Cradle to Cradle® Design Innovations

Rethinking the way we make things

EPEA Switzerland GmbH
Reinhard Backhausen

EPEA SWITZERLAND GMBH

ENVIRONMENTAL PROTECTION ENCOURAGEMENT AGENCY

CORE COMPETENCES

→ Partner for Business & Industry
→ Knowledge Trustee
→ Innovation Trustee
→ Acting as coaches
→ Accredited Assesment Body for Cradle to Cradle Certified™ Certification

4 PERSPECTIVES

→ Material Health Science by accredited Material Health Assessor
→ Management of Confidential Information in Production and Supply Chains
→ Business and Industry Implementation
→ Audits, Site Visits

CERTIFIED™
cradle to cradle
ACCREDITED ASSESSMENT BODY

European Commission

01.-02.12.2014

17th European Forum on Eco-innovation

11:30 - 12:45

Session 2: The practical challenges and opportunities of transformation

Keynote presentations highlighting:

- Barriers to be o vercome
- Old industry , new industry and disruptive technologies
- Example of holistic analysis of transf ormation within a sector
- ***Policy and financial supports***

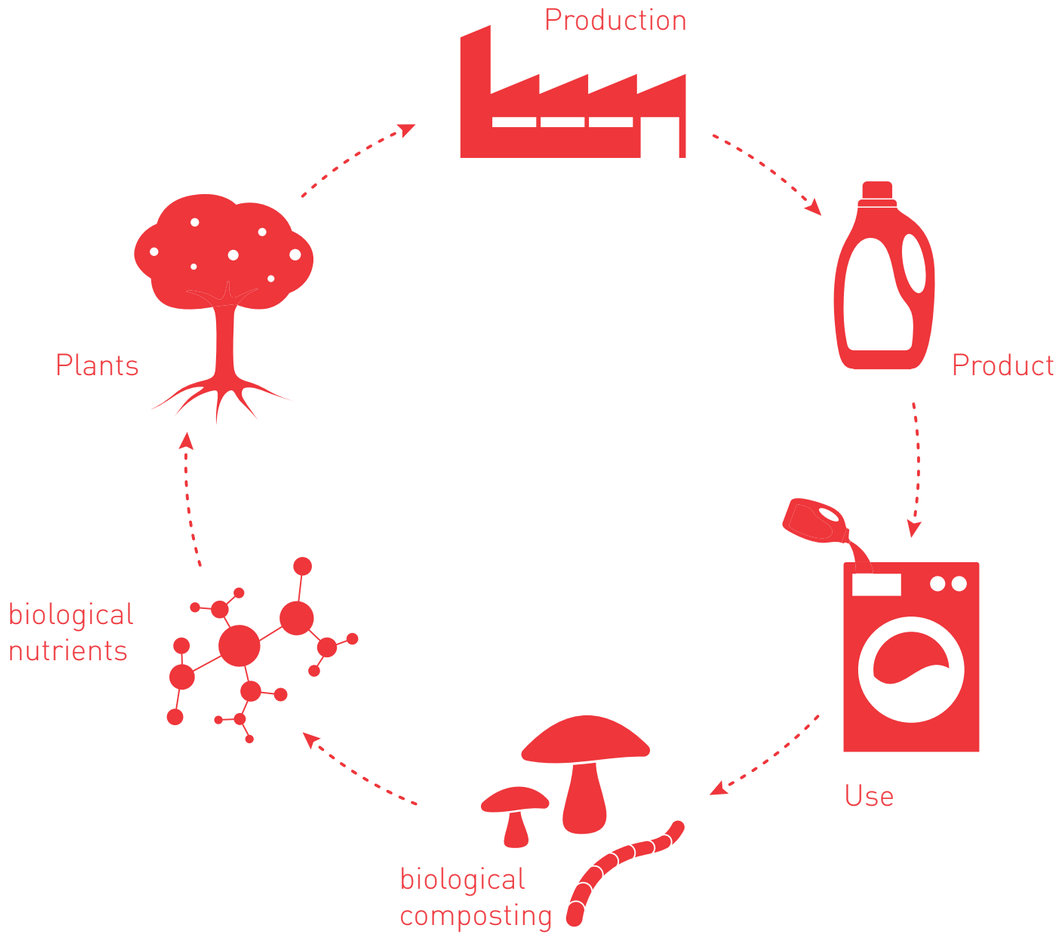
Stéphane Hocquet[6], Deputy Sub-director of Integration of Sustainable Development by economic actors, Ministry of Ecology, Sustainable Development and Energy
Albin Kälin[7], *Chief Executive Officer,* Environmental Protection Encouragement Agency (EPEA) International Research, Switzerland GmbH
Cyril Kretzschmar [8], Vice-president for social and solidarity economy,Rhône-Alpes Region

CIRCULAR ECONOMY POLITICS TRANSFORMATION WITHIN 5 YEARS!!

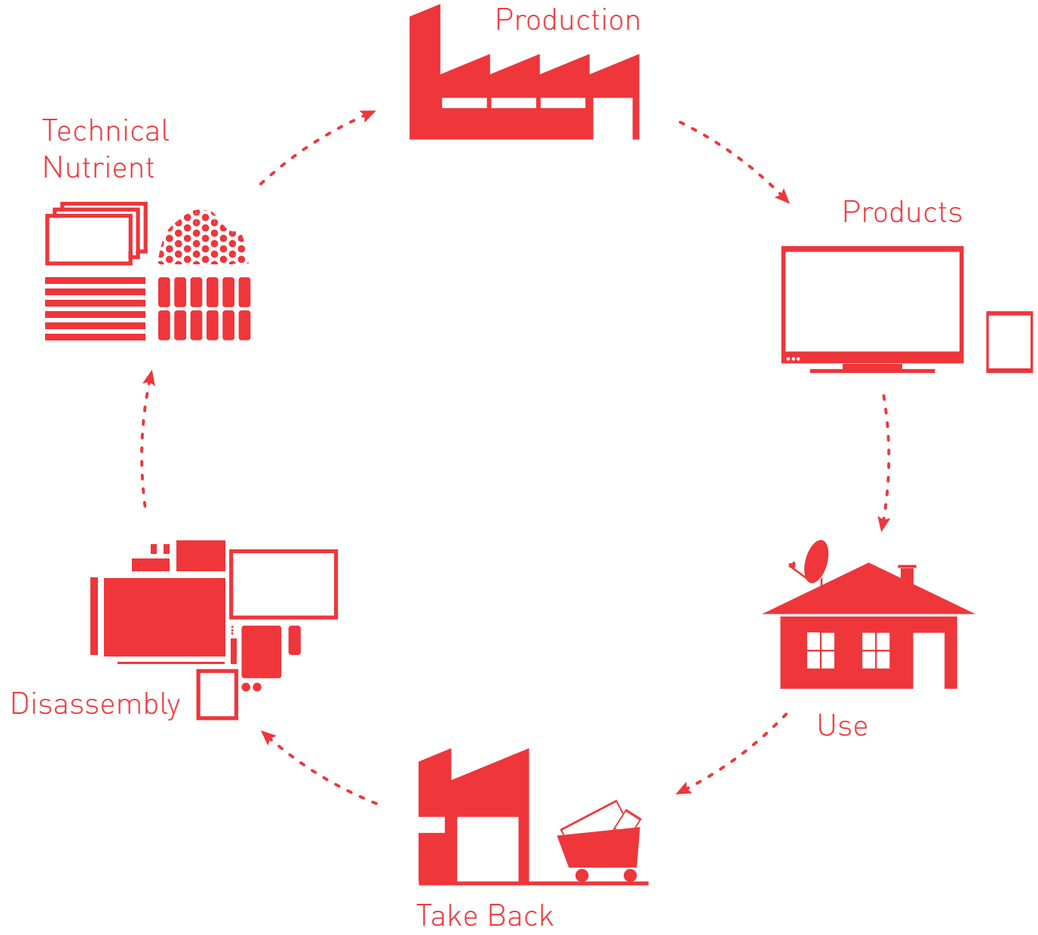
CONFERENCE ON ECODESIGN > THE NEW GREEN DEAL

CLOSING THE LOOP
DESIGN BEYOND PRODUCTDESIGN

Consumer Goods in BIOLOGICAL SYSTEMS



Service Products in TECHNICAL SYSTEMS



CRADLE TO CRADLE
CREATES TRANSPARENCY IN THE SUPPLY CHAIN (>100 PPM (0.01%))
1000 PPM (0.1%)
SAFETY DATA SHEETS (SDS)
100PPM (0.01%)
CRADLE TO CRADLE CERTIFIED™

IDENTIFYING THE BEST MATERIALS
ABC-X CATEGORISATION

Goal: Best quality of raw materials, chemicals and ingredients

Category	Description
A	The material is ideal from a Cradle to Cradle perspective for the product in question.
B	The material supports largely Cradle to Cradle objectives for the product.
C	Moderately problematic properties of the material in terms of quality from a Cradle to Cradle perspective are traced back to the ingredient. The material is still acceptable for use.
X	Highly problematic properties of the material in terms of quality from a Cradle to Cradle perspective are traced back to the ingredient. The optimization of the product requires phasing out this ingredient or material.
GREY	This material cannot be fully assessed due to either lack of complete ingredient formulation, or lack of toxological information for one or more ingredients.
Banned	BANNED FOR USE IN CERTIFIED PRODUCTS This material contains one or more substances from the Banned list and cannot be used in a certified product.

ALPHA THEMES DEFINE OUR FUTURE

CRADLE TO CRADLE® PROVIDES SOLUTIONS

WATER

Chemicals in Water

SEWAGE SLUDGE

Toxiticy

SOIL EROSION

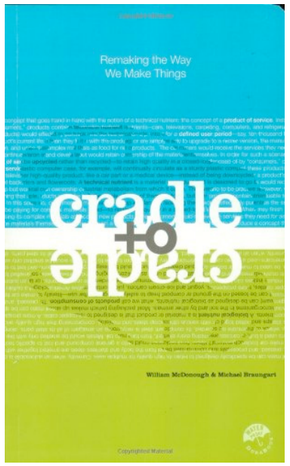
1/3 CO^2 tied up

NUTRIENTS

Raw Materials
Downcycling

RENEWABLE ENERGIES

CRADLE TO CRADLE CERTIFIED™
EVOLUTION OF AN IDEA



2002 — Publication of Cradle to Cradle: Remaking the Way We Make Things

2005 — MBDC creates certification programme **Version 1.0**

2009 — **Version 2.1 launched**

2010 — Institute founded

2012
- Certification Standards Board created
- Additional assement body trained

2013 — **Version 3.0 launched**

2014 — Public standard revision process launched

2020 — **Version 4.0 launched**

CRADLE TO CRADLE CERTIFIED™ CERTIFICATION
CATEGORIES BASED ON PRINCIPLES

EPEA SWITZERLAND

CERTIFIED cradletocradle ACCREDITED ASSESSMENT BODY

	Material Health	Material Reutilization	Renewable Energy	Social Fairness	Water Stewardship
	Select safe and healthy materials and chemicals	Eliminate the concept of waste and design for endless re-use	Power operations with abundant clean and renewable energy	Support and celebrate human and natural systems	Protect and steward water as a precious resource
PRODUCTS PROGRAM					
BASIC					
BRONZE					
SILVER					
GOLD					
PLATINUM					

PRODUCT INNOVATIONS

POLYMER SOLUTIONS FOR MICRO FIBERS & OCEAN PLASTICS

PRODUCT INNOVATIONS

POLYMER SOLUTIONS FOR MICRO FIBERS & OCEAN PLASTICS

European Commission

EU CIRCULAR BUSINESSES CONFERENCE 2018

→ Developing opportunities for innovative polymer plastics, fibers that are safe for biological or technical cycles >100ppm (0.01%) (polymer, additives, catalyst, masterbatch, marker)
→ Marker safe for biological systems
→ Integrate collecting systems, recycling + traceability technologies in product design for a circular economy
→ Industrial composting:
- Economical industrial composting is developed
- Integrate permission from authorities and legislation for industrial products

PROBLEM Biomass – 33% of soil is degraded or used unsustainable due to various reasons

SOLUTION

SHIRTS
solution for micro fiber
biodegradable polymer

DB

INOGEMA

LUXURY FASHION
solution for biodegradable
Elastomer

Wolford

PLASTIC BOTTLES
solution for (ocean-) plastic
biodegradable polymer

BAYONIX®

BAYONIX

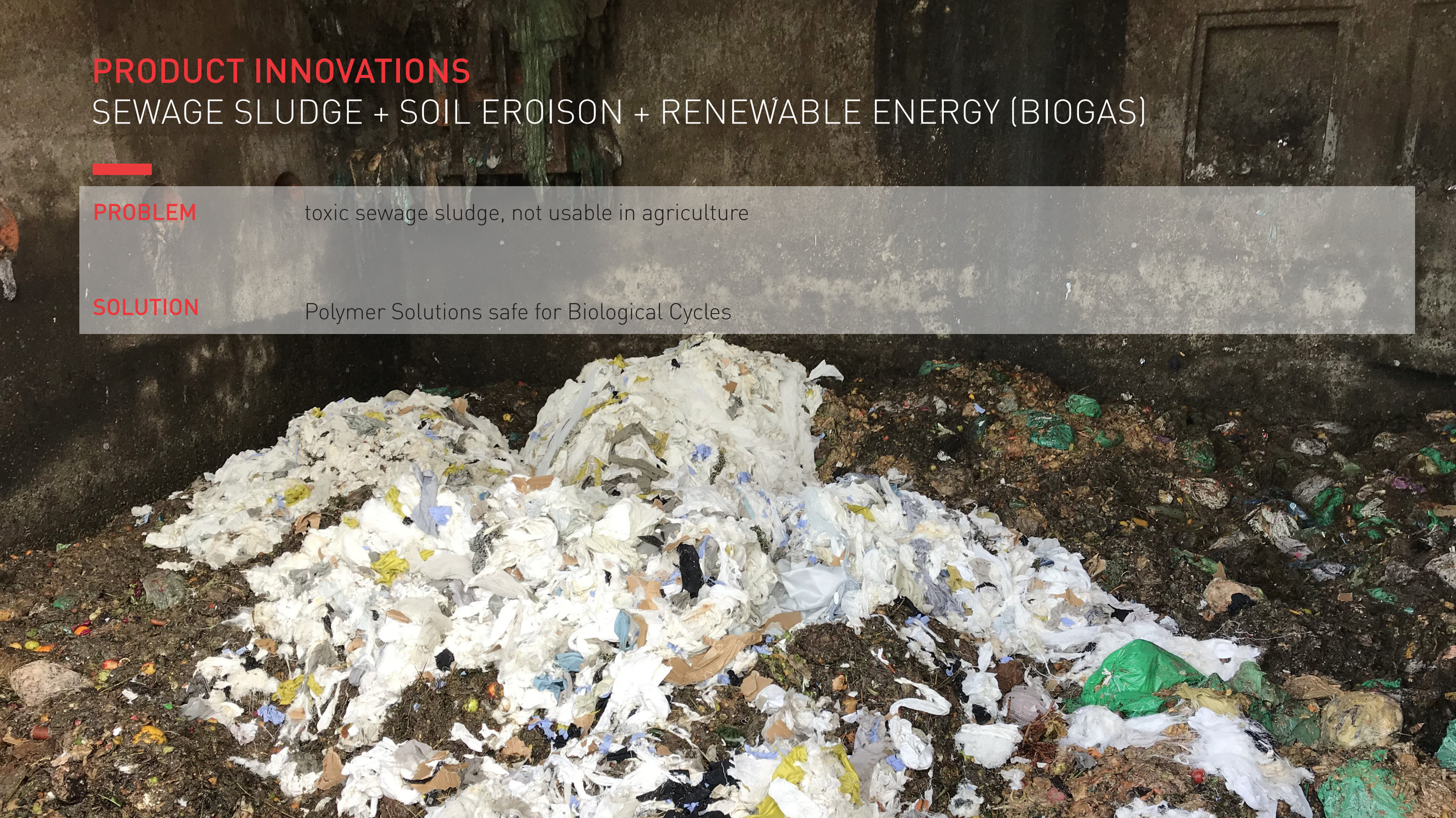
THE DRINKING BOTTLE OF THE FUTURE

www.bayonix.com

PRODUCT INNOVATIONS

SEWAGE SLUDGE + SOIL EROISON + RENEWABLE ENERGY (BIOGAS)

PROBLEM	toxic sewage sludge, not usable in agriculture
SOLUTION	Polymer Solutions safe for Biological Cycles



CLIMATEX® LIFEGUARDFR™
JAB JOSEF ANSTOETZ KG

The Original and first Cradle to Cradle® Product in the world. Upholstery fabrics with climate control seating properties.

Cradle to Cradle Certified Product Scorecard	
MATERIAL HEALTH	Silver
MATERIAL REUTILIZATION	Gold
RENEWABLE ENERGY & CARBON MANAGEMENT	Gold
WATER STEWARDSHIP	Gold
SOCIAL FAIRNESS	Gold
OVERALL CERTIFICATION LEVEL	Silver
What's this?	

CLIMATEX® DUALCYCLE™
JAB JOSEF ANSTOETZ KG

Applications for the Dualcycle fabric collection include upholstered furniture in offices and at home, as well as in the automotive and transportation sectors. This product's patented weaving technology Dualcycle™ combines natural and synthetic fibers that are designed to be separable at end of use.

Cradle to Cradle Certified Product Scorecard	
MATERIAL HEALTH	Silver
MATERIAL REUTILIZATION	Gold
RENEWABLE ENERGY & CARBON MANAGEMENT	Gold
WATER STEWARDSHIP	Gold
SOCIAL FAIRNESS	Gold
OVERALL CERTIFICATION LEVEL	Silver
What's this?	

OCEANSAFE™ - HOMETEXTILES
DECO DESIGN FUERUS GMBH

Fabrics are made from polymer, organic cotton, hemp, linen.
Curtains, Draperies, Bedspreads, Cushion Covers, Upholstery Fabrics, Terry Towels, Table Cloths, Kitchen Cloths.

Cradle to Cradle Certified Product Scorecard	
MATERIAL HEALTH	Platinum
MATERIAL REUTILIZATION	Gold
RENEWABLE ENERGY & CARBON MANAGEMENT	Gold
WATER STEWARDSHIP	Gold
SOCIAL FAIRNESS	Gold
OVERALL CERTIFICATION LEVEL	Gold
What's this?	

OCEANSAFE™ - FABRICS

OCEANSAFE AG

Hometextiles are made out of 100% Cotton, woven, dyed, finished, manufactured in Turkey.

Cradle to Cradle Certified Product Scorecard	
MATERIAL HEALTH	Platinum
MATERIAL REUTILIZATION	Gold
RENEWABLE ENERGY & CARBON MANAGEMENT	Gold
WATER STEWARDSHIP	Gold
SOCIAL FAIRNESS	Gold
OVERALL CERTIFICATION LEVEL	Gold
What's this?	

BEDLINEN AND HOME TEXTILES

MARY ROSE

Bedlinen & Hometextiles are made out of cotton.
Home textiles: Pillowcases, blankets, terry towels and tablecloths, bedding, terrycloth and drapes.

Cradle to Cradle Certified Product Scorecard	
MATERIAL HEALTH	Platinum
MATERIAL REUTILIZATION	Gold
RENEWABLE ENERGY & CARBON MANAGEMENT	Gold
WATER STEWARDSHIP	Gold
SOCIAL FAIRNESS	Platinum
OVERALL CERTIFICATION LEVEL	Gold
What's this?	

HOME TEXTILES ATELIER GREEN FABRICS

PFISTER VORHANG SERVICE AG

Home Textiles Atelier Green Fabrics for home furnishings are dyed with Cradle to Cradle Certified dye chemicals and auxiliaries. All components like sewing yarn, sliders (3D printing), heavyweight ribbon are made from vintatur polymer. The Home Textiles Atelier Green Fabrics are designed to be safe for biological cylces.

Cradle to Cradle Certified Product Scorecard	
MATERIAL HEALTH	Platinum
MATERIAL REUTILIZATION	Gold
RENEWABLE ENERGY & CARBON MANAGEMENT	Gold
WATER STEWARDSHIP	Gold
SOCIAL FAIRNESS	Gold
OVERALL CERTIFICATION LEVEL	Gold
What's this?	

MANUFAKTUR GREEN FABRICS SWISS HOMETEXTILES
PFISTER VORHANG SERVICE AG

Manufaktur Green Fabrics Swiss Home Textiles. Materials include - Swiss-Silk, Swiss-Linen and Swiss-Fishleather, Swiss-Manufacturing, dyeing and finishing. All fabrics are safe for biological cycles.

Cradle to Cradle Certified Product Scorecard	
MATERIAL HEALTH	Platinum
MATERIAL REUTILIZATION	Gold
RENEWABLE ENERGY & CARBON MANAGEMENT	Gold
WATER STEWARDSHIP	Gold
SOCIAL FAIRNESS	Gold
OVERALL CERTIFICATION LEVEL	Gold
What's this?	

PFISTER FR HOMETEXTILES

PFISTER VORHANG SERVICE AG

Pfister FR Hometextiles Flameretardent Fabrics from Pfister FR are antimony free and designed to pass contract and residential requirements.

Cradle to Cradle Certified Product Scorecard	
MATERIAL HEALTH	Platinum
MATERIAL REUTILIZATION	Gold
RENEWABLE ENERGY & CARBON MANAGEMENT	Gold
WATER STEWARDSHIP	Gold
SOCIAL FAIRNESS	Gold
OVERALL CERTIFICATION LEVEL	Gold
What's this?	

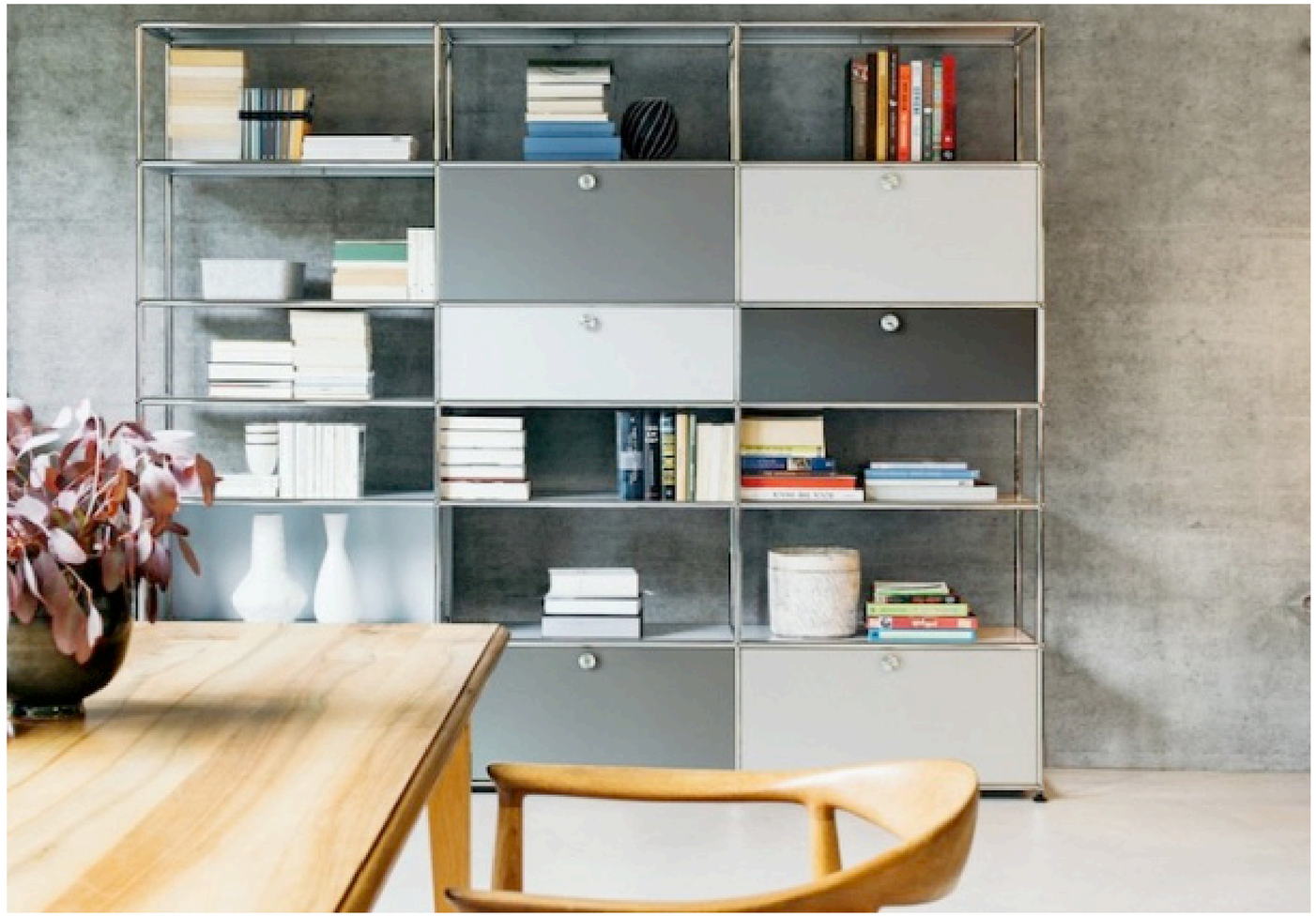
USM HALLER

USM U. SCHAERER SOEHNE AG

CERTIFIED cradletocradle BRONZE

USM Haller is a shelving and storage system designed for solid construction, flexible functionality, and timeless aesthetics. Spatial or structural changes, optimized work processes, technical developments; USM Haller is designed to be adaptable and expand to your future work spaces.

Cradle to Cradle Certified Product Scorecard	
MATERIAL HEALTH	Bronze
MATERIAL REUTILIZATION	Gold
RENEWABLE ENERGY & CARBON MANAGEMENT	Bronze
WATER STEWARDSHIP	Silver
SOCIAL FAIRNESS	Gold
OVERALL CERTIFICATION LEVEL	Bronze
What's this?	



CLEVERPARK SILENTE, MULTIPARK SILENTE
BAUWERK PARQUET

Bauwerk Cleverpark Silente and Multipark Silente featuring the new Silente technology is a flooring solution designed to reduce footfall sound, combining the Cleverpark and Multipark series with Bauwerk's patented Silente footfall and impact sound insulation. The Silente technology acts as a separating layer, which is designed to facilitate dismantling if the floor is to be taken out.

Cradle to Cradle Certified Product Scorecard	
MATERIAL HEALTH	Platinum
MATERIAL REUTILIZATION	Gold
RENEWABLE ENERGY & CARBON MANAGEMENT	Gold
WATER STEWARDSHIP	Gold
SOCIAL FAIRNESS	Gold
OVERALL CERTIFICATION LEVEL	Gold
What's this?	

PU FLOORING SYSTEM
WINDMÖLLER GMBH

PU Flooring System
The floor coverings, unique structures and resistant surfaces from Windmöller GmbH are product solutions in the area of elastic floor coverings.

Cradle to Cradle Certified Product Scorecard	
MATERIAL HEALTH	Silver
MATERIAL REUTILIZATION	Gold
RENEWABLE ENERGY & CARBON MANAGEMENT	Gold
WATER STEWARDSHIP	Silver
SOCIAL FAIRNESS	Gold
OVERALL CERTIFICATION LEVEL	Silver
What's this?	

EPEA SWITZERLAND

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Cradle to Cradle® Products Innovation Institute

http://c2ccertified.org

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