CERTIFIED cradle to cradle CRADLE **PRODUCTS PROGRAM WORK WITH** The creators and foremost implementers of the Cradle to Cradle Certified[®] Products Program

Our goal is a delightfully diverse, safe, healthy and just world, with clean air, water, soil and power – economically, equitably, ecologically and elegantly enjoyed.

Remaking the Way We Make Things

In their 2002 book Cradle to Cradle: Remaking the Way We Make Things, architect William McDonough and chemist Michael Braungart presented an integration of design and science that provides enduring benefits for society from safe materials, water and energy in circular economies and eliminates the concept of waste.



¹This goal statement was created while writing *The Upcycle: Beyond Sustainability—Designing for Abundance*. William McDonough and Michael Braungart, published in 2013 by North Point Press, a division of Farrar, Straus & Giroux.

Waste Equals Food Use Current Solar Income Respect Diversity





In 2010, MBDC transferred an exclusive license for the certification program and methodology to the Cradle to Cradle Products Innovation Institute, co-founded by William McDonough and Michael Braungart. The Institute reviews product assessments conducted by assessors such as MBDC, and issues certifications as a third-party, not-for-profit organization.

Cradle to Cradle Certified[®] Products Program

We created Cradle to Cradle Certified[®] to be the world's most comprehensive product assessment and certification system based on:



MATERIAL HEALTH Safe, healthy, biological and technical nutrients



CIRCULAR ECONOMY: MATERIAL REUTILIZATION Circular, sharing and shared



RENEWABLE ENERGY & CARBON MANAGEMENT Clean and renewable



WATER STEWARDSHIP Clean and available



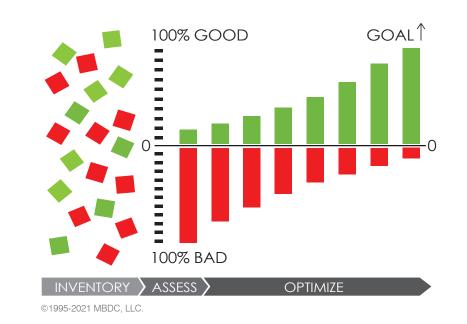
SOCIAL FAIRNESS

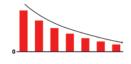


Safe, creative and dignified

MBDC's Unique Approach to Innovation and Continuous Improvement

Products are often described as **goods**. We design and assess products to make sure they actually are.



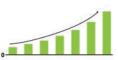


Industry can do better than conventional. eco-efficient approaches which seek to reduce or minimize damage and typically portray reducing a negative footprint.

The Upcycle Chart

Enables our clients to 1) inventory, 2) assess and then 3) optimize

products, processes and systems with positive intentions and beneficial goals.



By adding eco-effective approaches and integrating positively defined goals based on Cradle to Cradle® values and principles, we are able to direct innovation in a coherent and positive trajectory.

Cradle to Cradle Certified[®], created by MBDC, is more than a recognized mark of product quality—it is a process that leads companies to make better products, better companies and better communities. It puts the Good back in Goods!

the GOOD in GOODS

Read about MBDC's clients who have benefited economically, environmentally and socially with Cradle to Cradle Certified®

88% of the products Shaw manufactures are Cradle to Cradle Certified®



A Walk In The Garden a collaboration with William McDonough

SHAW CONTRACT GROUP

Shaw's "We Want It Back" program results in a 10% savings from storing raw materials on customers' floor for reclamation (perpetual assets).

SHAW CONTRACT GROUP, a

Berkshire Hathaway Company, made the groundbreaking decision in 2002 to apply Cradle to Cradle Design[™] principles and introduce PVC-free commercial carpet tiles designed to be separated into component materials for carpet-to-carpet recycling. Each tile is labeled with a toll-free number that customers can call to have used tiles picked up for recycling. Shaw worked with McDonough and MBDC to assess the human and environmental health attributes of all ingredients and identify preferred substitutes, as needed.

ACHIEVEMENTS

In 2003, Shaw Industries and MBDC received the inaugural Presidential Green Chemistry Challenge Award from the White House and the U.S. EPA for its EcoWorx® backing



Currently, nearly 90% of the products Shaw manufactures are Cradle to Cradle Certified® and have undergone a rigorous material health assessment, including residential and commercial carpet, carpet tile and hardwood flooring.

Shaw Industries moved to #1 in the U.S. market share for carpet tile and is now the world's largest carpet company.





HERMAN MILLER

100% of Herman Miller's electrical energy is from renewable resources.

"Bill McDonough had the drive, vision, and connections to make this protocol a standard across all industries. Also, McDonough was willing to put together resources for the implementation of his vision, therefore ensuring that C2C would be more than just a nice idea on paper. Finally, the 'virtuous closed loops' concept that is behind C2C enabled businesses to move beyond the traditional 'be less bad' to the 'consumption is good' paradigm. C2C is a godsend to business!"

HERMAN MILLER'S dedication to ACHIEVEMENTS The first product designed from doing more good extends beyond their adoption of Cradle to Cradle the beginning to end under the Certified[®] to their "Greenhouse " Cradle to Cradle Design protocol was the Mirra chair which - during Factory and Offices in Holland, Michigan designed by William implementation - led to the training McDonough + Partners. To fully of more than 300 employees. The incorporate Cradle to Cradle Design™ chair was the first engineered product into their practices and Design for to use the Cradle to Cradle protocol the Environment guidelines, together and received considerable attention from customers who sought out we built a customized assessment tool that analyzed materials for environmentally sustainable products. their human health and ecological The resulting protocol, employee effects, recyclability and design for engagement and product has led to disassembly. Herman Miller further expanding their Cradle to Cradle product portfolio and securing brand recognition as a firm deeply involved in sustainability.

-Mark Schurman, Senior Vice President of Supply Chain Management, Herman Miller





BEAUTY KITCHEN

100% natural beauty products designed based on Cradle to Cradle

"From formulation within our supply chain to packaging and social impact, Cradle to Cradle Certified[®] provides us with a credible, independent improvement framework to confirm that our sustainable approach is the right one. Having this good design in place ensures good business can happen. It enables us to lead the industry by democratizing the circular economy with our reusable packaging and safe formulations. It also enables us to create a positive impact on people and planet in an accessible and scalable way through personal care products."



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Stewardship

Circular Economy

The Abyssinian Oil Advanced Skincare range is **fully optimized** for human and environmental health to achieve Platinum, the highest level in the C2C Certified® Products Program

Products are identified as biological nutrients, containing ingredients that can safely return to the biological cycle. Beauty Kitchen aims to source ingredients that are both renewable and biodegradable

Beauty Kitchen purchased carbon offsets to counteract the greenhouse gas emissions associated with 50% of the electricity used to manufacture these products

All **process chemicals in effluent** related to the manufacture of the Abyssinian Oil Advanced Skincare products have been fully assessed for human and environmental health

Beauty Kitchen has been a certified B-Corp since 2017 and all products are Leaping Bunny Certified

—Jo Chidley, Fouder and CEO, Beauty Kitchen





L'ORÉAL CAROL'S DAUGHTER Available on Amazon amazon under its 'Climate Pledge

Friendly' badge

"From formulation to packaging and production, we're holding ourselves accountable to our sustainability goals across all of the brands within our portfolio," said Azoulay. "Cradle to Cradle certifications demonstrate our commitment to pushing the boundaries of sustainable product innovation throughout our value chain."



Products are identified as **biological nutrients** with a strategy in place to attain Gold level



Both the shampoo and conditioner source from renewable and biodegradable ingredients



The products' manufacturing facility is powered by 100% renewable electricity

6 Water

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Completed a social fairness screen for all tier one suppliers and a UN Global Compact self assessment of management, human rights, labor, environment and anti-corruption practices

- Danielle Azoulay, Head of CSR and Sustainability, L'Oréal USA

All process chemicals in effluent which are related to the shampoo and conditioner have been assessed with a strategy in place for optimization



NORDIC STRUCTURES

First in North America to achieve

design for HITT Contracting's Co|Lab, NORDIC STRUCTURES, achieved the first Mass Timber building in the world's first Cradle to Cradle Silver certification for their Nordic Virginia, utilizes both Nordic Lam and X-Lam panels. Nordic's products were X-Lam and Bronze for their Nordic Lam and Lam+. The X-Lam met Gold also guickly identified for use in Apex qualifications in several categories, Plaza, which will be the tallest Mass including Material Reutilization, Timber building on the East Coast. confirming its circular potential.

William McDonough + Partners facilitated the relationship as part of a commitment to safe, healthy and circular building materials. WM+P's



Cradle to Cradle Certified[®] Silver and Bronze for Mass Timber products

V HITT CO|LAB **NET-POSITIVE ENERGY** MASS TIMBER Falls Church, VA | Completed 2019





HENRY ROSE + IFF

First 100% transparent fine fragrance

"I set out to see if it was possible to develop a line of fine fragrances providing you don't need to sacrifice quality and sophistication for safety. And we did it!" — Michelle Pfeiffer, Founder, Henry Rose

"This collaboration between Cradle to Cradle [chemists at MBDC], the Environmental Working Group and IFF is unprecedented. Not only have we broken new ground with our product — the first fine fragrance that is 100 percent transparent with its ingredients — but environmentalists and the fragrance industry were able to reach across the aisle to work together towards our common goal." -Melina Polly, former CEO, Henry Rose



Circular

conomy

Fragrance achieved Silver level and is free of molecules likely to cause allergic reactions as well as any ingredients on the Cradle to Cradle banned list

Henry Rose is created to **safely biodegrade in natural** systems. Bottles are made from 90% recycled glass, which is also recyclable, and include compostable caps

IFF is committed to using renewable energy in its manufacturing and has a goal to procure 75% of its electricity needs from clean, renewable sources by 2025.

IFF reduced water use in manufacturing processes by 66% between 2010 and 2019, surpassing its goal of reaching 50% below 2010 levels by 2020

Henry Rose donated a portion of proceeds to farming families in Haiti as part of a partnership with IFF and Heifer International





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IPG

First certified recyclable carton sealing tape that is repuplable with the corrugate it is applied to

"Achieving the first Cradle to Cradle Certification[®] for WAT and the Western Michigan University OCC Equivalency certification for our non-reinforced WAT, in each case provide our e-commerce customers evidence that these products are made for a circular economy." -Greg Yull, President and CEO of IPG



Circular onomy

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IPG committed to using the Cradle to Cradle Certified® Material Health protocol to assess their products and to eliminate chemicals of concern

Certified water-activated tape can be **recycled and/or** use recycled materials in its production

IPG's Manufacturing department was audited to ensure that its water usage has minimal impact on the environment

IPG is accountable to all stakeholders within the company and the communities where they conduct business

Achieves energy goals by implementing **continuous** improvement programs and employee training initiatives across the entire organization



C&A

sustainable clothing that can return to nature and can also be accessibly priced.

"What we really need is other brands to go down the same path and to recognize that Cradle to Cradle Certification[®] is really one of the most well-thought-through, holistic, third-party, peer-reviewed standards for the circular economy." -Jeffrey Hogue, Global Chief Sustainability Officer, C&A



Achieved Platinum level - the highest level in the Cradle to Cradle Certified® Products Program



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T-shirts are recyclable and can be composted returned to healthy soil in about 12 weeks - at the end of their useful lives

C&A purchased offsets for 50% of purchased electricity and CO2 emissions related to the t-shirt production

All effluent is filtered. The only water imported from the local watershed is for drinking and utility purposes, as well as to compensate for process losses

Both factories where the t-shirts are produced have impressive and innovative social fairness initiatives and projects

Real-life example of how rigorously





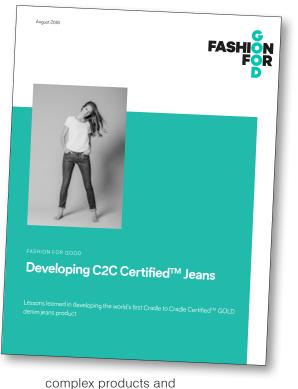
C&A

Gold jeans.

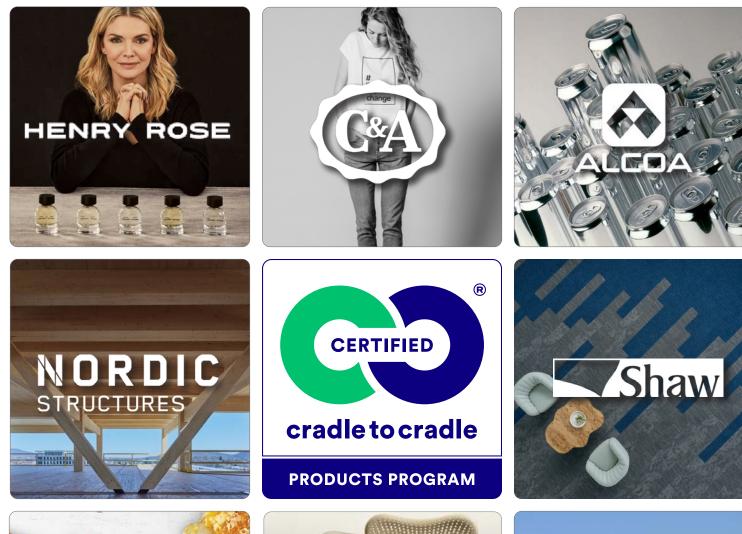
MBDC worked closely with C&A, their supply chain, Fashion for Good and other assessors -Eco Intelligent Growth (EIG) and EPEA Switzerland – to address challenges in designing such a complex product. The process included evaluating and optimizing the garment for human and environmental health. recyclability and biodegradability, renewable energy use and carbon management, water stewardship and social fairness.

Designed in partnership with Fashion for Good, an opensource initiative co-founded by William McDonough, that supports the transformation of apparel culture toward a circular economy, C&A's new Cradle to Cradle Certified[®] denim garment release is accompanied by the toolkit Developing Cradle to Cradle Certified® Jeans. This toolkit includes concrete solutions on how to approach

First Cradle to Cradle Certified®



projects, such as jeans, which contain multiple technical and biological nutrient components (from thread to zipper) to reach product certification at the Gold level.



Join this community of innovative companies and become the products of choice for numerous environmentally preferred purchasing programs and consumers





Start on your path to Cradle to Cradle Certified[®] with MBDC

MBDC is Where You Start on Your Path to Cradle to Cradle Certified[®]

MBDC has decades of experience working throughout the supply chain to collect formulations and evaluate product and manufacturing data to meet the requirements. MBDC supports and advises clients throughout the entire process.

ENGAGE MBDC **TO REVIEW AND**

ASSESS YOUR BILL OF MATERIALS FOR CERTIFICATION REQUIREMENTS

Conduct initial analysis to determine if it is within the scope of certification

Cross-reference ingredients with the **Banned Chemicals List**

Determine if there is a commitment to continuous improvement

Conclude if your product meets the eligibility requirements in the Cradle to Cradle Certified[®] Product Standard

2 MBDC ASSESSES YOUR PRODUCT **AGAINST THE** PRODUCT **STANDARD CRITERIA**

Work with you and your supply chain to collect data

Evaluate data against the Product Standard criteria

Partner with you to develop optimization strategies

3 MBDC SUBMITS AN ASSESSMENT SUMMARY REPORT TO THE CRADLE TO **CRADLE PRODUCTS** INNOVATION **INSTITUTE FOR** FINAL REVIEW AND CERTIFICATION

The Institute provides independent verification of assessment and issues certificate



4 MBDC WORKS WITH YOU TO CONTINUOUSLY IMPROVE

Every two years, we work with you and your supply chain to gather new data for re-certification

Evaluate data and progress on optimization strategies for continuous improvement

Cradle to Cradle Certified® is recognized as a preferred product certification by major retailers, organizations and cities.

When brand-name retailers take a stand for safe and healthy products, industry takes note. By adopting Cradle to Cradle as a third-party, multi-attribute certification and as a design framework, companies are not only embracing safe and circular practices, but also encouraging their peers to adopt similar values.



Google's Healthy Materials Program includes the Cradle to Cradle Certified[®] Product Standard as part of its selection criteria for products to use in its facilities. THE MARK

The Home Depot Eco Options program allows suppliers to use Cradle to Cradle Certified® and the Material Health Certificate from the Cradle to Cradle Products Innovation Institute at an achievement level of Silver or higher in the material health category to qualify for their program. The Cradle to Cradle Certified® Product Standard has been recognized by the United States Environmental Protection Agency (EPA) in its Recommendations of Specifications, Standards, and Ecolabels for Federal Purchasing.

Walmart 🔀

Through the company's Commitment to Sustainable Chemistry, Walmart encourages the use of Cradle to Cradle Certified[®] Silver and above products.



Walgreens/Boots Alliance is working to enable consumers to make informed choices by by encouraging suppliers to obtain credible certifications such as Cradle to Cradle Certified[®], and to make it easy for consumers to find these more sustainable products.



Amazon, as part of its 'Climate Pledge Friendly," badge, empowers customers to find and purchase products that are Cradle to Cradle Certified[™] and recognizes the standard as a leading certification for sustainable products.



Cradle to Cradle Certified® also supports global building rating systems



LEED has recognized Cradle to Cradle Certified[®] products to earn points toward LEED certification within the v4 MR credit: Building Product Disclosure and Optimization.





The City & County of San Francisco require all carpet and adhesives installed in city-funded construction projects be Cradle to Cradle Certified[®]. Carpet tiles must be Cradle to Cradle Certified[®] Silver or higher, and adhesives must have a Material Health Certificate at the Bronze level or higher.

BREEAM®

BREEAM-NL 2014v1.0 rewards the use of Cradle to Cradle Certified® products in two different credits: Construction Materials and Responsible Sourcing.



Cradle to Cradle Certified[®] is recognized within the WELL Building Standard in WELL Feature 26, and WELL Feature 97 via option c.



Amazon features Cradle to Cradle Certified® as part of their 'Climate Pledge Friendly' badge to make it easier for customers to discover and shop for sustainable products

William McDonough was quoted in Amazon's press release saying:

"Cradle to Cradle certification provides a framework for product optimization based on the principles of designing with safe and healthy materials, using clean renewable energy and water, celebrating diversity, and eliminating the concept of waste," said McDonough. "We love that Amazon is making it simple for customers to find sustainable products. Amazon's new program will expand our reach and enable us to empower more brands to deliver safer and more sustainable products for the circular economy."

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