An Initiative of



# THE CIRCULARS 2018 YEARBOOK

THE WINNERS AND BEST ENTRIES FROM THE WORLD'S PREMIER CIRCULAR ECONOMY AWARD PROGRAM

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IN COLLABORATION WITH ACCENTURE STRATEGY

# **CO-CHAIR** THANK YOU

On behalf of the Young Global Leaders (YGL) Circular Economy Taskforce, we would like to extend our sincerest thanks to all participants of The Circulars 2018. The Circulars Award program, which recognizes individuals and organizations that have made notable contributions to the circular economy, has continued to develop and flourish. One of the many highlights from this year was receiving an impressive pool of ~300 entries from across 45 different countries. As the Co-Chairs, it has been wonderful to see such an array of pioneering circular economy efforts, ranging from innovative, new and digitally disruptive enterprises and pioneering multinationals, to cities pushing established sustainability boundaries, to dedicated circular economy investors developing infrastructure to finance this growing movement. On top of this, there are stories from a multitude of inspiring individuals whom have made significant contributions to driving awareness and understanding of circular principles across the globe. And finally, strong leadership, alongside digital innovation being demonstrated by entrepreneurs, has enabled new solutions to traditional challenges to be found, accelerating the growing uptake of circular solutions.

The Circulars 2018 Yearbook features a collection of short summaries of the extraordinary work of The Circulars' Winners, Runners Up, Finalists and Highly Commended entries from 2018. We hope you find their stories inspiring, and that they reflect the progress that has been made towards making the circular economy a reality.

Many thanks to all who have played a part in The Circulars 2018. We look forward more than ever to The Circulars 2019.

Sincerely,

PETER, IDA, DAVID AND RAIN The YGL Circular Economy Taskforce Co-Chairs



PETER LACY

Senior Managing Director Accenture Strategy





**IDA AUKEN** 

Danish Parliament



**DAVID ROSENBERG** 

CEO & Co-Founder AeroFarms

9 Rosaly Zan All the



**BAIN NEWTON-SMITH** 

Chief Economist



## To the Global Circular Economy Community,

We are extremely proud to be sponsoring The Circulars 2018 and to be a part of this global initiative. As Sponsors, we have each been involved in the program since it began in 2015 and we can collectively say that it has been a privilege to witness how the impact of the program has continued to grow on a truly global scale. Year on year we have witnessed continuous development and progress of circular economy innovation through the entrants.

The challenge of how we manage and consume resources will be critical for the lives of future generations and today this challenge is hugely important to both our companies and our clients. As multinationals, we have a responsibility to lead this transformation; to develop and innovate with new, resource efficient business models and to create markets for innovation. Together, we are working to embed circularity into how we deliver our products and services within our industries, to make our own operations more sustainable, while at the same time using our leadership to help our clients solve circular challenges to become part of the solution.

The Circulars is the world's leading circular economy award program and is a collection of the most innovative and disruptive companies around the world. The community the program has built is helping to foster innovation and is a showcase of how disruptive technologies and new business models can be implemented to advance the circular movement. In doing so, the program has helped build and strengthen the circular economy agenda, inspiring change and fuelling innovation in organizations aspiring to deliver on sustainability ambitions.

We would like to once again congratulate each of the entrants to The Circulars 2018. It was truly the most competitive award program we have had to date, and this Yearbook, as a showcase of the leading entries across each of the categories, is certainly a reflection of this excellence.

We sincerely hope you enjoy reading these case studies and that, within this Yearbook, you will find inspiration to progress your own circular economy journey.

Best Regards,

MARK, KAREN, AND DOUG THE CIRCULARS AWARDS 2018 SPONSORS





**KAREN OUINTOS** 

Customer Officer Then & aristos



Group Chief Executive

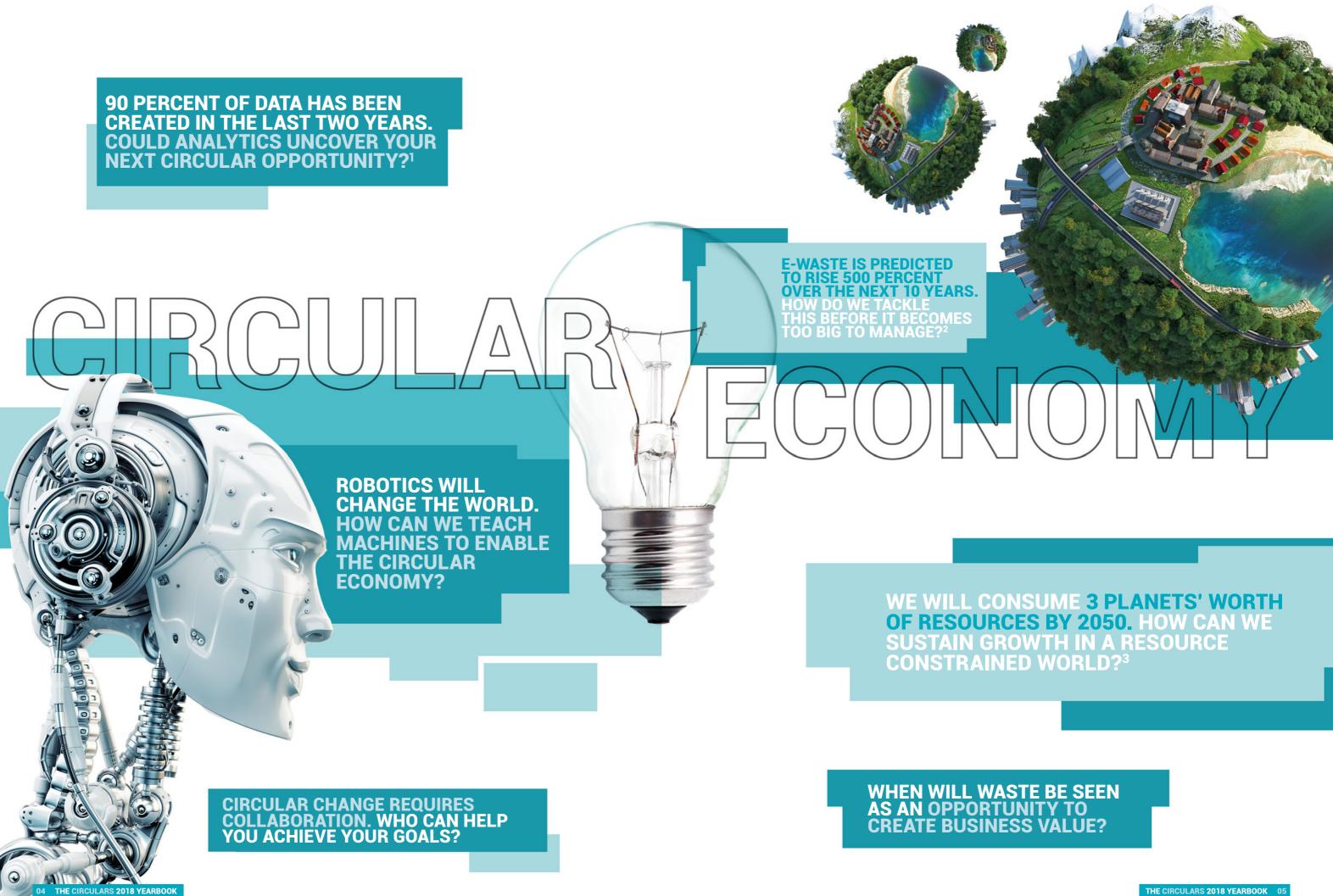
Accenture Strategy







**DOUG BAKER** 



# **CONTENTS AWARD CATEGORIES**



Award to honor an individual who has demonstrated inspirational leadership in the journey towards a circular economy.

Award for an established organization, with global reach and over USD 100 million in turnover, which is demonstrating innovation in its existing business.

# THE ACCENTURE STRATEGY AWARD FOR CIRCULAR ECONOMY **MULTINATIONAL**

Award for an investment body or individual providing financial backing for the circular economy to become mainstream. Entrants with cumulative investments upwards of USD 15 million are preferred.

using technology to enable the circular



Award for a small to medium-sized enterprise (SME), with USD 10-100 million in turnover, which is transforming its business towards the circular economy.

# **THE YOUNG GLOBAL LEADERS** AWARD FOR CIRCULAR ECONOMY SME

Award for an early-stage organization, with USD 1-10 million in booked revenue, which is at the forefront of the circular economy, demonstrating innovation and market disruption.

local or national government body or program, or public procurement initiative which best enables an environment for the circular economy to develop and flourish.

THE WORLD ECONOMIC FORUM AWARD FOR **CIRCULAR ECONOMY PUBLIC SECTOR** 

06 THE CIRCULARS 2018 YEARBOOK





THE ECOLAB AWARD FOR CIRCULAR ECONOMY **TECH DISRUPTOR** 





# R ECONOMY LEADERSHIP

# WINNER IS VAN HOUT

CEO, Royal Philips

FRANS VAN HOUTEN, CEO AND CHAIRMAN, ROYAL PHILIPS RECEIVES THE FORTUNE AWARD FOR CIRCULAR ECONOMY LEADERSHIP FROM CLIFTON LEAF, EDITOR-IN-CHIEF, FORTUNE







Award to honor an individual who has demonstrated inspirational leadership in the journey towards a circular economy.

# FRANS VAN HOUTEN WINNER OF THE FORTUNE AWARD FOR CIRCULAR ECONOMY LEADERSHIP

#### **TESTIMONIAL**

At Philips, we see huge opportunities for businesses to provide greater value to customers through innovative service models, smart upgrade paths, and product take back and remanufacturing programs.

Circular business models are rapidly becoming common place in our economy. We firmly expect the circular economy to replace the traditional 'take-make-dispose' scheme. At Philips we aim to "take back" all capital equipment from our hospital clients. What's more, we expect this to be a win-win business model for Philips, our customers and supply chain partners, because there is much residual value to recover.

We continuously endeavor to 'disrupt ourselves' by rethinking and redesigning the way we do business to contribute to a better world. It is imperative that businesses and governments collaborate to scale the circular economy and overcome systemic barriers-transforming supply chains and the modern consumption economy. This includes blended finance, green procurement incentives and the removal of trade barriers. We must take action to make circular models the "new normal".

I am thankful for the recognition given to me with The Fortune Award for Circular Economy Leadership. To accelerate and scale the circular economy, we must prioritize collaboration, investment and measurable commitments between a diverse collective of stakeholders and entities.

In this spirit, I am challenging CEOs in other industries to pledge their commitment to the circular economy with concrete actions and targets to help close the loop and stimulate circular models in their own supply chains. Working in partnership, we must move from concepts and case studies towards meaningful action that truly scales a high impact, and global, circular economy. We can do it!

Frans Van Houten Chief Executive Officer and Chairman Royal Philips





Frans van Houten, CEO of Royal Philips, is passionate about innovation, entrepreneurship and business transformation. He is leading Philips on a course to leadership in health technology, with a mission to make the world healthier and more sustainable. He believes a circular economy is a vital and necessary condition to ensure a higher quality of life for all stakeholders on our resource-constrained planet.

Chief Executive Officer and Chairman Royal Philips

#### **SOLUTION**

Frans has led the transformation of Philips into a circular company by shifting its business model, moving from selling equipment only to providing solutions to customers and sharing risk for results through long-term partnerships. In this approach, Philips can directly manage when to upgrade equipment, refurbish systems, reuse parts and recycle materials. He also takes a leadership role in accelerating the transformation of the wider economy by seeking systemic change through public-private partnerships. As Co-chair of the World Economic Forum Platform to Accelerate the Circular Economy, he strongly advocates the circular business and industry opportunity, and challenges organizations to operationalize these principles to deliver tangible impact.

#### **IMPACT**

Frans encourages all 73,000+ global employees at Philips to be ambassadors for their work–to help deliver on the company's stated goal to improve the lives of three billion people per year by 2025.

philips.com | @Philips



Vincent Biruta, Rwanda's Minister of Environment, has led efforts to support government institutions and the private sector to innovate in alignment with the circular economy. Rwanda is a founding member of the African Circular Economy Alliance, of which Minister Biruta is a Co-Chair, and will use this new platform to share its experience and learn from others on the continent.

Minister of Environment Rwanda

#### **SOLUTION**

Minister Biruta has helped enable the country to create an environment conducive for circular economy investment. With a fast-growing population and lofty socio–economic transformation goals, integrating the principles of the circular economy is essential for Rwanda's sustainable development.

#### IMPACT

Minister Biruta's leadership led Rwanda to be one of the first countries in the world to ban plastic bags over a decade ago, and more recently established Africa's second state-of-the-art e-waste recycling facility, which is on track to create 1,000 green jobs and has already mitigated 279 tons of carbon dioxide equivalent emissions.

#### environment.gov.rw | @Vbiruta





Founder & Executive Director **Circular Change** 

#### **SOLUTION**

Under Ladeja's leadership, the Circular Change platform addressed more than 3,000 different stakeholders and connected them with international circular economy players in just two years. Ladeja is co-author of the upcoming "Roadmap for CE of Slovenia", a member of the European Circular Economy Stakeholder platform, Co-Chair of AmCham CE Committee, and an inspirational speaker and empowering moderator at circular economy events.

economy platform in the Adriatic Region.

Ladeja is a circular enthusiast – an entrepreneur with a background in

the creative industries, and today is recognized as the driving force of

the Founder and Executive Director of Circular Change, the first circular

the circular economy in Slovenia and Central-Eastern Europe. She is

#### **IMPACT**

Her passionate engagement encouraged the Slovenian government to integrate the circular economy in their Vision 2050, National Strategy 2030 and Smart Specialization Platform, and to join the Ellen MacArthur Foundation CE100. Circular Change organized two international circular economy conferences, which engaged 500 participants from 20 countries and 30 international speakers, and aligned the Netherlands and Slovenia as the two European epicenters of the circular economy, enabling other countries to join in the exciting circular journey.

circularchange.com | @CircularChange

circular progress across the industry.

Lisa Jennings is the Global VP of Head & Shoulders and the

built on innovation and creativity, has helped enable P&G to become a leader in circular thinking, and in doing so, inspiring

Sustainability Leader for P&G's Hair Care Portfolio. Her leadership,



Global VP Head & Shoulders Sustainability Leader P&G's Hair Care Portfolio

#### SOLUTION

Lisa declared recycled packaging as a core portfolio strategy and mobilized her organization to innovate and create circular solutions that are commercially viable and sustainable. This led to forging cross-industry collaborations with TerraCycle and SUEZ to launch the world's first recyclable shampoo bottle made with recycled beach plastic. This was followed by the transformation of the entire portfolio of brands to adopt post-consumer recycled plastic in their bottles, impacting more than half a billion bottles per year in Europe.

#### **IMPACT**

The project launched in the summer of 2017 in France and has received positive acceptance by consumers, retailers and the media, and has generated massive awareness inciting consumers to recycle. The Head & Shoulders Beach Bottle has expanded into Germany and will expand to other geographies soon.

headandshoulders.com | @ProcterGamble



Adam Lowry is a former climate scientist and founder of two circular economy businesses, Method Products, PBC and Ripple Foods. Adam designs businesses with circular economy principles at their core, so that their growth produces positive social and environmental impact.

Co-Founder & CEO **Ripple Foods PBC** 

#### SOLUTION

Adam's businesses have contributed countless innovations to the sustainable business space, including the first 100 percent post-consumer recycled and recyclable PET packaging; the first packaging made from ocean plastic; several new green chemistries; a Leadership in Energy and Environmental Design (LEED) Platinum certified factory in Chicago that is renewably powered, landfill free, water neutral, and grows vegetables on its roof; as well as a number of innovative corporate governance structures that enable circular economy businesses to innovate and succeed.

#### **IMPACT**

Adam's businesses have eliminated more than 100 kilotons of CO2, saved more than 100 billion liters of water, created hundreds of green manufacturing jobs on four continents, and nearly a billion dollars in shareholder value.

#### ripplefoods.com | @RippleFoods



Aldo Ometto is a Professor at University of São Paulo (USP), Coordinator of the Research Group on Engineering and Life Cycle Management, and Leader of the Ellen MacArthur Foundation Pioneer University Agreement at USP. Aldo gathered a taskforce in all areas of knowledge to disseminate circular economy principles to current and future professionals. He also leads several partnerships with NGOs, private and public organizations, and the National Industry Confederation in Brazil.

Professor University of São Paulo

#### SOLUTION

The taskforce has been encouraged towards circular actions and a circular mindset by attending classes, events and reading reports organized by Aldo and colleagues. Aldo is leading a Circular Economy Research Support Center at USP, bringing more interdisciplinary collaboration within and between the university units. He is also helping to identify the circular economy opportunities in different Brazilian industry sectors.

#### **IMPACT**

Beyond his university engagement, he is helping the largest Brazilian department store to implement circular economy practices into its manufacturing chain, such as: recycling about 220 tons of waste for new fabric; teaming four innovation hubs in order to accelerate the circular economy transition; and influencing societal changes by boosting a transversal education and creating innovative research programs.

researchgate.net | @usponline

FINALIST

FINALIST





Founder

Natalia Allen

#### SOLUTION

For her work, Natalia has received numerous distinctions, including World Economic Forum Young Global Leader, Fast Company 100 Most Creative Professional, and Utne Reader's 25 Visionaries Who Are Changing Your World. An honorary Design Futures Senior Fellow, she has presented at conferences in China, Dubai and Davos, Switzerland.

Donna Karan.

#### **IMPACT**

In 2014, Natalia spent several months in American factories learning about robotic apparel manufacturing. She then launched a line of beautiful minimalist clothing made in a systematic, seamless and sustainable process. The brand has already trended on Oprah, Forbes, and FOX. The complete collection is available on the flagship website and select lines are retailing at Lord & Taylor.

#### nataliaallen.com | @NATALIAALLEN



Eng Hassan Mohammed Makki is the Director – Drainage and Irrigation Network Department of the Dubai Municipality. He implements programs, strategies and policies, in partnership with stakeholders and the community, to ensure sustainable use of natural resources, energy and water efficiency.

### ENG HASSAN MOHAMMED MAKKI

Director Drainage and Irrigation Network Department Dubai Municipality

#### **SOLUTION**

Under Eng Makki's leadership, Dubai has adopted a circular, smart and resource-optimized business model in collaboration with various private sectors to optimize the use of water and energy resources. This includes the use of recycled water for landscape irrigation, substituting fossil fuels with renewable energy to power the irrigation networks, the establishment of recycling facilities for grease waste and the implementation of smart solutions.

#### **IMPACT**

Eng Makkis' approach to the circular economy has received funding of AED 50 million from the government budget and AED 100 million has been invested through public private partnerships. Under Eng Makki's leadership more than 2111m<sup>3</sup> of treated water was used last year for greening the city, promoting green economy and encouraging corporate social responsibility (CSR) culture in the region.

dm.gov.ae | @DubaiMunicipality



**DAVID FITZSIMONS** Director

David Fitzsimons led the creation of a new, ambitious remanufacturing community: the European Remanufacturing Council. As director of the council, David is leading the organization to reach its goal of growing the EU remanufacturing sector to EUR 100 billion by 2030.

Natalia Allen graduated from Parsons as Designer of the Year, a title

Futurist, an award-winning consultancy that designs innovative and sustainable clothing for multinationals such as DuPont, Calvin Klein, and

she shares with alumnus Marc Jacobs. In 2005, Natalia founded Design

**European Remanufacturing Council** (Conseil Européen de Remanufacture, CER)

#### SOLUTION

The council aims to bring together businesses from every product sector to share knowledge, and seek changes to policy with the aim of making remanufacturing a normal part of a product lifecycle. These range from large original equipment manufacturers to product specialists to global intermediaries specializing in take back and valorization.

#### **IMPACT**

David contributed to the United Nations Environment Program, Organization for Economic Co-operation and Development (OCED) and World Economic Forum on-going work on remanufacturing and provides support to the Ellen MacArthur Foundation in their advocacy of circular economy business models. David is also connecting academic research with innovation challenges by leading on the formation of a remanufacturing research community in Europe.

remancouncil.eu | @RemanCouncil

**HIGHLY COMMENDED** 

HIGHLY COMMENDED

# Peter van der P

inge & Supply and Managing

r, IKEA of Sv

PETER VAN DER POEL, MANAGING DIRECTOR, RANGE AND SUPPLY, INTER IKEA GROUP RECEIVES THE ACCENTURE STRATEGY AWARD FOR CIRCULAR ECONOMY MULTINATIONAL FROM PETER LACY SENIOR MANAGING DIRECTOR, ACCENTURE STRATEGY







# **THE ACCENTURE STRATEGY AWARD FOR CIRCULAR** ECONOMY **MULTINATIONAL**

Award for an established organization, with global reach and over USD 100 million in turnover, which is demonstrating innovation in its existing business.

## IKEA WINNER OF THE ACCENTURE STRATEGY AWARD FOR CIRCULAR ECONOMY MULTINATIONAL

### **TESTIMONIAL**

Customer behaviors are changing and there is a growing awareness of the impact of consumption on the planet. They don't want to be wasteful and throw things away. They seek more value in what they buy. They still wish to refresh their home often, but are frustrated by having too many things. We are exploring opportunities and people's needs in relation to how we acquire things, how we retain and restore value in the things we love, and how we pass on the things we no longer want.

We know resources are limited and therefore must find smarter ways to use them. Working with circularity is crucial to finding new and innovative ways to work with renewable and recycled materials.

Transforming IKEA into a "circular" business is one of our biggest ambitions and challenges for the future. It will impact the business in all aspects: from how we develop products, source materials, develop the IKEA supply chain, and set up logistics, to how and where we meet our customers. Being circular is both a responsibility and a good business opportunity.

This requires a daring and innovative mind-set, working together with many stakeholders to move beyond simply to "take back things". It means moving forward without having all the answers.

Winning The Circulars Multinational Award has offered the opportunity to network and meet companies and government representatives that we can partner and cooperate with in the future. It has also provided additional encouragement for all co-workers to continue in our commitment to work with circularity.

#### Peter van der Poel

Managing Director, Range and Supply Inter IKEA Group







IKEA works with a fully circular model: from how they develop their products and supply chain, to how they meet customer demands. This journey requires a daring and innovative mind-set, working together with many stakeholders.

#### SOLUTION

IKEA's newly developed circular design principles focus on designing all of their products from the very beginning to be repurposed, repaired, reused, resold, or recycled, as they see their products as raw materials of the future. They engage with customers in smart ways by inviting them to be part of the solution and enabling them to live more sustainably.

#### **IMPACT**

The IKEA culture is to think differently and to be cost conscious in everything they do. Transforming into a circular business will help enable IKEA to continue to grow by staying relevant to people within the limits of one planet. Through this conversion they have shifted away from using 10,000 tons of virgin fossil based material, resulting in lowering oil usage by 75,000 barrels a year. In 2016, they utilized 90 million PET bottles in KUGGIS boxes, replacing 3,700 tons of virgin fossil materials with 3,700 tons of recycled plastic. Thinking beyond materials, they are developing products such as the VIMLE sofa, built on a standard sofa platform where parts can be exchanged over time. The sofa is designed in modules so configuration and covers can be easily changed to suit changing life needs.

ikea.com [@IKEAtoday



vehicles and e-waste.

### SOLUTION

GEM has disrupted five major industrial chains using circular principles. Their focus areas include the recycling of waste batteries and power batteries; cobalt and nickel tungsten resource recycling; the recycling of electronic waste; comprehensive utilization of end-of-life automobile parts; waste residue, waste mud, and waste water recycling. The company operates across sixteen industrial parks in China's ten provinces and cities to drive the business at scale.

#### **IMPACT**

In 2016, GEM processed three million tons of waste, recycled 37 kinds of resources, and recovered 58 types of products. As a result, GEM has helped to enable waste recovery to become a mainstream resource to support the development of the national economy.

#### en.gem.com.cn

### GEM is China's first listed company with a focus on capturing the value from urban mines, aiming to become a leading global circular company. They concentrate on the recycling and manufacturing of products using recycled materials, with particular attention to batteries, end-of-life





C&A is an international chain of fashion retail clothing stores operating in 24 countries globally, and is still family owned after six generations and 176 years of operation. They continue to adapt and innovate with a new focus on creating a circular economy in the fashion industry, in order to build a resilient business, just as it did when brothers Clemens and August Brenninkmeijer set out in 1841.

#### SOLUTION

C&A has launched the most sustainable product in the fashion industry with their first GOLD level Cradle to Cradle Certified<sup>™</sup> garment. This is the first time that a fashion brand has developed a circular product at scale, incorporating important attributes such as materials that are certified organic, safe and non-toxic, 100 percent compostable, and made from 100 percent renewable energy, recycled water, social fairness – all offered at value retail pricess and offered to the industry in an open source.

#### **IMPACT**

To date, C&A have produced over 1.3 million GOLD Cradle to Cradle Certified™ garments including new innovations in prints and embroidery. The garments have led to significant increases in basket size and in key consumer brand perception attributes at positive contribution margins.

#### sustainability.c-and-a.com | @ca\_europe



Google is a leader in organizing the world's information – making it universally accessible and useful. They are committed to doing this in a way that creates positive impacts for people and the planet.

#### SOLUTION

Google is embedding circular economy strategies at scale in the management of hardware inside their data centers by implementing maintenance, remanufacturing, secondary market sales, and recycling practices to divert waste across their data centers globally. Google continues to share their learnings through case studies to encourage others to utilize these approaches across infrastructure, operations and culture.

#### **IMPACT**

Google's circular initiatives have resulted in hundreds of millions USD in annual savings, and 86 percent waste diversion across their data centers globally. In 2016, 36 percent of the servers Google deployed were remanufactured machines and they sold nearly two million decommissioned units into secondary markets. Google achieved 100 percent waste diversion rates in six of their 14 data centers in 2016, and is in the process of calculating their final energy bills and expect that they reached their target of 100 percent renewable energy for their global operations in 2017, including data centers and offices.

#### environment.google | @Google



Enel is Europe's largest power company by market capital and is embedding circular economy principles into its business models. Through Enel's global footprint, these principles are being executed across diverse geographies and are actively engaging an increasing number of stakeholders in their circular economy ecosystem.

#### SOLUTION

Enel has launched several flagship circular economy projects that have been rolled out across the whole of Enel Group's perimeter. Among Enel's recent projects, one of the most notable Future–E a project to close down 23 thermal power plants in Italy by giving them a new life, and the launching of Enel X-a new business line totally focused on customer centric valued added services.

#### **IMPACT**

Enel's strategy has delivered a wider value proposition both economically and environmentally, with a zero emission target by 2050. As a result, Enel's business risk profile has reduced, simultaneously creating new revenue streams through massive renewables deployment and pioneering new technologies and digitalization. For the latter, the Group will be investing EUR 5.3 billion in the next three years.

enel.com | @EnelGroup



H&M is a global fashion brand moving from a linear model to a circular model within their business. This approach is enabling them to secure long-term success and create future business opportunities.

#### SOLUTION

H&M's circular approach involves testing and investing in new solutions from the design stage through to material use; developing and scaling recycling technologies; and identifying low impact production processes to help consumers to give each product the longest possible life. Many solutions can be applied today, others will require further innovation and testing, but as a leading circular retailer, H&M wants to help lead this movement.

#### IMPACT

Since 2013, H&M has collected 54,000 tons (equivalent to 275 million t-shirts) of used textiles for reuse and recycling. H&M is also one of the biggest users of recycled materials and, as a result, has saved about 30,000 tons of CO2 between 2012-16, compared to conventional alternatives.

FINALIST

FINALIST





Steelcase, the world's leading manufacturer of office furniture, is committed to integrity and doing the right thing for their customers, employees, business partners and neighbors. What started as operational optimization efforts decades ago was the beginning of Steelcase's circular economy journey.

#### **SOLUTION**

After great progress on operational optimization activities, Steelcase knew their impact could be exponentially bigger by focusing on the millions of square feet they furnish each year. They have worked on product and material innovation, materials chemistry, lifecycle thinking and assessments and end-of-use strategies. They have since transitioned to multiple circular economy business models and continue to build on the improvements they have made.

#### **IMPACT**

Steelcase's impact has been recognized by numerous certifications, including Blauer Engel, Cradle-to-Cradle, NF Environment and SCS Indoor Advantage. In 2016, they executed over 1,400 decommissioning projects-helping organizations save USD 4.4 million through asset reuse-recycled over 26,000 tons of materials, and used panel fabric waste to create new textiles.

steelcase.com | @steelcase



DS Smith is building an ever more sustainable business. Recycling, paper, packaging and plastic divisions work in synergy to use waste as a resource and operate a closed loop business model. Circular economy principles are embedded right across the organization.

#### SOLUTION

Not only does DS Smith implement circular principles in their own operations but with a business full of Supply Cycle Thinkers, they bring the closed loop, corrugated packaging economy to life in some of the largest FTSE100 fast moving consumer goods brands in the world. Multiple innovation projects across DS Smith are focused on converting by-products and waste into valuable resources.

## **IMPACT**

As Europe's leading recycler of corrugated and paper packaging, DS Smith Recycling manages over five million tons of waste per annum, resulting in over 80 percent by tonnage of DS Smith Group's total input materials being recycled corrugated paper and packaging or recycled plastic.

#### dssmith.com | @DSSmithPack

FINALIST



ArcelorMittal is the world's leading steel and mining company which is incorporating circular economy principles into its strategy by offering products and solutions to meet society's demands and ambitions for the 21st century and beyond.

#### SOLUTION

Steel is a perfect material for the circular economy thanks to its infinite recyclability. Moreover, ArcelorMittal is using its expertise and partnerships to optimize the reuse of its by-products, using waste created during the steelmaking process, from turning slag into fertilizer or paving materials, or carbon emissions into ethanol.

#### **IMPACT**

ArcelorMittal recycles about 25 million tons of steel annually, saving about 36 million tons of carbon dioxide. It already reuses 78+ percent of its solid by-products and it is piloting initiatives turning CO2 into ethanol. ArcelorMittal is paving the way to make steel a completely circular product.

arcelormittal.com | @ArcelorMittal



In 1994, Interface, the world's largest manufacturer of commercial carpet tiles, made a public commitment to become wholly sustainable by 2020–Mission Zero. Interface has spearheaded circular thinking with nature as its mentor to focus on truly regenerative practices that make a positive contribution to society.

#### SOLUTION

Interface was the first company in its industry to commit to becoming wholly sustainable and having zero environmental impact. They continue to lead the way by embedding principles of the circular economy into their organization's everyday operation through a Climate Take Back commitment.

#### IMPACT

To date, Interface's Mission Zero achievements include 100 percent renewable electricity in production and more products manufactured from 100 percent recycled and bio based material. In 2017, Interface were listed third in the 20th anniversary Sustainability Leaders Survey by Globescan and Sustainability.

interface.com | @InterfaceInc





Proctor & Gamble (P&G) has been serving consumers around the world with superior brands such as Tide, Pampers, Crest and Head & Shoulders since 1837. They are committed to improving the lives of the world's consumers; now and for generations to come.

#### **SOLUTION**

P&G is uniquely positioned to help consumers reduce their environmental footprint through the use of their brands. Consumers know P&G by their brands and through offering them more sustainable choices, P&G is helping to reduce the overall environmental footprint, not only through their manufacturing process, but also throughout the entire life cycle of their brands.

#### **IMPACT**

P&G is incorporating sustainability into their business plans. This has resulted in their Head & Shoulders beach plastic bottle initiative, the adoption of renewable energy at their facilities, a commitment to zero manufacturing waste to landfill at their manufacturing sites by 2020 and their Waste to Worth pilot in the Philippines and PureCycle partnership.

pg.co.uk | @ProcterGamble



THE CIRCULARS AWARD CEREMONY TOOK PLACE DURING THE WORLD ECONOMIC FORUM ANNUAL MEETING IN DAVOS, 22ND JANUARY 2018. THE BESPOKE DESIGNED TROPHY IS CREATED FROM 100 PERCENT RECYCLED GLASS

JAMES KILKELLY, CEO, APTO SOLUTIONS INC. RECEIVES THE YOUNG GLOBAL LEADERS AWARD FOR CIRCULAR ECONOMY SME FROM JOHN DUTTON, HEAD OF THE FORUM OF YOUNG GLOBAL LEADERS AT THE WORLD ECONOMIC FORUM

# James Kilkelly Inder & CEO, Apto Solutions Ir







# **THE YOUNG GLOBAL LEADERS AWARD FOR CIRCULAR** ECONOMY SME

Award for a small to medium-sized enterprise (SME), with USD 10-100 million in turnover, which is transforming its business towards the circular economy.

# **APTO SOLUTIONS** WINNER OF THE YOUNG GLOBAL LEADERS AWARD FOR CIRCULAR ECONOMY SME

### **TESTIMONIAL**

The circular economy helps enable the Global IT Asset Disposition (ITAD) industry to participate in a new "systems" way of thinking while helping to create more global awareness around the e-waste challenges we all face. We were particularly impressed with the attention this issue received at the Davos event.

Apto is the Latin word meaning to adapt, adjust or make ready. We've incorporated this philosophy to proactively address an ever-changing technological revolution to include a rapid migration towards cloud computing, the consumerization of technology, mobility as well as an emerging Internet of Things. The most important factor in our success has been the trust of our customers to allow our firm the opportunity to create a suite of customized solutions to meet these challenges. As well, these same customers have a sustainability mindset that ensures reuse vs recycle to include a 100 percent elimination of e-waste ever going to landfill. We're honored to serve them, and their leadership has allowed our company to grow and expand over the last 17 years.

We would advise companies in this space to engage with the community, read as much as possible and look for challenging areas whereby your organization might make a positive world impact.

As we're continuing to adapt and evolve our technology lifecycle solutions, the "systems" thinking and credibility of the circular economy is greatly assisting our organization in how we communicate our "why", our mission, our value and benefits we can accomplish for our shared planet.

#### James Kilkelly

CEO Apto Solutions







Apto Solutions is an IT Asset Disposition company that operates on the principles of service, sustainability, and security. Their ability to provide individualized, quality circular economy solutions sets them apart within the industry.

#### SOLUTION

Apto provides a wide range of services to help companies close the loop from where they are to where they want to be. These include lifecycle asset management, responsible IT recycling, facility and data center consolidations, cloud migrations, repair and refurbishing, total device management solutions as well as logistics, technology decommissioning and project management services.

#### IMPACT

Since its inception, Apto have repositioned over 10 million technology assets and has compliantly recycled over three million assets which has saved circa 20,000 metric tons of e-waste from ending up in landfills.

aptosolutions.com | @AptoSolutionsUS



perPETual developed and successfully commercialized an environmentally sustainable and cost-effective process to reverse engineer consumer waste plastic (Polyethylene terephthalate) bottles into high quality sustainable (poly)ester. This sustainable ester can directly replace conventional esters made from PTA and MEG, both high carbon footprint petrochemicals.

#### SOLUTION

perPETual helps enable manufacturers to use PET bottles as feedstock in place of traditional oil and gas based PET chemicals. The first application of this ester has been to manufacture high quality sustainable (poly)ester filament yarns (DTY) used in the textile industry. At scale, these sustainable DTYs match the cost and quality of traditional filament yarns.

#### IMPACT

perPETual has over 20 patents and currently recycles ~two million plastic bottles a day-20 tons per day, using 75 percent less energy and 86 percent less water than conventional PET plants. Their next plant will be designed to process over 10 million PET bottles a day.

#### perpetual-global.com | @perPETual\_Yarns





Battery Solutions is a leading battery recycler in the United States a challenging geography with typically poor recycling rates. It is estimated that only eight percent of all primary and rechargeable batteries are being recycled.

#### **SOLUTION**

Battery Solutions is actively developing and deploying technology to capture more value from batteries to drive down recycling costs; therefore, passing price reductions onto consumers to financially incentivize them to recycle their batteries. They offer services spanning the collection, sorting, processing and logistics of batteries, and full service battery recycling management to make circularity easily accessible for their customers.

#### **IMPACT**

Battery Solutions marked their 25th anniversary this year celebrating an estimated one billion pounds of batteries collected, recycled and turned into secondary commodities that are circulated back into the manufacturer marketplace during their 25-year commitment to the circular economy.

batterysolutions.com | @battsolutions



Ricoh is empowering digital workplaces, using innovative technologies and services enabling individuals to work smarter. For more than 80 years, Ricoh has been driving innovation and is a leading provider of document management solutions, IT services, commercial and industrial printing, digital cameras, and industrial systems.

#### SOLUTION

Ricoh promotes recycling activities by offering machine, toner bottle and cartridge take back programs to customers. Ricoh aims to bring about an "industrial revolution of the environment" through the development of innovative environmental technologies. Since 2002, Ricoh has developed biomass technology to replace the use of virgin plastic in its multifunction copiers and production printers.

#### **IMPACT**

Ricoh conducts environmental feasibility studies and technology assessments at their Eco Business Development Centre, while the use of more recycled material in machine production and the expansion of ecopackaging are both key targets in their action plans. By 2020, 100 percent of its products will meet the criteria of their Sustainable Products Program and they will rebuild 20,000 multi-functional printers per year.

#### ricoh-ap.com

FINALIST



Fairphone believes the circular economy is an important part of how they do business, integrating it at various levels holistically across the business. They have created a modular, more sustainable smartphone to inspire change in the electronics industry.

#### SOLUTION

Fairphone's focus on the circular economy is brought to life through the design of the Fairphone 2 and their reuse and recycle programs. The Fairphone 2 allows the user to customize, upgrade and repair the phone more easily, with the company goal to slow down obsolescence. Fairphone's solution is a phone that is easier to repair and, easier to refurbish, recycle and dismantle.

#### **IMPACT**

Fairphone has completed two lifecycle assessment studies that estimates if they produce a phone with a lifespan of five years, it will lead to a reduction of CO2 emissions over the full lifecycle of the device by approximately 30 percent. Simultaneously it opens a great opportunity for more labor in Europe, in supporting services and activities around extending the product lifetime, as well as opportunities for more service based models.

fairphone.com | @Fairphone



VAUDE is a family-run outdoor outfitter company that has a deeply embedded holistic circular economy strategy across all stages of their value chain. VAUDE develops, produces and sells outdoor gear with a circular focus to future proof its business growth.

#### SOLUTION

VAUDE works with Green Shape to develop and implement a set of criteria for sustainable products that considers the entire product lifecycle, for example, the use of recycled materials. Furthermore, VAUDE offers the consumer easy-to-implement suggestions and information on how to prolong the lifespan of their products, as the user has a decisive influence on this lifespan.

#### **IMPACT**

Ninety-four percent of the VAUDE Summer 2018 apparel collection is Green Shape certified and 14 percent is made with recycled materials products with at least 30 percent recycled materials in the finished product. They increased the reuse rate and the percentage of product returns that can be reused to 94 percent.

#### vaude.com | @VAUDE\_sport





Favini is a worldwide leader in the design and production of textures and finishing solutions for eco-leather and is a leading global producer of graphics specialties, natural fibers-based (cellulose, algae, fruits, nuts, etc.) for the packaging of luxury and fashion industries. Favini also operates in the converting products industry sector.

#### **SOLUTION**

Favini creates a new generation of papers coming from innovative materials, such as Shiro Alga Carta using algae from a Venice lagoon. In 2012 they launched Crush, the eco-paper produced with agro-industrial residues in substitution of 15 percent of tree cellulose; and Remake in 2015, the paper obtained from the upcycling process of leather manufacturing residues that replace up to 25 percent of tree fibers.

#### **IMPACT**

Remake is a sustainable and ecofriendly product, Forest Stewardship Council certified, produced using EKOenergy and is 100 percent recyclable and compostable. The use of 25 percent of leather residue reduces the virgin raw materials needed in the paper production, and reduces disposal costs.

#### favini.com | @favini\_en



TerraCycle is a world leader in the collection and repurposing of hard-to-recycle post-consumer waste, ranging from cigarette butts to coffee capsules to pens. The collected waste is turned into raw materials that are sold to manufacturers to produce new products.

#### SOLUTION

Along with TerraCycle's free recycling programs, in 2012, it became the first company in history to conduct widespread collection and recycling of cigarette butts. They then launched Zero Waste Boxes that provide an opportunity for anyone to recycle virtually anything in their home or business. In 2016, TerraCycle started a beach plastic reclamation program that has grown to six continents.

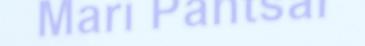
#### IMPACT

TerraCycle's logo is on approximately 60 billion packages globally. There are more than 64 million people around the world participating in TerraCycle collection programs, keeping almost four billion pieces of waste plus 100 tons of beach plastic from landfills. The company has donated almost USD 16 million to charities and non-profits.

terracycle.com | @TerraCycle



HIGHLY COMMENDED





MARI PANTSAR, DIRECTOR, SITRA RECEIVES THE WORLD ECONOMIC FORUM AWARD FOR CIRCULAR ECONOMY PUBLIC SECTOR FROM DOMINIC WAUGHRAY, HEAD OF PUBLIC-PRIVATE PARTNERSHIP, MEMBER OF THE EXECUTIVE COMMITTEE, WORLD ECONOMIC FORUM

# tor Carbon Circular Economy, Sitra





Award for the city, region, education establishment, NGO, local or national government body or program, or public procurement initiative which best enables an environment for the circular economy to develop and flourish.

## SITRA WINNER OF THE WORLD ECONOMIC FORUM AWARD FOR CIRCULAR ECONOMY PUBLIC SECTOR

### **TESTIMONIAL**

Our future-oriented work aims at making Finland succeed as a pioneer of sustainable well-being. We strongly believe that the next era of well-being should be based on a fair and competitive circular economy.

Finns have always had a unique relationship with nature, and our sustainability thinking comes naturally to us. The One Planet thinking has been deeply rooted in Sitra's operations since the 1970s, but our systematic work on the circular economy began only four years ago. As a think-and-do tank accountable to the Finnish Parliament, we have been lucky enough to have unique resources to research, trial and implement impactful solutions that shape the future.

At the heart of our work is the strong collaboration between multidisciplinary and cross-sectoral partners, which has led us to build the world's first national roadmap to the circular economy. The roadmap turned out to be one of the biggest breakthroughs in the implementation of the circular economy in Finland.

The unsustainable state of the global economy highlights the importance of the initiatives, such as The Circulars and The World Circular Economy Forum, that help enable sharing inspirational ideas and solutions worldwide. We would like to encourage everyone-whether your background is in the political, business or scientific world-to unite, try boldly new experiments and find your sisu. The Finnish spirit, sisu, means the determination and bravery to do whatever it takes to reach the goal.

The circular economy will not just happen, but we can all make it happen together-with sisu.

Mari Pantsar Director Sitra







The Finnish Innovation Fund, Sitra, is leading the catalytic circular economy transformation in Finland, supporting policy, business and education. Sitra continues to play a key role in accelerating the circular economy by helping to educate circular economy natives in all levels of education and hosting the World Circular Economy Forum (WCEF) 2018 together with the Ministry of Environment of Japan in Yokohama.

### SOLUTION

Sitra led the building of the ground-breaking Circular Economy 2016 - 2025 Roadmap for Finland. The implementation of the roadmap was started with the first WCEF, which was hosted by Sitra in 2017 in Helsinki. Sitra have also started a future-orientated fund with over 50 trials and pilots, in collaboration with several public sector and business organizations.

#### **IMPACT**

To build the circular economy roadmap, Sitra gathered over 1,000 participants from all sectors of society to define a common agenda for a Finnish circular economy. Through the trials, Sitra continues to build a sustainable future together with thousands of participants across the public and private sector: for example, the WCEF 2017 brought together over 1,600 circular economy change-makers from 92 countries.

sitra.fi | @SitraFund



GreenCape is a non-profit organization that drives the widespread adoption of economically viable green economy solutions in South Africa. GreenCape works with businesses, investors, academia and government to support a transition to a resilient green economy.

## SOLUTION

GreenCape initiated the Western Cape Industrial Symbiosis Programme (WISP) in 2013. At the time, it was the first facilitated ISP in Africa. Currently funded by the City of Cape Town, WISP is a free service that connects companies so that the underutilized or discarded resources of one company can be used by another. This approach improves resource efficiency within production processes, enhancing business profitability and sustainability.

#### **IMPACT**

In four years, funding into WISP has increased three-fold. Diverting 89 tons of waste in 2013, it now diverts more than 10,000 tons annually. Cumulatively, WISP has diverted 28,000 tons of waste from landfill, generated USD 3.8 million in economic benefits for its members and created 140 jobs in the local economy.

#### greencape.co.za | @thegreencape







Circle Economy is an impact organization that acts as an ecosystems builder for the circular economy, working with both governments and industry to foster the acceleration of the circular economy through research, collaboration, practical tools and shared knowledge.

#### SOLUTION

Circle Economy created an open platform to share insights, best practices and research. Their tools and services are designed to facilitate decision making and support the implementation of action plans. These tools and services can be applied to a wide range of sectors and provide organizations with tangible directions to set up circular projects and endless possibilities to integrate circularity into their strategies.

#### **IMPACT**

Circle Economy has executed seven city and regional scans and collected more than 750 case studies within their open source knowledge hub. In the last five years, they have worked with over 150 companies and created 15 knowledge papers with organizations to accelerate their circular journey.

circle-economy.com | @circleeconomy



The Phoenix Mayor and City Council established the Reimagine Phoenix Initiative in 2013, setting a goal to divert 40 percent of waste from landfill by 2020, and in 2016 expanded the goal to achieve zero waste by 2050.

#### SOLUTION

The Reimagine Phoenix Initiative focuses on three principles: community education and engagement; new programs and services; and public-private partnerships. To meet these goals, the City established the Resource Innovation Campus (RIC), a circular economy hub adjacent to a closed city landfill. The land is available for lease to manufacturers to take the City's waste and create economic development opportunities.

#### **IMPACT**

In 2015, Phoenix became the first city in the United States to join the Ellen MacArthur Foundation CE100 group. In 2017, the City received the Bloomberg Philanthropies C40 Cities U.S. Cities4ZeroWaste award and the City's new compost facility earned Envision Silver certification from the Institute for Sustainable Infrastructure. To date, Phoenix has achieved a 30 percent diversion of waste from the landfill and is leading the way in driving a circular economy in the United States.

#### phoenix.gov | @TalkingTrashPHX



London Waste and Recycling Board (LWARB) and the Greater London Authority (GLA) are helping London lead the transition to a circular economy. Together with other public bodies, businesses, and academia across the capital, they are pioneering a radically better outcome for their citizens and the world.

#### SOLUTION

LWARB and the GLA's major focus is around creating an ecosystem that will help enable London to become the world's circular economy capital. LWARB supports circular economy SME's to grow and help traditional businesses to transition to circularity, through venture capital funding, collaboration, an accelerator program, and tailored business support. Along with creating a circular economy Routemap with 100 practical actions, LWARB and the GLA are embracing the circular economy across public policy and procurement.

#### **IMPACT**

Embracing the circular economy in London is predicted to generate GBP 7 billion net benefit a year for London by 2036 and create 40,000 jobs by 2030. London aims to become a zero waste city by 2026 and zero carbon by 2050, positioning London as a leader to act as an "open source" model.

lwarb.gov.uk | @LWARB



The University of São Paulo (USP) is a leading circular economy university in Latin America focusing on embedding the circular economy in teaching, research, public policy and innovation. USP is transferring biological and technical circular solutions to all sectors.

#### SOLUTION

USP has created toolkits, training guides and circular economy roadmaps across three industries: the textile industry, food and fiber production, and advanced manufacturing. In addition, its faculty, students and partners have been trained and are disseminating circular economy principles to its alumni and other professionals already in the market, bringing positive results through partnerships with public and private organizations and government agencies.

#### **IMPACT**

USP has created a network of innovation centers in Latin America with partners in Chile, Colombia and Mexico (CIEC), and with 60 circular economy professors across nine campuses. Additionally, several remanufacturing activities are being developed with underprivileged young people, ensuring they are reaching everyone.

usp.br | @usponline

FINALIST





Fashion for Good (FFG) is a global platform for innovation, made possible through collaboration and community. Fashion for Good was launched in 2017 with C&A Foundation as a founding partner. Its corporate partners are Adidas, C&A, Galeries Lafayette Group, Kering, Target and Zalando.

#### SOLUTION

Fashion for Good sparks and scales innovation by offering support and funding, sharing best practice and lessons learned in open-source roadmaps and fostering sector-wide collaboration. FFG collaborates with a wide network of experts and organizations to support the innovators in its programs. As a result, fashion innovators get the unique opportunity to fast-track the integration and implementation of their daring innovations.

### **IMPACT**

By harnessing the power of innovation, practical action and cross-sector collaboration, FFG reimagines how fashion is designed, made, worn and reused. In this way, FFG helps revolutionize the fashion industry so that people, companies and the planet can flourish together.

fashionforgood.com | @FashionforGood



WBCSD is a global, CEO-led organization of approximately 200 leading businesses working together to accelerate the transition to a sustainable world. They aim to make more sustainable businesses more successful. The circular economy is one way to achieve this.

#### SOLUTION

WBCSD launched Factor10, its circular economy project, at the World Economic Forum in Davos in 2018. This project convenes over 30 companies across 16 sectors to drive private sector action in the circular economy. Factor10 will address its members biggest challenges in moving towards circularity: measuring performance, understanding sector implications, informing policy and reducing ocean waste.

## **IMPACT**

WBCSD released seven resources on the circular economy over the last 12 months, including the CEO Guide to the Circular Economy launched at the World Circular Economy Forum, and The New Big Circle published at Davos. These publicly available resources help improve the understanding of the circular economy concept around the world.

wbcsd.org | @WBCSD

HIGHLY COMMENDED



EAN University has been working for 51 years to forge a culture of entrepreneurship in Colombian society, through leadership and innovation. Today, more than 30 percent of the graduates have started their own companies, generating sustainability for the country.

## SOLUTION

The concept of sustainable entrepreneurship was developed within EAN University, linking the circular economy as an essential part of traditional business models. This has resulted in changes across the institution, notably in the academic model, the competences of the students, the professor's tools, the entrepreneurship units and the EAN Impacta Incubator Program.

#### **IMPACT**

EAN University developed circular economy units for all the 9000 students and a massive open online course for the general community; they contracted the design of the first building in Latin America inspired by Cradle to Cradle with William McDonough; and every year, 20 new companies, inspired in sustainable entrepreneurship, graduate from the EAN Impacta incubator Program.

universidadean.edu.co | @UniversidadEAN





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# Kees Dijkhuizen ive Board, ABN AMRO E







Award for an investment body or individual providing financial backing for the circular economy to become mainstream. Entrants with cumulative investments upwards of USD 15 million are preferred.

# ABN AMRO WINNER OF THE CNBC AWARD FOR CIRCULAR ECONOMY INVESTOR

#### **TESTIMONIAL**

ABN AMRO believes linear models are exhaustive and will be replaced by circular models. We are at the tipping point whereby we see the materialization of the economic rationale: circular business models that show positive net returns. This process will speed up further, supported by new technologies like blockchain and the internet of things, the ambition of the Netherlands government to be circular by 2050 and the European Directive that supports Circular Development. The financial sector has to act and experiment upon this to stay relevant in an economy where circular thinking will become the norm.

Many of our colleagues are intrinsically motivated to help circular companies perform better and make this a success. Support from senior management enhances this. Our CEO, Kees van Dijkhuizen, has regularly expressed his commitment to the circular goals: EUR 1 billion in financing for circular assets, 100 circular financing facilities, a one-million-ton reduction in carbon emissions. We also believe that it is important to practice what you preach. Therefore, within ABN AMRO we have also started to change our own internal processes in order to become more circular through an action leadership approach. A clear example is our new circular pavilion, Circl, as well as our sourcing department which is working with circular companies across food, waste and furniture to build circularity into our processes.

The circular economy journey is surrounded by uncertainties. With each company and each new business model we learn and gain insights. Winning The Circulars award has given our employees the confidence that even though we are still learning, we are on the right path.

Sander van Wijk Head of Sector Advisory ABN AMRO





ABN AMRO is a Netherlands based bank providing expertise on financial products and risk management to accelerate the transition to a circular economy. They work together with their clients to achieve their circular goals.

### SOLUTION

ABN AMRO's sustainable finance experts and relationship managers work together on a sector based approach, understanding and experimenting with emerging circular business models, and sharing their knowledge and best practices based on 'right to copy' rather than having a copyright. ABN AMRO have extended their head office to include a circular pavilion, Circl, which is a physical center for circular economy research and innovation. This "living laboratory" welcomes everyone to visit and showcases the action leadership in the development of a circular economy.

#### **IMPACT**

ABN AMRO's circular approach has enabled them to provide better and more measured service to circular companies. By 2020, ABN AMRO aims to achieve EUR 1 billion in circular assets financed, 100 circular financing facilities and a one-million-ton reduction in carbon emissions.

abnamro.com | @ABNAMRO



circular economy.

### SOLUTION

CLP provides below market rate debt, market rate venture capital and R&D grants that help enable companies, financial institutions, and governments to scale innovation and build better recycling infrastructure to help develop a circular economy. To date, CLP have deployed ~USD 35 million US across 28 investments leveraging USD 90+ million in co-investment. Their investors include Fortune 100 consumer companies, family offices, family foundations and high net worth individuals.

#### IMPACT

CLP's investments have impacted over 1.5 million households, diverted 250K tons of waste from landfill, reduced 600,000 metric tons of CO2 emissions, and created USD 4.3 million in direct economic benefit to municipalities.

#### closedlooppartners.com | @loopfund

### Closed Loop Partners (CLP) is a US investment firm addressing bottlenecks in the recycling system and accelerating the economic opportunity presented by the circular economy. CLP invests in business and technologies that optimize product supply chains and build the



# **#MFOUNDATION**

The H&M Foundation is a non-profit global foundation funding innovation and technology to change the fashion industry. This is supported by their Global Change Award which aims to merge the ecosystems of fashion and innovators.

### SOLUTION

The H&M Foundation transforms incentives to radically reinvent one of the largest industries in the world to become circular and climate positive. They invest by absorbing risk, providing coaching, exposure and funding at the earliest stages, creating the entry of a powerful pipeline to unlock the holistic values of circularity across the range of digital to material solutions.

#### **IMPACT**

The H&M Foundation has received 8,100 entries from 150 countries in three years through the Global Change Award - an innovation challenge award program that aims to make fashion circular and help protect the planet. In addition, H&M Foundation is setting a goal to provide textile recycling technology to the industry by 2020.

hmfoundation.com | @hmfoundation



Rabobank is a Dutch banking and financial services company leading in circular and sustainable finance, acting as a 'green broker' to clients. Rabobank is a strategic advisor for the European Commission and the Dutch government on their circular economy programs.

#### SOLUTION

Rabobank supports clients to future-proof business models by offering solutions that adjust to specific investment needs with a clear sustainable or circular angle. They provide knowledge on sector-developments and introduce their clients to innovative networks, along with arranging sustainable and circular finance solutions.

## **IMPACT**

To date, Rabobank has provided EUR 7.5 billion in financing for businesses attributed to 47 sustainability labels developed by the bank, which they have used to identify key focus areas, while their funding of sustainable finance initiatives holistically totals EUR 18.7 billion. Rabobank is also a market leader in financing of wind energy in the Netherlands and invests EUR 2.3 billion in renewable energy generation.

#### rabobank.com | @Rabobank

FINALIST



PGGM is a cooperative Dutch pension fund service provider offering their institutional clients asset management, pension fund management, policy advice and management support.

#### SOLUTION

The PGGM cooperative has approximately 725,000 members and is helping them to realize a valuable future. Despite PGGM being in the pension business, they are aware that the quality of retirement is much more than a good pension and want to contribute to other aspects that affect individual's retirement period.

#### **IMPACT**

On December 31, 2017, PGGM had EUR 218 billion assets under management for 2.9 million participants. PGGM's future contributions include increasing responsible investments from EUR 5 billion in 2014 to 20 billion by 2020 focusing on climate, food, health and water solutions along with an active societal agenda within a community based member association.

pggm.nl | @PGGMnieuws



Taaleri is a Finnish wealth management and financial services provider with a circular specific fund which aims to enable circular economy innovations and business models to become mainstream by providing highly needed private equity.

#### SOLUTION

Taaleri's solution is to combine ideas, entrepreneurship and capital to create sustainable growth. They link together companies that need capital for growth with investors that are willing to finance circular economy businesses. Taaleri help talented entrepreneurs to invest in their best ideas by providing private equity finance and strategic knowhow to circular economy growth companies with the most potential.

#### **IMPACT**

Taaleri's fund, backed by 360 investors, has evaluated and analyzed more than 50 circular economy companies from Finland, and to date, has made investments into eight companies, totaling EUR 35 million out of the 40 million allocated to the fund.

taaleri.com | @Taaleriteam

Matanya Horowitz CEO, AMP Robotics

MATANYA HOROWITZ, CEO, AMP ROBOTICS RECEIVES THE ECOLAB AWARD FOR CIRCULAR ECONOMY TECH DISRUPTOR FROM JILL WYANT, EXECUTIVE VICE PRESIDENT & PRESIDENT GLOBAL REGIONS AND GLOBAL HEALTHCARE, ECOLAB







# **THE ECOLAB AWARD FOR CIRCULAR ECONOMY TECH DISRUPTOR**

Award which recognizes an organization using technology to enable the circular economy, chosen from entries across the public sector and all business categories.

# AMP ROBOTICS WINNER OF THE ECOLAB AWARD FOR CIRCULAR ECONOMY TECH DISRUPTOR

### **TESTIMONIAL**

The recycling industry is an important contributor to circular economies through the diversion of material from landfill. By reducing the cost of recycling, we can target larger fractions of the waste stream for recovery. This cost reduction is enabled by data-driven analytics and leveraging automation. AMP's Robotics is pioneering a new form of computer vision and smart sorting robots for the industry. This artificial intelligence and automation can be the foundation of new circular economy business models through the identification, measurement, and capture of material in waste streams.

The key success factors for enabling AMP's circular economy model are currently defined by the material recovery facility market including the reduction of operating expenses, ensuring product purity, and increasing the throughput of facilities. We foresee future success factors being data-centric such as data accuracy, analysis, and efficiency.

We encourage companies to embark on a circular economy journey. Our advice is to not only look within your internal operations but also to capitalize upon new business models and offerings that emerge from circular economies.

The Ecolab Award for Circular Economy Tech Disruptor has enabled AMP Robotics to bring our computer vision and smart sorting robots to a global audience.

#### Mani Horowitz

CEO **AMP** Robotics





AMP Robotics is a start-up formed with the goal of bringing artificial intelligence and robotics to the recycling industry to fundamentally change the costs and effectiveness of recycling.

### SOLUTION

AMP Robotics has successfully developed a new kind of sorting technology for recycling facilities-the Cortex robot. The robot is capable of automating the separation of commodities with practically no retrofit or change to existing operations. Cortex robots are powered by Neuron, the artificial intelligence that perceives material in the dirty, commingled conditions found in facilities today and automates separation.

#### **IMPACT**

The AMP Robotics two pilot Cortex units have diverted 1.4 million pounds of high-density polyethylene and aseptic cartons from landfill during the first half of 2017. This equates to removing over 3,200 cars from the road and over 1,200 metric tons of avoided CO2 emissions.

#### amprobotics.com | @AMPRobotics



we found it.

### SOLUTION

Apple invented Liam, a line of robots that can quickly disassemble an iPhone 6, recovering its high-quality components and many materials that aren't recovered using traditional recycling techniques. Liam is an experiment in recycling technology enabling improved content reuse and remanufacturing. The hope is that this kind of thinking will educate and inspire others.

#### **IMPACT**

Apple re-melted aluminum enclosures Liam dismantled to make Mac mini computers that are used in final assembly facilities-demonstrating it's possible to incorporate scrap into new products. Apple is exploring opportunities to expand these learnings to create substantial positive systematic change.

#### apple.com | @Apple

## Apple revolutionized personal technology with the introduction of the Macintosh in 1984. Today Apple leads the world in innovation with iPhone, iPad, Mac, and Apple Watch. Apple's employees are dedicated to making the best products on earth, and to leaving the world better than

**RUNNER UP** 





Enevo provides waste and recycling services to retail, restaurant, multifamily and commercial property clients. They use a combination of proprietary technology and a client-focused team to manage the daily waste operations of their customers to take the "waste out of waste".

#### SOLUTION

Enevo installs sensors on waste and recycling dumpsters, wirelessly transmitting data collected from the sensors to Enevo's platform. Analytics are applied to determine which dumpsters need attention immediately. Enevo is able to identify when a collection is missed, if a dumpster is receiving the right level of service, ultimately saving their clients time and money.

#### **IMPACT**

Enevo's technology reduces waste generation, increases recycling and improves the service their clients receive. To date, Enevo has reduced missed pickups for their clients by 67 percent, increased recycling by 16 percent and delivered average savings of 22 percent.

enevo.com | @enevo



HP Brazil is developing digitally enabled circular supply chains and products. HP considers Brazil a unique environment for the development of a circular economy ecosystem due to its considerable consumer market, extensive industrial parks and its role as a center of cutting-edge supply chain technologies.

#### SOLUTION

HP Brazil has been able to solve a problem that many countries are still discussing. By integrating circular requirements in an industrial policy, it was possible to develop closed loop and digital supply chain solutions using radio-frequency identification, Internet of Things and 3D technologies to provide remote visibility and asset control, fostering circular business models such as product-as-a-service, product life extension and inventory reduction.

#### **IMPACT**

HP Brazil's closed loop solutions require 25 percent less energy to produce than virgin plastic, and deliver a 15 percent cost savings. More than 800 tons of recycled resin were used to produce ~seven million printers. Digital technologies enabled productivity increase by 50 percent in supplies manufacturing, 5 percent in printers inventory and increased PCs materials assembly accuracy by 99.6 percent.

#### hp.com/sustainability | @HPSustainable



Evrnu is a research and development company specializing in the breakdown and regeneration of post-consumer cotton garment waste. Evrnu's technology is critical in making the circular economy a reality in the fashion industry. The Evrnu team is comprised of innovative textile industry professionals with exceptional performance standards and track records.

#### SOLUTION

Evrnu offers environment-sparing alternatives for the world's highest demand fibers. Simply put, with Evrnu technology, discarded clothing is broken down and transformed into a pristine new fiber engineered to provide extraordinary performance characteristics for creating new premium textile products.

#### **IMPACT**

Evrnu's technology can help to future-proof the textile supply chain, and could eliminate one-third of all discarded garments headed to landfills, 80 percent of pollutant emissions, and 98 percent of the water required for virgin cotton production if deployed at sufficient scale. Its engineered nature means that there are no crop dependencies, eliminating the volatility risk inherent with grown fiber sources.

evrnu.com | @futureofapparel



Winnow has developed a cloud based technology to help chefs achieve greater visibility in their professional kitchens - and to make better decisions that lead to dramatically reduced food waste and coststackling a trillion-dollar global issue.

#### SOLUTION

The Winnow cloud enabled food waste system is a smart meter which connects commercial kitchens to cloud software allowing users to record and analyze exactly what is put in the bin. This gives chefs the information necessary to drive improvements in their production processes to cut food waste by half, save money and reduce their environmental footprint at the same time.

#### **IMPACT**

To date, Winnow has demonstrated significant impact with food waste cut in half in hundreds of kitchens globally and GBP 11.5 million in savings delivered to customers. This is equivalent to 10 million meals saved per annum, or one meal every five seconds.

#### winnowsolutions.com | @WinnowSolutions

FINALIST

FINALIST





Circular IQ helps accelerate companies that believe circularity is the change the world needs. Their key product is an online software application which uses simple supplier specific data to support intelligent circular decision making throughout supply chains.

#### SOLUTION

Digitization and data management are critical levers in transitioning to circularity. Circular IQ offers a cloud based application that supports businesses in identifying circular economy performance criteria by collecting, comparing and analyzing the performance-data of suppliers and their supply chains, up to the raw material manufacturers. Data is digitized, easy to access, reliable, encrypted and suitable for third-party verification and reporting.

#### **IMPACT**

Circular IQ helps its users to continuously improve the circular characteristics of their products, throughout the whole supply chain, enabling users to shift demand towards more circular alternatives. This technology is changing what businesses buy, is driving a systems level change and is having impact at a scale that was never possible before.

circular-iq.com | @CircularIq



ECOR is transforming industries including advanced materials, building products, print, packaging, waste and recycling, with circular economy solutions that are superior, sustainable and cost reductive.

#### SOLUTION

The ECOR Circular Economy Platform helps enable enterprise and smart city customers to develop turnkey solutions for engagement in the circular economy, which can convert customers fiber waste into the ECOR based materials and products they regularly procure and/or sell. The platform is automated and delivers an optimized waste-to-value solution to operate smarter, sustainable and more profitably.

#### **IMPACT**

ECOR materials enable everything from print and packaging, to consumer products and buildings, to be designed with the principles of the circular economy. ECOR solutions increase the types of recyclable waste, while reducing dependency on virgin materials, volatile organic compounds in the built environment and many costs throughout the supply chain.

#### ecorglobal.com | @ECORglobal

HIGHLY COMMENDED



Cohealo is a technology company that partners with hospital systems to increase the utilization of their medical and surgical equipment.

#### SOLUTION

On average, a ten-facility health system will own USD 1 billion of equipment. On average, these assets sit idle for 58 percent of their usable life. Cohealo helps hospital systems to free up capital by increasing the utilization of their medical equipment through proactive analytics and equipment sharing.

#### IMPACT

Cohealo has helped a multi-state health system decrease their rental volume by 64 percent and identify almost USD 9 Million in savings across two years.

cohealo.com | @Cohealo



Excess Material Exchange (EME) is a digital secure marketplace where companies exchange excess materials and products. It functions like a dating site matching supply and demand, and materials with their highest value reuse opportunities, enabling a true circular economy.

#### SOLUTION

EME employs both AI and blockchain technology to match materials and safely exchange sensitive data. This sharing platform creates a transparent and reliable source of decentralized secondary materials, from steel plates to textile fibers, facilitating frictionless transactions and enabling the highest value reuse opportunities for materials. The EME solves information asymmetries, spurring innovation around material reuse with their knowledge partners.

#### **IMPACT**

The EME marketplace creates a resource efficient ecosystem significantly reducing the environmental footprint of society, as well as creating new jobs. To date, EME have eight ecosystem partners, making them more resource resilient to improve their bottom line by turning wasted material into value.

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excessmaterialsexchange.com
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HIGHLY COMMENDED





Liftshare is a social enterprise on a mission to solve the world's mobility problems through sharing. Two weeks older than Google and a pioneer of the sharing economy, Liftshare is a self-financed start-up, focused on providing sustainable transport for commuters.

#### **SOLUTION**

Liftshare's platform connects people travelling the same way so that they can share their journeys, save money and cut CO2 emissions.Liftshare's profits from over 700 Liftshare schemes, including Tesco, Heathrow Airport and Jaguar Land Rover, enable Liftshare.com to provide a free, public service open to all.

#### **IMPACT**

Every year, Liftshare helps organizations to save over GBP 20 million in parking-related costs via sustainable travel solutions. With over 600,000 members making one million shared trips every month, and individuals saving on average, GBP 1 thousand per year in fuel costs, the combined Liftshare community reduces CO2 emissions from cars by 40,000 tons annually.

#### liftshare.com/uk | @liftshare



Sinctronics is a solutions provider for the electronics industry aimed at reducing the environmental impact of products in the post-consumer market while generating wealth and employment. They emerged in 2013 with a mission to make today's consumer electronics the raw material.

#### SOLUTION

Sinctronics operates and manages the planning and execution of reverse logistics, disassembly and destruction of consumer electronics, and the development and production of new raw materials and parts, to better address the worldwide problem of e-waste. Their approach provides the electronic alternative for product disposal through technology and lean processes.

#### **IMPACT**

Combining innovation and research, Sinctronics recorded an increase in domestic production of 33 percent, from 1,345 tons in 2015 to 1,792 tons in 2016. They have also raised their internal productivity up to 36 percent on managing zero waste plants, from 4,848 tons in 2015 to 6,584 tons in 2017. The recycling of toner cartridges also grew, from 17,000 units in 2015 to 206,000 units in 2016. Sinctronics also attended to more than 11,388 collection requests in Brazil, enabling more than 1,175 tons of waste electronics equipment to be kept out of landfills.

#### sinctronics.com.br | @SINCTRONICS



WINNER









Award for an early-stage organization, with USD 1–10 million in booked revenue which is at the forefront of the circular economy, demonstrating innovation and market disruption.

# **BANYAN NATION** WINNER OF THE DELL CIRCULAR ECONOMY **PEOPLE'S CHOICE AWARD**

#### **TESTIMONIAL**

India has one of the highest rates of plastic recovery and recycling in the world, however millions of tons of recovered plastics are down cycled into poor quality resins, costing the country billions of dollars in economic value annually. The circular economy allows small scale recyclers to dominate the trade, providing access to mainstream markets for plastic recycling and an opportunity for better livelihoods.

Banyan has created a trusted recycling value chain infrastructure allowing engagement with brands, including L'Oréal and Tata Motors, to create a closed loop plastics solution. Banyan has embraced mobile technology to integrate thousands of informal recyclers into its supply chain. Banyan has also developed a cleaning technology which eliminates contaminants, such as paints, inks and adhesives, converting poor quality discarded plastic into Better Plastic<sup>™</sup>, a trademark symbol of quality and consistency.

We would encourage others to adopt a holistic 'life time value' approach to materials and share the 'total cost of ownership' across stakeholders enabling them to reach their full circular potential.

The World Economic Forum and The Circulars program provide a global platform and voice to discuss the most pressing issues of our time amongst the world's prominent political and business leaders. Banyan's win at Davos raised awareness in India about the need for a circular approach, compelling several national and multinational Indian brands to engage with us.

Mani Vajipey

Co-Founder & CEO **Banyan Nation** 







Banyan Nation is one of India's leading vertically integrated plastics recycling companies that uses data intelligence to integrate a largely informal supply chain, and a proprietary plastics cleaning technology to produce Better Plastic<sup>™</sup> - near virgin quality recycled granules that brands can use to make mainstream products and packaging.

PEOPLE'S CHOICE

### SOLUTION

Banyan's mobile and cloud based data intelligence platform integrates and sources materials from bulk waste generators and informal last mile collectors who collect over 70 percent of India's post-consumer plastic waste. The platform is also used by cities to understand waste flows, improve recycling and landfill diversion, and make waste management more effective, efficient and economical. The company's plastics cleaning technology removes inks, paints, labels, adhesives and product remnant from plastics to restore it to near virgin quality.

#### **IMPACT**

Banyan Nation has recycled over seven million pounds of plastics and integrated thousands of informal sector last mile collectors, formalizing a largely informal value chain for plastics recycling in India. The company is helping to arrest the down cycling of plastics and enabling reputed brands to include recycled plastics in their mainstream products and packaging.

banyannation.com | @Banyan\_Nation



## SOLUTION

Instock shows that food surplus has value by creating delicious meals from otherwise discarded food, and serving these meals in high quality dining experiences. Furthermore, they create awareness by organizing presentations, masterclasses, and educational projects and through their bestselling cookbook. Instock is also stimulating other hospitality entrepreneurs to work with the residual products that they rescue. In addition, Instock has created unique circular consumer products, for example, they manufacture beer and granola from food surplus.

## IMPACT

Instock has utilized 379,304 kilos of food waste since June 2014. In addition, they have successfully launched a range of circular products, and created a factory in the Netherlands to produce sauces and soups at scale from surplus food, and with these undertakings, they have driven public engagement with the issue of food waste.

#### instock.nl | @INSTOCK\_NL

### Instock, a group of three restaurants based in the Netherlands, aims to reduce food waste. The profit they make is invested in new projects to lead the battle against food waste and create awareness.





Discarded fishing nets have been recognized as the most harmful form of ocean plastic pollution. Bureo has developed a circular economy model that helps enable discarded nets to be transformed into innovative products, such as skateboards, and a new material source.

PEOPLE'S CHOICE

#### SOLUTION

Bureo launched their first fishing net collection and recycling program, known as Net+Positiva, in the country of Chile in 2013. Utilizing a lifecycle assessment and a circular economy business model, Bureo partners directly with fisheries to provide a positive end of life solution to their discarded gear through a supply chain that produces a regenerative resource known as NetPlus material.

#### **IMPACT**

Bureo has collected over 150,000 kg (330,000 lbs) of discarded nets to date, equating to about 4.5 million square feet of fishing nets, resulting in over USD 1 million of product sales since 2014. Bureo is now partnering with industry leading companies such as Patagonia, Humanscale and Jenga to incorporate NetPlus materials and scale their recycling programs.

bureo.co | @BureoInc

VIGGA is a growing business from Denmark that challenges current fashion consumption with its unique business model, which offers an online subscription platform for high quality maternity wear and children's clothing produced using organic material.

#### SOLUTION

VIGGA solves a universal problem by providing a product as a service, an alternative to the "buy and throwaway" model. The VIGGA customer receives a bundle of clothes, which are exchanged for larger sizes as the child or belly grows. The returned clothes are checked for flaws, treated and repackaged.

#### **IMPACT**

As of November 2017, VIGGA circulated 130,000 pieces of clothing. VIGGA families have achieved water savings of 13 million liters and reduced CO2 emissions by 10 tons by sharing the VIGGA clothes. A third-party lifecycle assessment has calculated that a VIGGA subscriber can reduce their environmental footprint by up to 80 percent.

#### vigga.us | @ViggaUs

FINALIST



Toast brews award-winning craft beer using fresh surplus bread that would otherwise be wasted, and donates all profits to charity to help end food waste. Launched in the United Kingdom in 2016, Toast now has presence in the United States, South Africa, Brazil and Iceland.

#### SOLUTION

In the United Kingdom, 44 percent of bread is wasted. Toast sources fresh surplus bread from bakeries and sandwich makers and transforms it into delicious beer. Bread replaces one-third of the virgin malted barley otherwise required in brewing, with only hops, yeast and water added. Their beer is a powerful message in a bottle about food waste, raising awareness with consumers in a fun, engaging way. They donate profits to the charity, Feedback, to tackle the systemic causes of food waste.

#### **IMPACT**

Toast has created a scalable business model through contract brewing and licensing to maximize its positive environmental impact. To date, Toast has brewed beer with 11 tons of fresh, surplus bread and aims to use over 1,000 tons by 2020. It also projects it will donate GBP 3.6 million to charities tackling food waste over the next three years.

toastale.com | @toastale



Yerdle is a fast growing, early-stage business that helps enable large brands to launch resale marketplace for their products, driving growth, sales and circularity - giving them a competitive edge. In the last nine months, Yerdle has launched resale marketplaces for Patagonia, Eileen Fisher and REL

#### SOLUTION

Yerdle provides brands the technology and logistics to operate white-label resale programs on their behalf. This technology powers circular business models, so brands are able to capture value to increase sales, loyalty and new customer acquisition. As more brands buy back and resell their items, items stay in use longer saving money and resources.

#### **IMPACT**

In less than a year, Yerdle supported brand partners are generating roughly USD 10 million of sales from used items and kept tens of thousands of high quality items in use. Every item kept in use for an nine extra months reduces overall environmental footprint by 20-30 percent.

yerdlerecommerce.com





Green Standards Limited (GSL) has created a circular economy-inspired office solution working with forward-thinking corporations. They recover usable resources and repurpose valuable office products to benefit businesses, environment and communities across North America, boasting a 98 percent landfill diversion rate across 1,000+ projects.

PEOPLE'S CHOICE

#### SOLUTION

GSL maximizes asset recovery, streamline community donation, and virtually eliminates waste by combining donation, resale, and recycling strategies with turnkey project management. Through industryleading expertise and proprietary technology, GSL designed a cloud based reporting portal to collect a suite of supporting documents available to project partners, tracking each item to its end user, demonstrating transparency and accountability.

#### **IMPACT**

Since 2011, GSL has diverted 38,000 tons of furniture-waste from landfill while facilitating USD 22 million of in-kind donations to 3,300+ non-profits and community organizations. In 2017, GSL turned 8,500 tons of unwanted furniture and equipment into USD 2.5 million worth of in-kind donations to 400+ beneficiaries across North America.

#### greenstandardsltd.com | @greenstandards



to make, use and reuse tires in a circular process.

#### SOLUTION

ENSO's tires enhance performance by reducing energy consumption and increasing the driving range of electric vehicles. Innovative tire designs and proprietary rubber chemistry combine to deliver highly durable tires with ultra-low rolling resistance. Sold as a service with a competitive pay per use model - tires are delivered, maintained and recovered. Embedded IoT sensors capture data on both tire and vehicle use.

#### **IMPACT**

Made of advanced sustainable materials, ENSO's tires reduce the toxicity and volume of non-tailpipe emissions. ENSO's circular approach ensures material control, allowing the recycling of used tires to reduce waste and virgin material use. A network of social enterprises deliver ENSO's services, and provide training and jobs to young people.

#### ensotyres.com | @ensotyres

HIGHLY COMMENDED



Lendager Group is pushing the boundaries of circular economy within the built environment and society in general. They are established as a leading company in Denmark for circular economy innovation and value creation throughout the entire value chain.

#### SOLUTION

Lendager creates numerous commercial upcycled building materials-including concrete aggregates, wood panels, bricks, steel and windows with state of the art energy efficiency. Lendager delivers materials with great environmental benefits without compromising on price, aesthetics or quality. The company is part of the Government's advisory board highlighting potential for sustainable and circular innovation in the building environment.

#### **IMPACT**

Lendager's innovative approach reduces large amounts of CO2 emissions in the construction phase, which has led to this approach now being scaled into large residential, commercial and urban development projects that result in a healthier more sustainable future. Lendager have won two prestigious Gazelle awards from Danish Financial newspaper Børsen.

lendager.com | @lendagergroup



RePack applies the bottle deposit system into ecommerce with an innovative packaging design and business model. RePack is an ecommerce delivery packaging, delivered as a service. It improves consumer loyalty, increases average order value and improves brand loyalty.

#### SOLUTION

RePack is the first reusable, returnable and refundable packaging service for ecommerce globally and replaces single use delivery packaging. RePack packaging is designed to be flattened when empty and returned via the postal system in letter size. Once returned, the user is rewarded with a voucher, cash back or charity donation for taking part and the packaging is reused.

#### **IMPACT**

RePack packaging is designed to be used at least 20 times and it reduces CO2 emissions by up to 80 percent compared to single use packaging. It improves customer loyalty, improves user experience and best of all, there is no trash when shopping online.

#### originalrepack.com | @originalrepack

ENSO is driving innovation in the tire industry by creating sustainable and more energy-efficient tires for electric vehicles. The company's world-leading polymer scientists and tire experts have reimagined how

#### ABOUT THE CIRCULARS

The Circulars, an initiative of the World Economic Forum and the Forum of Young Global Leaders, run in collaboration with Accenture Strategy, is the world's premier circular economy award program. The Circulars offers recognition to individuals and organizations across the globe that are making notable contributions to the circular economy in the private sector, public sector and society. The annual awards are hosted at the World Economic Forum's Annual Meeting in Davos. Visit us at **www.circulars.org** 

#### ABOUT THE WORLD ECONOMIC FORUM

The World Economic Forum, committed to improving the state of the world, is the International Organization for Public-Private Cooperation.

The Forum engages the foremost political, business and other leaders of society to shape global, regional and industry agendas.

It was established in 1971 as a not-for-profit foundation and is headquartered in Geneva, Switzerland. It is independent, impartial and not tied to any special interests. The Forum strives in all its efforts to demonstrate entrepreneurship in the global public interest while upholding the highest standards of governance. Moral and intellectual integrity is at the heart of everything it does.

Our activities are shaped by a unique institutional culture founded on the stakeholder theory, which asserts that an organization is accountable to all parts of society. The institution carefully blends and balances the best of many kinds of organizations, from both the public and private sectors, international organizations and academic institutions.

We believe that progress happens by bringing together people from all walks of life who have the drive and the influence to make positive change. Visit us at www.weforum.org

#### ABOUT THE FORUM OF YOUNG GLOBAL LEADERS

The Forum for Young Global Leaders is a community of enterprising, socially-minded leaders who have achieved individual success and want to build and leverage their talents for social good. A sought after peer-network, with more 1,200 members and alumni, that offers executive education courses, global summits, group expeditions, and opportunities to collaborate and test ideas with peers. Visit us at www.weforum.org/communities/ young-global-leaders

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#### **ABOUT ACCENTURE**

Accenture is a leading global professional services company, providing a broad range of services and solutions in strategy, consulting, digital, technology and operations. Combining unmatched experience and specialized skills across more than 40 industries and all business functions – underpinned by the world's largest delivery network – Accenture works at the intersection of business and technology to help clients improve their performance and create sustainable value for their stakeholders. With more than 442,000 people serving clients in more than 120 countries, Accenture drives innovation to improve the way the world works and lives. Visit us at www.accenture.com

Accenture Strategy operates at the intersection of business and technology. We bring together our capabilities in business, technology, operations and function strategy to help our clients envision and execute industry-specific strategies that support enterprise-wide transformation. Our focus on issues related to digital disruption, competitiveness, global operating models, talent and leadership helps drive both efficiencies and growth. For more information, follow @AccentureStrat. Visit us at www.accenture.com/strategy

<sup>&</sup>lt;sup>1</sup> www.ibm.com/blogs/insights-on-business/consumer-products/2-5-quintillion-bytes-of data-created-every-day-how-does-cpg-retail-manage-it/ <sup>2</sup> www.theguardian.com/environment/2010/feb/22/electronic-waste <sup>3</sup> www.accenture.com/t20160510T174318Z\_w\_/us-en/\_acnmedia/Accenture/Conversio Assets/DotCom/Documents/Global/PDF/Strategy\_7/Accenture-Waste-Wealth-Exec-Sur



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