

Cradle to Cradle



ARCTIC PAPER



A wide-angle photograph of a coastal landscape. The foreground is dominated by a large, flat expanse of light blue ice or snow, which transitions into a deep blue body of water. In the middle ground, there are several large, dark grey rock formations scattered across the water. The background shows a clear, light blue sky and more distant landmasses with similar rocky terrain. The overall scene is serene and natural.

Sustainability at Arctic Paper

Giving back to nature through a Circular Economy

Arctic Paper has long been committed to creating a positive connection between design and nature

We continuously strive to align the industrial production of our papers – for design, publishing, graphics and packaging – with best practices for the environment and ecological requirements.



Some of the steps we've taken at Arctic Paper Munkedal

- Our first paper made with chlorine-free pulp was launched in the 1990s
- We began producing FSC® certified paper ranges at the start of this millennium
- We developed a production process with extremely low water consumption



Some of the steps we've taken at Arctic Paper Grycksbo

- We were one of the first Swedish industries certified (2007) in accordance with the European environmental management system EMAS
- We have been running an extremely low fossil CO₂ emissions production for over ten years
- We launched paper grades certified for the safety of toys as long as twenty years ago



Our recent energy investments

- Modernisation of bio energy plant at Arctic Paper Grycksbo
- Modernisation of hydro power plant at Arctic Paper Munkedals and new multi fuel boiler close to the mill
- Installation of solar energy farm at Arctic Paper Kostrzyn



Arctic Paper Munkedals

Arctic Paper has taken several steps towards creating a more harmonious relationship between industrial production and the environment

Certificates and labels	Arctic Paper Munkedals	Arctic Paper Kostrzyn	Arctic Paper Grycksbo
EMAS	✓	✓	✓
Paper Profile	✓	✓	✓
Nordic Ecolabel (Svanen) ¹			✓
Eco Vadis (rated)	✓	✓	
EU Ecolabel (EU Flower)	✓		
Book Chain Project ²	✓	✓	✓

1: as controlled material

2: former PREPS

July 2020

Arctic Paper Munkedals is the first mill worldwide to have successfully completed the Cradle to Cradle Certified® certification for an entire paper range.

April 2021

Just eight months later, Arctic Paper Grycksbo followed suit and has now also successfully completed the Cradle to Cradle Certified® certification.



What is:
Cradle to Cradle

The Cradle to Cradle (C2C) concept

Defined by Michael Braungart (chemist) and William McDonough (architect) in the late nineties, the C2C concept was intended to create an integrated and consistent **Circular Economy** approach.*

Beyond simply reducing waste and minimising our ecological footprint, the **idea was much bigger**: to develop safe products which can be reused (**upcycling** instead of downcycling) – resulting in a **positive footprint**. Instead of waste, we create **nutrients**.

*Book: Cradle to Cradle: Remaking the Way we Make Things.

Expanding on the C2C philosophy

Other targets of the C2C principle include renewable energy usage and social fairness – which ensures that sustainable business is practiced beyond just the corporate office and protects all employees, customers, community members and the environment.

Of course, like almost everything, **economy is a process**, which means Cradle to Cradle Certified® certification must be renewed every 2 years and processes must be continually improved so we can come closer and closer to a true Circular Economy.

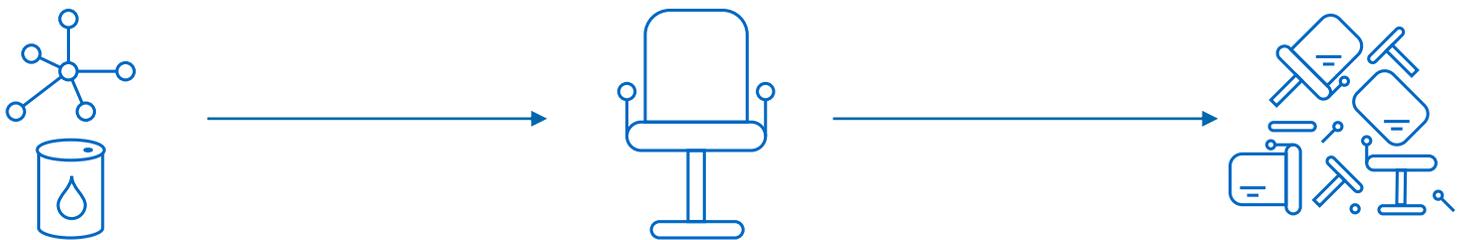
Cradle to Cradle Certified® is a certification mark licensed by the Cradle to Cradle Products Innovation Institute.

An aerial photograph of a large, winding lake with several forested islands. The water is a deep blue, and the surrounding land is covered in dense green trees. In the distance, a dam is visible on the right side of the lake. The text is overlaid on the left side of the image.

The classic
Linear economy
vs.
The modern
Circular economy

The classic linear economy

The linear economy = the classic way to produce and distribute products.



Takes raw materials,

makes products,

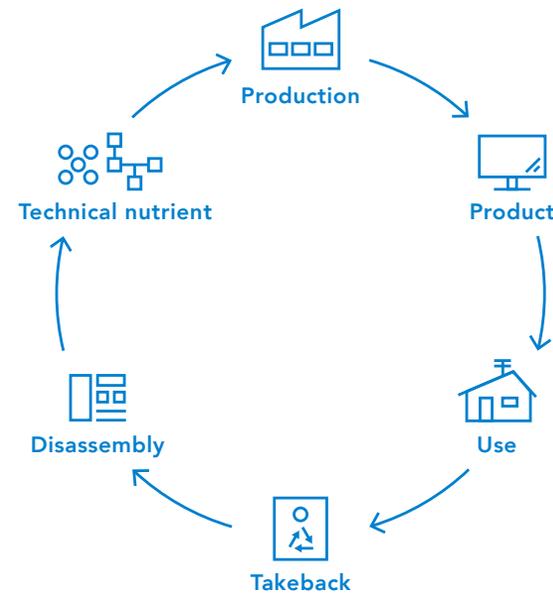
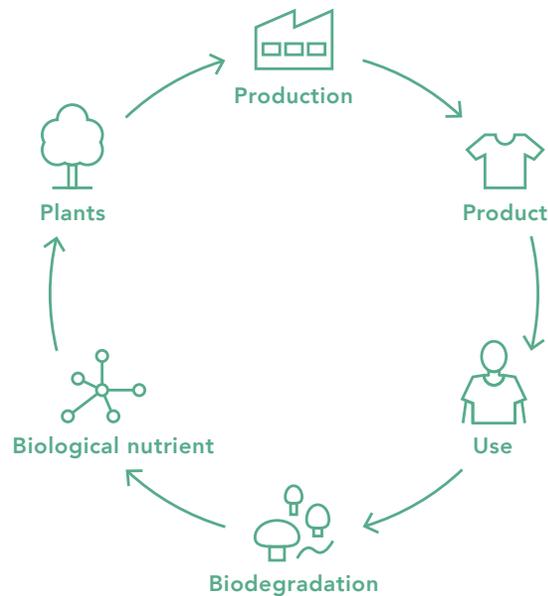
leaves **WASTE**

Materials are not properly defined. The process includes possible risks to the environment and health and is not optimised for circularity.

The modern Circular Economy

C2C rethinks the economy in two cycles:

Biological cycle:
Consumption products, mainly based on biodegradable or compostable materials, which can safely return to the biosphere after use.



Technical cycle:
Service Products, whose materials ideally can be reused (if possible upcycled) infinitely.

All materials and chemicals are defined and a holistic material identity is achieved.

Cradle to Cradle Certified® certification: two approaches

The **Material Health Certificate (MHC)** enables manufacturers to assess and verify only the material health of their own products in line with the Cradle to Cradle Certified® Product Standard.

Full certification under the Cradle to Cradle Certified® Product Standard takes a bigger scope, going beyond the product to look at the process, including:



Cradle to Cradle Certified®

Certifications come with a product scorecard for the 5 different criteria.

Scores are noted as: Basic, Bronze, Silver, Gold or Platinum.

The **lowest score for any part of the process determines the overall level** of the product.

The **Material Health Certificate** also uses the same scoring system from Bronze to Platinum.*

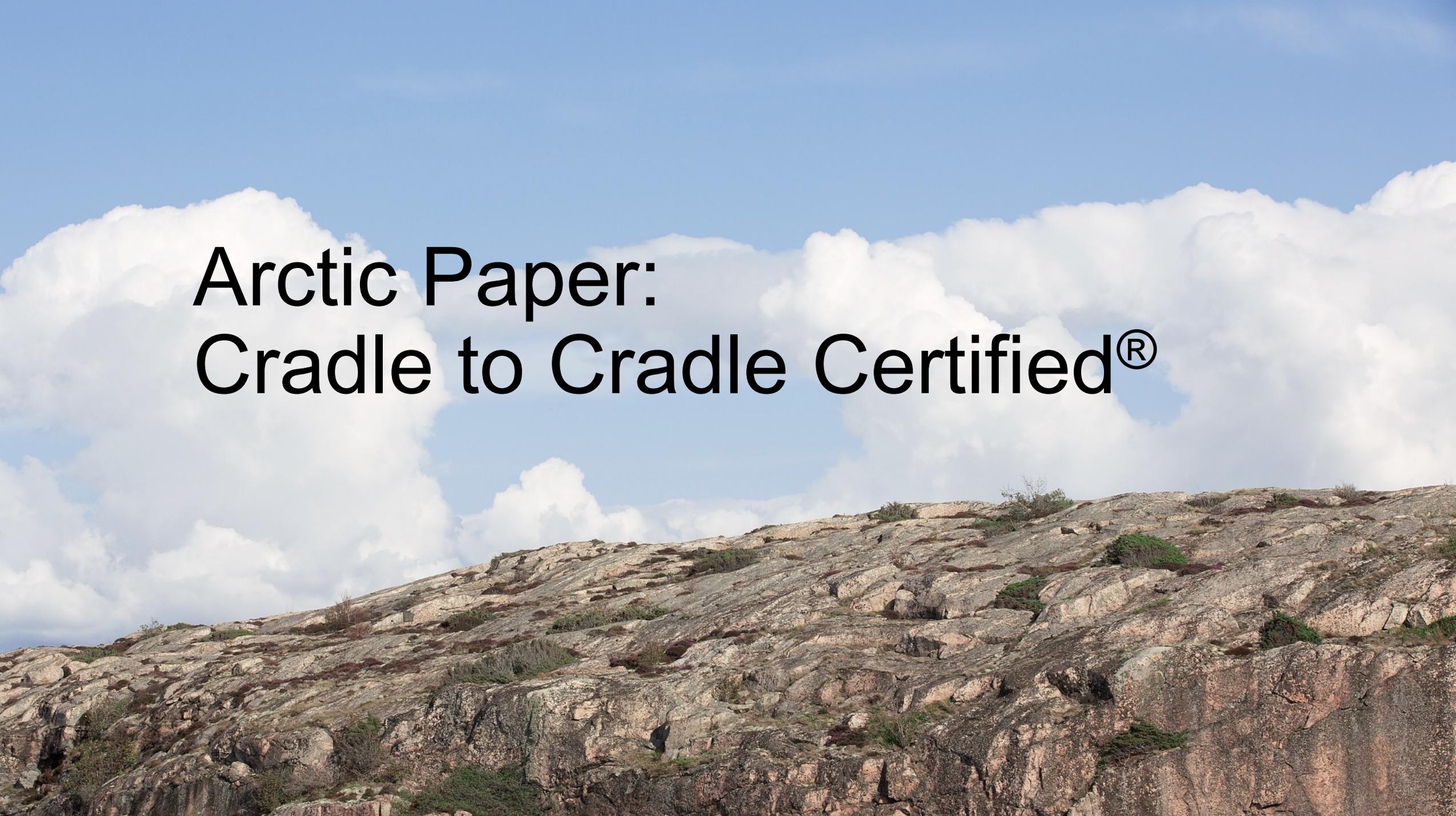
* Materials/chemicals must therefore comply with the “Banned Chemicals List” of the Cradle to Cradle Certified® Product Standard.



Product Scorecard:



= Overall certification level

A wide-angle photograph of a rugged, rocky mountain slope. The foreground and middle ground are dominated by large, light-colored rock formations with some sparse, low-lying vegetation. The background shows a clear blue sky with scattered white cumulus clouds. The overall scene is bright and natural.

Arctic Paper: Cradle to Cradle Certified®

We believe in transparency

At Arctic Paper, we are proud that **our process is fully transparent.**

- We identify which of our products have been certified
- We show what level of certification each part of our process has achieved
- All our products are tested and analysed, including all pre-materials

Cradle to Cradle Certified® certification + UN Sustainable Development Goals (SDGs)

The UN defines 17 UN SDGs in the 'Transforming Our World – 2030 Agenda for Sustainable Development'

Arctic Paper concentrates on the following 6:



They are corresponding with the 5 C2C goals:



Level of Certification

Based on the 5 C2C criteria, Arctic Paper **Munkedals** has achieved:



Level of Certification

Based on the 5 C2C criteria, Arctic Paper **Grycksbo** has achieved:



Uncoated graphical products & C2C Certified[®] certification

Certificates

Cradle to Cradle Certified[®]
certification at Bronze level

C2C Material Health
Certificate at Silver level

Munken Design Range¹

APM*

APM

Munken Book Range

APM

APM

Amber Graphic

APM

APM/APK**

1: Not Munken Design ID with special
Surface treatment for HP Indigo

* APM = Arctic Paper Munkedals

** APK = Arctic Paper Kostrzyn

Coated graphical products & C2C Certified[®] certification

Certificates

Cradle to Cradle Certified[®]
certification at Silver level

C2C Material Health
Certificate at Silver level

Arctic Volume White

APG*

APG

Arctic Volume Ice

APG

APG

G-Print

APG

APG

G-Silk

APG

APG

G-Snow

APG

APG

* APG = Arctic Paper Grycksbo

Packaging products & C2C Certified[®] certification

Certificates

Cradle to Cradle Certified[®]
certification at Bronze level

C2C Material Health
Certificate at Silver level

Munken Kraft

APM*

APM/APK**

Cradle to Cradle Certified[®]
certification at Silver level

C2C Material Health
Certificate at Silver level

G-Flexmatt

APG***

APG

* APM = Arctic Paper Munkedals

** APK = Arctic Paper Kostrzyn

*** APG = Arctic Paper Grycksbo



End-products that work
with C2C paper

C2C: Both easy and complex

Easy enough: If you can prove you have bought a Cradle to Cradle Certified® product, that's all you need. Things don't get complicated, like invoice adjustments, as with FSC®.

And yet complicated: use of the Cradle to Cradle Certified® logo is highly regulated to avoid misuse.

Two examples for end-product Cradle to Cradle Certified® certification usage



1. If a company (e.g. printer, publisher, brand owner) is **certifying their own products**:

The Material Health Certificate (MHC) – from both production sites in Munkedal, Grycksbo and Kostrzyn – can be used to reach the certification level of the end-product.



2. If a company is not certifying their own products but simply **using Cradle to Cradle Certified® products** from Arctic Paper:

They may include notice that the paper they use for their product has been Cradle to Cradle Certified®.

For specific questions and rules of use please check with Arctic Paper: C2C regulations are always in discussion and subject to change at any time.

C2C or Recycling: which one and why?

Cradle to Cradle Certified® products provide the perfect basis for determining recycling grades because of well-defined materials. In the best scenario, upcycling would be achieved.

It's not a competition

Cradle to Cradle Certified® products made of virgin materials and recycled products both have their advantages. In some cases, recycled materials are great for substituting virgin (and especially non-renewable) materials. Other times, you need virgin fibres to ensure quality paper grades, specific paper shades and product stability: in these cases, a Cradle to Cradle Certified® process guarantees no production waste in a Circular Economy.

(Cradle to Cradle Certified® papers create best-possible circularity in combination with other C2C materials like ink, glue, etc. in order to guarantee ideal results in technical and biological cycles.)

An aerial photograph of a dense forest, likely a coniferous forest, with a road cutting through it. The trees are mostly green, but there are several dead, grey trees scattered throughout. The text "Why do we do it?" is overlaid in white, sans-serif font on the left side of the image.

Why do
we do it?

Why do we do it?

Today for tomorrow

We need to find several answers to the general challenge of climate change – and we want to do our part. This isn't an issue that's just going to go away; we owe it to future generations to start doing something about it today.

Knowledge is key. Knowing all we can about every base material and every process is necessary for the development of safe products, which can then again be used for further new products (recycling/upcycling) or biologically reused (nutrients).

Why do we do it?

Continuously evolving and upgrading – at no cost to our customers

C2C is the latest step in our ongoing process of assessing and improving our products as we create and deliver more sustainable products. We move to be **more in balance with nature** – to come closer to a **true Circular Economy**.

We promote environmental efforts in industrial production **without upcharge on our products** – while continuing to provide products of the highest standard.

Why do we do it?

What's next?

When it comes to sustainability, we have more plans on the horizon:

Cradle to Cradle Certified®
certification process for
Arctic Paper Grycksbo



New Energy solution for
Arctic Paper Munkedals



Arctic Paper invests in a solar
power plant at the mill in
Kostrzyn

2021

2022

mid-2024

Turning ideas into experiences.



ARCTIC PAPER