CRADLE TO CRADLE
PRODUCTS
INNOVATION
INSTITUTE

CRADLE TO CRADLE CERTIFIED™: Designing and making the products of tomorrow

100 Gruppen

15 October 2020

The new **Circular Economy Action Plan** presents new initiatives along the entire life cycle of products in order to modernise and transform our economy while protecting the environment. It is driven by the ambition to make sustainable products that last and to enable our citizens to take full part in the circular economy and benefit from the positive change that it brings about.

SUSTAINABLE DEVELOPMENT GOALS

Government Offices of Sweden

Press release from Ministry of Enterprise and Innovation, Ministry of the Environment

Sweden transitioning to a circular economy

Published 09 July 2020

The Government has adopted a national strategy for a circular economy that sets out the direction and ambition for a long-term and sustainable transition of Swedish society. This is an important step towards Sweden becoming the world's first fossil-free welfare nation.

Our Vision

A world where safe materials and products are designed and manufactured in a prosperous, circular economy to maximize health and wellbeing for people and planet.

CRADLE TO CRADLE CERTIFIED™ v4

World's most advanced, science-based standard for safe, circular and responsibly made materials and products.

Global and multi-attribute

Verified assessment and certification

CRADLE TO CRADLE CERTIFIED™ v4

- **Comprehensive** and **rigorous,** yet **achievable**
- Represents **Cradle to Cradle principles in practice**
- **Measurable optimization pathway** to inspire innovation & development of safe and circular products
- Verifies products for the **Circular Economy**
- Global framework for demonstrating **leadership** and driving **systems change**

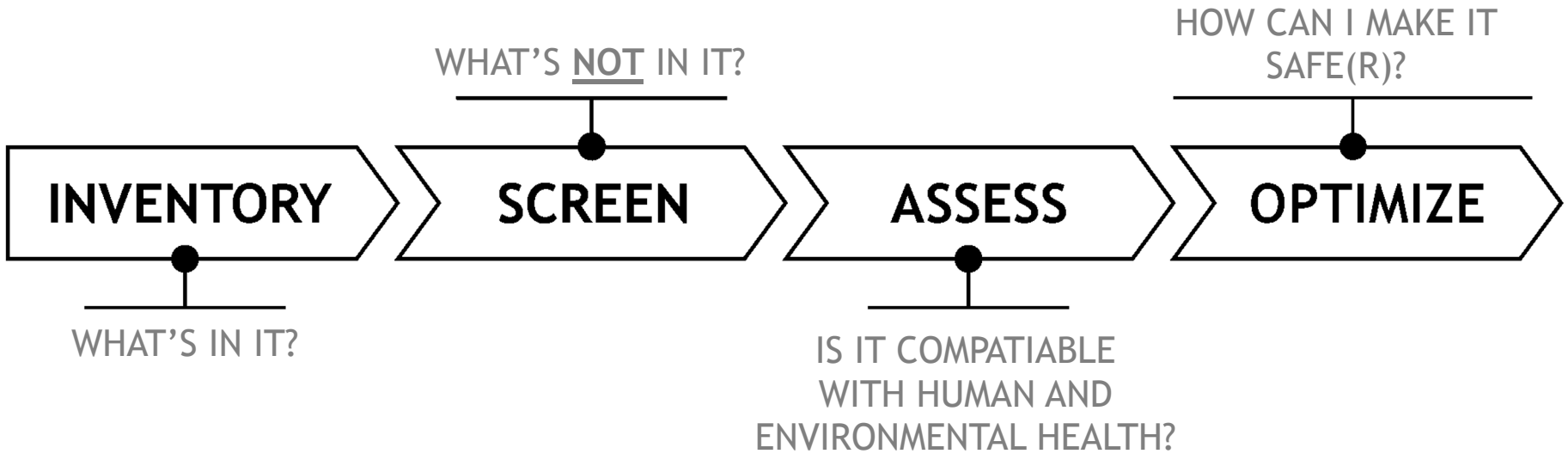
A PATHWAY TO MEASURABLE IMPROVEMENTS AND INNOVATION

CRADLE TO CRADLE CERTIFIED™ VERSION 4

Ensure materials are safe for humans and the environment

MATERIAL HEALTH FOCUS AREAS

OBJECTIVE: *Chemicals and materials used in the product are selected to prioritize the protection of human health and the environment, generating a positive impact on the quality of materials available for future use and cycling.*



VERSION 4 WILL ENABLE YOU TO:

1) **Screen - Go beyond chemical regulations**.
   - Comply with and stay ahead of leading international chemical regulations**.**
2) **Inventory & Assess – Understand the chemistry of your product.**
   - Fully define the chemical composition of each material.
   - Comprehensively assess the toxicological properties of each substance in the material/product context.
3) **Optimize product and process chemistry without making regrettable substitutions**.
   - Identify & eliminate chemicals of concern, while verifying that alternatives are compatible with human and environmental health.
   - Develop an actionable strategy to address toxic emissions in the supply chain.

2ND DRAFT V4 Material Health Requirements

BRONZE	• Product is in compliance with Restricted Substances List (RSL) • Product does not contain organohalogen substances of special concern • Product is 75% assessed & 100% characterized by generic material • Strategy developed to phase-out or assess/optimize all unassessed and problematic chemicals
SILVER	• Product is 95% assessed • Product does not contain materials with > 1% C-bonded halogen by weight, recognized PBTs, vPvBs, Cat.1 & 2 CMRs posing risk, or substances causing an equivalent level of concern • Product has low VOC emissions (for products permanently installed in buildings) • Product complies with VOC content limits (for liquid/aerosol consumer & construction products)
GOLD	• All chemicals and materials subject to review in the product are assessed (100%) • Product is fully optimized (all chemicals are compatible with human & environmental health) • Product has very low VOC emissions or is inherently non-emitting • Strategy developed to increase the percentage of preferred materials and chemicals in the product or optimize supply chain chemistry.

PLATINUM	• All product-relevant process chemicals are assessed as compatible with human & environmental health
	• ≥ 50% of the product by weight is assessed as preferable for human and environmental health
	• Toxic emissions in the supply chain are addressed by either:
	  ○ ≥ 75%/50% Gold or Platinum level MHC/Cradle to Cradle Certified/equivalent inputs + strategy to increase percentages over time OR
	  ○ Environmental & human health impact hotspot LCA + strategy to address identified hotspots

CRADLE TO CRADLE CERTIFIED™ VERSION 4

Enable a circular economy through product and process design

PRODUCT CIRCULARITY

***OBJECTIVE**: Products are intentionally designed for their next use and are actively cycled in their intended cycling pathways.*

Circular Sourcing	Circular Design	Circular Systems
% Cycled or renewable content	Designed with cycling in mind	Circularity Data Report & Cycling Instructions
	Circular design opportunities	Active cycling
	Designed for disassembly	

VERSION 4 WILL ENABLE YOU TO:

1) **Circular Sourcing – Maximize inputs from circular streams.**
   - Show success in incorporating materials from recycling streams and/or responsibly sourced renewable content, increase the demand for such materials and “closing the loop” before the product even leaves the factory gate.

2) **Circular Design – Design products with cycling in mind.**
   - Identify appropriate cycling pathways for product and materials.
   - Select materials with high cycling capacity and value.
   - Design your product to make it compatible with intended cycling pathways.

3) **Circular Systems – Ensure product cycling.**
   - Understand the technical and systemic limitations for cycling the product and its materials
   - Provide the necessary information to product users to enhance cycling potential
   - Develop/support the systems that will ensure cycling of the product after use.

2nd DRAFT V4 Product Circularity Requirements

BRONZE	• Applicant is involved in a circularity education initiative • Intended cycling pathway(s) for the product and its materials are defined • Plan for improving cycling infrastructure; cycling partnerships identified • Meets level-specific product/material targets for % cycled or renewable content (targets increase through Platinum) Alternative: limitations are publicly reported • ≥ 50% materials by weight are compatible with intended cycling pathway(s) • Circularity data and cycling instructions are publicly available
SILVER	• Cycling partnership(s) initiated • ≥ 70% materials by weight are compatible with intended cycling pathway(s) • Strategy for improving product circularity is developed
GOLD	• ≥ 90% materials by weight are compatible with intended cycling pathway(s) • Materials compatible for high value cycling • Circular design opportunity implemented • Product designed for disassembly (if relevant) • The product is actively cycled and/or a program is implemented to increase the cycling rate or quality of the product's materials after use (also applies at Platinum)
PLATINUM	• At least two intended cycling pathways are defined for the product and its materials • ≥ 99% materials by weight are compatible with intended cycling method(s) • A minimum amount of product is actively cycled • Monitoring program to track cycling rates/quality and an increase in cumulative rate/quality is demonstrated

CRADLE TO CRADLE CERTIFIED™ VERSION 4

Safeguard climate, air, water and soil

CLEAN AIR & CLIMATE PROTECTION FOCUS AREAS

***OBJECTIVE**: Product manufacturing results in a positive impact on air quality, the renewable energy supply, and the balance of climate changing greenhouse gases.*

1) **Quantifying and Disclosing** energy use and greenhouse gas emissions.

2) **Taking Action** to use renewable energy, and address greenhouse gas emissions and air quality.

VERSION 4 WILL ENABLE YOU TO:

1) **Quantify & Disclose**
   - Understand the magnitude of impacts and create a baseline from which improvements can be made.
   - Demonstrate commitment, enable accountability, and provide useful data.
2) **Take Action -** Contribute to achieving the shared goals of increased renewable energy supply, clean air, greenhouse gas emissions reductions, and stable climate.
   - Make high quality electricity, fuel, and carbon offset purchasing choices.
   - Employ efficiency measures to reduce energy use and emissions.
   - Directly increase the share of clean renewable electricity available on the grid for all to use.
   - Positively impact the balance of climate changing greenhouse gases.

2nd DRAFT V4 Clean Air & Climate Protection Requirements

BRONZE	• Air emissions compliance • Electricity use & greenhouse gas emissions quantified (final manufacturing) • Strategy • 5% renewable and/or offset (final manufacturing) • Optional: Performance improvement credit, support of climate relevant public policy initiative (apply through Gold level); bioenergy credit (applies at any level) • Energy efficiency certification or label for select product types (e.g. for appliances and windows) • Transparency – final manufacturing stage emissions
SILVER	• Embodied emissions quantified • 20% renewable and/or offset (final manufacturing)
GOLD	• Embodied emissions: 3rd party critical review (required for construction/building products at Gold; required for all at Platinum) • 50% renewable and/or offset (final manufacturing) • 50% of renewable electricity used to meet the target is produced on-site or procured via long term PPA • Transparency – embodied emissions, with EPD for construction/building products • Foam blowing agents – low GWP and ODP • 25% of embodied emissions addressed (cradle to gate at minimum)
PLATINUM	• > 100% renewable and/or offset (final manufacturing). Offsets used only for non-energy emissions. Renewable electricity produced on-site or procured via long term PPAs • 100% of embodied emissions addressed (cradle to gate at minimum)

CRADLE TO CRADLE CERTIFIED™ VERSION 4

Safeguard climate, air, water and soil

WATER & SOIL STEWARDSHIP FOCUS AREAS

OBJECTIVE: *Water and soil are treated as precious and shared resources. Watersheds and soil ecosystems are protected, and clean water and healthy soils are available to people and all other organisms.*

1) **Quantifying, Qualifying, and Disclosing** water use and effluent/sludge quality.

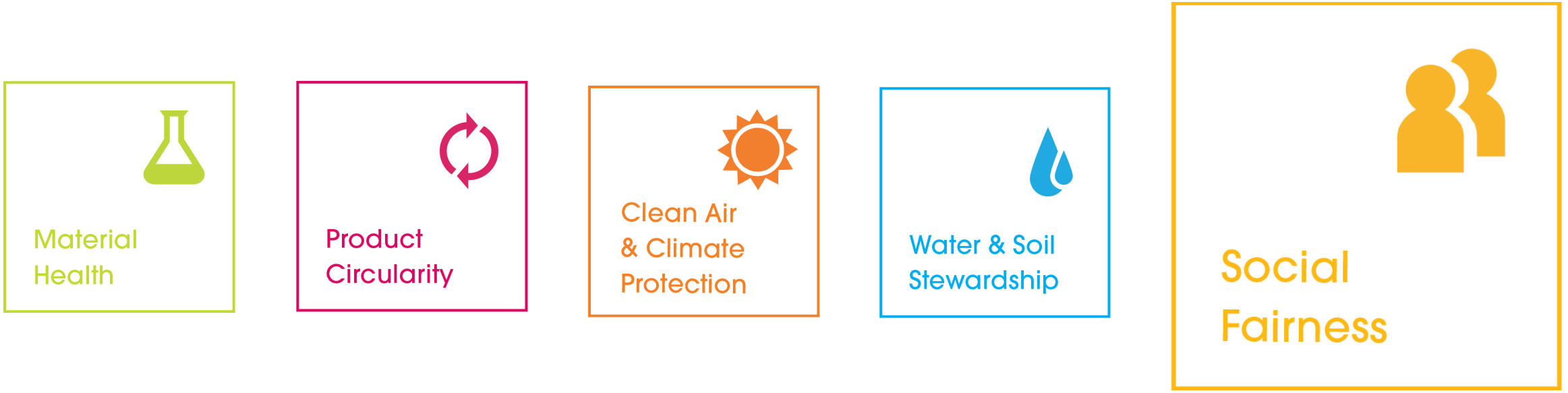
2) **Taking Action** to provide clean drinking water, produce high quality effluent and sludge, and conserve water and soil.

VERSION 4 WILL ENABLE YOU TO:

1) **Quantify, Qualify, and Disclose**
    - Understand impacts within the local context and provide the baseline from which improvements will be made.
    - Demonstrate commitment, enable accountability, and provide useful data.
2) **Take Action** – Contribute to achieving the shared goals of clean water and healthy soils for all
    - Optimize the chemistry of effluent and sludge using the C2C Material Health Assessment Methodology.
    - Implement best practices and technologies where most needed to conserve and protect water and soils.
    - Provide drinking water, sanitation, and hygiene.

2nd DRAFT V4 Water and Soil Stewardship Requirements

BRONZE	• Water and soil issues characterized • Effluent quality compliance • Product-relevant chemicals in effluent/sludge – comply with Core RSL • Water use quantified • Drinking water, sanitation, and hygiene provided • Strategy to achieve Silver level water and soil conservation requirements including water use reduction targets for high stress final manufacturing locations
SILVER	• Effluent quality compliance – tier 1 suppliers of key materials w/pollutant intense processes • Strategy implemented + new strategy to achieve Gold level water and soil conservation requirements • Product-relevant process chemicals in effluent/sludge – defined and assessed • Product-relevant chemicals in effluent/sludge – no CMRs, PBTs, vPvBs, or equivalent concern • Transparency: Water use data
GOLD	• Silver level water and soil conservation strategy implemented, including actions to conserve water and/or soil where the highest impacts were expected (applies to final manufacturing and supply chain) • Product relevant chemicals in effluent/sludge - optimized • Water and/or soil stewardship positive impact project
PLATINUM	• Transparency: Water quality data • Impact of positive impact project demonstrated • All effluent/sludge: Quality management & optimization (or closed loop at facility)



CRADLE TO CRADLE CERTIFIED™ VERSION 4

Uphold human rights and contribute to a fair and equitable society

SOCIAL FAIRNESS FOCUS AREAS

***OBJECTIVE**: Companies are committed to upholding human rights and applying fair and equitable business practices.*

1) **Upholding fundamental human rights** in company operations and the value chain of the certified product.
2) **Contributing to a fair and equitable society.**

VERSION 4 WILL ENABLE YOU TO:

1) **Uphold fundamental human rights**
    - Develop an understanding of salient human rights risks.
    - Build international standards for upholding human rights into company policy and management systems.
2) **Contribute to a fair and equitable society**
    - Demonstrate commitment and enable accountability by being transparent and engaging with stakeholders.
    - Positively impact employees' lives, the local community, and social aspects within the certified product’s value chain.

2nd DRAFT V4 Social Fairness Requirements

BRONZE	• Human rights risk assessment for applicant company through tier 1 • Human rights policy based on international standards and risk assessment • Strategy for policy implementation, including performance objectives • Performance measured, corrective actions planned, and progress at renewal (applicant and final manufacturing) • Select corrective actions complete, e.g. child or forced labor, structural safety • Executive commitment to achieving high levels of performance
SILVER	• Performance data requested from tier 1 suppliers in high-risk locations, corrective actions planned and tracked • Performance data analyzed to measure progress on achieving strategy • Management systems for implementation and oversight of policy • Grievance mechanism (applicant) • Positive social impact project
GOLD	• Human rights risks assessed for product components and raw materials • Certified materials to address risk of child labor, forced labor, or conflict • Responsible sourcing management system • Grievance mechanism (contract manufacturing) • Positive social impact project – impact assessment • Open, transparent governance and reporting; stakeholder engagement and feedback informs strategy
PLAT	• Collaboration to solve an intractable social issue • Diverse, inclusive, engaged work environment and living wage

ege®

DANSK WILTON

Troldtekt®

pasavværk
Træ siden 1885

CERTIFIED cradle to cradle BRONZE

PREMIUM CARPET COLLECTION

CERTIFIED cradle to cradle SILVER

COLORTEC RETHINK+ CARPET SOLUTION

CERTIFIED cradle to cradle SILVER

ACCOUSTIC CEILING PANELS

CERTIFIED cradle to cradle SILVER

WOOD FLOORING SERIES

convert

SEAWEED INSULATION

KALK®
– Build lasting culture

WALL & FAÇADE
LIME-BASED PAINT

KE FIBERTEC

CRADLEVENT®
VENTILATION DUCT

CURRENT ALIGNMENT & RECOGNITION IN BUILDING SCHEMES

WELLv2™

BREEAM®
delivered by bre

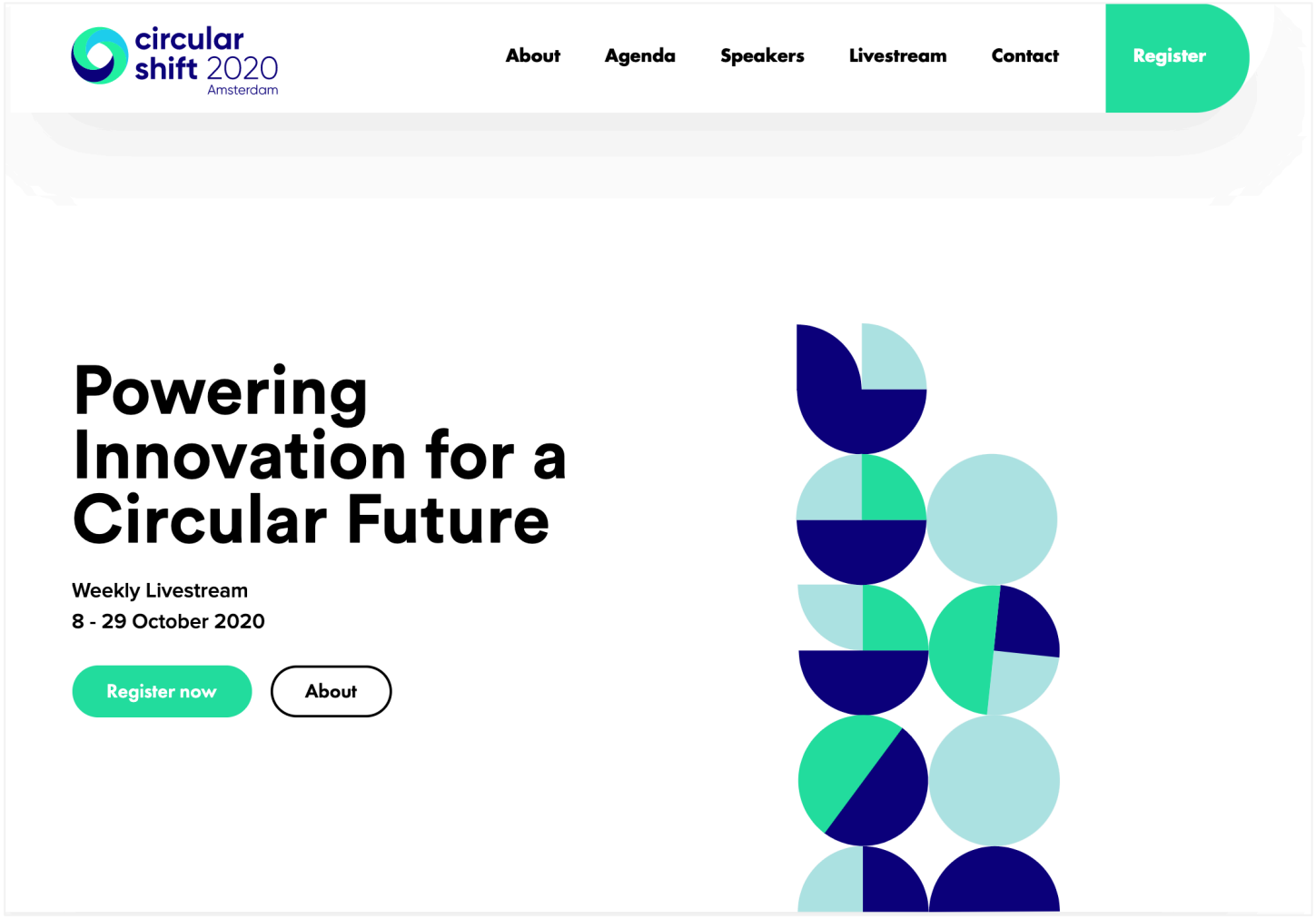
In progress

DGNB System

In progress

CIRCULAR SHIFT 2020 – VIRTUAL

www.circular-shift.com



THANK YOU

c2ccertified.org

c2ccertified.org/products/registry