

Benefits of the **cradleto**cradle product program

How to become a frontrunner
in the future marketplace.



CRADLE TO CRADLE
PRODUCTS
INNOVATION
INSTITUTE

THE CRADLE TO CRADLE CERTIFIED™ PRODUCTS PROGRAM

A new paradigm has emerged as a response to our linear model for make and waste. Dwindling natural resources, pollution and a waste build up, in addition to volatile prices and increased geopolitical tensions have all created major incentives to shift to a circular model, where products are designed, manufactured and continuously used in a regenerative system.

The call for adopting circular models has been embraced by leading institutes such as the World Economic Forum and the Ellen MacArthur Foundation. Research estimates the circular economy could save up to \$630 billion a year at EU level⁽¹⁾. This offers huge opportunities for companies.

(1) Ellen MacArthur Foundation, Towards the Circular Economy: Economic and business rationale for an accelerated transition (2012).

In making the shift from a linear to a circular system, companies take responsibility for their products and production processes, and encourage suppliers to do the same. The *Cradle to Cradle Certified™* Products Program offers companies a concrete model to produce appealing, safe products made from pure materials, designed to be endlessly re-used. These products also benefit the environment.

Since the program began in 2005, over 200 companies worldwide have participated in the *Cradle to Cradle Certified™* Products Program, with hundreds of product lines representing thousands of different products certified and millions of products sold. Companies include Herman Miller, Shaw, Steelcase, Desso, Puma and Ecover. Many are now moving to expand certification from one product to entire product ranges.

MEASURING IMPACT OF CERTIFICATION

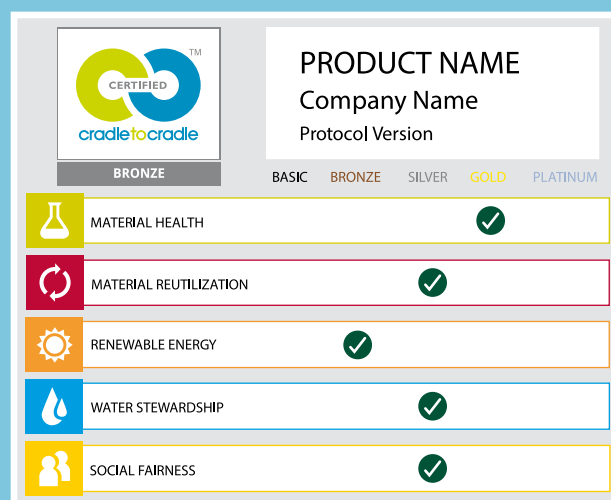
While the increasing number of companies embracing the Cradle to Cradle concept and the fast-growing number of certified products are important measures of success, until now the actual impact of optimizing and certifying products has not been independently tested on a large and uniform scale.

The Cradle to Cradle Products Innovation Institute commissioned Trucost, a leading global environmental data and insight company, to develop an assessment framework with clearly defined indicators to determine the effect of optimization on the business, environmental and social impact of products.

The framework looks at the five categories of the Cradle to Cradle Certified Product Standard and how these categories drive change in companies to improve performance, and to enhance and protect all forms of capital.

A team of independent scientists from leading international institutions, such as Oxford, Yale and Delft University, along with stakeholders, reviewed the framework to ensure the methodology was robust and reliable.

The framework can be a comprehensive method for companies to improve their internal processes and



Example Scorecard Bronze

business operations by reducing costs and enhancing product quality. In addition, it can improve reporting practices on the performance of their complete product portfolio. This will let companies strengthen and support sustainability claims, which can be used in decision-making and communication. The certification program helps validate sustainability claims and makes them explicit on a product level.

THE PILOT OF THE ASSESSMENT FRAMEWORK

To test and refine the framework, ten companies – representing a variety of products from different sectors, geographic regions and Cradle to Cradle product scores – joined a pilot program.

Trucost did an in-depth analysis of twenty products; ten which were certified to the Cradle to Cradle Certified Product Standard and ten others which

were not certified, with the aim of identifying and quantifying the environmental, social and business impacts – and thus added value – of the *Cradle to Cradle Certified™* Products Program.

The result is a promising account of impact and value achieved by ten companies undertaking Cradle to Cradle Certified product certification.



SHAW INDUSTRIES

Shaw Industries is the world's largest carpet manufacturer. In 2007, Shaw received a Cradle to Cradle Certified product certification for the EcoWorx Tile, which is now the firm's fastest-growing carpet.

Shaw found that the move to C2C products cut its costs by more than half, and also used less water. In 2012 alone, the total savings amounted to more than US\$ 2.5 million*.

* in comparison to 2004

IMPACT STUDY HIGHLIGHTS

The research shows product certification encourages a move towards more positive products. This is different from the more traditional sustainability approach, which is focused on impact reduction. Instead, the study shows that products can be good for the business bottom lines, along with having a positive influence on society, health and the environment.



BUSINESS BENEFITS

GOOD DESIGN EQUALS GOOD BUSINESS

An integral part of the Cradle to Cradle philosophy is the belief that good design equals good business. Producing effective, safe and re-usable goods can

improve the competitive advantage in the marketplace for businesses.

The economic impact of *Cradle to Cradle Certified™* products is shown through higher than average sales performance, positive growth and increased profits, alongside significant cost savings for water and energy used to create the products.

BENEFITS	HOW	EXAMPLE
Cost reduction	Companies can achieve structural cost reduction through re-using product material and increasing resource efficiency (thus saving on water and energy spending).	Since the year before certification in 2009, Mosa has reduced water consumption on site by 130,600m ³ per year across both the wall and floor tile operations. This equates to a financial saving of €360,000 per year.
Improved product value	Environmentally and socially superior credentials as a result of product optimization and certification.	AGC's sales over 21% higher than sector average considered partly due to winning new clients in green building market.
New revenue streams	Re-marketing product materials at the end of their traditional use.	
Avoided risks	Avoiding traditional resource markets, thus reducing risk from volatile prices and supply disruption. Minimizing greenhouse gas emissions and other pollutant impacts.	100% of Aveda's electricity is wind powered. As a result, they are not dependent on volatile prices of fossil fuels.



SOCIAL BENEFITS

FAIR + HEALTHY = HAPPY

The *Cradle to Cradle Certified™* Products Program uses social fairness principles which inspire employees and suppliers to achieve their personal and professional potential, rather than simply avoiding negative regulatory risks.

Social benefits of certification are most strongly linked to improved transparency and commitment towards social goals. Social benefits related to human health are achieved through reduced pollution impacts from increased renewable energy mixes, healthier product materials and increased recycling of materials.

BENEFITS	HOW	EXAMPLE
Improved transparency and commitment towards social goals	Companies evidenced a range of social fairness monitoring routines (operationally and throughout supply), including audits, management systems and third party certification.	Ecover's purchasing department screens all of its suppliers on child labor, employee treatment and other social criteria, while encouraging suppliers to innovate with them.
Benefits derived from environmental benefits	Reduced pollution impacts linked to healthier product materials and increase of renewable energy use.	A significant change in the composition of the energy mix between 2009 and 2012 occurred when AGC Glass Europe switched from fuel oil to natural gas. The contribution of fuel oil dropped from 90% to 44% of the energy mix, bringing environmental and social benefits.



ENVIRONMENTAL BENEFITS

FROM GREY TO GREEN

The requirements of the *Cradle to Cradle Certified™* Products Program fundamentally drives natural resource savings, waste reduction and development of safe product materials. Which results in protecting natural

resources and minimizing pollution impacts. There are a variety of environmental benefits, including replacement of toxic materials with non-toxic or safe ingredients, designing products so they can be continuously re-used, thus meaning less use of natural resources. Using renewable energy helps the fight against climate change, and better use of water means less use of a resource which increasingly causing conflicts around the globe. Environmental benefits are achieved through the replacement of toxic and questionable ingredients by non-toxic alternatives.

BENEFITS	HOW	EXAMPLE
Manufacturing safe products, designed for reutilization of material at the end-of-use	Phasing out or eliminating hazardous materials and replacing them with healthy and safe alternatives, designed to be re-used continuously in either the technical or biological cycle.	Aveda succeeded to make its packaging from 100% recycled plastic (compared to 80% without certification).
Increased use of renewable energy	Renewable energy provides many environmental and social benefits, including avoided air pollution and climate change impacts, alongside decreased dependency on finite fossil fuel resources.	In 2008, Construction Specialties did not make use of renewable energy. Since certification, this has increased to 50% of the total energy supply. This is associated with significantly less harmful emissions, for both people and the planet.
Improved water stewardship	Water conservation and protection provides vital social and environmental benefits including climate regulation, as well as underpinning essential business inputs.	Shaw was able to achieve a 48% increase in water efficiency.



GET CERTIFIED



The *Cradle to Cradle Certified™* Products Program is an effective way to continually improve product. It takes the concept of quality and beauty to a higher level.

The framework offers an innovative way to create safe, healthy products. It allows companies to build long-term relationships with customers, leading to a shared aspiration to make consumerism a force for good. Overall, pursuing Cradle to Cradle product certification helps companies to be recognized as a front-runner in innovation, design and sustainability. And just as important, it provides a major competitive edge for businesses.

The impact study by Trucost points out that Cradle to Cradle Certified products are excellent real-life examples of products optimized for the circular economy. It highlights the benefits of moving product manufacture away from conventional, linear processes, towards Cradle to Cradle design.

There is a huge opportunity for companies to embrace the transition towards the circular economy, as shown by the Ellen MacArthur Foundation and the World Economic Forum. It is now within reach with the Cradle to Cradle Products Program..

For more information visit:



www.c2ccertified.org/impact



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