

DESIGNED TO MAKE
THE PLANET LAST

THE
BILLION
DOLLAR
COLLECTION



H&M FOUNDATION

In collaboration with **accenture**

TABLE OF CONTENTS

<i>LET'S REINVENT FASHION</i>	3
<i>INNOVATIONS LOOKING TO SCALE</i>	4
<i>IMPACT POTENTIAL OF THE INNOVATIONS</i>	5
<i>SEACHANGE</i>	6
<i>VEGEA</i>	8
<i>MYCOTEX</i>	10
<i>DIMPORA</i>	12
<i>FAIRBRICS</i>	14
<i>GREEN NETTLE TEXTILE</i>	16
<i>REVERSE RESOURCES</i>	18
<i>ADETEX.ID</i>	20
<i>UNSPUN</i>	22
<i>ALGAEING</i>	24
<i>VOICES ON THE COLLECTION</i>	26

billiondollarcollection.com

The H&M Foundation is an independent non-profit global foundation headquartered in Stockholm, Sweden. This foundation is privately funded by the Stefan Persson family, founders and main owners of the H&M Group. Founded to accelerate the realization of the UN Sustainable Development Goals 2030, H&M Foundation uses collaboration and innovation to co-create, fund and share solutions for the world's most urgent challenges. To help safeguard the welfare of humanity the foundation is catalyzing the fashion industry to become planet positive and accelerating development for inclusive societies. Breakthrough innovations and findings are openly shared for anyone to adopt and scale, in order to contribute to systems change. The H&M Foundation can also provide emergency relief. For more information visit hmfoundation.com or follow @hmfoundation on Facebook, Instagram, YouTube and LinkedIn.

These materials are (A) for information purposes only, (B) do not constitute an offer to subscribe for, buy or sell securities of any of the Innovations mentioned herein or any other securities, and (C) should not be relied upon to make any investment decisions.

LET'S REINVENT FASHION

Non-profit H&M Foundation has supported early-stage innovation since 2015 through the Global Change Award, recognizing ideas with the potential to make the fashion industry circular. With over 20,000 entries since its inception, it shows innovators are ready to transform the fashion industry. At the same time customers are demanding sustainable fashion while fashion companies are working on their transformation. However, many start-ups and entrepreneurs struggle to receive the necessary funding and support to be able to scale and to truly change the fashion industry.

The Billion Dollar Collection – a fashion collection you can't buy – was made to create awareness of the impact sustainable innovation can achieve if given the opportunity to grow. It presents 10 innovative sustainable start-ups that could change the face of the fashion industry, each showcased as garments in this virtual fashion collection where price tags reflect the support required for each innovation to achieve scale. We want to highlight the impact in supporting, cooperating with, and adopting these and other game-changing solutions. Together, we can create a shift in the fashion industry where sustainability and innovation are implemented as default practices in time for 2030.

To clarify the potential, Accenture also brought its 360-degree value approach to the collection with the 2030 UN Sustainable Development Goals in mind. The model shows each innovation could have a big positive impact for the planet, if given the opportunity to scale.



We firmly believe sustainable innovation is key to create a planet positive fashion future. Those who act boldly now will lead this transformation and be better geared for the future. Let's do this together.

Let's reinvent fashion.

A handwritten signature in black ink that reads "Diana Amini".

Diana Amini
Global Manager, H&M Foundation

TEN INNOVATIONS

Looking to scale

THE BILLION DOLLAR COLLECTION PRESENTS 10 BRILLIANT EXAMPLES OF INNOVATIVE SUSTAINABLE START-UPS THAT COULD CHANGE THE FACE OF THE FASHION INDUSTRY. SHOW-CASED AS GARMENTS IN A VIRTUAL FASHION COLLECTION, EACH START-UP FEATURES A PRICE TAG REFLECTING THE ESTIMATED SUPPORT EACH COMPANY BELIEVES THEY NEED TO CREATE LARGE-SCALE IMPACT UNTIL 2030.

The fashion industry needs radical change. Sustainable innovation is part of the puzzle and there are plenty of innovations out there. Yet, innovators and entrepreneurs struggle to attract the necessary support to scale up their innovations and create real impact. The 10 innovations selected for this collection of evolved casual classics come from across the globe and encompass elements from materials to traceability.



Green Nettle Textile

Using resilient stinging nettles to produce linen-like fabrics, Green Nettle Textile offers an environmentally friendly alternative to conventional fabrics as well as providing income and livelihood to hundreds of farmers across Kenya.



Fairbrics

By capturing carbon dioxide emissions from industrial fumes, Fairbrics is developing the first synthetic fiber with the potential of having a net positive impact on climate change.

SeaChange

Through a powerful jet engine that plugs directly into existing production systems, SeaChange wants to eliminate wastewater at its source to improve the environmental footprint of the fashion industry.

VEGEA

With a vision of transforming the leather goods industry, VEGEA contributes to a sustainable fashion future by making beautiful vegan leather out of leftovers from winemaking.



Dimpora

A biodegradable and mineral-based membrane for outdoor wear, which is both waterproof and breathable, enabling outdoor enthusiasts to enjoy nature without harming it.



Reverse Resources

Seeing data and digitalization of waste flows as key to a circular economy, Reverse Resources has created a platform for mapping, steering and tracing textile leftovers to reduce the need for virgin materials.



MycotEX

Using a manufacturing method based on biomaterials, MycotEX creates products that require less water than natural fibers do, and use no farmland or chemicals.

Unspun

By stopping the guessing game and instead selling jeans before making them, unspun creates bespoke jeans with a perfect fit based on algorithms from a body scan. This eliminates the need for inventory and reduces waste, while also changing the way fashion is designed and produced.

Adetex.ID

Through a thin RFID thread that can be filled with information and sewn into a garment, and then remains viable throughout the garment's lifecycle, Adetex.ID opens up for new possibilities within, for example, textile recycling, stock management and second-hand solutions.

Algaeing

Powered by the game-changing micro-organism algae, Algaeing makes biodegradable and renewable thread and dye that has a smaller environmental footprint than most natural fibers and is easy for the industry to adopt. In addition, it creates a new category of products with benefits for the skin.

IMPACT POTENTIAL OF THE INNOVATIONS

ACCENTURE DEFINES 360-DEGREE VALUE AS DELIVERING VALUE ACROSS MULTIPLE DIMENSIONS INCLUDING SUSTAINABILITY, AND THEREBY MOVING BEYOND NARROWLY DEFINED VIEWS OF VALUE.

Sustainability is fueling the Future of Fashion

The fashion industry is embarking on a journey where digital and sustainability transformation continues to accelerate at a faster pace than before. New and increasingly digital shopping habits in combination with environmental awareness are changing the mindset and actions of consumers. According to a recent consumer study by Accenture, 81% of shoppers globally now feel strongly that companies should do more to preserve the environment. Further, 62% of people shop in accordance to their values, and businesses are listening. Among companies with more than \$1 billion in annual revenues, 99% of CEOs surveyed believe that sustainability will be important to the future success of their business. Retail brands need to make digital, sustainability and circular operations part of their DNA to future-proof their ability to satisfy tomorrow's customers. The Billion Dollar Collection includes 10 innovations who are aiming to do just that.

Highlighting the Impact Potential*

In order to understand impact potential of the ten sustainable tech innovations in the Billion Dollar Collection, Accenture applies a 360-degree value mindset. The purpose is to showcase the multi-dimensional value that the innovations can create at scale with support from the industry, enabling to reinvent fashion. The impact potential has been created by Accenture, and are indicative high-level estimations of the innovations' multi-dimensional value potential in 2030. The year 2030 is chosen to enable the innovations to have time to scale, but also as a reference to the UN Sustainable Development Goals and Agenda 2030. The indicative impact is estimated in comparison to a "business-as-usual scenario", where the fashion industry continues to grow and operate on its current trajectory. The indicative impact is based on interviews and additional data input from the innovators. However,



to gather further data input, external data from reputable sources have been gathered when necessary, as well as interviews with sustainability and retail experts at Accenture, and Accenture's Global Value Services team.

"The Billion Dollar Collection presents a unique opportunity to help the fashion industry reinvent itself through sustainable innovations that can fuel future growth and bring positive change. By adopting our 360-degree value approach for this collection, we are demonstrating how these new innovations can deliver value across multiple dimensions including sustainability – and move past narrowly defined views of value."

Jill Standish

Senior Managing Director and Global Retail Industry Group Lead at Accenture

*The impact potentials and other statistical, quantitative and other information supplied by Accenture consist of estimates and are not intended to be statements of fact or recommendations regarding any specific innovation. The estimates contained herein involve the exercise of judgment and the making of numerous assumptions that may or may not prove accurate and such estimates may or may not agree with actual or realized values for the relevant innovations. Accordingly, Accenture hereby disclaims any representation or warranty as to the accuracy, fitness, utility or application of the information contained herein for any purpose, including for the purposes of making an investment decision.

SEACHANGE

\$5,000,000

SeaChange's own estimated support needed to scale.

THROUGH A POWERFUL JET ENGINE THAT PLUGS DIRECTLY INTO EXISTING PRODUCTION SYSTEMS, SEACHANGE WANTS TO ELIMINATE WASTEWATER AT ITS SOURCE TO IMPROVE THE ENVIRONMENTAL FOOTPRINT OF THE FASHION INDUSTRY.

Problem & Solution: To get the right colors, finishes, and look and feel that the fashion industry requires, most fashion pieces have gone through chemical processes in multiple stages. These processes are among the most harmful steps in a product's lifecycle. The dyes and chemicals end up in the water, which conventional wastewater treatment systems are unable to fully take care of. The polluted water turns into a thick, toxic sludge, and instead of letting it seep into the waterways, it is often piled up on land, resulting in chemical discharge through the soil and carbon emissions. Put simply, the problem is moved around, not solved. Every day, the apparel industry generates hundreds of tons of such sludge, which is difficult to handle and dispose of, while also being harmful to people, animals, and plants.

SeaChange's mission is to eliminate pollution at its source by providing innovative and economical wastewater treatment systems. With their novel patented approach to water purification, SeaChange offers a way to make the clothes we want while protecting the environment. The SeaChange technology plugs directly into existing factory systems and separates the water from toxins in one single step with the help of a powerful jet turbine. The water is released as clean water vapor into the atmosphere, and the sludge is converted into a concentrated dry powder which can be reused.

Product: SeaChange builds and provides equipment featuring its patented approach to water purification. The system sustainably eliminates wastewater from industrial processes with a turbine-powered mechanical process, releasing the clean water vapor into the atmosphere. The process replaces the concentrated liquid waste with safer dry mineral solids, that are easier to handle or reuse, without the use of chemicals, filters, or membranes. While SeaChange is currently focused on the fashion industry for market entry, there are numerous application opportunities for the SeaChange technology in other industries, such as chemical, food, and manufacturing, as well as in water



and energy production. SeaChange's vision is to reduce the impact of industry on the environment and protect the resources of our planet.

Business model: SeaChange offers economic value for customers (typically Tier-2 apparel suppliers/factories) by reducing their waste disposal cost. The systems are offered at sale or lease models. With a sale, the systems are priced to deliver ROI to customers within 3-5 years, and SeaChange can offer financing through partners at the Good Fashion Fund. SeaChange's market entry strategy is to partner with brands to offer sustainability KPI through incorporating SeaChange equipment at their supply chain factories. Adidas has provided support to SeaChange to develop the technology and run pilot trials in Taiwan. Fashion for Good has coordinated SeaChange trials at Ahmedabad, India with partners PVH, C&A, and BESTSELLER.

Competition: Primary competitors are traditional large water treatment contractors that employ decades-old technologies that were originally developed for sewage/municipal water treatment. These technologies work for

sewage because municipal wastewater is largely biodegradable, and the by-product can be used as fertilizer. However, when these older technologies are used for industrial/chemical wastewater, the resulting sludge is concentrated chemical waste.

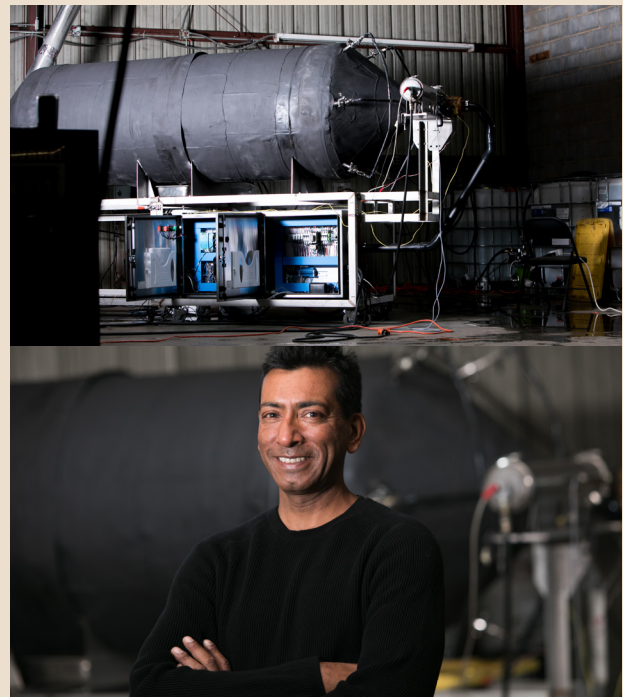
Team: The team is based in North Carolina, U.S. and consists of members with 20+ years of experience in R&D leadership and IP strategy, international diplomacy, and international disaster recovery management.

Team members:

- Dipak Mahato, PhD, CEO and Founder
- Randy Marcuson, Advisor
- Meredith Metz, Operations Manager
- James Eide, Business Development

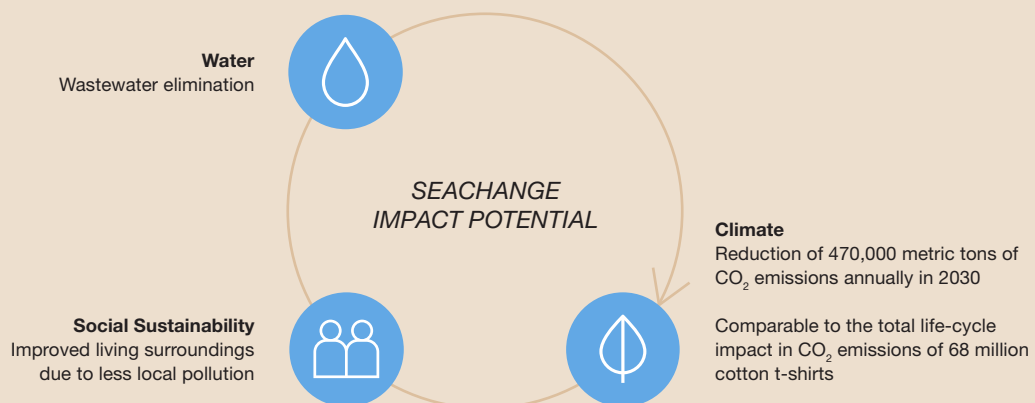
Awards and recognitions:

- Total non-dilutive grant/award funding over the past 5 years: \$1.94 million
- Winner (with partners Circ, Fiber Industries, and Lululemon), US Department of Energy REMADE Institute Grant, for Zero-Waste Recycling of Blended PET Fiber to Transform Polymer Sourcing (2021)
- Winner, H&M Foundation Global Change Award (2020)
- Finalist, EMA Future Innovator of the Year Challenge (2019)
- Scaling Programme, Fashion For Good (2018)
- NC IDEA Grant Winner, SXSW Eco Water Startup Winner, Cherokee-McDonough Challenge Winner, Shell Technology Ventures, University of Texas Startup Energy Institute Startup Competition (2016–2017)



Contact:

Dipak Mahato, Founder and CEO
 dmahato@seachangetechnologies.com
 seachangetechnologies.com



The planet positive impact potential is estimated by Accenture with the purpose of demonstrating how SeaChange has the potential to create multi-dimensional value when scaling. The high-level estimation is based on SeaChange’s potential to

scale and its output in 2030 (~100 dyehouses). SeaChange has an estimated impact of reducing 470,000 metric tons of CO₂ emissions per year in 2030, which is comparable to the total lifecycle impact in CO₂ emissions of 68

million cotton t-shirts. The solution enables less pollution and access to water without residue sludge, which also greatly improves the lives and health of local communities and people living in the proximity of dyehouses.

VEGEA

\$600,000

VEGEA's own estimated support needed to scale.

WITH A VISION OF TRANSFORMING THE LEATHER GOODS INDUSTRY, VEGEA CONTRIBUTES TO A SUSTAINABLE FASHION FUTURE BY MAKING BEAUTIFUL VEGAN LEATHER OUT OF LEFTOVERS FROM WINEMAKING.

Problem & Solution: Fashion consumers love leather, and beautiful leather goods are available in all shapes, colors, and styles, from high street to luxury brands. As more and more people become aware of the negative impacts of real leather, there has been a surge in the demand for vegan alternatives. Most synthetic leather on the market, however, has a petrochemical origin, causing a negative impact on the environment due to its toxic substances and carbon dioxide emissions.

Italian team VEGEA has a sustainable solution to all of the above by using leftovers from wine production to create a fine leather-like material. Traditionally, the skins, stalks, and seeds are considered waste and therefore burnt, leading to carbon dioxide emissions. Instead, VEGEA uses this material and loops it into a circular model where waste is turned into a valuable resource. Without the use of any toxic solvents, heavy metals, or substances dangerous for humans or the environment, VEGEA makes vegan leather in all finishes, colors, elasticities, and thicknesses.

Product: VEGEA is a vegan-coated fabric and a plant-based alternative to real leather or synthetic oil-derived materials for fashion, furniture, packaging, automotive & transportation. The thickness, elasticity, weight, finishing, texture, backing textile, and bio-based content can be altered depending on customer needs. All products are compliant with the most stringent European regulations (REACH) and are solvent free, animal friendly, and made in Italy.

Business model: Focusing on B2B, VEGEA produces and sells its product to customers in multiple industries, such as fashion, furniture, automotive, and packaging. The material is adapted depending on the technical requirements of each field of application. Besides the range of materials developed so far, VEGEA customizes the product according to customers' specific needs, such as thickness, weight, texture, color, and finishing. The team aims to increase revenue in the future by increasing production and expanding through new partnerships.



Competition: VEGEA's main and direct competition is oil-based synthetic leather. But the material also challenges animal-based leather and provides a solution to a growing market demand for sustainably produced leather alternatives. Unlike many other vegetal products on the market, VEGEA's product is characterized by the high content of vegetal, renewable, and recycled raw materials, and the use of sustainable water-based colors. VEGEA has had many collaborations with large brands, such as H&M, & Other Stories, and Le Coq Sportif along with, for example, Bentley from the automotive industry. There is a continued interest from brands to use VEGEA to support their sustainability goals.

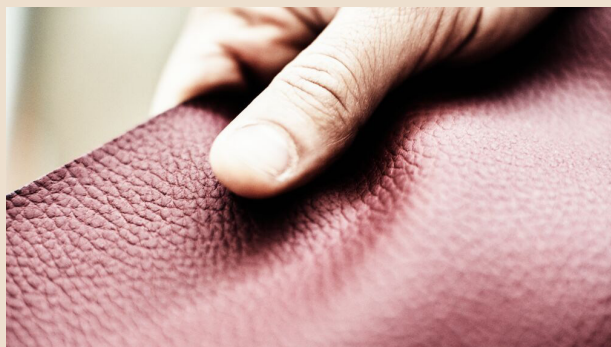
Team: Founded in 2016 in the fashion capital Milan, the team of three has extensive experience within chemistry R&D, general management, and sales.

Team members:

Gianpiero Tessitore, Founder and General Manager
 Francesco Merlino, Founder and Technical Lead Manager
 Valentina Longobardo, Founder and Sales Manager
 Remaining activities are carried out by partners.

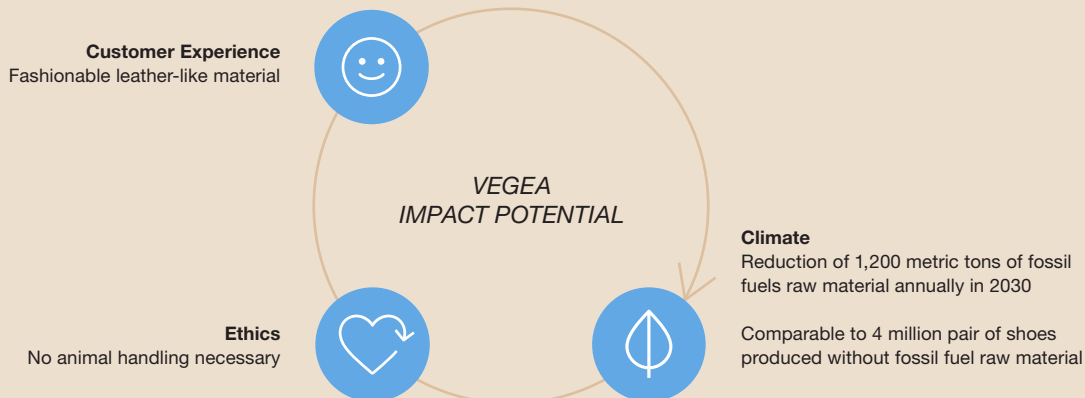
Awards and recognitions:

- Finalist, Chivas Venture (2019)
- Part of the European Commission Horizon 2020 (since 2018)
- Recognized as one of Europe’s top 50 companies, European Innovation Summit (2018)
- Winner, H&M Foundation Global Change Award (2017)
- Winner, PETA Innovation Award (2017)
- Winner, UniCredit Most Innovative Companies (2017)



Contact:

Valentina Longobardo, Founder
 v.longobardo@vegeacompany.com
 vegeacompany.com



The planet positive impact potential is estimated by Accenture with the purpose of demonstrating how VEGEA has the potential to create multi-dimensional value when scaling. The high-level estimation is based on VEGEA’s

potential to scale and its output in 2030 (~2 million m² produced annually). VEGEA’s innovation has the potential impact of reducing 1,200 metric tons per year of fossil oil-based raw material in 2030, which is comparable to 4 million pair

of shoes produced without fossil oil-based raw material. Further, VEGEA has no animal handling in the production process and uses a raw material that otherwise would have been waste to create its fashionable leather-like material.

MYCOTEX

\$3,000,000

MycotEX's own estimated support needed to scale.

BY DEVELOPING A MANUFACTURING METHOD BASED ON BIOMATERIALS, MYCOTEX CREATES PRODUCTS THAT REQUIRE LESS WATER THAN NATURAL FIBERS DO, AND USE NO FARMLAND OR CHEMICALS. IT'S FIRST PRODUCT IS MADE OF MUSHROOM ROOTS AND CAN – ONCE IT'S WORN OUT – BE BURIED IN THE GROUND AND DECOMPOSED.

Problem & Solution: Fashion brands struggle to keep up with the growing consumer demand for sustainability as consumers are becoming more critical about what they wear. They want clothes that fit them perfectly, are made of natural materials, and are manufactured using methods that are clean, transparent, and produce zero waste. This is a difficult task for brands, especially considering they often need to deal with a complex, old supply chain.

With their award-winning, all-in-one product, MycoTEX has a sustainable solution to all of the above. It has developed a seamless manufacturing method allowing for custom-made clothes made from compostable mushroom roots. Its ground-breaking method solves several major issues in the industry as it reduces the cost, waste, and labor-intensity of cut and sew operations, replaces plastics and leathers with compostable materials while also improving the comfort and fit of fashion products. MycoTEX is sustainably grown in a lab, reducing the need for farmland and the dependence on seasonal variations, as well as eliminating fabric being wasted in production. Less water is needed and no chemicals or pesticides. And once the garment is worn out, one can simply bury it in the ground to decompose.

Product: This innovation solves several major issues in the fashion, interior and automotive industries, while still allowing for mass customization. MycoTEX uses a seamless production technology to create custom-fit products out of sustainable textiles made from mycelium. The mycelium is grown in a lab and then robotically applied onto 3D molds. When the material is dry, the product is removed from the mold and ready to be used.

MycotEX resembles leather and plastic, and can replace those two materials with a vegan and compostable alternative, made in different thicknesses



and textures. The material can be dope-dyed, which is a more sustainable way of coloring than conventional dyeing processes, with natural pigments. Depending on the coating and other additions, the fabric can be naturally decomposed, drastically shortening the supply chain and returning the material to nature.

Business model – B2B with 3 revenue streams:

- Fee per sold (bulk) item from strategic partners
- Manufacturing license
- Mark-up percentage on finished products from brands (royalties)

Competition: The competition is either focusing on new material developments to fit in the current supply chain, or on new manufacturing techniques with existing materials. MycoTEX has taken it one step further by developing an automated, seamless production technique that allows for personalization at scale with a lab-grown material. By combining sustainable biomaterials with seamless production technologies, MycoTEX can offer personalized fashion and other soft textile goods such as laptop sleeves

and bags. MycoTEX takes elements from different industries to allow for a quicker scale-up and a more flexible supply chain, and it collaborates with a large machine manufacturer to develop a robotized production line.

The competition, like MycoWorks, Ecovative, Bolt Threads, Mogu and MycoTech, all use a solid-state fermentation process based on agricultural waste that needs to be developed from scratch. MycoTEX has a biotech approach and uses a liquid fermentation process that has already been proven, using significantly less space and time than the agricultural approach, and making it easier to scale.

Team: MycoTEX is based in Soest, the Netherlands and is led by Aniela Hoytink and Nicoline van Enter, who together with advisors and collaboration partners have extensive experience in material and product development, fashion, footwear, entrepreneurship, and innovation. In addition to this, the team is supported by three part-time industry experts within the R&D, fashion, and entrepreneurship fields.

Team members:

Aniela Hoytink, CEO, Material & product development, Fashion design & innovation, Set-up of fashion departments, Founder NEFFA (2008), Co-Founder Solar Fiber (2012)

Nicoline van Enter, CTO Industrialization & training, Footwear forecaster & Technologist (industrialization), Founder Y Trends (2000), Founder SLEM (2012), Founder Footwearists (2017)

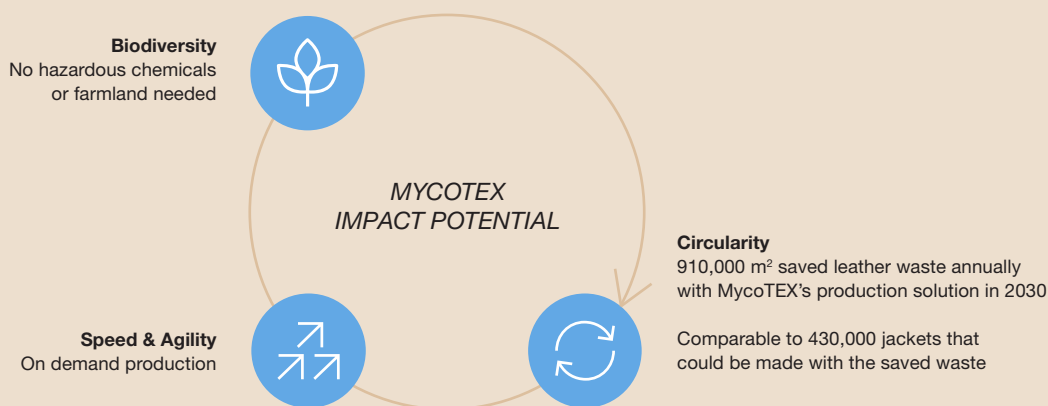
Awards and recognitions:

- Winner, H&M Foundation Global Change Award (2018)
- Solar Impulse Efficient Solution (2021)
- Finalist, Vogue Yoox Challenge: The Future of Responsible Fashion (2020)
- Finalist, European Commission Social Innovation Competition: Reimagine Fashion (2020)
- Deep tech pioneer, Hello Tomorrow (2020)
- Top 100 women in Fashion Tech (2019)
- Top 100 Women in Wearable & Consumer Tech (2018)
- Innovator, Fashion For Good accelerator program (2017)
- the Smart List: 25 Forward thinkers defining the Future of Fashion (Fashionista) (2017)
- Green product, Green product award (2017)
- Nominee, Look Forward FashionTech Award (2017)
- Shortlist, Launch Nordic Innovation Challenge (2015)
- Shortlist, Launch Systems Challenge (2013)
- Finalist, Accenture Innovation Awards (2012)
- Long list, TEDx Amsterdam Award (2012)
- Winner, Ideas Waiting to Happen (2012)
- Honorable mention, Bloom Award (2011)



Contact:

Aniela Hoytink, CEO
 aniela@neffa.nl
 neffa.nl/mycotex



The planet positive impact potential is estimated by Accenture with the purpose of demonstrating how MycoTEX has the potential to create multi-dimensional value when scaling. The high-level estimation is based on MycoTEX's potential to scale and its output in 2030

(~10 factories using its method). MycoTEX has an estimated impact of reducing 910,000m² of leather waste in 2030, if it would target leather jackets and leather bag manufacturers. The waste saved is comparable to the fabric needed to produce additional 430,000 jackets

as one example for comparison. MycoTEX fabrics is produced on demand without chemicals or farmland needed. Further, the material is decomposable, meaning it will not contribute to waste itself.

DIMPORA

\$8,000,000

Dimpora's own estimated support needed to scale.

A BIODEGRADABLE AND MINERAL-BASED MEMBRANE FOR OUTDOOR WEAR, WHICH IS BOTH WATERPROOF AND BREATHABLE, ENABLING OUTDOOR ENTHUSIASTS TO ENJOY NATURE WITHOUT HARMING IT.

Problem & Solution: Outdoor enthusiasts may not be aware their hike most likely leaves a toxic trace. Conventional outdoor wear is treated with fluorinated chemicals to ensure waterproof, breathable and dirt-repellent characteristics. Once these chemicals are released into the environment, it can take several hundred years until they break down. These pollutants have been found anywhere from mountain lakes and polar bears to human blood streams.

Fluorine-free membranes have entered the market, but there haven't been any alternatives that effectively ensure both waterproofness and breathability, only one of the two. Until now. Swiss start-up dimpora has developed a non-toxic, fluorine-free alternative. This biodegradable solution does both jobs just as effectively – and naturally. The solution can be added to any type of garment in a micro-thin membrane that shields against the elements in a sustainable way.

Product: Dimpora's Eco Pur™ and Sane Membrane™ products are a new generation of fluorine-free, highly breathable and waterproof membranes, mainly aimed for outdoor gear. Once the garment is worn out, the membranes can be directly returned to nature without leaving a trace. The team's latest product allows the membrane to be painted, sprayed or printed on top of an already assembled garment, potentially revolutionizing outdoor gear manufacturing.

Business model: Dimpora replaces existing materials with sustainable options. With three product families in its portfolio, it can gain from multiple revenue streams.

- Products (membranes or laminates) produced by collaboration partners and sold directly to brands as well as converters specializing in modifying or combining materials to create new products
- Licensing to manufacturers that gives access to a larger market.
- In the near future, 3D products will be licensed and developed in collaboration with large partners.



Competition: Dimpora competes with both conventional performance outdoor membranes that contain fluorine and the fluorine-free membranes that have entered the market. Currently, the fluorine-free alternatives aren't as comfortable, stretchy, or water-resistant as the chemically treated garments. Unlike dimpora's manufacturing process that is material-agnostic, its competitors often depend on one specific chemical mixture to achieve their performance, which increases the chemical complexity of the product. This also means they don't follow the established recycling streams nor are they biodegradable.

Team: The team is based in Zürich, Switzerland and consists of six people with experience and expertise ranging from strong R&D skills to Business & Marketing. The team is led by Dr. Anna Beltzung, PhD in nanocomposite and porous Polymer ETHZ and Dr. Mario Stucki, Co-Founder, PhD in Membrane Science ETHZ, inventor of the patented membrane technology.

Team members:

Dr. Anna Beltzung, PhD in nanocomposite and porous Polymer ETHZ
Dr. Mario Stucki, Co-Founder, PhD in Membrane Science ETHZ
Lucile Menand, R&D Eng. Chemistry/Material Science
Emma Karttunen, R&D Eng. Fiber & Polymer Technology
Nina Spörri, R&D Eng. Business Chemistry
Camila Schmalz, Marketing & community manager

Awards and recognitions:

- Winner, H&M Foundation Global Change Award (2019)
- Winner, Venture Kick (2019)
- Finalist, Swiss Innovation Challenge (2020)
- Finalist Vogue Yoox Challenge (2021)
- Finalist Green Alley Award (2021)
- Finalist ZKB Pionierpreis Technopark (2021)

Grants:

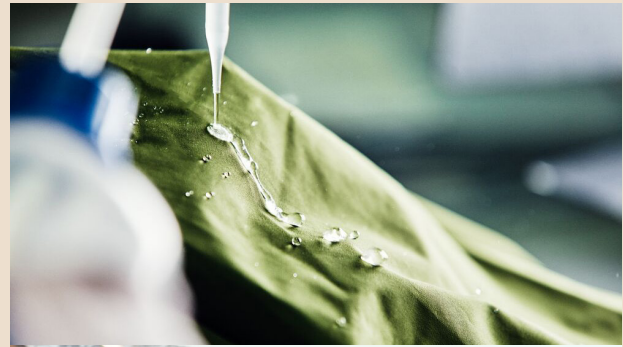
- Bridge Fellowship by Innosuisse and SNF (2019-2020)
- Gebert Rűf Foundation Project Financing (2019-2020)
- Innobooster by Gebert Rűf Foundation (2021-2022)

Other:

- ETH Spin Off Label (2019)
- MBA Startup Winner, IMD Start Up Competition (2019)
- Mistletoe Foundation Fellowship (2019-2020)
- Fashion for Good, batch 5 (2019)
- Innosuisse initial & core coaching (2019-2021)

Individual prices & recognitions

- Mario Stucki: SIGA Master Thesis Price (2013)
- Mario Stucki: de Vigier Award Top 17 Selection (2021)
- Anna Beltzung: Nominee for the Albert Hofmann PhD Award (2017)



Contact:

Dr. Anna Beltzung, Co-Founder and CTO
anna.beltzung@dimpora.com
dimpora.com

Customer Experience
Waterproof, breathable material with less environmental impact



DIMPORA
IMPACT POTENTIAL

Social Sustainability
Improved working conditions due to no solvents used in production



Circularity

850 metric tons of textiles enabled to be saved from linear single use and discarded textiles annually with the Sane Membrane solution in 2030

Comparable to 940,000 jackets that could be made with the saved textiles



The planet positive impact potential is estimated by Accenture with the purpose of demonstrating how dimpora has the potential to create multi-dimensional value when scaling. The high-level estimation is based on dimpora’s product Sane Membrane’s potential to scale and its output in 2030 (~2.7 million

rolling meters of Sane Membrane produced). Dimpora’s other product families have not been taken into consideration in this specific demonstration. The use of dimpora’s innovative Sane Membrane can enable savings of 850 metric tons of textiles per year from linear single use and

discarded textiles in 2030, which is comparable to 940,000 jackets that could be made with the regained textiles. The Sane Membrane is a waterproof, breathable material that uses significantly less chemicals, energy, reduces pollution and improves working conditions and health.

FAIRBRICS

\$6,600,000

Fairbrics' own estimated support needed to scale.

BY CAPTURING CARBON DIOXIDE EMISSIONS FROM INDUSTRIAL FUMES, FAIRBRICS IS DEVELOPING THE FIRST SYNTHETIC FIBER WITH THE POTENTIAL OF HAVING A NET POSITIVE IMPACT ON CLIMATE CHANGE.

Problem & Solution: The fashion industry is responsible for 10% of annual global carbon emissions, more than all international flights and maritime shipping combined, according to the World Bank. At this pace, the fashion industry's greenhouse gas emissions will jump more than 50% by 2030, where manufacturing raw materials for polyester is a major source of emissions. Polyester, a synthetic fiber generally derived from petroleum or coal, stands for more than 65% of the textile and apparel industry's fiber usage. Without a competitive alternative, the Paris Agreement of limiting global warming to well below 2 degrees Celsius will be hard to reach.

Fairbrics has developed a novel process to make polyester from waste CO₂, by capturing industrial fumes that would otherwise have been released into the air. This waste product is ten times less expensive than petroleum products and not only reduces CO₂ emissions but also uses the emissions as part of the solution. In fact, Fairbrics is developing the first synthetic fiber with the potential of having a net positive impact on climate change.

Product: Fairbrics offers the first polyester yarns with a net positive impact on climate change. CO₂ is captured from industrial sources, and reacted with a catalyst and solvent to generate chemicals that are used for polyester synthesis. The product can then be used in the exact same way as current petroleum-based molecules, to produce polyester pellets and yarns. In the near future, the technology will produce carbon negative, 100% sustainable PET.

Business model: The business model will change over time. The long-term goal is licensing to have the most impact and long-term revenue with minimum investment. To do so, Fairbrics needs to demonstrate that the solution is cost-competitive when applied on large scale. Currently, revenue is generated through royalties on sales of branded yarns to textile manufacturers, responding to market demand for more sustainable fabrics.



Competition: Fairbrics challenges conventional polyester fabrics. The only other available alternative to petroleum-based polyester on the market today is the highly demanded rPET – recycled polyester made from plastic bottles. Other companies trying to develop sustainable polyester are mainly looking at fabrics based on biomass where crops are used to manufacture the polyester. This process relies on large amounts of land, water, and pesticides.

Another alternative is a fermentation-based fabric, where genetically modified bacteria is used to digest greenhouse gases and convert them into chemicals that can be used for plastic production. None of these current competitors use CO₂ as a resource and the products don't have the same mechanical, chemical, or recycling properties. Introducing these products on the market will require an adjustment of the entire supply chain, as opposed to Fairbrics' product, where this is not needed.

Team: Fairbrics was founded in Paris in 2019 by Tawfiq Nasr Allah and Benoît Illy with a vision to fight climate change by developing circular manufacturing processes. Today, the company is made up of a passionate team of six including scientists, engineers, and business-minded people with vast expertise within molecular chemistry as well as large scale material manufacturing. Tawfiq Nasr Allah, Ph.D. Chemist, is an experienced scientist in the transformation of CO₂ and CO to high-value products for the chemical industry. Benoît Illy, Ph.D. Material Scientist, has led several multi-million-dollar projects from the lab to large scale industrial success for global manufacturing corporations across Europe and the US.

Team members:

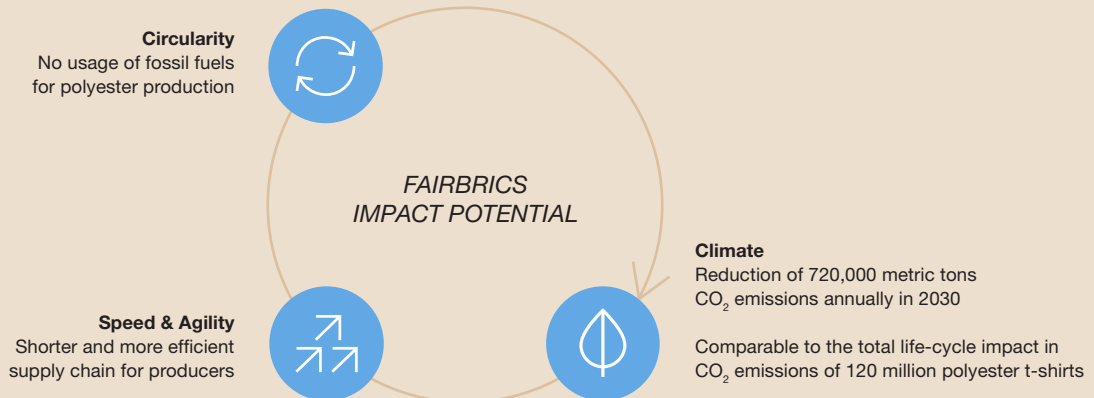
Tawfiq Nasr Allah, Ph.D. Chemist
 Benoît Illy, Ph.D. Material Scientist

Awards and recognitions:

- Winner, H&M Foundation Global Change Award (2020)
- Finalist, LVMH Innovation Award (2020)
- Winner, Cleantech Open France (2020)
- Finalist, European Commission Social Innovation Competition 2020 “Reimagine Fashion” (2020)
- Winner, FUTURE 40, STATION F (2019)



Contact:
 Benoît Illy, Co-Founder
 benoit.illy@fairbrics.co
 fairbrics.co



The planet positive impact potential is estimated by Accenture with the purpose of demonstrating how Fairbrics has the potential to create multi-dimensional value when scaling. The high-level estimation is based on Fairbrics’ potential to scale and its output in 2030

(production of ~500,000 metric tons of fabric). Fairbrics has an estimated impact of reducing 720,000 metric tons of CO₂ emissions in 2030, meaning that it can reduce emissions comparable to 120 million polyester t-shirts simply by changing the way the

material is made. Further, Fairbrics enables a shorter and more efficient supply chain as well as reducing the fashion industry’s reliance on coal and petroleum through its innovative way of producing polyester.

GREEN NETTLE

TEXTILE

\$60,000

Green Nettle Textile's own estimated support needed to scale.

USING RESILIENT STINGING NETTLES TO PRODUCE LINEN-LIKE FABRICS, GREEN NETTLE TEXTILE OFFERS AN ENVIRONMENTALLY FRIENDLY ALTERNATIVE TO CONVENTIONAL FABRICS WHILE ALSO PROVIDING INCOME AND LIVELIHOOD TO HUNDREDS OF FARMERS ACROSS KENYA.

Problem & Solution: The population in Kenya is growing rapidly, increasing the demand for clothes. Production of new textiles often causes high levels of carbon dioxide emissions while using precious land and water – farmland which instead could have been used for food crops. The country is also a net importer of second-hand clothes, which are cheap but often end up in dumpsites within a year. Meanwhile, the growing population also forces local communities to use less productive steep slopes for farming. The result is poor yields, incurring losses, soil erosion and river pollution.

Green Nettle Textile wants to reduce the demand for cotton and conventional textiles, and limit the environmental impact from new and second-hand clothes. By working with local farmers, it has established organic stinging nettle plantations on the non-productive slopes. Nettles are native to these kinds of areas and a hardy crop, often the only remaining vegetable during an extended dry spell. These plantations replace the degradable farming, giving local communities an environmentally friendly cash crop while preventing erosion and bridging the growing gap of sustainable textile supply in the market. The stalks are used to make fiber, which in turn is used to make a linen-like fabric. The leaves and shoots are used in the cosmetic industry, as fertilizers and as alternative nutrition.

Product: Woven linen-like textile made from nettle stalks, which is dyed using natural plant dyes. The fibers and textiles are produced with low carbon emissions. In the long-term, when the process is standardized, Green Nettle Textile aims to sell fibers too.

Business model: Green Nettle Textile produces eco-fibers and woven products from nettle fibers, which are sold to retailers, simultaneously providing jobs, training, and nutrients to hundreds of smallholder farmers across Kenya. The team supports a group of farmers by providing the necessary machines and training on how to establish nettle plantations.



These costs are deducted from their purchase price. In addition, Green Nettle Textile aims to give 30% of their revenue back to support farmers in 2030.

Competition: The direct competition primarily consists of a cooperative society that deals with wool spinning, weaving, and makes handmade crafts. Green Nettle Textile has circular benefits in comparison to the wool weavers when it comes to environmental conservation and livelihood improvement.

Globally, there are a few other companies that produce nettle fiber. Green Nettle Textile's advantage is the climatic conditions in Kenya, which allow for production all year round. While keeping costs at competitive level, Green Nettle Textile's fibers can be grown on land that is unfit for other crops. It's the first business in Africa to produce eco-textiles from nettle fiber and caters to a large market demand for sustainable fibers in the region.

Fiber quality tests and verification (quality, properties, and usability) are done by Egerton University as well as Kenya Bureau of Standard. For technology and machine development, it collaborates with Mantra Incorporation Ltd. in Nepal, and with Sustainable Angle in the UK for visibility (fiber library space).

Team: The team based in Kenya combines experiences and expertise ranging from social entrepreneurship and design-thinking to 20+ years of experience in plant-based textiles.

Team members:

- Jonah Mwangi, Founder
- Jackline Murimi, Operations Manager
- Sophia Mwai, Lead Craft
- Esther Muthoni, Partnerships Lead
- Susan Wachuka, Conservation Lead

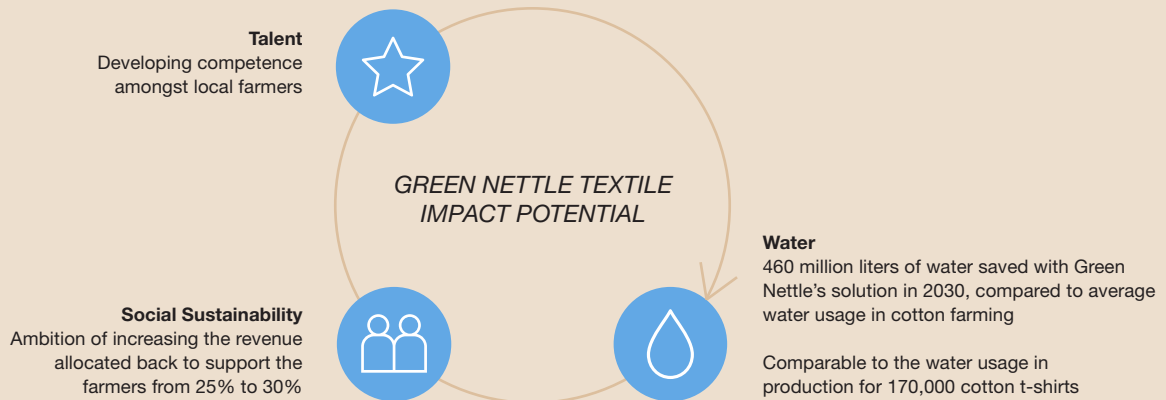
Awards and recognitions:

- Global Finalist, Chivas Social Changemakers (2020)
- Winner, H&M Foundation Global Change Award (2019)
- Ygap Social Change Makers (2017)



Contact:

Jackline Murimi, Operations Manager
 jackie@greennettletextiles.com
 info@greennettletextiles.com
 greennettletextiles.com



The planet positive impact potential is estimated by Accenture with the purpose of demonstrating how Green Nettle has the potential to create multi-dimensional value when scaling. The high-level estimation is based on Green

Nettle's potential to scale and its output in 2030 (~61 hectares of farming). Green Nettle has an estimated impact of saving 460 million liters of water compared to conventional cotton production. That is comparable to the water

used for making 170,000 cotton t-shirts. Furthermore, Green Nettle creates jobs and supports local farmers, and aims to share 30% of its revenue back to support farmers in 2030.

REVERSE RESOURCES

\$120,000,000

Reverse Resources' own estimated support needed to scale.

SEEING DATA AND DIGITALIZATION OF WASTE FLOWS AS KEY TO A CIRCULAR ECONOMY, REVERSE RESOURCES HAS CREATED A PLATFORM FOR MAPPING, STEERING AND TRACING TEXTILE LEFTOVERS TO REDUCE THE NEED FOR VIRGIN MATERIALS.

Problem & Solution: Today, a large share of the fibers entering the fashion value chain end up as waste throughout the different stages of production from fiber, yarn, and fabric to garment. This waste is often pushed out the factory door and handled by the informal sector, such as waste pickers, without any transparency. At the same time, 111 million metric tons of new fibers were produced globally in 2019 and by 2030 it's expected to rise to 146 million, if business continues as usual (Textile Exchange). This is an equation that doesn't add up. And there's no data to cover the exact size of the problem.

Recycling textiles is currently challenging due to blocked access to waste combined with lack of knowledge of recycling opportunities, along with outdated waste handling and trading practices to waste. Reverse Resources has a solution to all this. This Estonia-based company believes data of material flows is the most valuable resource for the age of circular economy. With their mapping and tracking platform for textile waste, they provide a 360-degree transparency of the waste flows. The platform is like an Uber of textile waste, connecting supply with demand, and only then suggesting the best route to it. Reverse Resources helps bring down the cost of textile-to-textile recycling and supports the scale-up of a circular economy. Increased recycling leads to both environmental and social benefits, with wins such as less need for water and possible improvements of the informal waste management sector.

Product: A Software-as-a-Service (SaaS) platform for the global fashion industry to steer and trace its secondary materials back to its own supply chains. The platform enables brands and buyers to connect recycling partners with their textile and garment suppliers,



give access to and increase quality of waste in collaboration with nominated waste handlers, and thereby enable waste to become the new raw material for the fashion industry.

Business model: Reverse Resources brings down the cost of sourcing and increases the quality of waste for recyclers, by optimizing the processes of waste management from the very first mile. Reverse Resources supports garment factories in segregating their waste, collects background information, and aggregates data through a large network of suppliers and waste handlers. The platform has three main pricing schemes:

1. Waste mapping services across a large number of producers to identify secondary materials and current disposal methods as well as enabling strategic planning and tracking of KPIs. Fee per facility monitored.
2. Sourcing, supply chain management, and 360-degree tracing of waste: matchmaking, order management, support of waste delivery, and verifying of the material streams. Fee per kilo of materials moved or traced.

3. Trading of secondary materials: marketplace as a last resort for secondary material flows. Fee expressed as percentage of transaction.

Competition: The Reverse Resources platform is a key instrument in enabling the transition to a large-scale circular economy within the fashion and textile industry, closing the loop for waste. As opposed to traditional waste marketplaces, Reverse Resources is a supply chain and data management tool for large corporations to organize their material flows and collaborate with others in a transparent way. As a first-of-its-kind platform in the fashion space, Reverse Resources is already working closely with 13 market-leading fashion brands including H&M Group, Bestseller, OVS, Bershka, Pull&Bear, and Kmart.

Team: The team is based in Estonia and combines vast experience from the fashion industry, software development, and circular economy, with people spread across Europe (Estonia, Spain, Netherlands, Poland) and Asia (Bangladesh, India).

Team members:

Ann Runnel, CEO and Founder
Nin Castle, Co-Founder and Network Lead

Additional team members:

Madis Peebo, CTO
Marieke Kokkelink, Sales director
Mari-Liis Link, UX designer
Maxime Bourland, Business Development & Research
Dea Lasting, Process Development

Shamiul Hoque, Board Member of Bangladesh branch
Mumit Hasan, Lead of Operations
Hemel Bhuiya, Project Manager
Harshitha Venati, Country Manager

Awards and recognitions:

- Winner, H&M Foundation Global Change Award (2015)
- Levi’s Collaboratory Fellow (2018)
- Runner Up, Postcode Lottery Green Challenge (2018)
- Finalist, Google Cloud & SAP Circular Economy 2030 (2019)
- Estonian Startup Awards, Impact Visionary Award (2019)
- Silver Medalist, European Business Awards for the Environment (2020)



Contact:

Ann Runnel, Founder and CEO
invest@reverseresources.net
reverseresources.net



The planet positive impact potential is estimated by Accenture with the purpose of demonstrating how Reverse Resources has the potential to create multi-dimensional value when scaling. The high-level estimation is based on Reverse Resources’ potential to scale and its output in 2030 (~6 million metric tons of waste traced). Using Reverse Resources’ solution has

the potential to save 5,400 billion liters of water in 2030, which is comparable to water usage in production for 2 billion cotton t-shirts. The solution enables recycling waste material, creating a circular textile flow. In addition, the innovation has the potential to create a significant social impact. The waste workers in the informal sector in developing countries

currently earn less than official minimum wages. With Reverse Resources’ approach of supply chain efficiency and increased value of secondary materials, margins of the waste management sector can be increased. This can lead to a more formalized sector, with higher wages and improved working conditions as a result.

ADETEX.ID

\$13,700,000

Adetex.IDs' own estimated support needed to scale.

THROUGH A THIN RFID THREAD THAT CAN BE FILLED WITH INFORMATION AND THEN SEWN INTO A GARMENT, AND THEN REMAINS VIABLE THROUGHOUT THE GARMENT'S LIFECYCLE, ADETEX.ID OPENS UP FOR NEW POSSIBILITIES WITHIN, FOR EXAMPLE, TEXTILE RECYCLING, STOCK MANAGEMENT, AND SECOND-HAND SOLUTIONS.

Problem & Solution: Billions of new garments are produced every year. Unfortunately, less than 1% of the material used to produce clothing is recycled into new garments, representing a loss of more than 100 billion USD worth of materials each year, according to the Ellen MacArthur Foundation. One of the biggest barriers to large-scale recycling is that most garments are made of blended textiles. To fully recycle these garments, the material composition must be known – which it rarely is today.

With their patented digital thread, Adetex.ID wants to break this outdated linear model and shift it into a circular one where garments are kept in a loop. The RFID thread stores the content information of a garment, which enables automated sorting and recycling. With this solution, textile waste can be circulated back into the system, significantly reducing dependency on virgin resources. Moreover, the RFID thread has almost endless opportunities as it connects products to the Internet of Things and enables the implementation of a true omni-channel strategy, from streamlining production and supply chain management, to customer experience, garment renting, and product authenticity.

Product: The patented RFID Threads® is a new disruptive technology that allows a radio-frequency identification (RFID) chip to be invisibly integrated into a garment. The thread, which has been tested by major fashion brands, remains viable during the entire lifecycle of the garment and can withstand washing or tumble drying at any temperature. The thread itself can be reused. Apart from recycling, the thread has a multitude of uses, e.g., giving real-time data on sales and stock, scanning of returns, and validating that a product return is not a counterfeit. Unlike conventional technology the RFID Thread® cannot be damaged, detected or removed by a customer.

Business model: Adetex.ID produces and develops the RFID thread working with global sales partners that



sell directly to the fashion industry. The target groups are leading fashion and apparel retailers, as well as several actors across the supply chain, who want to improve transparency and recyclability. Depending on customers' requirements, the thread can be customized with specific characteristics.

Competition: There are several other actors that produce RFID technology for the fashion industry. The most common RFID tags are attached to the garment as a hangtag or sticker and are removed at point of sale. Adetex.ID has a unique market-leading position, as the RFID Thread® is the industry's first RFID sensor in the form of a thread that is designed to survive the entire product lifecycle, including washing.

Team: The multidisciplinary global team brings vast expertise and know-how gained from working in global companies and in a range of academic environments focused on smart textiles. Adetex.ID is led by Dr. Anura Rathnayake, founder and chairman. He brings vast experience and know-how from working in advanced textiles engineering for global companies for over 18 years, and academic research environments focused on smart textiles.

Team members:

Dr Anura Rathnayake, Inventor, Founder and Group Chairman, extensive experience (+18 years) in the textiles & smart textile industry.

CEO, TBA, Responsible for Global Sales & Marketing. Significant experience (+15 years) at director capacity in the RFID market with major global retailers. Yet to be onboarded.

Mark Bairstow, Finance and Strategy Director. Finance director experience (+15 years) in many different industries. Yet to be onboarded.

Paschal Little, Member of the Advisory Board. Former Head of Product Development at Marks & Spencer (+20 years), currently a consultant on clothing, textiles and sustainability.

MD, TBC, responsible for Manufacturing & Operations, Sri Lanka. Significant experience (+20 years) in the RFID tags manufacturing and dealt with major global retailers. Yet to be onboarded.

Upali Herath: Business consultant, Sri Lanka.

Experience (+25 years) in director capacity at Loadstar Pvt Ltd, a large tire manufacturer and exporter based in Sri Lanka.

Mahesh Gunasinghe: Operations Manager, Sri Lanka. A mechanical Engineer who has experience (+20 years) in senior management of lean manufacturing of garment industry.

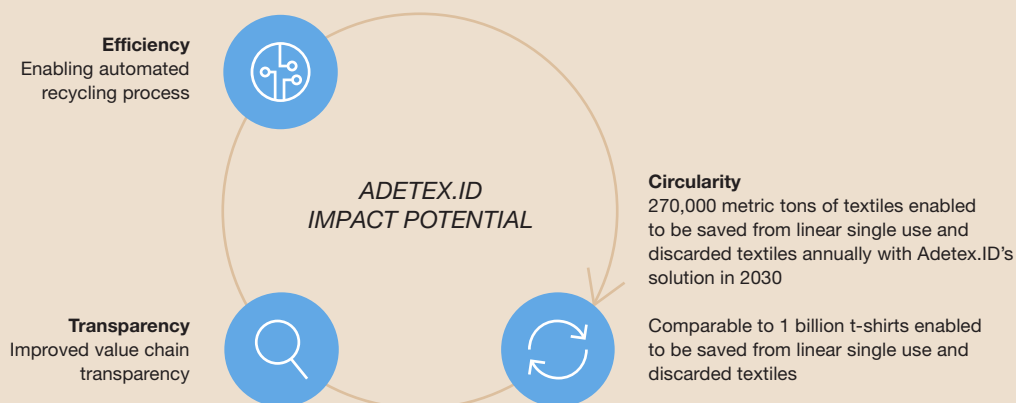
Awards and recognitions:

- Winner, H&M Foundation Global Change Award (2017)
- Winner, Shoptalk Retail Innovation Award (2017)
- Winner, LAUNCH Innovation Challenge (2017)
- Winner, Plug and Play by Fashion for Good (2017)



Contact:

Anura Rathnayake, Founder
 anu@adetexs.com
 adetexs.com



The planet positive impact potential is estimated by Accenture with the purpose of demonstrating how Adetex.ID has the potential to create multi-dimensional value when scaling. The high-level estimation

is based on Adetex.ID's potential to scale and its output in 2030 (~1,500 million units produced). Adetex.ID's solution can enable 270,000 metric tons of textiles to be saved from linear single use and discarded

textiles annually, which is comparable to 1 billion t-shirts. In addition to enable easier and automated recycling, Adetex.ID improves transparency across the value chain.

UNSPUN

\$25,000,000

Unspun's own estimated support needed to scale.

BY STOPPING THE GUESSING GAME AND INSTEAD SELLING JEANS BEFORE MAKING THEM, UNSPUN CREATES BESPOKE JEANS WITH A PERFECT FIT BASED ON ALGORITHMS FROM A BODY SCAN. THIS ELIMINATES THE NEED FOR INVENTORY AND REDUCES WASTE, WHILE ALSO CHANGING THE WAY FASHION IS DESIGNED AND PRODUCED.

Problem & Solution: Overproduction is one of the biggest issues in the fashion industry. Over 100 billion pieces of clothing are produced every year, yet most of these garments are only worn a handful of times and then thrown away within a year. In fact, some garments are not sold at all and never worn. Trying to figure out what people want to buy, when, where, in what color and size is basically a guessing game. No one can predict the future.

Unspun flips the switch by selling jeans before they make them. And they do it without using traditional sizes – it's the jeans that should fit you, not the other way around. Their innovation is a product and a solution, as it scans the body and creates jeans based on the customer's exact size and preferences. This completely eliminates the need for inventory and dramatically reduces waste. Jeans that fit are also worn more times. Unspun's innovation allows you to get bespoke jeans at a fraction of the typical cost of custom-made clothing.

Product: Unspun's patented technology translates a 30-second body scan into perfectly fitted jeans. This eliminates the need for inventory and dramatically reduces the waste created by current production methods. Their mission is to reduce global carbon emissions by 1% through automated, localized, and intentional manufacturing. A customer starts with choosing style, fabric, thread color, rise height, and hem length. Then, the customer does a quick body scan, either with a smartphone or by using body scanners found at one of its partners globally. A 3D avatar and a unique pattern are created. The whole process is enhanced with machine learning, so the more scans, the better products the system generates. By the end of 2021, unspun will unveil for the first time 3D-woven garments made from the machine they have been developing for the past three years, changing how we produce and consume, as opposed to the traditional cut-and-sew process.



Business model: The unspun business model stands on three pillars:

- To solve a major consumer pain point through perfect jeans, while reducing garment waste.
- To rapidly scale the on-demand model by collaborating with the most ambitious fashion companies.
- To use that scale to set up micro-factories based on the proprietary world's first 3D-weaving technology to make the process as cost and time-efficient as possible.

Competition: Unspun complements many maturing 3D and virtual solutions. The team works with in-person scanning solutions as well as technologies to enable scanning possibilities for over 300 million smartphone users. Instead of taking a zero-sum approach, the team partners with fashion brands such as Weekday to meaningfully change the industry paradigm. Additionally, unspun has a training algorithm that increases in accuracy as the consumer base grows, and an end-to-end scan-customization-3D-weaving production process.

Team: The team of twenty is based in San Francisco and Hong Kong and is truly a vertically integrated business with experience within design, material science, commerce, branding, machine learning, computational geometry, controls, and mechanical engineering disciplines.

Main team members:

Beth Esponnette, Executive Chairman, Chief Product Officer and Co-founder
 Walden Lam, Co-founder and Chief Executive Officer
 Kevin Martin, Co-founder and Chief Technology Officer

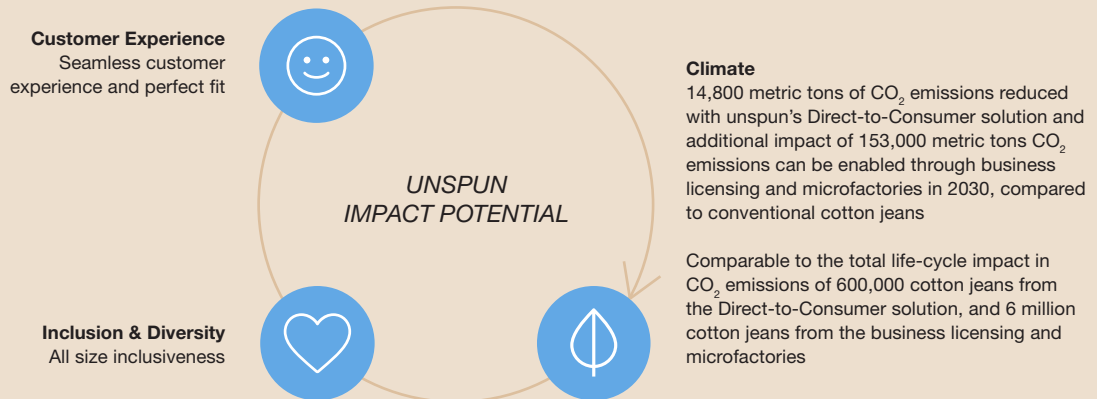
Awards and recognitions:

- Winner, H&M Foundation Global Change Award (2017)
- Longlisted in the Dezeen Awards (2020)
- Named one of 100 Best Inventions 2019, Time Magazine (2019)
- Winner Fashion Tech, San Francisco Design Week Awards (2020)
- Popular Science The Greatest Innovations of 2020, Best of What’s New Award (2020)
- Forbes’ 30 Under 30 – Kevin Martin, Manufacturing and Industry (2020)
- Generation T Asia 2020 (Sustainability) – Walden Lam
- Fast Company World Changing Idea (2021)
- Finalist, The Index Project (2021)



Contact:

Walden Lam, Co-founder and CEO
 walden@unspun.io
 unspun.io



The planet positive impact potential is estimated by Accenture with the purpose of demonstrating how unspun has the potential to create multi-dimensional value when scaling. The high-level estimation is based on unspun’s potential to scale and its output in 2030 (~1,2 million pairs of jeans sold directly to consumers, ~110 business licenses sold, and ~22 number of micro factories in use). Unspun

has the potential to reduce CO₂ emissions in 2030 with 14,800 metric tons/year based on the direct-to-consumer solution, which is comparable to the CO₂ emissions from the total lifecycle of 600,000 pairs of cotton jeans. Further, unspun has the potential to reduce CO₂ emission in 2030 with 153,000 metric tons/year through other brands licensing the unspun solution or utilizing unspun’s micro factory

solution, which is comparable to the CO₂ emissions from the total lifecycle of 6 million pairs of cotton jeans. Not only does unspun reduce waste, but by providing all size inclusiveness through the custom-made jeans produced to all sizes upon demand, it enables a seamless customer experience with perfect fit.

ALGAEING

\$5,000,000

Algaeing's own estimated support needed to scale.

POWERED BY THE GAME-CHANGING MICROORGANISM ALGAE, ALGAEING MAKES BIODEGRADABLE AND RENEWABLE THREAD AND DYE THAT HAS A SMALLER ENVIRONMENTAL FOOTPRINT THAN MOST NATURAL FIBERS AND IS EASY FOR THE INDUSTRY TO ADOPT. IN ADDITION, IT CREATES A NEW CATEGORY OF PRODUCTS WITH BENEFITS FOR THE SKIN.

Problem & Solution: Conventional fabric production and textile dyeing causes irreversible environmental damage and depletes precious natural resources, such as land and water. Producing 1 metric ton of cotton fabric, for instance, requires 200 metric tons of water. In addition, growing conventional materials, such as cotton, requires large amounts of pesticides that negatively impact biodiversity, while textile dyeing leads to dire consequences both in terms of water use and pollution. Meanwhile, the UN estimates that globally 80-90% of wastewater is returned to the environment untreated.

Algaeing has solved both issues by harnessing the power of algae. This plant-based, renewable, and biodegradable aquatic plant is a sustainable raw material that can be vertically farmed on land and turned into environmentally friendly textile fiber and dye. This innovation enables a paradigm shift towards Algaeing's vision of Triple Good Solutions: good for the planet, the industry, your skin, and body – across the apparel and textile industry.

Product: Algaeing creates patented and award-winning formulations for 100% biodegradable threads made from algae and cellulose, and algae-based dye. The formulations can be customized and used with existing machinery, enabling a faster adoption across the supply chain. The algae grows in a closed-loop system through vertical farming, meaning the crops grow in vertically stacked layers, that requires only solar energy and salty or desalinated water. It requires 80% less water compared with traditional textile production and generates no pollution. Textile products made with Algaeing's technology directly benefits the wearer, as it leverages the benefits of the botanical power of algae, creating an entirely new category of skincare properties within the apparel and textile products.



Business model: Revenue will come from formulations, unit sales and transactions of co-branded products. With focus on the fashion industry, the current main markets are the fiber and colorant markets. However, Algaeing can lead transformation in multiple industries due to their unique patented formulations. Algaeing is preparing for commercial launch of its patented formulations in the first half of the fiscal year 2022. The business has expanded to the hygiene and medical nonwovens industries with a wide range of applications in 2021 and is set to expand to the automotive industry in the future.

Competition: Algaeing has two types of competitors: existing fibers and dyes as well as plant-based alternatives. Algaeing stands out in terms of its drop-in solution that keeps down conversion costs, since existing conventional production machinery can be used and there is no need for changing work processes nor employing new staff. The solution is also easily scalable as quantities can be increased at any given

point of time. All in all, Algaeing enables transformation throughout the supply chain, streamlining operations, and saving costs.

Team: The global team, based in Israel and Germany, represents a diverse group of people with expertise within design, engineering, biology, biotech, and biochemistry. This unique blend creates an innovative problem-solving team. Together with an advisory board of industry veterans representing different parts of the supply chain, the team has a deep understanding of the needs of the entire textile supply chain.

Team members:

- Renana Krebs M.A, Co-Founder and CEO
- Dr. Oded Krebs, Co-Founder and CTO
- Ariel Romano, CCO and CFO
- Dr. Elizabeth Amir, Textile Engineer, Textile Science and Engineering
- Gideon Sobol, M.Sc R&D Director
- Prof. Sammy Boussiba, Scientific Advisory
- Dr. Lior Korzen, Scientific Director
- Dr. Moti Tavasi, Algae Scientist & Researcher
- Amit Giladi, R&D Manager
- Karen Wilf, Product Manager
- Dalia Grozs, Executive Assistant

Awards and recognitions:

- First Place VWS Pathfinder Plant-Based Competition (2020)
- German Federal Eco Design Award Nominee (2020)
- Finalist, Fashion Innovation Award (2020)
- Fashion for Good (2018 & 2019)
- Winner, H&M Foundation Global Change Award (2018) – Winner, Vision Award (2018)

- Top 5 Finalist, Creative Business Cup Copenhagen (2017)
- Winner, Creative Business Cup Israel (2017)
- Act Shenkar, (2016 & 2017)

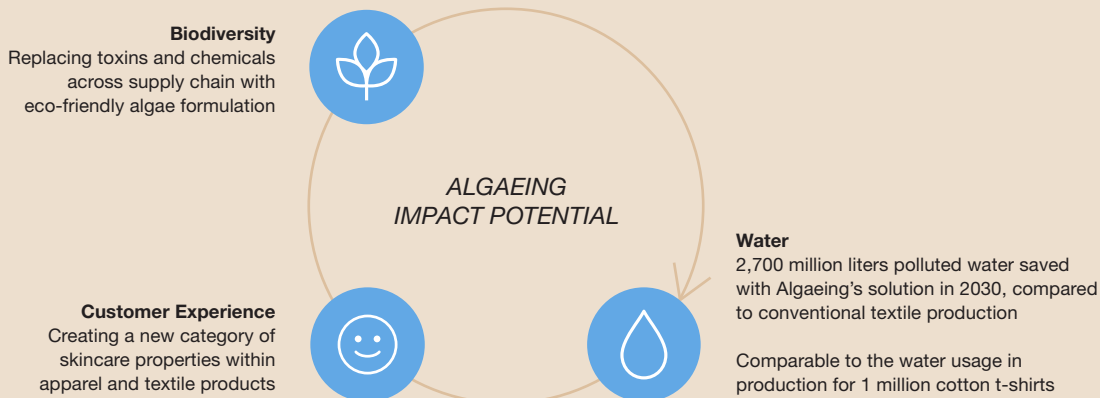
Personal awards:

- Messe Frankfurt Award (2015)
- Schaffrin Mentorship Award (2015)
- Design week Milan - Triennale museum – ‘Salone De mobile’ – Innovative & sustainable materials exhibition (2014)
- Finalist, Zero Waste Challenge (2014)
- iD International Design Award (2012)
- Shenkar Award for excellent achievements (2012)
- Shenkar Award for excellent achievements (2011)



Contact:

Renana Krebs, Co-Founder and CEO
 rkrebs@alga-life.com
 algaeing.com



The planet positive impact potential is estimated by Accenture with the purpose of demonstrating how Algaeing has the potential to create multi-dimensional value when scaling. The high-level estimation is based on Algaeing's potential to scale and its output in 2030

(~15,000 metric tons of textiles). Using this solution, 2,700 million liters of polluted water per year can be saved in production and from impacting the environment, which is comparable to the water usage in production for 1 million cotton t-shirts. Algaeing is a renewable

and biodegradable material which is replacing toxins with algae, enabling improvements of garments and creating a new category of superior apparel and textile products with benefits for the skin.



"It's crucial to support sustainable innovation if fashion is going to make the shift to a more sustainable industry. The Billion Dollar Collection highlights this untapped opportunity."

Karl-Johan Persson, Board Member of H&M Foundation and Chairman of H&M Group



"The collection is an edgy but low-key wardrobe of gender-fluid, evolved casual classics. Instead of a monotonous and controlled future, we wanted to portray a sense of singularity in the garments through asymmetrical details, trinket-like finishings, and bold volumes. The color palette consists of a range of colored clays, soft flower tones, and vibrant spice hues inspired by nature."

Pauline Chardin, Designer



"When I was a kid, grown-ups painted a bright future with things like flying cars, human-like robots and 3D-printed clothes. We can now make one of these three a reality."

Walden Lam, Co-Founder & CEO at unspun



"There is rapidly growing awareness of the negative impact that fashion has had on our planet, but large-scale change and innovation to address the problems is yet to happen. The time to lead is now, to introduce technologies that can be scaled throughout the global supply chain and create incredible value."

Dipak Mahato, Founder and CEO of SeaChange Technologies

THE
BILLION
DOLLAR
COLLECTION



H&M FOUNDATION

billiondollarcollection.com