

The Circulars 2017 Yearbook

Profiling the winners and best entries from the world's premier circular economy award program

In collaboration with

accenturestrategy

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Visit us at www.accenture.com/strategy

Thank You

On behalf of the Young Global Leaders (YGL) Circular Economy Taskforce, we would like to extend our sincerest thanks to all participants in The Circulars 2017. 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 235 entries from across 37 different countries. As the event organizers, 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 2017 Yearbook features a collection of short summaries of the extraordinary work of The Circulars' Winners, Runners Up, Finalists and Highly Commended entries from 2017. 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 2017. We look forward more than ever to The Circulars 2018.

Sincerely,

Peter, Ida, David and Rain
The YGL Circular Economy Taskforce Co-Chairs



Peter Lacy

Global Managing Director, Growth, Strategy & Sustainability, Accenture Strategy



Ida Auken

MP, Danish Parliament



David Rosenberg

CEO & Co-Founder,
AeroFarms



Rain Newton-Smith

Chief Economist, CBI

Award Categories

Page



The Fortune Award for Circular Economy Leadership

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



The Accenture Strategy Award for Circular **Economy Multinational**

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



The Young Global Leaders Award for Circular Economy SME

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



The AB InBev Award for Circular Economy Governments, Cities and Regions

Award for the public sector programs which are establishing the enabling environment for the circular economy to develop and flourish.

Page



The CNBC Award for Circular Economy Investor

Award for an investment body or individual which is providing financial backing for the circular economy to become mainstream.



The Ecolab Award for Circular Economy Digital Disruptor

Award which recognizes an organization or public sector program that is disrupting business as usual by using digital technologies to enable the circular economy; chosen from entries across all categories.



The Dell Circular Economy People's Choice Award

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



















Leadership



The Fortune Award for Circular Economy Leadership

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



William (Bill) McDonough Chief Executive of McDonough Innovation

William McDonough is a globally recognized leader in sustainable development, advising leaders worldwide through McDonough Innovation, and working with MBDC, his Cradle to Cradle consulting firm. He was the inaugural chair of the World Economic Forum's Meta-Council on the Circular Economy (2014-2016) and currently serves on the Forum's Global Future Council on the Future of Environment and Natural Resource Security.

Solution

McDonough co-authored the book "Cradle to Cradle: Remaking the Way We Make Things" (2002), widely considered the first circular economy framework. The book includes stories from MBDC's work helping carpet company, Shaw, pioneer its recyclable PVC-free technical nutrient carpet tile. What's more, his contribution to Park 20|20 in the Netherlands gave rise to a concept where buildings are viewed as "material banks," designed for disassembly as assets for future generations. McDonough also allowed public accessibility to circular thinking through co-founding not-for-profit organizations such as the Cradle to Cradle Products Innovation Institute, Make it Right and Green Blue, to convene industry groups around Cradle to Cradle issues.

Impact

Having been recognized by Time magazine as a "Hero for the Planet," McDonough continues to pioneer thought leadership to promote the circular economy around the world. McDonough's concepts have inspired the continued expansion and selection of Cradle to Cradle Certified™ products used by some of the world's biggest companies.

www.mcdonough.com | msiegel@mcdonough.com | @billmcdonough



Frans Timmermans First Vice-President of the European Commission

Frans Timmermans is the First Vice-President of the European Commission (EC), where he has driven the circular economy to the forefront of the European Union (EU) Agenda, making it a central focus for business and policy.

Solution

Timmermans was responsible for leading the development of the European Commission (EC) Circular Economy Package, stimulating Europe's transition towards a circular economy through target-setting, establishing concrete policy actions and providing financial backing for circular proposals.

Impact

Timmermans' work has helped establish the EC's proposals to meet EU targets of recycling 75 percent of packaging waste by 2030, 65 percent of municipal waste by 2030 and a maximum of 10 percent of landfilling allowed by 2030. The EC is also making available €650 million funding from its "Horizon 2020" program, and €5.5 billion from structural funds between 2016 and 2020. Timmermans' work with the Circular Economy Package has articulated a clear framework for circular economy businesses and provides them with the confidence and policy backing to become mainstream.

> www.ec.europa.eu/commission/commissioners/2014-2019/timmermans_en | frans-timmermans-contact@ec.europa.eu | @TimmermansEU















Leadership



Guido Braam

Director at Valley Creators, Co-Founder Powered by Meaning, Initiator of Netherlands Circular Hotspot

Guido Braam is responsible for establishing the first circular business development hub in the world, inspiring governments and businesses alike to shift to circular action.

Solution

Braam has led the implementation of circular practices in the Netherlands and beyond through his co-founding of Circle Economy. Braam spearheaded the Netherlands Circular Hotspot campaign, and launched a global trade mission with 140 participants from 20 countries.

Impact

Braam has worked to establish the first circular business development hub in the world, facilitating the creation and sharing of circular ideas, technologies, financing structures and business models to 2,500 users. The hub is scheduled to launch in the next few years.

www.poweredbymeaning.com | info@thevalley.nl | @guidobraam



John C. Warner

President and Chief Technology Officer, The Warner Babcock Institute for Green Chemistry, LLC

John Warner, Founder of the "Warner Babcock Institute for Green Chemistry," has driven cross-industry circular economy innovation and education for nearly 30 years.

Solution

Warner's career has touched all aspects of the materials economy. In industry, he invented several circular-enabling technologies. In academia, Warner drove pioneering educational reforms with the creation of the world's first Green Chemistry PhD program. In politics, he led chemical policy initiatives integrating green chemistry and the circular economy. Finally, in research, he invented circular-enabling green chemistry technologies at the Warner Babcock Institute for Green Chemistry.

Impact

Warner's work emphasizes the need for green chemistry invention and innovation in the circular economy. Furthermore, he has helped drive institutional change by integrating green chemistry into universities around the world.

www.johnwarner.org | johnwarner@warnerbabcock.com | @johnwarnerorg



Nate Morris Founder and CEO of Rubicon Global

Nate Morris is the Founder, Chairman and CEO of Rubicon Global, a company dedicated to disrupting unsustainable waste models through pioneering circular waste solutions.

Solution

As a member of the Council on Foreign Relations, Morris has worked with numerous political and educational organizations and is the Founder of Rubicon Global – a leading cloud-based circular waste solutions company that uses data-driven technology to disrupt unsustainable waste models.

Impact

Morris' business, Rubicon Global, is a rapidly growing company operating in 18 countries. Morris has been recognized in Fortune magazine's "40 Under 40" influential young leaders list and named a "Young Global Leader" by the World Economic Forum. He has also been submitted to the Kentucky Entrepreneur Hall of Fame for his creation of a marketplace that profits from landfill diversion.

www.rubiconglobal.com | sustainability@rubiconglobal.com | @rubiconglobal



Susan Chong Suk Shien Founder and CEO of Greenpac (S) Pte Ltd.

Susan Chong, as Founder and CEO of Greenpac, helps organizations re-engineer their packaging processes in a circular way. She also sits on a range of sustainability committees, promoting circular environmental solutions globally.

Solution

Under Chong's leadership, Greenpac enables clients to reengineer their industrial packaging processes by creating innovative and environmentally friendly packaging solutions, driving both bottom-line savings and supply chain efficiency.

Impact

Greenpac's services have eliminated several tons of packaging waste and enabled significant carbon footprint reductions for its clients. Under the leadership of Chong, the company has won numerous awards including Singapore's "Ernst & Young Entrepreneur of the Year Award 2014" for its sustainable packaging solutions, and the "ASEAN Business Award in 2010" for the "Most Admired ASEAN SME Enterprise for CSR."

www.greenpac.com.sg | eco@greenpac.com.sg















Leadership



Andy Ridley Former CEO of Circle Economy

Andy Ridley is widely recognized as a pioneer in circularity. He's the former CEO of Circle Economy, a social enterprise that accelerates the transition of businesses, cities and governments to the circular economy through on-the-ground and action-focused development of practical and scalable solutions.

Solution

As an industry thought leader and innovative entrepreneur, Ridley engages citizens and organizations with the circular economy. During his time leading Circle Economy, Andy worked to provide an online knowledge hub that enabled the mainstream adoption of circular principles, while attracting crowdsourcing for circular solutions.

Impact

Under Andy's leadership, Circle Economy mobilized millions of people through international campaigns harnessing the power of digital media, including the showcasing of Dutch circular innovation to over 180 participants from 30 countries.

www.circle-economy.com | info@circle-economy.com | @circleeconomy



Lauren Singer "Trash is for Tossers" Blog Owner

Lauren Singer is the owner of the "Trash is for Tossers" lifestyle blog, documenting her journey towards a zero waste existence. The symbol of her commitment: a picture of a mason jar containing four years' worth of rubbish she's generated.

Solution

Singer's blog is inspiration for others seeking to align their environmental values with their day-to-day lives. It promotes circular habits like composting, recycling, reducing and reusing.

Impact

Singer has inspired countless people to re-evaluate their everyday actions, making consumption and waste a household topic of conversation through engagement with news outlets worldwide. Lauren gives regular speeches across the globe, and her TEDxTeen talk on YouTube has more than 800,000 views.

www.trashisfortossers.com | lauren@thesimplyco.com | @trashis4tossers



Petar Ostojic CEO of Neptuno Pumps

Petar Ostojic is recognized as the first advocate of the circular economy in Latin America. As Founder and CEO of Neptuno Pumps, he developed the world's first circular pump, aimed at reducing the impact of pumps which currently consume 10 percent of the world's total electric energy.

Solution

Ostojic helped to develop a pioneering circular model where 60 percent of pump materials consist of reused and recycled equipment components, enabling more energy-efficient pumps. He has also worked to spread circular economy concepts to organizations and policy makers in Latin America through a series of keynote presentations, articles and social media visibility.

Impact

Ostojic's work has led to a 70 percent reduction of Neptuno Pump's carbon footprint. Moreover his communication of circular principles has been commended, putting him among the top 500 social media influencers and innovators within the circular economy.

www.neptunopumps.com | ostojic@neptunopumps.com | @petarostojic



Ricardo Weigend Former Circular Economy Lead of Heineken México

Ricardo Weigend led the Mexican branch of Heineken, the second-largest brewer in the world, to translate sustainability objectives into results through a series of circular initiatives, in an industry with high levels of linear waste.

Solution

During his work Heineken México, Weigend enabled the organization to embed circular economy principles throughout the company's operations by convincing stakeholders to make a shift to circularity. His work led to the establishment of a three-year circular deployment plan involving packaging and other material.

Impact

Under Weigend's former leadership, Heineken México was the first Mexican corporation to join the CE100 program with the Ellen MacArthur Foundation, with its success driving a larger transition towards the circular economy throughout the country.

www.cuamoc.com | ricardo.weigend@gmail.com | @richoweigend



















Multinational



The Accenture Strategy Award for Circular **Economy Multinational**

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



Nike is one of the world's largest suppliers of athletic shoes and apparel. The company is incorporating circular principles into its strategy to double its growth while cutting its environmental impact in half.

Solution

Nike is driving circularity at scale through the implementation of a design and manufacturing process that incorporates material reclaim throughout the product lifecycle; reimagining waste streams as value streams and driving collaboration with policymakers, innovators and businesses.

Impact

Nike is rapidly transitioning towards its closed-loop vision with a bold target for FY2020: zero waste from contract footwear manufacturing going to landfill or incineration without energy recovery. To date, 70 percent of all Nike footwear and apparel incorporates recycled materials, using 29 high-performance closed-loop materials made from factory scraps.

www.nike.com | @nike



Patagonia is a leading outdoor apparel company and is one of the first companies in the fashion industry to embed circular principles into its business strategy to drive innovation and growth.

Solution

Patagonia has focused on the collection of garments from customers since 2005, operating the largest outdoor gear repair facility in North America. The company has engaged consumers and worked to shift public attitudes about conspicuous consumption. This has been achieved primarily through its "Worn Wear" program which encourages product life extension, through the repair and reuse of Patagonia and non-Patagonia products. In the Spring of 2017, Patagonia launched an online store where customers can buy previously-owned Patagonia gear at a lower price point and give it a second life.

Impact

Since the program launched in 2013, Patagonia has seen incredible results, including recycling 95 tons of customers' old clothing, the operation of a repair center that can handle 45,000 fixes per year, and the creation of new avenues for used product resale on online marketplaces. Furthermore, the company's commitment to elongating Patagonia product lifetimes and driving circular economy awareness is evident through its interaction with 72,000 customers at their "Worn Wear" tour stops across the US and Europe.

www.patagonia.com | customer_service@patagonia.com | @patagonia













Multinational



BASF, the world's largest chemical company, leverages its Biomass Balance approach and ecovio® bioplastic technology to enable replacement of fossil resources.

Solution

BASF is replacing finite fossil resources with sustainably produced renewable resources through its innovative production Verbund Biomass Balance approach, enabling a broad drop-in solution for its customers. BASF has also developed ecovio®, a fully compostable and biodegradable bioplastic.

Impact

€1 billion and 3.5 million tons of CO₂ per year are saved through BASF´s Verbund concept. Within the BASF Production Verbund, each product's fossil feedstock can be replaced 1:1 with renewables by using the Biomass Balance approach. Moreover, the avoidance of 1.5 million tons of organic waste from landfill or incineration can be attributed to BASF's ecovio® product.

www.basf.com | sustainability@basf.com | @basf



As a founding partner of the Ellen MacArthur Foundation Circular Economy program, Cisco is a global leader in network technology, products and solutions, using its business capabilities to enable customers to create new value in a circular economy.

Solution

Cisco works with suppliers, customers, employees and communities to develop, pilot and implement circular economy principles by providing product return and remanufacture, leasing and as-a-service business models, Internet of Things solutions and secure cloud capabilities.

Impact

Cisco receives 12,000 tons of used products each year for remanufacture, reuse or recycling. Cisco's network technologies are being utilized to drive cross-industry circular energy and material resource efficiency.

www.cisco.com | csr_inquiries@cisco.com | @cisco



Enel is a leading Italian producer and distributer of electricity and gas, successfully making the transition from a traditional power utility to a fully circular model.

Solution

Enel's transformation strategy creates circular value by eliminating all growth investments in coal and nuclear power. Instead, they develop renewable generation capacity, focusing on small-scale and decentralized projects, and creating a new common vision toward shared value with stakeholders. Enel has a target to reach zero generation emissions by 2050, underscoring its commitment to become the power utility industry's leader, displaying its commitment as a true circular industry leader.

Impact

Enel has been endorsed by Greenpeace as the only "Progressive Company" in the global power utilities sector. Its efforts enable energy access to three million people across Africa, Asia and South America, driving a global impact on the circular economy with circular principles integrated throughout its infrastructure.

www.enel.com | circulareconomy@enel.com | @enelgroup



Johnson Controls is a global diversified technology company with a strategic commitment to the circular economy through product life extension, remanufacture and recycling initiatives.

Solution

Johnson Controls uses a circular supply chain and reverse logistics network to design, make, transport, recycle and recover vehicle batteries, whilst actively sharing best practices to drive circular growth.

Impact

Johnson Controls has reached a 99 percent recycling rate for conventional batteries in North America, Europe and Brazil, whilst their sold batteries are now made up of 80 percent recycled materials.

www.johnsoncontrols.com | catherine.potter@jci.com | @johnsoncontrols













Multinational



JCB is an international manufacturer of earthmoving and construction equipment, implementing circular principles throughout its business operations to generate economic and environmental efficiencies.

Solution

JCB India Ltd. has adopted a sustainable innovation approach, enabling product life extension using its "Live Link" predictive maintenance and machine monitoring. The company further extends product lifetimes through its "Recon Care" engine recovery and recycling program.

Impact

JCB India's initiatives have led to efficiency savings, including a 35 percent increase in fuel efficiency from 3DX and 3CX machines and variants. The company's initiatives also generate social benefits, with employment generated from the JCB Operator Training School and its contributions to "Skill India" and "Make in India" programs.

www.jcb.com | contact.india@jcb.com | @jcbindialtd



Lexmark is a global technology leader, providing innovative imaging solutions and technologies to businesses and consumers. Lexmark is working to identify and utilize circular opportunities throughout all elements of their business strategy.

Solution

Lexmark has identified several opportunities to utilize post-consumer recycled materials in its products. Circular principles are integrated throughout its operations, including its closed loop toner re-use program and the "Lexmark Cartridge Collection Program," diverting post-consumer waste from landfill into new products.

Impact

Sixty countries worldwide operate Lexmark's cartridge return program, representing 90 percent of its global market. Lexmark's circular efforts are not only reducing its environmental footprint, but also generating financial benefits, including a 57 percent internal rate of return on investment with a 1.3 year payback.

www.csr.lexmark.com | sylvie.thomas@lexmark.com | @lexmark



Liquidity Services is a global solution provider in the reverse supply chain that employs innovative e-commerce marketplace solutions to manage, value and sell inventory in over 500 product categories for more than 9,000 business and government clients worldwide.

Solution

Liquidity Services offers cost-effective and environmentally sound solutions that help buyers and sellers capture the enduring value of their surplus assets and move toward a circular economy. Its network of e-commerce marketplaces make assets more accessible and easily exchangeable, resulting in greater resource recovery and product life extension.

Impact

Over 2.5 billion pounds of metal, 125 million pounds of electronics, 50 million pounds of rubber, and 25 million pounds of paper and cardboard have been recycled due to the support Liquidity Services provides its clients, enabling the transformation of their business models to support the circular economy.

www.liquidityservices.com | info@liquidityservices.com | @liquidityinc



Saint-Gobain designs, manufactures and distributes sustainable construction material and solutions, with activities spanning across construction products, material supply and building distribution.

Solution

Through its launch of "Gy.eco" and "Life Is.eco" initiatives in Italy, Saint-Gobain is transforming construction and demolition waste into new materials, which can then be reintroduced back into the building sector value chain through a closed-loop system.

Impact

Saint-Gobain's "Gy.Eco" and "Life Is.Eco" programs have recovered 1,000 tons of glass wool, 130,000 square meters of bituminous polymer membranes and 8,000 tons of gypsum. Moreover, these programs have enabled the avoidance of €600,000 in costs for Saint-Gobain's customers, alongside the mitigation of 14 tons of CO₂ emissions per year. In addition, Saint-Gobain has contributed to the legislative and administrative definition of waste management at the national level, alongside providing waste management training to over 200 waste producers.

www.saint-gobain.it | margherita.nicoletti@saint-gobain.com













Multinational

SAMSUNG

Samsung, the world's largest manufacturer of electronic hardware, is investigating a shift to a leading customer-facing service provider, incorporating resource-efficient and circular business models throughout its retail and service functions.

Solution

Samsung is using its company strengths to build a strong service platform, having introduced a mobile product refurbishment scheme, helping consumers maximize product lifetimes and minimizing the loss of devices to waste streams.

Impact

Samsung's product refurbishment scheme and service model has been rolled out to over 30 countries, leading to an extension of product lifetimes and a reduction in carbon footprint.

www.samsung.com | environment@samsung.com | @samsung



SUEZ is a leading player in resource management, utilizing circular economy principles across water treatment and optimization, recycling and waste recovery in over 70 countries.

Solution

SUEZ has adapted its value chain to a circular model, promoting the circular economy throughout its business lines. This includes the commissioning of new facilities using SMART solutions, alongside its launch of the "Resource Revolution Plan" and "Imagine Together" initiatives, enabling stakeholder collaboration towards innovative circular solutions.

Impact

SUEZ has achieved a 65 percent waste recovery rate in Europe, attributing to a €40 million increase in turnover from Recycling and Waste Recovery Europe and 9 million tons of CO₂e emissions being eliminated for SUEZ customers.

www.suez-environnement.com | suez_env.pressoffice@suez-env.com | @suez























The Young Global Leaders Award for Circular **Economy SME**

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



MBA Polymers is a leading plastics recycling company tackling the global problem of complex plastic waste. The company uses breakthrough technology to decompose and then up-cycle complex plastic waste streams.

Solution

MBA Polymers produces recycled plastic to the same quality and at the same, or lower, price as virgin plastic. It turns complex plastic-rich waste streams from sources of pollution into new resources, turning a global challenge into a global opportunity.

Impact

Several hundreds of thousands of tons of waste plastics have been recovered for MBA Polymers' production process, saving four tons of CO₂ for every ton of plastic produced. The company's work has enabled material reuse, cost resilience and access to green certified credentials by some of the world's largest manufacturers, enabling a wider cross-industry adoption of circular processes.

www.mbapolymers.com | info@mbapolymers.com | @mbapolymersinc



I:Collect (I:CO) fosters recycling technology to close the material loop within apparel, footwear and textiles industries. The company offers a global innovative take-back system, facilitating logistics and serving as a secondary raw materials supplier.

Solution

I:CO forms partnerships with international fashion brands and retailers, offering a global logistics, sorting and recycling infrastructure that empowers retailers and consumers to take product end-of-life responsibility through the collection of used clothing and shoes within their stores.

Impact

I:CO operate across over 40 retail partners and 60 countries. Their presence increases consumer awareness of circular principles, and maximizes the retained value in materials that would otherwise be sent to landfill.

www.ico-spirit.com | info@ico-spirit.com | @icospirit















SME

FAIRPHONE

Fairphone champions the development of ethical and sustainable electronics, having designed the world's first modular phone. The company drives supply chain transparency within manufacturing to make sourcing as sustainable and ethical as possible, alongside maximizing material reuse and product use.

Solution

Fairphone creates new relationships between people and their products, enabling product life extension through its one-of-a-kind modular phone design that allows owners to open, repair and update their own phones.

Impact

Fairphone has sold tens of thousands of devices, with over 130,000 users to date. The company's work has increased the useful phone lifecycle to five years and created a market for ethical and sustainable electronics products.

www.fairphone.com | communications@fairphone.com | @fairphone



Park24 Group is leading the shift towards a car sharing economy in Japan through its "Times Car PLUS" sharing service. The company's ambition is to make car sharing the fourth division of public transportation in Japan, after rail, buses and taxis.

Solution

Park24 contributes to the global expansion of the circular economy by enabling users to save time, money and resources through its car sharing platform, and its provision of the largest pay-per-hour parking facilities in Japan.

Impact

17,000 vehicles are currently available for rental by Park24's 767,000 registered members, a figure which is set to increase to 30,000 vehicles by 2020. Their services both assist in maximizing product utilization and reducing greenhouse gas emissions.

www.park24.co.jp | pr@park24.co.jp



SAFECHEM offers a chemical leasing business model that provides sustainable solutions for industrial metal cleaning and asphalt testing applications.

Solution

In addition to intensifying on-site reuse of solvents with SAFECHEM Service Elements, the SAFE-TAINER™ System enables the take back of used solvents for recycling.

Impact

The SAFECHEM Chemical Product Service System can help to reduce up to 80 percent of solvent content in the waste stream, and up to 80 percent in primary solvents consumption, contributing to a circular economy.

www.safechem-europe.com | service@safechem-europe.com



Unusual Industries provides infrastructure, such as rigging and stage engineering solutions, for the implementation of circular solutions within the entertainment industry.

Solution

Unusual Industries are pioneering circularity within small- to medium-sized enterprises in the entertainment industry through their circular rental system utilizing bespoke ICT software and radio-frequency identification technology (RFID).

Impact

Fifty tons of "technical nutrients" have been reused this year, with an 85 percent material saving through use of RFID tags, and a 60 percent year-on-year reduction in CO₂ emissions. Unusual Industries' clients are also seeing the benefit, with cost reductions passing through the value chain.

www.unusual.co.uk | info@unusual.co.uk | @tafharper















SME

Battery

Battery Solutions provides end-to-end battery recycling solutions, built on the foundation of resource recovery. The company offers services spanning the collection, sorting, processing and logistics of battery recycling management to make circularity more accessible for their customers.

Solution

Battery Solutions combines circular economy principles and innovative technology solutions to optimize battery use through reuse, refurbishment and recycling of battery cells. The company utilizes innovative battery sorting technologies that allow the secondary commodities coming from recycled batteries to be put back into the marketplace, continuing the circularity.

Impact

Battery Solutions utilizes technology to optimize the environmental and economic outcome of each battery, driving down the cost related to recycling batteries. By providing lower recycling costs, Battery Solutions incentivizes battery users to recycle more, proven by the company's 36 percent increase in post-consumer battery recycling volumes from 2015 to 2016.

www.batterysolutions.com | mkelley@batterysolutions.com | @battsolutions



Premier Workplace Services provides office relocation and workplace change services. The company seeks to embed circular principles within its business model, optimizing recycling and reuse within the management and clearance of office furniture, IT and redundant electrical equipment.

Solution

Premier Workplace Services has established the "Renew Centre" - the UK's only independent, commercial facility solely dedicated to remanufacturing, refurbishing and repairing office furniture.

Impact

15,000 items of office furniture have been diverted from landfill due to Premier Workplace Services, generating over £1.6 million revenue annually. Furthermore, its customers benefit from the reduced costs of landfill waste creation, alongside societal benefit through Premier Workplace Services' support of over 100 charities, schools and social enterprises.

www.premierworkplaceservices.co.uk | ann.beavis@premierworkplaceservices.co.uk | @premiersustain



Recover Upcycled Textile System delivers the highest quality and most advanced range of recycled cotton yarns on the market today, making it the world's lowest-impact textile yarn provider.

Solution

Recover's revolutionary closed loop "color-blend" process transforms post-industrial textiles, as well as pre-and post-consumer garment waste, into yarn to be used in new textile production. Its operations help close the loop in textile lifecycles, and eliminate dye and water used in the cotton production process.

Impact

Recover's systems allow for massive reductions in water, chemical, CO₂ and energy, including enabling 15,000 liters of water to be saved per kilogram of cotton fiber, in comparison to virgin cotton production. Recover's approach also reduces textile and PET bottle landfill input, and the agricultural area needed for cotton farming.

www.recovertex.com | salessupport@recovertex.com | @hilaturasferre



Sinctronics is the first integrated ecosystem solution in the Brazilian electronics market. The company applies circular economy principles to address the vast unexplored opportunity of wasted capacity in the electronic equipment industry.

Solution

Sinctronics collects and transforms electronic waste into components for new products using a complete reverse cycle ecosystem. The company offers services that span recycling facilities, research and development, and reverse supply chain management.

Impact

Over 4,100 tons of electro-electronic materials have been diverted from landfill to date, whilst reducing the service cost offered to clients by 30 percent.

www.sinctronics.com.br | sinctronics@sinctronics.com.br | @sinctronics



















Governments, Cities and Regions



The AB InBev Award for Circular Economy Governments, Cities and Regions

Award for the public sector programs which are establishing the enabling environment for the circular economy to develop and flourish.



The Scottish Government is leading businesses and the public sector to drive the circular economy in Scotland. The circular economy is seen as a core element of Scotland's Economic Strategy and Manufacturing Action Plan, in collaboration with the Scottish enterprise agencies, Scottish Environmental Protection Agency and Zero Waste Scotland, firmly placing circularity as a focus of future economic growth.

Solution

The Scottish Government's circular economy strategy "Making Things Last" identifies four priority areas with the greatest opportunity to deliver economic, environmental and social benefits. Key focus areas include reducing food waste and growing the bio-economy, reuse of energy infrastructure, waste reduction, particularly within construction and buildings, and remanufacturing. This includes support from the Government's £18 million Circular Economy Investment Fund and the establishment of their Resource Efficient Scotland program.

Impact

Through the Resource Efficient Scotland services, £180 million in business savings have been realized through energy, waste and material reuse. This includes saving 20,000 tons of valuable raw materials and diverting 32,000 tons of waste from landfill per year. The Scottish Government was also the first national government to join the Ellen MacArthur CE100 network.

www.gov.scot | william.hamilton@gov.scot | @scotgov



China Association of Circular Economy (CACE) is the governing policy advisory body in China, guiding 700 members to develop circular industrial chains and models across a range of industries.

Solution

CACE plays a critical role in circular economy promotion in China, having implemented numerous projects, ranging from policy studies and education schemes to circular economy model identification and the creation of local circular economy development plans.

Impact

CACE has influenced a range of policies, including China's Five-Year Plan and regulation publication, containing recommendations for circular economy initiatives across the country's industries. They also hosted the first China International Circular Economy Exhibition in November 2016, having led over 10 projects on industrial park development and circular transformation plans between 2014 and 2016. In these projects, CACE assisted local governments and enterprises to establish circular industrial chains, which have proven influential in aiding the national shift towards a circular economy.

www.chinacace.org | mjj@chinacace.org















Governments, Cities and Regions



Circle Economy is a social enterprise that accelerates cross-industry business, city and governmental transitions to circularity through action-focused development of practical and scalable solutions.

Solution

Through its innovative programs, tools and services, Circle Economy is creating value for cities by shaping sustainable futures, supporting start-ups by developing markets for circular products, and guiding sectors by creating actionable roadmaps.

Impact

Circle Economy aims to accelerate the transition towards the circular economy through international campaigns, including the execution of five "Circle City Scans" and other industry programs, whereby it works with over 50 companies throughout its member network, across finance, textiles and cities specialisms. In the future, Circle Economy plans to specialize in the agri-food, construction, healthcare and automotive sectors.

www.circle-economy.com | info@circle-economy.com | @circleeconomy



Simon Fraser University (SFU) is a leading circular economy academic institute that uses its campus as a "living lab" to model and champion innovative circular economy processes in its operations, teaching and research.

Solution

SFU has implemented a widespread circular strategy using lifecycle analysis tools to bring the circular economy to the forefront of procurement decisions; and to find innovative ways to model circular practices across the university's infrastructural improvements, cross-departmental governance, education and engagement, and demand-side management.

Impact

SFU has achieved 70 percent waste diversion in 2015, compared to 25 percent in 2012, with a 10 percent decrease in waste production despite a growing university population. The impact in educating its students and driving awareness is also hugely important to its success.

www.sfu.ca | rtelling@sfu.ca | @sfu



USE-IT is an NGO bringing circular economy approaches to the developing world. Its aim is to divert as much waste as possible from landfill while maximizing job creation.

Solution

USE-IT utilizes best-practice landfill diversion and waste beneficiation models throughout its assessment of problem areas within South African waste streams. Results are then used to develop opportunities that assist in diverting waste from landfill - providing economic investment opportunities with large-scale retail value.

Impact

USE-IT initiatives have achieved a 1,500 percent return on primary funding investment within six years, saving South African municipalities nearly 5 times their investment in landfill diversion alone, whilst simultaneously creating nearly 2,500 jobs. USE-IT has created multiple projects in waste including the world's first waste-diverted "RamBrick" smarter brick building system, which has been rated Africa's first five-star eco-standard rated building product.

www.use-it.co.za | info@use-it.co.za | @useitchris



WRAP is a not-for-profit organization working with governments, businesses and citizens to create a world in which resources are used sustainably. WRAP's experts generate evidence-based solutions that protect the environment, build stronger economies and support more sustainable societies.

Solution

WRAP drives circular economy innovation and provides practical solutions to market failures by reinventing the design, production and selling of products, rethinking the use and consumption of products, and redefining what is possible through re-use and recycling. Its offering spans the entire lifecycle of the food we eat, the clothes we wear and the products we buy, from production to consumption and beyond.

Impact

WRAP has engaged 3,500 businesses with over 60 Resource Efficient Business Model events, in addition to the development of numerous voluntary agreements, including the Sustainable Clothing Action Plan and the Electrical and Electronic Equipment Sustainability Action Plan.

www.wrap.org.uk | malcolm.waddell@wrap.org.uk | @wrap_uk















Governments, Cities and Regions



Glasgow Chamber of Commerce (GCoC) is committed to growing a circular economy within Glasgow as part of the city's transformation into a more sustainable, smart and resilient city.

Solution

GCoC established a private/public sector collaborative partnership with Zero Waste Scotland, Glasgow City Council and Circle Economy to make Glasgow a "Circular City of Excellence." As part of this, GCoC have conducted a pioneering "Circle City Scan," analyzing the material flows within Glasgow, in order to identify opportunities to transition Glasgow towards a truly circular economy.

Impact

Glasgow has seen a rise in circular collaboration and innovation, both within Glasgow and between other cities. GCoC is driving awareness, locally and internationally, of the benefits from adopting circular strategies in cities to deliver real economic growth.

www.glasgowchamberofcommerce.com | cheryl.mcculloch@glasgowchamberofcommerce.com | @glasgow_chamber



"A Circular Economy in the Netherlands by 2050," as established by The Ministry of Infrastructure and Environment, is a Dutch governmental program committed to creating a circular economy across businesses, trade unions, regional governments, environmental and nature conservation organizations, financial institutions, knowledge institutes and other societal stakeholders.

Solution

The Ministry of Infrastructure and Environment has established a new national program for a circular economy, presenting the commitment of the government to stakeholders on three strategic goals: first, ensuring high-quality use of raw materials in existing value chains; second, guaranteeing that when raw materials are required, they are sustainably produced and renewable; and finally, shifting norms towards circular production, products and consumption.

Impact

The program will commence in 2017, focusing on five transition agendas targeted at the following priority industries: biomass and food, plastics, manufacturing, construction, and consumer goods. These agendas include concrete actions to support businesses, remove regulatory obstacles and establish an investment program, assisting the shift towards a circular economy. The Ministry of Infrastructure and Environment's ultimate goal is to reach a fully circular economy in the Netherlands by 2050, with a 50 percent reduction in the use of primary raw materials by 2030.

www.government.nl | CE@minienm.nl | @mininfraenvirnl



VALTEX distributes professional facility hygiene products throughout Slovenia. By connecting public waste management organizations, city authorities, industrial production, B2B product distributors and municipal institutions, VALTEX efficiently manages the circular cycle of waste within the production of consumable products.

Solution

VALTEX has set up the first known municipal material flow cycle of waste beverage cartons in the Slovenian city of Novo mesto. VALTEX's system collects used beverage carton waste, recycles it into raw material form, and closes the loop by distributing them back in the form of toilet paper and paper towels for reuse within the Novo mesto community.

Impact

A zero-waste closed-loop cycle has been created, providing both environmental and social benefits for Novo mesto, highlighting the potential for circular municipal solutions to the rest of the world. VALTEX also offers useful know-how and guidance to other cities and regions, to assist their implementation of this simple yet very effective circular practice.

www.circular-economy.city | niko.kumar@valtex.si



VinylPlus is the 10-year voluntary sustainable development program of the European PVC industry. The organization was developed through open dialogue with stakeholders, including industry, NGOs, regulators, civil society and PVC users. VinylPlus is supporting the transition towards a low-carbon circular economy, engaging the PVC value chain to consider and implement circular solutions throughout its operations.

Solution

VinylPlus' pioneering approach involves the entire European PVC value chain in the achievement of concrete and measurable targets by 2020. Its work concerns recycling, emissions reduction, sustainable use of additives, energy and resources efficiency, and sustainability awareness. VinylPlus is creating a long-term sustainability framework, investing in research and fostering innovation, and sharing its circular experiences, knowledge and best practices with the other regional PVC associations at the global level, and with relevant stakeholders.

Impact

VinylPlus' establishment of collection and recycling schemes have allowed the recycling of nearly 570,000 tons of PVC waste in Europe in 2016, saving more than 1.1 million tons of CO₂. Further key achievements to date include the substitution of cadmium and lead stabilizers in the value chain, alongside an average reduction of 10.2 percent in energy consumption for the production of PVC resin, with a target of 20 percent by 2020.

www.vinylplus.eu | brigitte.dero@plasticseurope.org | @vinylplus_eu



















Investor



The CNBC Award for Circular Economy Investor

Award for an investment body or individual which is providing financial backing for the circular economy to become mainstream.



SJF Ventures is an impact venture capital fund, providing capital and expertise to drive the success and impact of circular economy businesses.

Solution

SJF invests in high growth companies that have innovative social and environmental solutions embedded in their business models – companies that scale impact while delivering financial results. The circular economy is a key part of SJF's investment strategy and SJF uses its expertise to identify and support innovative models.

Impact

SJF has a total of \$250 million in assets under management, including its most recent fourth fund at \$125 million closed in December 2016, with investments in 53 circular economy businesses. SJF continues to uphold its leading circular economy reputation via its proven track record in generating environmental, social, and financial returns.

www.sjfventures.com | finance@sjfventures.com | @sjfventures



ING Bank is a global financial institution, as well as a sustainable finance pioneer and circular economy thought leader, providing support and inspiration to clients in over 40 countries.

Solution

ING translates circular concepts into viable customer solutions through a commitment to growing its sustainable business portfolio. The company finances circular models, applies a more holistic and in-depth analysis of clients' financial flows, and develops intelligence on the subject through roundtables, seminars and workshops. ING's findings are included in its landmark report, "Rethinking Finance in a Circular Economy."

Impact

To date, ING has financed a total of €34bn in sustainable transactions and, through its in-depth insights, has driven wider support from financial institutions for circular business models.

www.ing.com | sustainable.finance@ingbank.com















Investor



ArcTern Ventures is a leading North American cleantech venture capital firm that invests in breakthrough low-carbon and circular economy technology companies.

Solution

ArcTern is one of the few venture capital firms investing at an early stage, pre-commercial, in breakthrough clean technologies. The ArcTern team has extensive startup experience and works hands on with investee companies to commercialize new solutions that mitigate climate change and build a circular economy.

Impact

ArcTern's portfolio companies are delivering some of the most impactful solutions to challenging issues: Hydrostor provides the lowest cost grid scale energy storage for sub 100MW applications; Morgan Solar has the highest efficiency commercial solar module in the world; GreenMantra is a world leader in upcycling waste plastics; and SmarterAlloys is building a revolutionary high efficiency low-temperature waste-heat-to-electricity solution.

www.arcternventures.com | murray@arcternventures.com | @arcternvc



Circularity Capital is the world's first specialist circular economy private equity investment manager, driving growth and innovation among European small- to-medium sized enterprises (SMEs) operating in, or enabling, the circular economy.

Solution

Circularity Capital supports circular SMEs using its extensive circular economy network to drive capital into proprietary investment opportunities. Meanwhile, it provides strategic, operational, business and market development support.

Impact

Circularity Capital's investments behave as catalysts for further circular economy practices, driving circular SME growth and innovation.

www.circularitycapital.com | info@circularitycapital.com



NY Green Bank is a state-sponsored specialist financial entity, providing investment in clean energy deployment within New York State.

Solution

NY Green Bank invests in value-creating technologies and businesses that provide circular, renewable supplies, clean energy, and product-as-a-service models through power purchase agreements, leases and energy performance contracts.

Impact

As of the end of 2016, NY Green Bank had committed \$305 million, resulting in ~\$1.26 billion in dollars stimulated by NY Green Bank's clean energy investments, ultimately eliminating 5.4 million metric tons of greenhouse gas emissions.

www.greenbank.ny.gov | info@greenbank.ny.gov



Sitra is a Finnish government-backed fund that supports the transition to an entirely circular economy through investments, alongside educational and societal transformational activities.

Solution

Sitra supports Finland's transition to a circular economy through cross-industry investments and societal transformation activities, including "Leading the Cycle," the world's first national roadmap to the circular economy that describes concrete actions others can follow.

Impact

Sitra has achieved a €771 million fund valuation, alongside its commitment to 190 million circular economy related investments. Sitra is also behind the world's first "World Circular Economy Forum," which will take place in June 2017.

www.sitra.fi/en | mari.pantsar@sitra.fi | @sitrafund

Circular Economy Investor

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Digital Disruptor



The Ecolab Award for Circular **Economy Digital Disruptor**

Award which recognizes an organization or public sector program that is disrupting business as usual by using digital technologies to enable the circular economy; chosen from entries across all categories.



Rubicon Global is a pioneering waste management business utilizing digital technology to provide a transparent, market-based approach that realigns incentives to divert waste from landfills. The company promotes a more circular economy by connecting customers directly with independent haulers across 19 countries worldwide.

Solution

Rubicon Global eschews the global "make-take-waste" culture through its application of cloud-based technology and big data analytics which enables the connection between customers, in Rubicon's case waste producing businesses, and a network of independent haulers. Its digital solution ensures the creative reuse of waste material, higher diversion rates, and optimized collection routing.

Impact

Rubicon Global delivers an impact that is cheaper, more efficient and more sustainable. It has seen a 50 percent reduction in waste pickups and disposal fees for customers, diverting three times as much waste from landfill than the largest industry incumbents. This represents a total saving of \$1 million to clients across 80,000 customer locations.

www.rubiconglobal.com | sustainability@rubiconglobal.com | @rubiconglobal



Peerby is a world acclaimed crowdfunded website and app that empowers city-based consumers to borrow and rent the things they need from others in their neighborhood.

Solution

Peerby's peer-to-peer online sharing platform provides a liquid marketplace for underutilized consumer goods. The technology helps users to reduce the environmental footprint of their consumption, while enabling cost savings from maximizing product usage.

Impact

Peerby's work, spanning across more than a quarter of a million signups, has led to the reduction of 45 million kilowatt-hours of energy, 105 million liters of water and 1.4 million kilograms of waste per year. It provides an average cost benefit of \$100 per transaction for borrowers and \$500 per month for active lenders using its rental platform. Furthermore, Peerby generate millions of dollars of social capital by connecting people, and fostering a sense of community within city neighborhoods.

www.go.peerby.com | info@peerby.com | @peerby















Digital Disruptor



12Return provides a return management software service for branded and retail companies, helping them to streamline the process of product returns from both consumer and business customers.

Solution

12Return adheres to circular principles through its take-back and asset recovery solution, encouraging brands and retailers to utilize reverse supply chains across multiple sectors as an enabler for recovering product value. Furthermore, Stef de Bont, CEO, published a book "Returns Management: Building a closed loop supply chain for a customer centric and circular economy," sharing the company's expertise to maximize cross-industry circular application and adoption.

Impact

Fifty percent of 12Return's revenue currently comes from circular economy business – a figure that is set to grow given its work with IBM on a global product take-back and asset recovery system. 12Return's solution supports the implementation of customer-friendly and effective product return cycles in the supply chain, guiding the way towards a customer-centric and circular economy.

www.12return.com | info@12return.com | @12return



Hello Tractor is a Nigerian-based agricultural technology company focused on making tractor use possible and profitable for labor-constrained farmers looking to grow business opportunities in Africa.

Solution

Hello Tractor's "Smart Tractor" sharing platform pairs tractor owners with farmers by linking SMS message requests with software that identifies tractors with required usability and functionality nearby. Smart Tractor also provides real-time information about the condition of tractor parts, increasing the usable lifecycle of the product.

Impact

250,000 farmers have used the Hello Tractor platform within one year, including 100 farmers and youth "agripreneurs," who have been trained in Smart Tractor ownership, mechanics and after-sales support. The solution enables fleet management and machine value maximization for owners, while providing new opportunities for agricultural production for farmers in challenging environments.

www.hellotractor.com | jehiel@hellotractor.com | @hellotractor



The Nordic Construction Company, NCC, is revolutionizing the way the industry views waste thanks to its "Loop Rocks" platform which is providing a solution to the costly, wasteful and complex mass handling and transportation of surplus materials from construction sites.

Solution

Loop Rocks' open, user centric ecosystem platform enables construction workers and end-users to collaborate in waste handling. Construction site managers use the app to upload details of excess material for haulers and other construction sites to then pick up and utilize. This results in fewer virgin masses wasted and less unnecessary transportation, thus contributing both financial and environmental value.

Impact

12,600 tons of CO₂ emissions can be reduced in Stockholm alone each year thanks to Loop Rocks. To date, the platform has over 2,500 users and upwards of 600 connected construction sites from across multiple businesses, ensuring more transparent and circular industry standards.

www.ncc.group | info@looprocks.se | @NCC_AB



UPMADE is the first industrial-scale upcycling method in the world, enabling industrial-scale design and production upcycling of waste textiles – turning garment brands' leftovers into revenues.

Solution

UPMADE's software identifies and analyzes the waste textiles generated from garment production, which enables businesses to design new garments from leftover material, reintroduce waste back into the production cycle and calculate the water, energy and CO₂ savings benefits realized.

Impact

UPMADE's digital solution to textile manufacturing can lead to a 52 percent textile waste reduction, while facilitating the manufacturing of 10 percent more garments per customer. Businesses can use the technology to identify waste streams and adjust raw material input accordingly, further driving business efficiency in line with environmental goals.

www.upmade.org | info@upmade.org















Digital Disruptor



ALD Automotive is a leader in automotive innovation, specializing in mobility, long-term rental and fleet management services. The company makes circular choices more accessible for its customers through its car sharing platform and pay-per-use contract options.

Solution

ALD is pioneering the use of circular models within the automobile industry. The company's "Corporate Car Sharing" program optimizes the management of long-term rental cars not assigned to specific employees, while its "Ricaricar" pay-per-use mileage-based contracts represent a new way of experiencing mobility in the circular era.

Impact

By utilizing a circular social model based on sharing and exchanging, ALD can offer businesses reductions in their total costs of mobility, and enable fewer CO₂ emissions to be emitted from road traffic.

www.aldautomotive.it | innovation.it@aldautomotive.com



Dutch Awearness is a textile chain management service, guided by the principles of the circular economy. The company enables the provision of circular workwear collections to the European market through their use of innovative recyclable materials and controlling the chain for garment return and reuse.

Solution

Dutch Awearness offers a full-service model to "close the loop" within the textiles industry through its track-and-trace circular content management system. The company's work spans from finding and developing innovative materials for garments like its recyclable "Infinity" fabric which is used by leading European companies, to its returns management system that ensures product reuse.

Impact

Dutch Awearness operates on a zero-waste basis, converting any waste back into raw materials for reuse. The company provides businesses with more transparent supply chains through its track-and-trace system, and a reduction in resource use, with savings as much as 11 kilograms of CO_2 and 15 liters of water per recycled rain suit.

www.dutchawearness.com | iris@dutchawearness.com | @dutchawearness

enevo

Enevo works with business, commercial and municipal clients to manage their waste and recycling services. Enevo's goal is to make global waste management operations more efficient through the use of waste container sensors and analytics, allowing its clients to focus on managing their business instead of their waste.

Solution

Enevo manages all waste services - including trash, recycling and compost - for its clients. Through the use of a complete digital platform, comprised of sensors that measure the capacity of waste containers and an analytics platform, Enevo delivers cost savings, accurate recycling reporting and ensures correct service levels.

Impact

Enevo's waste and recycling services generate significant savings in waste management operational costs for its customers. Other benefits include increased employee engagement around recycling, the ability to detect missed collections and adjust invoices accordingly, and a reduction in greenhouse gas emissions.

www.enevo.com | sales@enevo.com | @enevo



Valopes enhances the value recovery from waste streams by connecting and supporting transactions that transform waste into resources. The company's software-as-a-service provision helps customers covert their waste, materials and equipment into valuable resources through a closed-loop system.

Solution

Valopes provides a cloud-based platform that enables its clients to adopt circular principles, regardless of industry or size. The company's solution allows enterprises to document, track down and understand their waste stream through digital record documentation and accountability.

Impact

Valopes works to help clients reduce the financial and environmental costs of CO, generated from using virgin materials in production, and eliminate waste to landfill, promoting circularity across industries.

www.valopes.com | octavio@valopes.com | @val0pes





















The Dell Circular Economy People's Choice Award

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



Bioelektra Group's waste treatment plant utilizes breakthrough technical solutions to treat unsegregated municipal waste, sterilize it and automatically separate it into useful by-products.

Solution

Bioelektra's "RotoSTERIL" technology separates mixed waste and recycles waste organic fractions into biomass as a fully usable product, which can later be reintroduced into production, closing the loop within the value chain.

Impact

Through the use of "RotoSTERIL" technology, 96 percent of waste can be recovered for reuse. Bioelektra's first waste processing plant proves the effects of the technology, including a 65 percent rate of secondary material recycling.

www.bioelektra.com | bioelektra@bioelektra.com



Black Bear Carbon brings the circular economy to the tire industry by creating high-quality, green "carbon blacks," an important reinforcing material in tires and plastics, that can be used as a key ingredient for new tires, paint and inks.

Solution

Black Bear has developed innovative technology that extracts high-quality carbon black using end-of-life tires as feedstock and creates green energy in the process. With one billion end-of-life tires produced globally, there is an opportunity and a market to support 1,200 plants – both solving a societal problem and having a major positive environmental impact.

Impact

Five tons of CO, and 2.5 tons of oil are saved per every ton of carbon black reused through Black Bear's services, with the potential to reduce consumption of oil by 145 million barrels and CO₂ by 20 million tons annually. For each Black Bear line, this is the equivalent of planting one million trees.

www.blackbearcarbon.com | info@blackbearcarbon.com | @blackbearcarbon















People's Choice



Cambrian Innovation is a biotechnology company revolutionizing water and wastewater sectors.

Solution

Cambrian Innovation's "EcoVolt" extracts renewable resources from wastewater for reuse. The technology is delivered through Cambrian's "Water-Energy Purchase Agreement", a service-based financing model which eliminates upfront costs.

Impact

Cambrian Innovation's EcoVolt technology has resulted in a 40 percent reduction of water consumption and 120 kW renewable energy generation at one of its early installations in California.

www.cambrianinnovation.com | info@cambrianinnovation.com | @cambrianinno



CRS Holland provides a cost-effective and environmentally sound deep-sea submarine cable retrieval service.

Solution

CRS Holland developed a circular economy solution to recover value from the 94 percent of unused cables which remain underwater, providing telecom companies the opportunity to transform these liabilities into assets through resale and repurpose.

Impact

Eighteen thousand kilometers of cable has been recovered to date, including 99.9 percent pure recovered copper. CRS Holland has the potential to save over four million tons of CO2 emissions from unused cable recovery and recycling, while lowering operational costs for telecommunications companies.

www.crsholland.com | friso@crsholland.com



ECOR, an innovation from Noble Environmental Technologies, uses cellulose waste streams as composite material for construction to deliver circular products and systems.

Solution

ECOR produces strong, lightweight, non-toxic and VOC-free advanced building materials using sustainably upcycled fiber waste resources. By offering a business system that enables the preservation of resources, ECOR facilitates significant reductions in material waste within numerous industries and applications.

Impact

ECOR's first pilot facility converts 1,250 tons of waste per year. For every ton of waste converted, 17 trees, 380 gallons of oil, three cubic yards of landfill space, 4,000 KW of energy, and 7,000 gallons of water are saved. As evidence of their success, ECOR will build 50 facilities in the next five years.

www.ecorglobal.com | infobenelux@ecoreurope.com | @ecorglobal



gCycle offers a solution to diaper waste, the third-largest product waste contributor to landfill, through its compostable diaper services.

Solution

qDiapers, the world's first cradle-to-cradle diaper providers, is working to bring qCycle to the market. gCycle is a fully compostable diaper service that replaces oil-based plastic in diapers with non-GMO corn biofilm.

Impact

Five tons of organic waste can be diverted from landfill per child per year using gCycle solutions, generating two tons of compost worth \$160 per child annually. Its offering allows childcare centers to divert 80 percent of their waste stream from landfill per year, while generating additional revenue streams for them.

www.gcycle.com.au | jason@gdiapers.com | @gdiapers















People's Choice



Climeworks provide solutions that allow organizations access to purified CO₃ and CO₂ capture plants. The company enables the recycling of CO₂ into fossil fuel alternatives, serving a vast range of clients, from niche applications to large-scale industries.

Solution

Climeworks reflects a shift from linear to circular carbon provision by supplying commercial greenhouses with pure CO₂ captured from ambient air. The company works to aid the production of carbon-neutral synthetic fuels, shifting the market away from fossil fuels and toward circular alternatives.

Impact

One liter of fossil fuel is avoided for every liter of synthetic fuel produced from Climeworks' atmospheric CO₂. When Climeworks launches its carbon-capture plant in mid-2017, it will mark the first-ever commercial delivery of atmospheric CO₂ worldwide, capturing 900 tons annually.

www.climeworks.com | contact@climeworks.com | @climeworks



Globechain connects people, charities and businesses to facilitate the redistribution of unwanted items within a global supply chain network. The company is pioneering new ways of digitizing and redistributing waste and resources, creating both economic and social value for members.

Solution

Globechain provides an online reuse platform that enables members to conveniently and efficiently reuse or redistribute items within 24 hours of uploading. The company supplements its reuse platform with social, environmental and economic impact data to assist with CSR, Social Value Act legislation, tendering and community engagement, thus encouraging resource sharing and reuse within its network.

Impact

Over one million tons of unwanted items have been diverted from landfill over the last two years, resulting in over £3 million of savings per year for retail businesses and over £900,000 of benefits for charities and social enterprises.

www.globechain.com | contact@globechain.com | @globechain



Ioniga provides a profitable cradle-to-cradle solution for PET Polyester plastic - recycling a wide variety of PET plastics into virgin quality raw materials, and enabling reuse through an array of new PET applications globally.

Solution

loniga implements a depolymerization process, using magnetic smart materials and nanotechnology to upcycle mixed colored PET waste into high-quality colorless raw materials. Ioniga's recycled plastics are suitable for any new PET application, competing in both cost and quality with PET produced from crude oil.

Impact

Ioniqa has developed the technology to close the loop on the 61 million tons of PET plastics produced from crude oil annually. The company can transform PET from a highly wasteful material that is landfilled, incinerated and dumped, into a valuable secondary resource, increasing the overall societal incentive to collect and retrieve PET waste.

www.ioniqa.com | t.hooghoudt@ioniqa.com | @ioniqacircular



Recicladora Urbana remanufactures IT equipment to provide innovative environmental solutions for the disposal and product life extension of electronic waste.

Solution

Recicladora Urbana offers services throughout the beginning, middle and end of its reverse logistics chain. The organization's work spans across collection, characterization, segregation, disposal and resale of electronic waste, across a wide variety of customer groups.

Impact

Five hundred and sixty six tons of electronic equipment have been collected by Recicladora Urbana within three years; 70 percent of which has been returned to raw materials and 30 percent transformed into parts and remanufactured IT equipment through Recicladora Urbana's return services.

www.recicladoraurbana.com.br | contato@recicladoraurbana.com.br





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