

Case study

Spreading sustainable Christmas cheer: printed cards or e-cards?

Client project:

Comparative Product Carbon Footprint for paper and electronic Christmas cards

thinkstep-anz service:

Product Carbon Footprint (PCF)

Client:

Ms Candy Kane

Peer review:

Blitzen (reindeer #8)

Date:

December 2022

Our functional unit:

One greeting card
(paper and electronic)

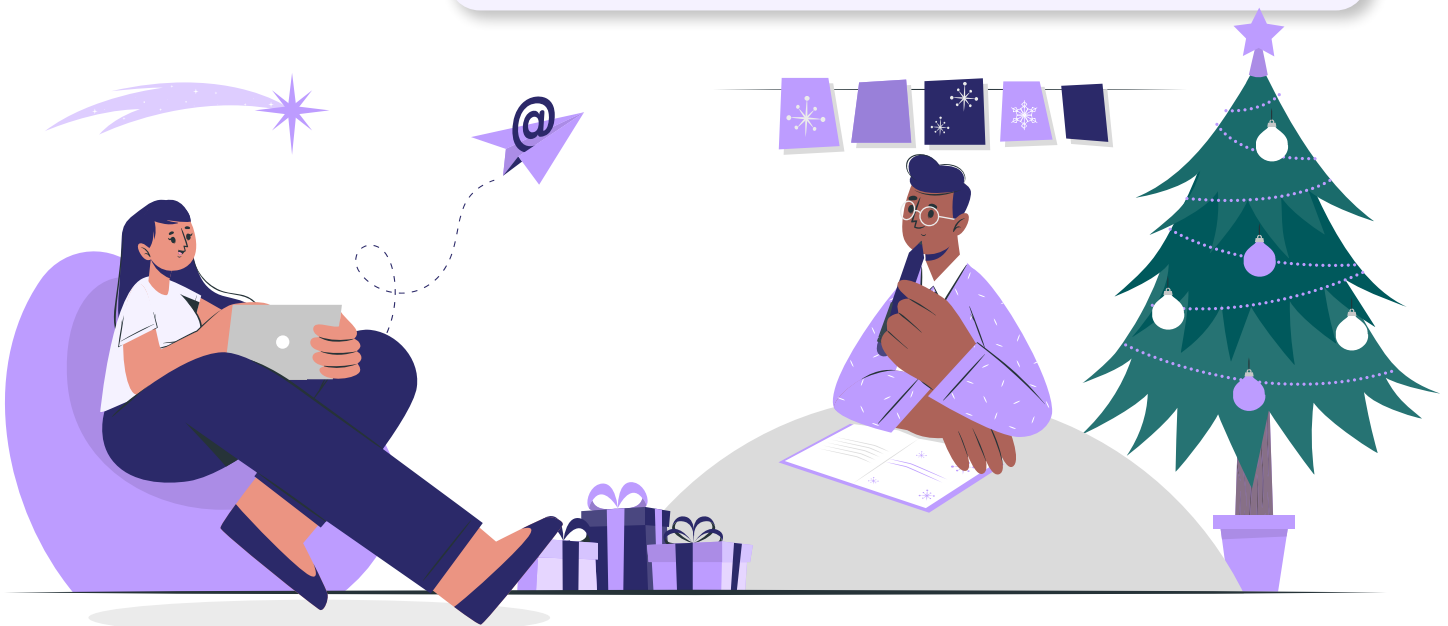
Re: Christmas Card Comparative Product Carbon Footprint

Dear Candy,

Thanks for engaging thinkstep-anz to measure the Product Carbon Footprint (PCF) of Christmas cards. We're glad you love Christmas and it's great that you want to celebrate responsibly. Understanding the carbon footprint of the products you use to celebrate is a good way to do this.

To measure carbon footprints and understand your options you need data. You've come to the right place! Our thinkstep-anz team loves data.

We've run the numbers to help you celebrate sustainably. As practical folk with a soft spot for Christmas ourselves, we share some tips for sending your Christmas message more sustainably, whichever type of card you choose.

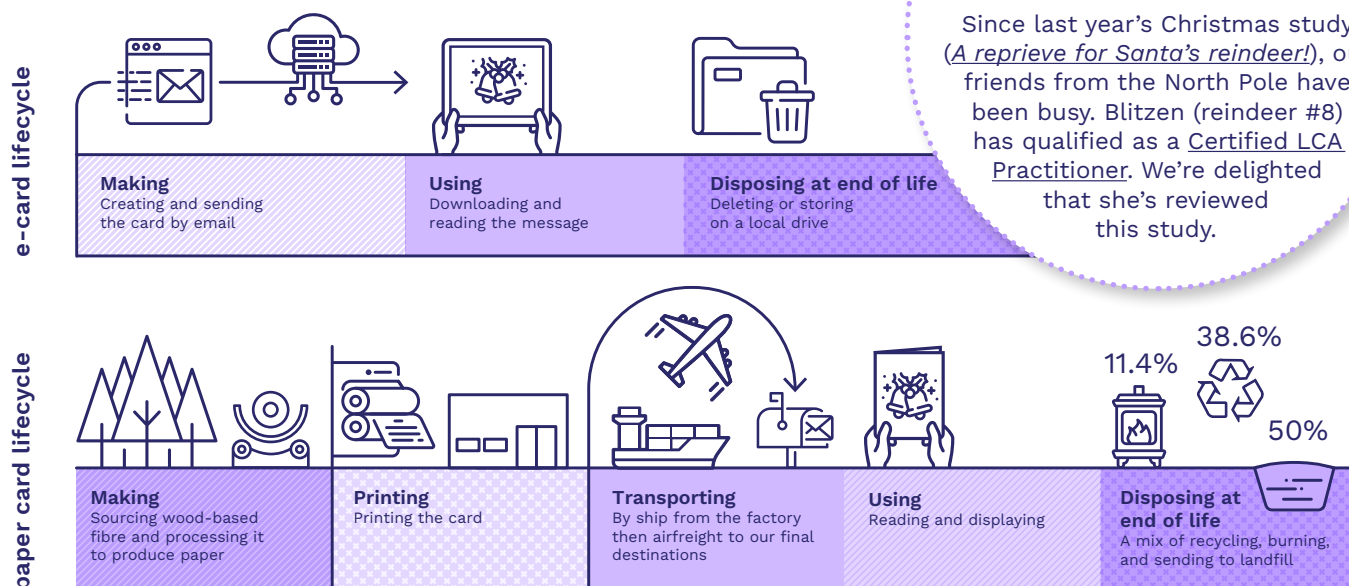


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What we did

We've looked at every stage of the cards' lifecycles and compared the two options.



Our quality assurer: Blitzen

Since last year's Christmas study (*A reprieve for Santa's reindeer!*), our friends from the North Pole have been busy. Blitzen (reindeer #8) has qualified as a Certified LCA Practitioner. We're delighted that she's reviewed this study.



Paper Card



Electronic Card

Size/weight	74 mm x 105 mm (A7), 350 gsm card, 30 g	5 MB (email with downloadable attachment)
Number of uses	1	1
Medium	Coated mechanical paper (2% recycled content)	Electronic data measured in MB
Transport	Airfreight (postal services)	Electronic data transfer
Sent from	Sydney, Australia Auckland, New Zealand	Sydney, Australia Auckland, New Zealand
Sent to	London, Chicago, Singapore	London, Chicago, Singapore
End of life	38.6% recycled, 11.4% burned for energy, 50% sent to landfill	Deleted or stored locally (not on a server)

Inside the envelope

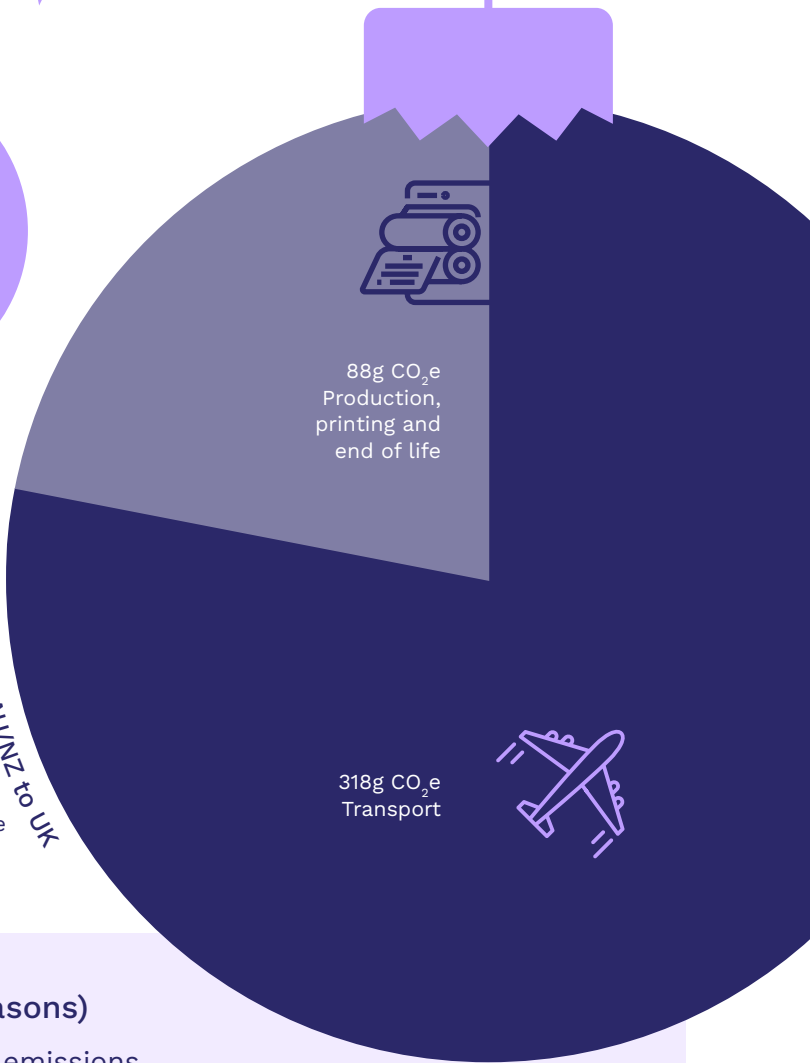
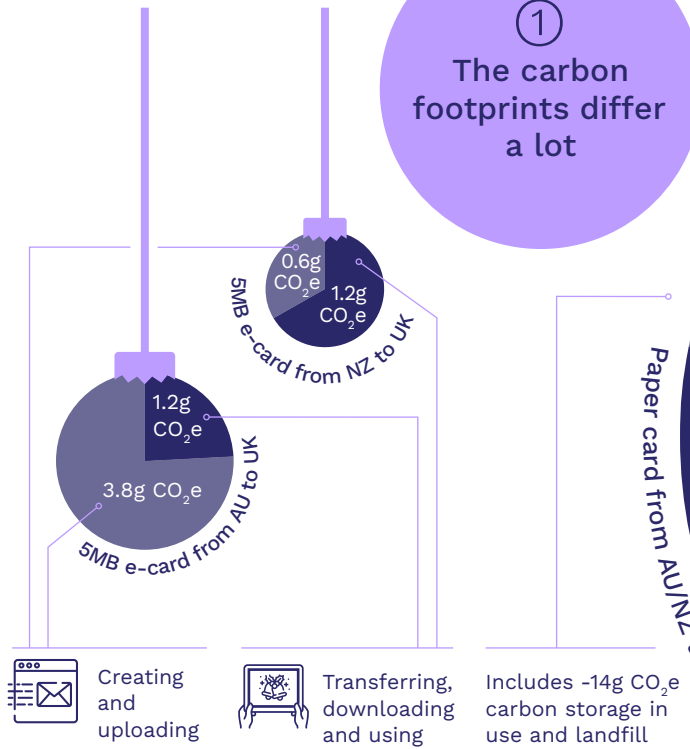
Our data: We sourced our data from existing studies.

The environmental impact we calculated: Global Warming Potential (GWP), measured as carbon dioxide equivalents (CO₂e). GWP sums the total greenhouse gases (GHGs) that the cards emit into the atmosphere during their lifecycles.

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What we found



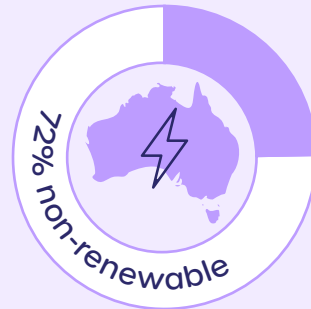
② Location matters (for different reasons)

A 'carbon hotspot' is a major source of GHG emissions. With the paper card, transport's the culprit. For the e-card, it's the electricity needed to create the card and use it.



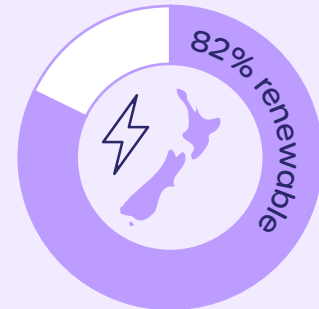
1000 km = 20 g CO₂e

Sending a paper card? The 'from and to' spots on the globe decide the air miles your card will travel.



1 kWh = 865 g CO₂e

Pressing send on an e-card? How electricity is generated at both ends is what matters most (e.g. is it renewable?)



1 kWh = 131 g CO₂e

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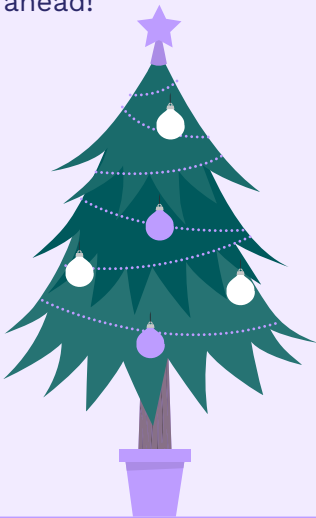
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Our recommendations



1. Celebrate Christmas – sustainably!

Far be it from us to play the Christmas Grinch. In fact, many in our thinkstep-anz team can't wait for Christmas. So if you want to celebrate Christmas with a paper card, go right ahead!



2. Remember that sustainability's about people too

Half of the United Nations' Sustainable Development Goals (SDGs) are about being socially sustainable. They include SDG 3: *Good Health and Wellbeing*.

Sending and receiving physical seasons' greetings may be important to you, your family and friends for social reasons. For example, some people love receiving a card they can display. For creative types, making paper Christmas cards is a cherished tradition.



3. Choose the type of card based on the situation

If your card is destined for a letterbox far away on the globe, consider sending an e-card. If it's travelling a short distance, you don't have an electronic device to hand, or you can't use one, a paper card may be the way to go.

Follow our tips to reduce your carbon footprint (whichever card you send):



Sending a paper card



Keep the card small and simple. Look for small, light cards. (Sometimes less really is more!) Stick to simple designs. Choose a glitter-free Star of Bethlehem and avoid plastic stick-on Santas.



Buy responsibly. Shop with local producers. You'll back local jobs and keep supplier-to-store transport down. Check out cards that support charities. Look for FSC®-certified paper. It's harvested in a socially and environmentally responsible way.



Avoid air freight. Post early. You'll save emissions and keep your postage costs down.



Reduce waste to landfill. Encourage friends and family to recycle your card.



Go circular. Sign your cards with a reusable pen.



Sending an e-card



Keep the attachment small. More MB means more data to transfer and store, and more GHG emissions.



Wise up on electricity. Understand your electricity grid. How renewable is it?



Buy responsibly. Choose a renewable electricity supplier. For example, if you live in Australia, using solar power can reduce the carbon footprint of your card by 97%.



Have a happy, safe and relaxing Christmas

Our thinkstep-anz team looks forward to helping you succeed sustainably in 2023.

Please contact us if you would like to learn more about our sources and analysis

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