



# INTRODUCTION

#### **ABOUT THE CAMPAIGN**

Cartridges 4 Planet Ark is an innovative recycling program that provides Australians with a free, easy and environmentally-accredited way to recycle their used printer cartridges.

As cartridges are made up of a complex mix of plastics, metal, inks and toners they represent a significant investment in resources. When they are disposed of into landfill these resources are lost.

That's why Planet Ark joined with Close the Loop® and the participating manufacturers - Brother, Canon, Cartridge World, Epson, HP & Kyocera - to set up the innovative Cartridges 4 Planet Ark program. This program collects and returns cartridges for re-manufacturing and recycling - therefore keeping them out of landfill. Our Melbourne-based recycling partner, Close the Loop®, is independently audited on an annual basis for its zero waste to landfill guarantee.

Close the Loop is dedicated to making the Circular Economy a reality by providing best-in-class sustainability solutions to companies that want to enhance their Corporate Social Responsibility through effective and efficient recovery and reuse of valuable resources from their products. The company's actions are driven by its commitment to zero waste and its application of an internationally accredited Environmental Management System.

#### THIS TOOLKIT

This toolkit is a resource to learn more about the program and promote your commitment to creating a big impact from sustainable actions. The resources in this toolkit range from case studies to engage people on how Cartridges 4 Planet Ark helps make an impact on the environment and the community.

#### GOAL

Having beaten our 2024 target of 50 million recycled cartridges by 2 years, we are considering an overall goal for the program. In this way, we will continue to align with product stewardship, circularity, and accredited waste management solutions. In 2020, 25 million printer cartridges were shipped into Australia, however, only 19% of them were effectively recycled. Manufacturers within the industry have partnered with Cartridges 4 Planet Ark, voluntarily, to take responsibility for their products end of life and increase the overall printer cartridge recycling rate.

# 'Help us meet our new goal by recycling your cartridges and increase the return rate to 30% by 2027.'



#### **HOW THE CAMPAIGN WORKS**

Signing up for a Cartridges 4 Planet Ark collection box is **completely free!** It's an easy recycling resource that has a big impact and a **zero waste to landfill guarantee.** 

#### 1. Find out if it's right for you

If your workplace, university, business, community group, or school uses more than three inkjet, toner cartridges or toner bottles in a month you may be eligible for a Cartridges 4 Planet Ark collection box.

#### 2. Register for a box

Find out what is accepted in the Cartridges 4 Planet Ark collection box and register for one of your own. You can call **1800 24 24 73** or complete the registration form.

#### 3. Get your cartridges collected

Our collection bags come with **FREE Reply Paid stickers** from Australia Post. Take it to your closest Australia Post or collected from your mail room.

Metropolitan customers can also book their collections online through Close the Loop's website or by calling **1800 24 24 73** to arrange a courier pick-up within five days.

#### 4. Drop them off instead

If your workplace is unlikely to return the minimum number of cartridges, we encourage you to use the drop-off boxes in our retail collection partners. Find your closest drop-off box at cartridges.planetark.org



#### WHAT CAN BE RETURNED?

All inkjet cartridges, toner cartridges and toner bottles can be placed in the Cartridges 4 Planet Ark box.

#### Accepted items includes:

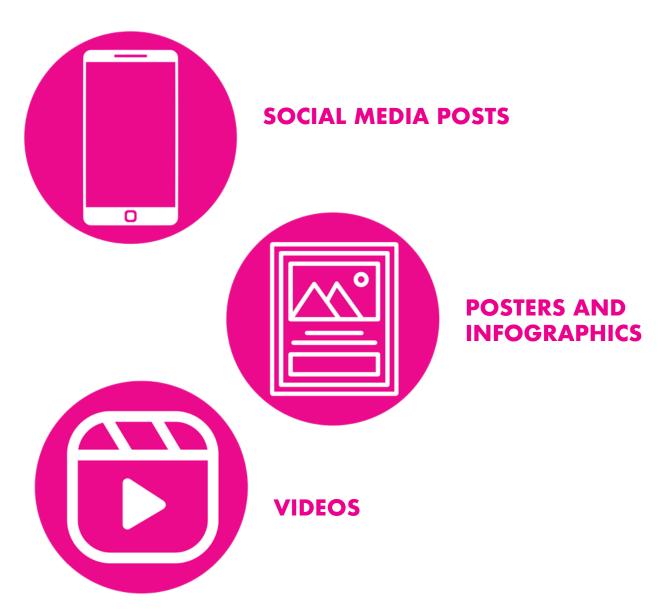
- Mixed cartridges
- Inkjet cartridges
- Laser cartridges
- Unused cartridges
- Toner bottles
- Fuser and drum units
- Print heads
- Waste hoppers / containers collectors & kits

# **RESOURCES**

We have created a range of ready to go resources available to download below. They outline what your audience needs to know about Cartridges 4 Planet Ark. Share your achievements and be sure to include the below link or tag so we can see your posts!

Tag: @PlanetArk

Link: cartridges.planetark.org



# RECYCLE YOUR PRINTER CARTRIDGES HERES

Find out more



CARTRIDGES 4
PLANET APK

CARTRIDGES 4

# **CASE STUDIES**

# **CARTRIDGES 4 PLANET ARK**

Cartridges 4 Planet Ark is an example of what product stewardship and a circular economy can achieve. The following case study outlines how Cartridges 4 Planet Ark is an example for future sustainable solutions. Use this resource to learn more about the program and share it with your stakeholders.

Cartridges 4 Planet Ark is an innovative recycling program that provides Australians with a free, easy and environmentally accredited way to recycle their used printer cartridges.

Since 2003, Cartridges 4 Planet Ark has provided Australians a free, easy, and environmentally friendly way to dispose of their printer cartridges. Planet Ark joined with Close the Loop and the participating manufacturers - Brother, Canon, Cartridge World, Epson, HP & Kyocera - to set up the innovative Cartridges 4 Planet Ark program.

As cartridges are made up of a complex mix of plastics, metal, inks and toners they represent a significant investment in resources. When they are disposed of into landfill these resources are lost. Though useful when recovered, these materials pose environmental hazards when sent to landfill as they erode as chemicals which leech into soil and groundwater.

Cartridges 4 Planet Ark helps collect and return cartridges for remanufacturing and recycling - therefore keeping them out of landfill. Our Melbourne-based recycling partner, Close the Loop, is independently audited on an annual basis for its zero waste to landfill guarantee.

# The Cartridges 4 Planet Ark program collected and recycled about 5.4 million printer cartridges in 2020-21, reclaiming about 1,458 tonnes of material.

With product circularity in mind from the beginning, your cartridges have been collected from offices, community centres, and retailers to be repurposed into new products such as inks and cartridges.

One of the main benefits of this kind of resource management scheme is that they are often free to consumers! They are great opportunities to make recycling convenient and accessible to consumers and whilst also committing to sustainable business practices.



There are thousands of Cartrdges 4 Planet Ark return boxes in offices, retialers, schools, and universities around Australia.

The future aim for Cartridges 4 Planet Ark is to become a formally accredited scheme. Voluntary accreditation will formalise the commitment of businesses involved in product stewardship schemes and help maintain valuable contributions to recycling goals.

Once Cartridges 4 Planet Ark becomes an accredited, voluntary stewardship scheme, the community can be confident that consistent outcomes will be achieved. This process has already begun with the Recycling and Waste Reduction Act 2020, which has improved the voluntary product stewardship framework, including reducing the cost and time frame involved in becoming accredited.

Other benefits for voluntary accreditation include:

- having a competitive advantage because the public knows that your industry has worked to reduce the negative impacts from its products
- demonstrating sustainability claims when competing in government procurement activities
- use of the Australian Government's product stewardship logo to tell consumers that your product is sustainable and a good environmental choice
- maximising the value of product and material streams.



Cartridges 4 Planet Ark's manager, Beau, handling materials recycled from printer cartridges.

#### "Voluntary accreditation is the next step to ensuring a meaningful commitment to product stewardship. A process where we can all benefit."

In 2020, 25 million printer cartridges were shipped into Australia, however, only 19% of them were effectively recycled. Whilst Cartridges 4 Planet Ark has had a significant impact in this space, the abundance of low-quality print materials in the market and the need for broader engagement with recycling practices hinders overall progress.

Our participating manufacturers cover the cost of collecting, transporting and recycling of their own cartridges as well as promoting the program to workplaces and to the general public. By supporting Cartridges 4 Planet Ark, and covering the costs of the program, it remains completely free for end users looking to recycle their printer cartridges.

But if you put a cartridge from any other manufacturer or a compatible brand in a collection box, the cost is borne by Close The Loop and the program generally. You can help us make sure we can continue to provide a free recycling service by reducing the number of non-participating manufacturers' cartridges in your collection boxes.

One of the most significant accomplishments that Cartridges 4 Planet Ark can boast is our zero waste to landfill guarantee. As of 2021, this zero waste to landfill guarantee has seen over 50 million cartridges diverted from landfill. Instead, the resources within each cartridge can be separated and repurposed for continued use.

# As we recently surpassed our previous goal of recycling over 50 million printer cartridges since the program's inception, by over two years, our new goal is to increase the return rate to 30% by 2027.

The partnership between Cartridges 4 Planet Ark and Close the Loop has driven significant innovation for recycling solutions. Aside from recycling used print materials into new cartridges, inks and pens, Close the Loop has led the development of eWood, a timber alternative made from recycled rigid plastics. The real breakthrough of TonerPlas ™ is the circular supply chain model which has been developed to turn plastic waste into a high-performance asphalt road. Current estimates suggest that recycled cartridges have contributed to almost 3,500 kilometres worth of TonerPlas ™.

Similarly, Lousy Ink, a sustainable art supplier, has grown using a business model that revolves around the reuse of collected cartridge ink. This ink is supplied by Close the Loop and Cartridges 4 Planet Ark and is yet another example of how circular solutions to our resources can ensure meaningful waste diversion that benefits the environment. So far, Cartridges 4 Planet Ark has contributed over 944,000 litres of recycled ink.

Printer cartridges are one of the many examples of how used products can be repurposed without having to send any waste to landfill and thus reducing our reliance on finite resources. By encouraging stakeholders along the entire supply chain, from manufacturers to consumers, to continue their commitment towards sustainable solutions, we hope to change the way people think about product circularity and recyclability



Collaboration with workplaces, councils, and communities have made Cartridges 4 Planet Ark the success it is today!

# **CASE STUDIES**

# **CLOSE THE LOOP**

Since 2000, Close the Loop has been delivering world class product stewardship and resource recovery solutions to manufacturers of consumer products and their customers. The company makes end products — a premium asphalt additive and the world's first fully recycled pen are examples — from their zero waste-to-landfill recycling processes.

#### **WHO**

Steve Morris, founder of Close the Loop, started his work life as a civil design draftsman. He went on to become a small business owner and travelled the globe before starting a cartridge re-manufacturing business in the Melbourne suburb of Carlton. His re-manufacturing business National Toner & Ink became Close the Loop in 2000.

For Steve, product stewardship and the circular economy simply makes sense. "I've felt for some time that treating our planet as if it had endless resources and measuring the success of each country by how much unfettered growth we achieve is nonsense," he says. "The foundations of circularity — design out waste, keep products and materials in circulation and build regenerative businesses — are empowering to me, and objectives I feel very motivated to pursue and encourage."

#### **VISION**

Close the Loop's simple but ambitious vision is "a circular world". Steve explains that the company aims to be

"...a globally respected product stewardship and circular economy solutions provider to the world's leading consumer brands".

And they are already well on their way. What started as a small operation in the Melbourne suburb of Thomastown

in 2000 has now expanded into the USA and Europe.

The company's services include all aspects of product stewardship: designing products with circularity in mind, effective collection programs, keeping products and materials in circulation for as long as possible and developing innovative end use solutions.

Collection and processing is just the start, companies like Close the Loop must rally support from government and industry to embrace new materials, change outdated barriers to entry and change counterproductive relationships that block progress.

#### **HOW**

Through their product take-back, resource recovery and reuse initiatives, Close the Loop has diverted millions of products from landfill and converted them into valuable new materials. They were also among the first to promote the idea of product stewardship - an approach to managing the impacts of products and materials that acknowledges producers, retailers, users and disposers



have a shared responsibility for their impacts - in Australia.

One of their earliest product stewardship schemes in the country, **Cartridges 4 Planet Ark**, was established in 2003 in collaboration with Planet Ark. The program offers Australians a free, easy and environmentally accredited way to dispose of their printer cartridges. The program comes with a zero waste to landfill certification that, so far, has seen **over 50 million cartridges** turned into roads and pens.

"I still remember Paul Klymenko, now Planet Ark CEO, saying I was mad in his jovial way when I suggested the program would have a 'zero waste to landfill' brand promise," Steve recalls.

That single commitment has driven significant innovation at Close the Loop including the development of eWood, a timber alternative made from recycled rigid plastics. Other notable innovations include what is possibly the world's first ever recycled pen made with 100 per cent recycled printer cartridge ink. This recycled ink is popular among consumers and is now promoted and also used by the funky brand Lousy Ink, owned by Melbourne street artists Mike Eleven and Oli Ruskidd.

However, Close the Loop's proudest innovation to date is a newer product called TonerPlas ™; an award-winning asphalt additive invented by Close the Loop and refined in partnership with Downer over more than eight years of intense research and development, lab testing, road trials and monitoring. The real breakthrough of TonerPlas ™, according to Steve, is the circular supply chain model which has been developed to turn plastic waste into a high performance asphalt road.

Steve explains how the program works:

"Used 'waste' toner cartridges are collected via the Cartridges 4 Planet Ark program. These toner cartridges are then recycled by Close the Loop in their Somerton plant in Victoria. Waste soft plastics are also collected and shipped to Close the Loop where they are blended with waste toner powder and some secret herbs and spices via an advanced manufacturing process.

The result is 100 per cent recycled asphalt additive that improves the performance and life span of asphalt roads. Testing of numerous asphalt samples shows the addition of TonerPlas  $^{\text{TM}}$  increases the lifespan of a road by around 15%."



One of the company's more recent innovations is rFlex, a new polymer for injection moulding made from 100 per cent post-consumer mixed soft plastics.

"Post-consumer mixed soft plastics are often called the 'mongrel' mix.
Close the Loop has developed an advanced process to turn this mix into a homogenous polymer that performs similar to virgin plastics,"

Steve explains. "Small amounts of known additives can transform the mix into a polymer to mimic either PE or PP. This technology development has global export potential and is a direct result of Close the Loop's innovative culture."

# **CASE STUDIES**

## **LOUSY INK**

Lousy Ink is the world's first 100% recycled artist ink. Started as a two-person commitment to reducing unconscious waste, they promote more sustainable forms of art-making and provide an alternative to your leftover ink.

- Lousy Ink started in 2017 as a solution to the ink waste that was generated as a by-product of printer cartridge recycling.
- Lousy Ink is a prime example of the circular economy in action. It helps facilitate the zero waste to landfill guarantee of Cartridges 4 Planet Ark and Close the Loop.
- Over 85,000 litres worth of ink has been collected and stored since day one.
- Lousy Ink gives artists of all levels the platform to flourish, whilst helping keep our planet green along the way.
- Cartridges 4 Planet Ark estimates that enough ink has been recycled to fill almost 7,000 bathtubs.
   Diverting it from landfill prevents it from leeching toxic chemicals into ground soil.

As more and more businesses understand the benefits of a circular economy, looking at successful examples of this process becomes important to its continued success. A particular success story is the zero-waste journey of printer cartridges from collection and recycling to repurposing into new products.

Since 2003, Cartridges 4 Planet Ark and its program partner, Close the Loop, have been delivering world class product stewardship and resource recovery solutions for printer cartridge waste. From these products, Close the Loop makes end products like TonerPlasTM, a premium asphalt additive, and eWood, a plastic timber alternative. What makes this process truly great, in terms of the circular economy, is its ability to inspire innovative business solutions to our waste as was the case with Lousy Ink.

#### **WHO**

The connection between Close the Loop and Lousy Ink started in 2017 when Oli Ruskidd was given a vial of waste ink by his uncle, who works at the Close the Loop recycling facility. Together with his friend and business partner, Mike Eleven, it was determined that this waste ink could be turned into something that could be sustainable and accessible to the art community.

For Lousy Ink, the process of developing a business that encapsulated the circular economy easily aligned with their values. "We've always had a pretty D.I.Y approach to our art, so turning trash into treasure came as second-nature to us," Oli says, "Seeing the literal tonnes of 'waste ink' being generated by recycling printer cartridges really motivated us to give this overlooked resource a second chance at life."



#### **VISION**

Lousy Ink's vision is to turn waste into inspiration by recycling printer cartridge ink into sustainable art materials. Working in collaboration with Close the Loop and Cartridges 4 Planet Ark's collection program, they help divert waste generated by millions of printer cartridges across Australia.

By engaging with the creative community, they can not only inspire others with shared passions to engage with the circular economy, but they can also educate on the benefits of using waste as a resource. Having already diverted thousands of tonnes of waste ink from going to landfill, Lousy Ink is helping show that repurposing waste is simply a new way of creating something different – and that sometimes different is better.



"Supporting the recycling and repurposing process initiated by Close the Loop and Cartridges 4 Planet Ark is just a surface benefit of businesses like Lousy Ink. Encouraging an innovative approach to waste materials changes perceptions on the value of our resources and how we can do so without continuing the strain on our environment."

#### **HOW**

The circular economy works when manufactured resources are designed to no longer generate waste when they meet their end-of-life. Product stewardship schemes, like Cartridges 4 Planet Ark, are one of the methods that ensures there is a solution for even the hardest to recycle products.

Through the product take-back, resource recovery, and reuse initiatives with Close the Loop, millions of products have been diverted from landfill and converted into valuable new materials.

Once at Close the Loop, the printer cartridges are crushed down into their baser components of metal and plastic. These materials are then processed into asphalt additive, eWood, or new printer cartridges. A by-product of this process, however, is that the 'waste' cartridges come with leftover reserves of ink. This ink is filtered, to separate it from the plastic, and sent to Lousy Ink where it becomes their range of pens and ink. Having avenues for reuse in the market creates incentives for innovation in these areas, allowing for other businesses to follow suit.

#### **RESULTS + BENEFITS**

Running a sustainable and community-first business has provided Lousy Ink the opportunity to grow as a modern business in a circular economy. Knowledge of the recycling industry has enabled them to work together with experts to come up with creative and scalable ideas to change the world for the better. The benefit of having businesses aware of the life cycle of their products encourages more responsible practices in the market.

They are able to include the message of sustainability in initiatives that engage the local art community. By hosting a range of art exhibitions, they not only raise funds for charitable organisations but also inspire artists to create using Lousy Ink. Making the connection between meaningful change and personal engagement allows tangible and approachable examples of the circular economy to make its way into mainstream consciousness.

Through the years, the awareness of the recycling industry has been able to expand the opportunities for sustainable product development. In recent years, Lousy lnk has expanded their offerings from artist ink, available in bottles and vials, to a range of fineliner pens, which are made from recycled plastics. These fineliner pens are now being sold in Officeworks, encapsulating the full course of a circular economy.

It's one of the places where you can recycle your empty printer cartridges and purchase the end product that has been created out of its waste materials. Finding a local manufacturer to work with waste plastics was initially difficult for Lousy Ink but, with the support of businesses in this space, will become easier as the ongoing development of re-purposed materials enters the market.



"We saw Lousy Ink as an opportunity to do more than what we could've done alone, and reach more people with a positive message. Even though we're 'just artists', we're trying to fight the climate crisis alongside the experts, activists and younger generations who will inherit this planet after us."

# RETURNING YOUR CARTRIDGES

#### WITH YOUR OWN BOX

Once your collection box is full, our partners at Close the Loop will take charge of collection and processing! Tie the bags up with one of the cable ties provided and organise with your office to have it collected.

#### 1. Take it to your internal mail room

Take the bag to your internal mail room to be processed along with your other mail. Your Australia Post contractor will pick up the bag and it is sent through Reply Paid post at no cost to you!

#### 2. Take it to your closest Australia Post

Take the bag to your local Australia Post outlet and it will be returned via Reply Paid at no cost to you!

#### 3. Get it collected

Metropolitan customers can also book their collections online through Close the Loop's website or by calling 1800 24 24 73 to arrange a courier pick-up within five days.

You need to know your company ID number to arrange a bag collection online. If you don't know your company ID number, please email <a href="mailto:info@closetheloop.com.au">info@closetheloop.com.au</a> and it will be sent to you.



#### **Need new collection bags?**

If you've used up all the collection bags in your box, you can also contact Close the Loop to get new ones sent to you. Each Cartridges 4 Planet Ark bag includes a Reply Paid sticker from Australia Post so it is easy for you to return them when they are full.

Visit:

Close the Loop's website

Call 1800 24 24 73, or

Email: info@closetheloop.com.au



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## Taking responsibility for our cartridges

**Full partners** 









**Retail partner** 

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# **GET IN TOUCH**

If you have any questions about Cartridges 4 Planet Ark, please contact us!



Suite 3.18, Level 3 22-36 Mountain St, Ultimo NSW 2007



enquiries@planetark.org



@PlanetArk

