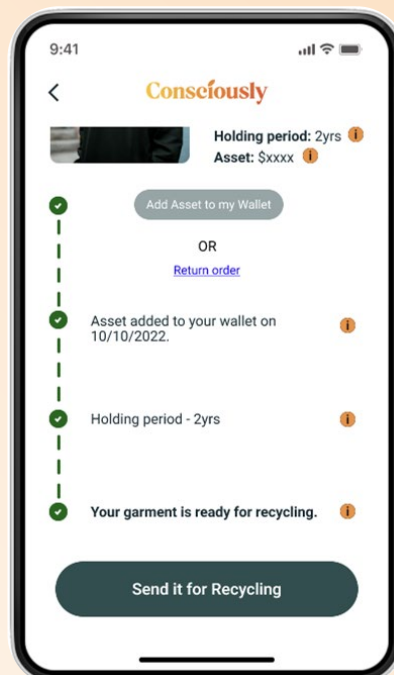
The garment purchase experience.

1. Browse the market
2. Buy a garment
3. See your circularity account

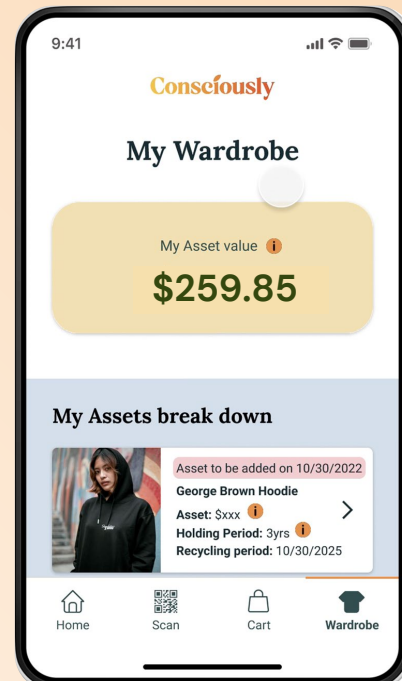
Recycling a garment.



1. Scan the QR code



2. Arrange garment pickup



3. Review your credits & impact!

So what's next?



September

Our first production run for GBC

KICKSTARTER

June

Our official launch to market

Thank you.



Rosa Fracassa

Chair, School of Fashion, Jewellery /
Fashion Exchange George Brown
College



Gagan Singh

Co-Founder
Consciously



Matt Hexemer

Global Solutions Director
Brookfield Sustainability Institute