welcome!

New York Textiles Summit:
Innovations in Textiles Manufacturing, Waste Reduction, and Reuse
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welcome to the
2017 new york textiles summit

dein steven frumkin

dein of the school of business + technology
fashion institute of technology

Steven Frumkin
Dean
Jay and Patty Baker School of Business and Technology
Fashion Institute of Technology
We are all here to discuss the successes and challenges of increasing U.S. textiles reuse and recycling beyond the existing rate of 15 percent. The Re-Clothe NY Coalition, a collaborative effort by recyclers, non-profits, and governments is working to increase textiles reuse and recycling across New York State, with their initiatives—which include the two previous statewide textile summits—and outlining the importance of roles and opportunities for key players along the supply chain in striving to make improvements for the future of sustainability. By exploring the necessity of sustainable manufacturing processes of both natural and synthetic fibers. In striving to make further innovations and educate future leaders in the retail industry and the workplace about the value of sustainability by taking action in reducing waste production and incorporating recycled & biodegradable content into the apparel and textile industry. We as industry leaders and industry role players can lead in becoming the example for the future generations to come.
Statistics on the Textile & Apparel Industry

“25 billion pounds of textiles are generated in the United States per year alone, not including imports. That’s about 82 pounds per resident.”
- Vox Magazine

“The world now consumes 80 billion pieces of clothing each year.”
- The True Cost, documentary

“The fast fashion trend is amplified by the faster growth in sales of clothing online, which in the US is expected to grow at a rate of 17.2% in 2016 - 2017.”
- Fashion Metric blog - The Current State of Apparel eCommerce.

“The Chinese textile industry generates 3 billion tons of soot each year.”
- National Resources Defense Council

“Up to 95% of the textiles that are land filled each year could be recycled.”
- Secondary Materials and Recycling Textiles [SMART]

“Textile industry is one of the top 3 water wasting industry in China, discharging over 2.5 billion tons of wastewater every year.”
- Business2Community.com

“Second to oil, the clothing and textile industry is the largest polluter in the world.”
- theAlternet.com

“The Chinese textile industry generates 3 billion tons of soot each year.”
- National Resources Defense Council

“34.5 billion pounds is the projected amount of textile waste that the U.S. will produce by 2019. This is an increase of about 53 percent since 1999..”
- Vox Magazine
FIT Natural Dye Garden
[@FITNaturalDyeGarden on Facebook]

Powell, Harkonen, and Navoy say they developed the project because "global textile production is an alarmingly heavy burden on this planet’s resources. Excess water use, toxic effluents, the use of petrochemicals on fiber plants as well as in synthetic dyes, and intensive farming practices are all problems that directly contribute to climate change. This project aims to raise awareness about these issues, and more importantly, to give the FIT population a tangible way to move away from these practices."
Textile Development and Marketing (TDM) students harvested indigo at Professor Jeff Silberman’s farm in New York in October.

Indigo is best known as the dye for blue jeans, but textile dyeing with the leaves of the indigo plant is an ancient process going back at least 6,000 years.
FIT’s Textile Development and Marketing (TDM) Department has received a $15,000 grant from the Environmental Protection Agency to study the growth of coreopsis and indigo—two plants known for their yellow and blue pigments, respectively—with the aid of compost derived from excess muslin discarded by FIT Fashion Design students.

TDM Chair and Professor Jeffrey Silberman and Associate Professor Ajoy Sarkar sought the grant in an effort to see if muslin compost affects the growth rate of plants, as well as the richness of the resulting pigment and the colors’ interaction with cotton fabric (e.g., color absorption and colorfastness).
U.S. Environmental Protection Agency’s P3 Program

- EPA's P3 – People, Prosperity and the Planet—Program is a unique college competition for designing solutions for a sustainable future, offering students quality hands-on experience that brings their classroom learning to life.
- The competition has two phases. For the first phase of the competition, teams are awarded a $15,000 grant to develop their idea.
- The second phase of the competition includes a showcase of their research in April at the National Sustainable Design Expo, for an additional grant of up to $75,000 to apply their design to a real world application.

TDM Professor Ajoy Sarkar and TDM Chairperson Jeff Silberman with four students, presenting at the May 2017 National Sustainable Design Expo in May 2017.
From laboratory to classroom
Algi Knit – 2017 National Geographic Chasing Genius Challenge – Sustainable Planet Category – First Prize Winners
Electronic Extrusion | Ball Winder | Skein Winder

A New Knittable Monofilament | Final Product after the Dye Process
AlgiKnit Team

Tessa Callaghan
Knitwear Designer, FIT Alumnus

Aleksandra Gosiewski
Knitwear Designer, FIT Alumnus

Aaron Nesser
Industrial Designer, Pratt Masters Student

Dr. Theanne Schiros
Professor, the School of Liberal Arts, Fashion Institute of Technology

Prof. Asta Skocir
Associate Professor, the School of Art & Design, Fashion Institute of Technology

Steven Frumkin
Dean
Jay and Patty Baker School of Business and Technology
Fashion Institute of Technology
welcome: textiles in context

2017 new york textiles summit

october 31, 2017
scott cassel

CEO + founder
product stewardship institute

scott@productstewardship.us
who is the product stewardship institute?
re-clothe NY projects

• 2015: coalition standards
• 2016 outreach campaign
• 2017 new york textiles summit
sustainability
today’s agenda

1. sustainable manufacturing + design
2. collections
3. markets
4. circular economy + innovative recycling technologies
5. tangible next steps
shared responsibility

- **producer**: financial + implementation
- **consumer**: proper disposal
- **federal**: rulemaking
- **retailer**: voluntary collection + education
- **municipality**: program effectiveness
- **state**: enforce a level playing field + oversight
please welcome our first speaker:

kate mcardle

community outreach specialist
new york state pollution prevention institute

kwmp2i@rit.edu
New York State Pollution Prevention Institute

Textiles Summit at FIT
October 31, 2017
Rochester Institute of Technology

- 18,600 Students
- Unique technical, fine arts education & National Technical Institute for the Deaf
- Career & experiential learning - one of the oldest cooperative education schools in US
- #3 US in STEM degrees granted by a private university
Golisano Institute for Sustainability

- **Academic Programs**
  - Master’s in Sustainable Systems
  - Ph.D. in Sustainability
  - Master of Architecture

- **Technical problem-solving & applied research & development for manufacturers**
  - 7 research centers working on advanced manufacturing and sustainability issues (including New York State Pollution Prevention Institute)

- **Professional staff that work exclusively on industrial engagements**
NYS Pollution Prevention Institute

- HQ at RIT
- Established in 2008 “NYSP2I”
- 5th year of second 5 year contract
- Focus on reducing natural resource consumption (water, raw material, energy) and eliminating waste and hazards
- P2 research, technical assistance, education and outreach
- 15+ full-time staff
Core Programs

- Direct Assistance
  - Sustainable Supply Chain Program
  - Green Technology Accelerator Center
  - Sustainable Food Program
- Research & Development
- Community Outreach Program
Community Grants Program

Community organizations, academic institutions and municipalities that seek to improve health, the environment and the economy through pollution prevention are funded by NYSP2I.

Over 10 Years:
- **100 projects awarded**
- **Over $1M distributed**
- **Almost 1,000** Events, workshops & conferences hosted
- **Over 1M** individuals trained in P2
- **470** unique materials created
Results

As of September 2017

- Over 240+ companies assisted to date
- 38 R&D projects totaling $2.7M funded to solve industry problems
- $4.7M operational cost savings as a result of direct assistance to NYS companies
- 37 companies receive commercialization assistance (GTAC), creating 81 new jobs and an economic impact of $28.3M
- 29 companies received sustainable supply chain assistance, supporting retention of more than 1,508 jobs, with a potential to create 97 more
Textiles Summit at FIT

Your Results?

• Waste Reduction
• Reuse
• Production
Community Outreach Coordinator
New York State Pollution Prevention Institute
Rochester Institute of Technology
111 Lomb Memorial Drive, Bldg. 78-2000
Rochester, NY 14623

Phone: (585) 475-2512
Email: nysp2i@rit.edu
Web: www.rit.edu/affiliate/nysp2i/
please welcome our second speaker:

*dan ilkas-rain*

recycling coordinator  
town of bethlehem, NY

[drain@townofbethlehem.org](mailto:drain@townofbethlehem.org)
Dan Lilkas-Rain, NYSAR\(^3\) Board Member/Re-Clothe NY Chair Recycling Coordinator, Town of Bethlehem, Albany County, NY
NYSAR$^3$ is New York State's association for recycling and waste reduction professionals. An affiliate of the National Recycling Coalition and with over 150 members, NYSAR$^3$ represents public and private sector professionals with extensive experience in materials recovery and recycling.
Origins of Re-Clothe NY

- First inspired to focus on textile recovery at training in early 2013. Realized:
  1. How much many different materials were recoverable
  2. Importance of the issue and economic/eco impacts
  3. How uninformed residents and even recycling professionals and regulators were about the issue
Re-Clothe NY

- Partnered with Secondary Materials and Recycled Textiles trade group (SMART), Council for Textile Recycling (CTR)
- NY’s first statewide effort to target a specific category of recyclable material
- Address over 1.4 billion pounds of textiles discarded each year in New York State, with a potential value of over $140 million (plus $40 million transport/dispose)
Re-Clothe NY

- Successful first two Statewide Stakeholder Summits
- Brought together diverse coalition of stakeholders: municipal, collectors, regulators, educators...
- Developed coalition standards to ensure transparency and the highest, best use of materials
Why is Textile Recovery So Important?

- “Forgotten Recyclable” comprising 5-7% of waste stream
- Only approximately 15% of textiles currently recovered, making it the next “low hanging fruit” after organics
- Significant economic and environmental impacts (far greater than most traditional recyclables)
Hopes for the 2017 Summit

- Expanded understanding of the issues and opportunities
- New networks for collaboration
- Fully involve brands and retailers as a vital stakeholder in shifting textile recovery for reuse and recycling
- Tangible steps to increase textile recovery from the waste stream in robust, game changing ways!
please welcome our third speaker:

andrew radin

recycling director
onondaga county resource recovery agency, ny

aradin@ocrra.org
Thank You...
NY’s Product Stewardship Leader

- Educating local and statewide policy-makers and recycling professionals on the benefits of product stewardship.
- Advocating for workable product stewardship policies and programs.
- Collaborating with all stakeholders, including manufacturers, municipal solid waste officials, and consumers.
Textiles In NY State . . .

The good news:
- Over 240 million pounds reused/recycled annually

The bad news:
- Over 1.4 billion pounds trashed (about 700,000 tons)
  - Over $ 40 million to transport and dispose annually
  - Over $ 140 million in lost material value annually

Nationally . . .
- About 20 billion pounds of textiles trashed annually
  - Lost material value of $2 billion
let’s get started!
sustainable manufacturing + design

2017 new york textiles summit

october 31, 2017
Please welcome today’s speakers:

**Tricia Carey**
Director Business Development
Lenzing Fibers

t.carey@lenzing.com

**Trish Donohue**
Senior Pollution Prevention Engineer
Golisano Institute for Sustainability

patricia.donohue@rit.edu

**Ajoy Sarkar**
Associate Professor
Fashion Institute of Technology

ajoy_sarkar@fitnyc.edu

**Tara St. James**
Founder
Brooklyn Fashion + Design Accelerator

tara@bkaccelerator.com
please welcome our first speaker:

trish donohue

senior pollution prevention engineer
golisano institute for sustainability

patricia.donohue@rit.edu
Sustainable Manufacturing & Design

Patricia Donohue
Sustainable Supply Chain Program Manager
October 31, 2017
Lifecycle & Supply Chain

**Inputs**
- Transportation
- Packaging
- Energy
- Water

**Resource extraction**

**Suppliers**

**Use & Distribution**
- Fashion Manufacturing
  - Consumer
  - Future Generations

**Outputs**
- Waste water
- Air emissions
- All other wastes

**Impact**
Circular Economy

LINEAR ECONOMY

CIRCULAR ECONOMY

Source: NERC

Video: http://circulareconomytoolkit.org/introduction.html
The Circular Economy: 5 Business Models

Source: Accenture
Circular Fibers Initiative

Exploring a new circular economy for textiles - one that is *restorative* and *regenerative* - and lay out the steps needed to build it.

H&M is working across the following focus areas:

- Exploring solutions to create a closed loop for textiles, where unwanted clothes can be recycled into new ones
- Applying circularity to its sustainability targets
- Development of sustainable / circular stores
# Putting it Into Practice

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[https://www.fashionpositive.org/c2c-certification-comparison](https://www.fashionpositive.org/c2c-certification-comparison)
thank you!

trish donohue
senior pollution prevention engineer
golisano institute for sustainability

patricia.donohue@rit.edu
please welcome our second speaker:

ajoy sarkar

associate professor
fashion institute of technology

ajoy_sarkar@fitnyc.edu
Sustainable Manufacturing and Design

AJOY K. SARKAR, PH.D.

TEXTILE DEVELOPMENT AND MARKETING

2017 NEW YORK TEXTILES SUMMIT

OCTOBER 31, 2017
Why Sustainability?

- Market for sustainable products has blossomed over the past decade
- Cultural trend towards sustainable products
- Advances in technology
- Rising cost of commodity raw materials makes recycling/upcycling competitive
- “Slow Fashion”
Requirements for “Sustainable” Success

- Sustainable products have to be high quality and functional
- Cannot succeed in isolation
  - Has to be woven in company/corporate culture
  - Partner across supply chain
  - Empower workers and leverage talent
  - Innovate
- Always have sustainability goals and metrics
Upcycling/Repurposing/Rebirth-Materials
Recycling versus Upcycling

- **Recycling**
  - Break down garment into original fiber and remanufacture into new textile

- **Upcycling**
  - Remake garment into new “higher-value” product
    - Materials and Technology
      - Material upcycling
    - Design and Aesthetics
      - Design upcycling
    - Merchandising and Marketing
    - Promotion
Materials Selection

- Most effective route to reduce textile products environmental impact
  - Design for Sustainability Guidelines
  - Select less energy intensive/low impact materials – Eco-fibers
  - Optimize design to reduce material usage
  - Increase amount of recycled materials
  - Design for Disassembly
    - Use materials that are easily recyclable at end of life of product
Eco-Fibers

- **Lyocell**
  - Brand Name: Tencel (Lenzing)

- **Refibra™**
Eco-Fibers

- **SeaCell™LT/SeaCell™MT**
  - Blend of cellulose (wood pulp) and sea weed (*Ascophyllum nodosum*)
  - Dried seaweed is crushed, finely ground and incorporated into a cellulose fiber
  - Activates cell regeneration (high antioxidants), reduces inflammation, soothes itchiness.
Eco-Fibers

- Ingeo
  - Corn milled separating starch
  - Dextrose removed from starch
  - Ferment dextrose into lactic acid
  - Polymerize lactic acid
  - PLA

- Claims: 20-50% less use of fossil compared to petroleum products
Eco-Fibers

- Sorona®
  - 1,3 propane diol made via fermentation process from glucose extracted from crops
  - Bio-PDO + terephthalic acid = Poly Trimethylene Terephthalate

- [http://sorona.com/](http://sorona.com/)
Eco-Fibers

Nettle Fiber

- Nettle grow on un-arable lands
- Perennial – renewable, compostable
- Blended with wool
- Interior furnishings

Materials Upcycling

- Conserving resources used in original manufacturing
  - “Cradle-to-Cradle” (McDonough and Braungart, 2002)
  - Sustainable natural fibers, eco-synthetics

- Adding additional properties to upcycled product
  - Antimicrobial
  - Stain resistance
  - Durable Press
  - Nanotechnology

- Role of Consumer
  - Care of textiles
Textile Recycling – Case Examples

- Designtex/Unifi Inc/Victor Group Inc/Steelcase
  - Loop to Loop
  - Unifi #TurnItGreen
- Yarn from recycled fabric waste
  - Hyphen, Redeem, Retrieve, Repreve
  - No compromise in quality, comfort, performance properties compared with regular polyester fibers
Textile Recycling – Case Examples

- Glen Raven, Anderson, SC
  - Recycle My Sunbrella
    - Sunbrella® Renaissance (50% reprocessed fiber)
  - Industrial filtration products
  - Automotive market
Patagonia

- 100% organic cotton
- Alternative natural fibers such as hemp
- Recycled nylon/polyester/wool
- Auditing materials and methods
- Taking responsibility for the entire lifecycle of products
- Reduce adverse social and environmental impacts of products by making sure they are produced under safe, fair, legal and humane working conditions throughout the supply chain
Sustainability Standards + Indices

- **STANDARD 100 by OEKO-TEX®**
  - Introduced in 1992
  - Based on release of harmful substances from tested materials – Limit Values (e.g. banned azo dyes, carcinogenic and allergy-inducing colorants, pesticides for textiles made of natural fibers, polycyclic aromatic hydrocarbons, tin organic compounds, chlorinated phenols)
  - **Product class I:** Articles for babies and toddlers up to 3 years of age (underwear, rompers, clothing, bed linen, terry products etc.)
  - **Product class II:** Articles that are worn close to the skin (underwear, bed linen, t-shirts, socks etc.)
  - **Product class III:** Articles used away from the skin (jackets, coats etc.)
  - **Product class IV:** Decoration/Furnishing materials (curtains, tablecloths, upholstery covers etc.)
Sustainability Standards + Indices

- **Sustainable Apparel Coalition**
  - Higg Index – supply chain measurement tool
    - Brand Tools
      - used by apparel, footwear and textiles **brands** and retailers to measure the environmental and social and labor performance of design, sourcing and operations
  - Product Tools
    - Used by **designers and developers** to design the best products from an environmental standpoint. These tools help measure product environmental performance at different stages within the product-development cycle, from initial prototype to sourcing raw materials to final design
  - Facility Tools
    - Used by **manufacturers** to measure the social and environmental performance of their facilities. These modules measure impacts at individual facilities, not the parent company as a whole.
Textile Exchange

- Drive industry transformation in preferred fibers, integrity and standards and responsible supply networks
- RECYCLED CLAIM STANDARD (RCS) 2.0 & GLOBAL RECYCLED STANDARD (GRS) 4.0
  - provide verification of recycled materials, and then track the material through to the final product.
- GRS includes additional social, environmental and chemical processing requirements.
  - Includes ZDHC’s Manufacturing Restricted Substance List v1.1 (MRSL)
Sustainability Standards + Indices

- USDA Certified Biobased Product
- Biobased products are derived from plants and other renewable agricultural, marine, and forestry materials
thank you!

ajoy sarkar

associate professor
fashion institute of technology

ajoy_sarkar@fitnyc.edu
please welcome our third speaker:

tara st. james

founder
brooklyn fashion + design accelerator

tara@bkacclerator.com
Up to 90% of a product’s impact is determined at the design phase.

-Sustainable Apparel Coalition
Resources
The material and energy resources that go into producing and transporting the product.

Environmental Impact
The effect of the material on the environment from manufacturing to end of useful life.

Human Health
Hazards associated with the material’s manufacturing, use and disposal.

Social Equity
The relationship between the company, its employees, and the surrounding community.
The textile industry is the 2nd largest polluter in the world... second only to big oil.

600 gallons
It takes 600 gallons of water to produce the cotton for a t-shirt. During its life, the manufacturing and use of that t-shirt will use over 4000 gallons

3%
Textile manufacturing accounts for 3% of the world’s CO2 emissions

2.5 billion tons
Textile & garment manufacturing create 2.5 billion tons of wastewater every year in China alone

17% to 20%
The textile manufacturing sector accounts for 17-20% of the world’s industrial pollution

12.8 million tons
Every year 12.8 million tons of pre-consumer textile waste are discarded globally
“We can't solve problems by using the same kind of thinking we used when we created them.”

– Albert Einstein
Average textile waste at the manufacturing stage is 15%
Study NY, 2010
Study NY, 2015
Sustainable Fashion Design Strategies

Pratt Institute | Brooklyn Fashion + Design Accelerator

**MATERIALS**
The raw material from which a product is created includes:
- Recyclable
- Reusable
- Repurposed
- Reclaimed
- Renewable
- Sustainable
- Low-impact

**MANUFACTURING**
The suite of industrial operations necessary to transform raw materials into assembled components for the subsequent consumption as products include:
- Low-impact silencing
- Low-impact lubrication
- Low-impact packaging
- Low-impact cleaning
- Low-impact transportation
- Low-impact disposal

**INNOVATION**
The reassessment of traditional practices to find new solutions includes:
- Remanufacturing
- Repurposing
- Reusing
- Recycling
- Rethinking
- Rethinking the future

**DISTRIBUTION**
The movement of a product between locations along the supply chain includes:
- Vertical integration
- Horizontal integration
- Direct to consumer
- Electronic commerce
- Subscription models

**END OF LIFE**
The distinction of a product and its usefulness and a plan for disposal includes:
- Take-back programs
- Repair
- Recycling
- Reuse

**USE**
The relationship between a product's intended use and consumer consumption includes:
- Washable
- Low-energy
- Low-waste
- Multifunctional
- Decorative
- Functional

**OPTIMIZED LIFETIME**
The materials' decision to deprecate a product's overall essence includes:
- Additive
- Subtractive
- Multiplicative
- Divisive
Materials

The raw matter from which a product is constructed.

- Domestic Materials
- Renewable
- Biodegradable
- Socially Friendly
- Low Chemical
- Low Energy
- Low Water Use
- Predator Friendly (Farming and Ranching)
- Low Impact Hardware & Trims
- Responsibly Raised Animal Products
It takes 600 gallons of water to make one cotton t-shirt - That’s enough for one person to drink for 2.5 years

-Sustainable Apparel Coalition
Manufacturing an ecological t-shirt:
84% less water
85% fewer chemicals
17% less energy
than comparable products
Manufacturing
Industrial operations that refine raw materials into assembled components.

- Labor Justice (fair working conditions and wages)
- Local Artisans
- Low Manufacturing Waste
- Low Energy Manufacturing
- Minimize Number of Operations
- Minimize Number of Components
FABSCRAP is your one-stop textile reuse and recycling resource
We Re-Claim Jeans And Turn Them Into New Stuff.

NOORISM is an upcycle brand focused on taking apart jeans and using the pieces to create new items of clothing and accessories. NOORISM clothing and accessories are all unique and slightly different since each old pair of jeans has its own individual story to tell.

Noor Zakka founded NOORISM in 2015 after being disheartened by the volume of poorly-made, practically disposable clothes produced by the Fashion industry every year. Noor is an FIT graduate and has designed for Zac Posen, Tahari and Ellen Tracy in NYC.

NOORISM is based in Brooklyn and is committed to creating high quality clothing and accessories that are produced in safe working conditions in NYC. Since the Fashion industry is the second largest consumer and polluter of water, NOORISM donates $5 to CHARITY: WATER for every item purchased.
WE USE 11 RECYCLED PLASTIC BOTTLES TO MAKE ONE PAIR OF BOARD SHORTS.

THIS IS OUR PROCESS:

PLASTIC BOTTLES ➔ SHRED ➔ SPIN ➔ WEAVE ➔ BOARD SHORTS

"Wow, I can't believe how soft these are!" - Jessica Alba (Actress and Founder of The Honest Company)
Innovation

The forward thinking reassessment of traditional practices.

- Adaptability
- Multi-Functional
- Modular
- Shape Changing
- Biomimicry
- Technology
- Products as Service
- Social Impact
New York City residents throw out 200,000 tons of clothing, shoes, accessories, and linens every year. Textiles comprise 6% of the City's total waste.

-FabScrap
Pre-consumer manufacturing waste is estimated at 40 times that volume...

\[
\text{200,000 tons} \times 40 = 8 \text{ million tons}
\]
TECHNOLOGICAL BREAKTHROUGH: SUCCESSFUL METHOD FOUND FOR RECYCLING BLEND TEXTILES INTO NEW FIBRES

The four-year innovative partnership between the non-profit H&M Foundation and The Hong Kong Research Institute of Textiles and Apparel (HKRITA) finds groundbreaking solutions to recycle blend textiles into new fabrics and yarns – without any quality loss – through a hydrothermal (chemical) process. The technology will be scaled up and made available to the global fashion industry. The finding is a major breakthrough in the journey towards a closed loop for textiles.
Lifetime

The conscience decision to delay a product’s obsolescence.

- Materials Appropriate for Anticipated Lifespan
- Encourage Emotional Attachment to Product
- Durability Appropriate for Use
- Elimination of Weak Points in the Design
- Design for Economically Viable Repair
- Designed for Lease to Multiple Users
- Design for Upgrades
- Design for Second Life
MAKE IT BLACK
End-of-Life
Design to account for when the product reaches the end of its useful life.

- Take-Back Program
- Designed for Reuse
- Reconditioning through Creative Reconstruction
- Recycling of Material
- Easy Disassembly
The average consumer bought 60% more clothing in 2014 than in 2000 but kept each garment half as long.

-Sustainable Apparel Coalition
WE’D LIKE OUR CLOTHES BACK NOW

You:
Bring your worn-or-torn EILEEN FISHER clothes to any EILEEN FISHER or RENEW retail store.

We:
Take them back and give you a $5 Rewards Card for each item—plus the satisfaction of knowing your old clothes will get a new lease on life.

DON’T LIVE NEARBY?
FIND OUT WHERE TO SEND YOUR CLOTHES
Thank you!
thank you!

tara st. james

founder
brooklyn fashion + design accelerator

tara@bkaccelerator.com
please welcome our
fourth speaker:

tricia carey
director business development
lenzing fibers
t.carey@lenzing.com
Recycling Cotton Waste

Refibra™ branded lyocell fibers uses cotton waste to make new lyocell fibers…. Now a commercial reality.
thank you!

tricia carey

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questions?
thank you!

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Recycle. Save.

2ReWear™

NYSAR
New York State Association for Reduction, Reuse & Recycling, Inc.

SMART
SECONDARY MATERIALS®
AND RECYCLED TEXTILES

The Association of Wiping Materials, Used Clothing and Fiber Industries

St. Vinnie’s
St. Vincent de Paul Society of Lane County, Inc.

BayState Textiles

I:CO

Product Stewardship Institute
Sustainable Solutions to Protect Our Environment

Textile Recovery
#ReClotheNY

NYPSC
New York Product Stewardship Council
collections

2017 new york textiles summit

october 31, 2017
today’s moderator:

**eric stubin**

principal + ceo; board member
2ReWear; SMART

e.stubin@tranclo.com
please welcome today’s speakers:

**ben rose**  
Senior Manager  
NYC Dept. of Sanitation  
BRose@dsny.nyc.gov

**katy gaul-stigge**  
President + CEO  
Goodwill Industries NY/NJ  
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**cynthia power**  
Facilitating Manager  
Eileen Fisher Renew  
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**nellie cohen**  
Program Manager  
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nellie.cohen@patagonia.com
questions?
thank you!

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**senior manager**
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