

Sustainability and Consumer Perception: Paper & Print - Trends & Truths



Jules Van Sant
Jill Crossley



Print, Paper and
Paper Packaging
have a great
environmental
story to tell

- Global, non-profit, member-funded organization
- More than 600 members around the globe—large and small, from across the entire Graphic Communications and Paper-based Packaging value chain

Trend Tracker

- Biennial global survey conducted by Toluna
- 12,400 consumers surveyed around the world, with the results segmented by region
- Results by country with the U.S. and Canada in North America





Two Sides is your advocate for Print and Paper Products

- Our mission is to eliminate misleading, unsubstantiated environmental claims about print, paper and paper-based packaging
- To promote the sustainability of the paper industry and its products

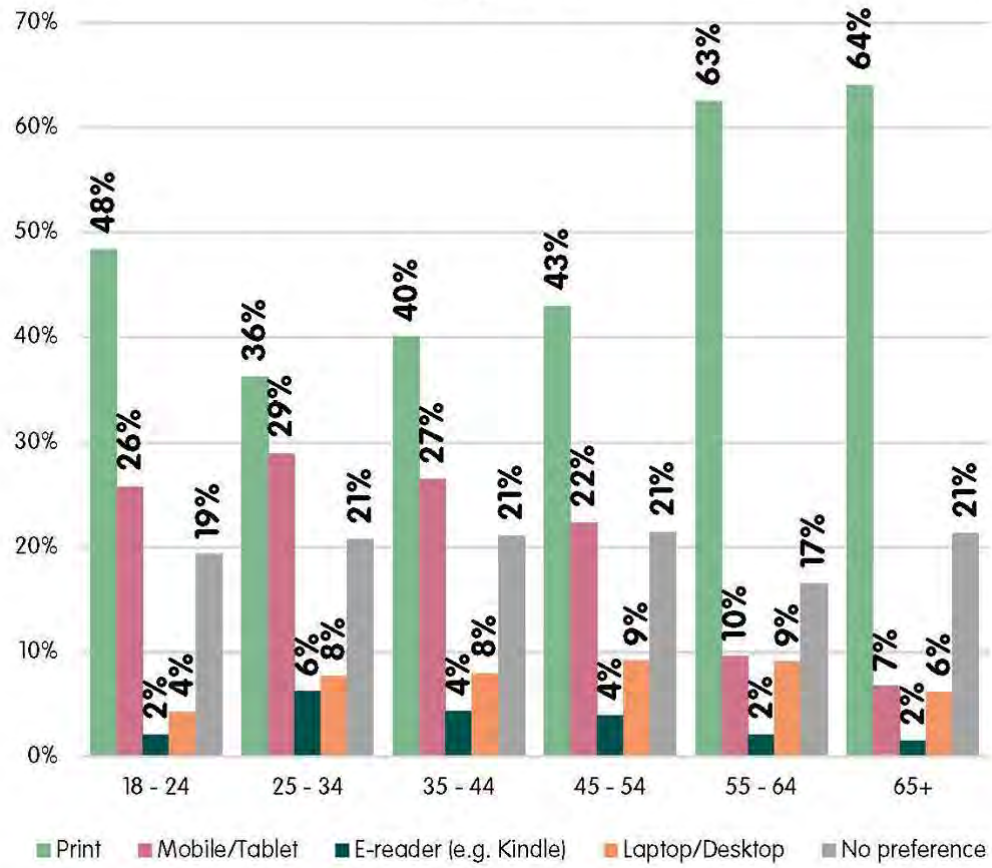


Consumer Preferences

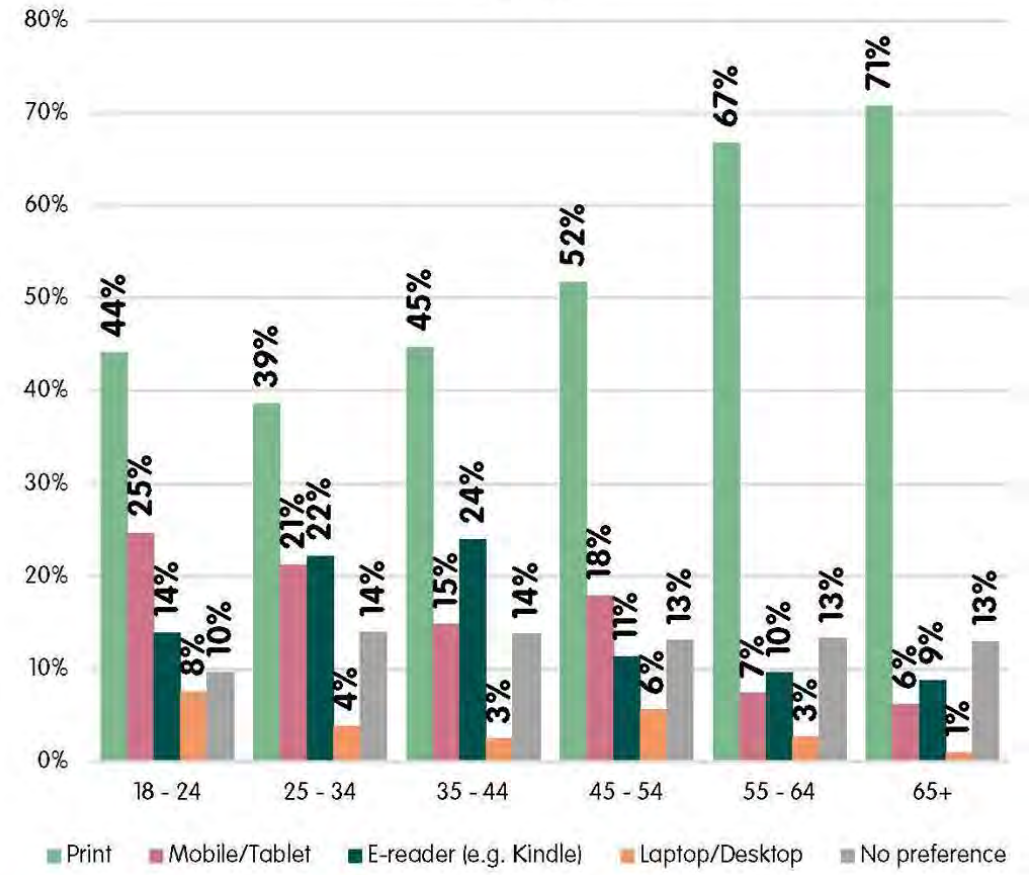


How do you prefer to read or receive...?

Magazines



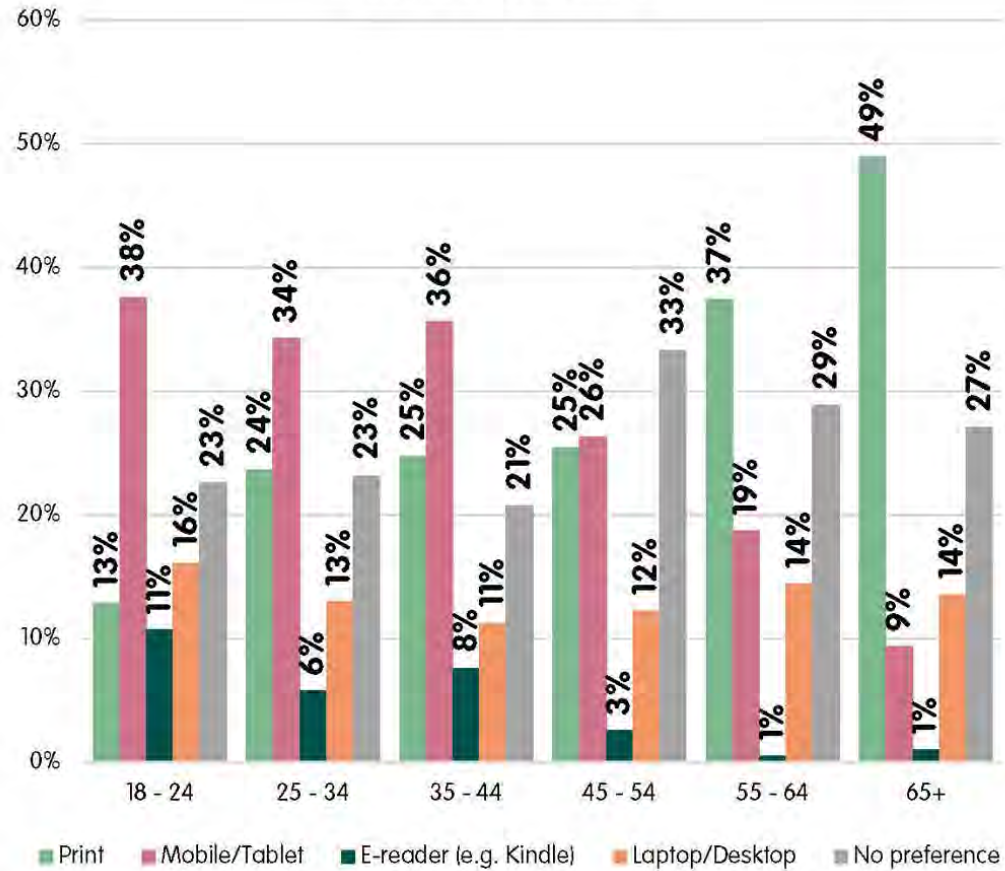
Books



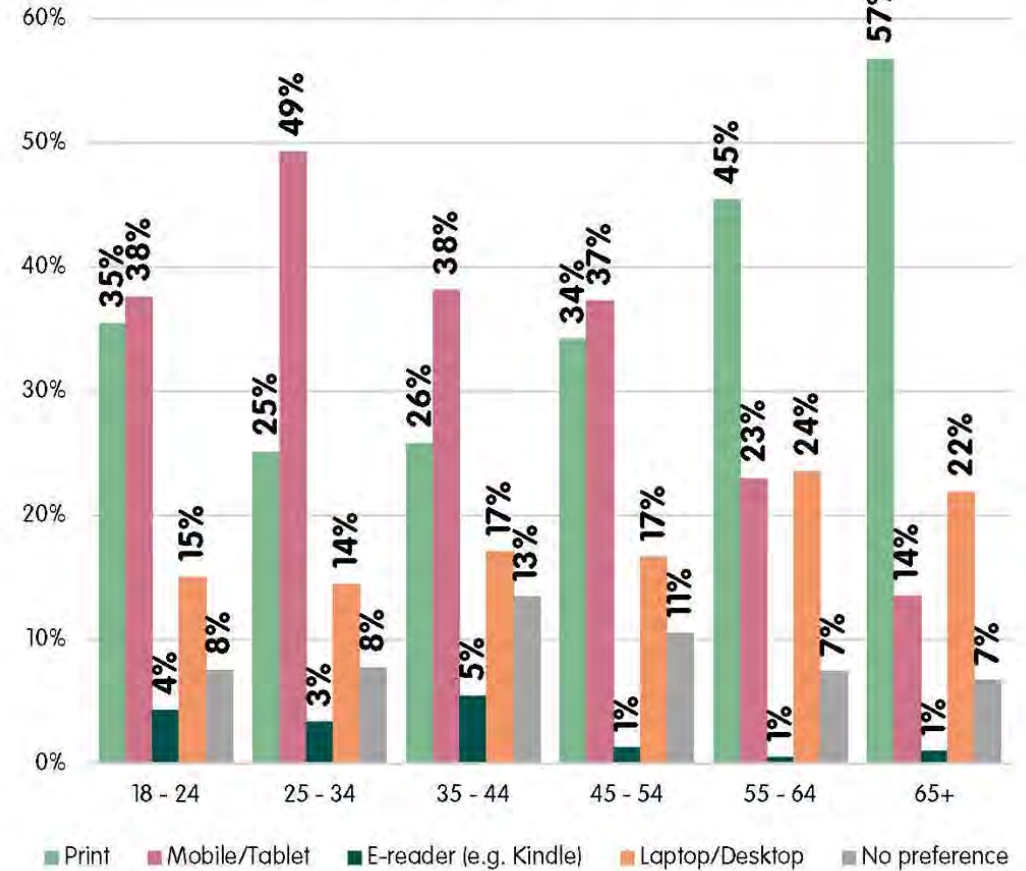


How do you prefer to read or receive...?

Marketing Materials



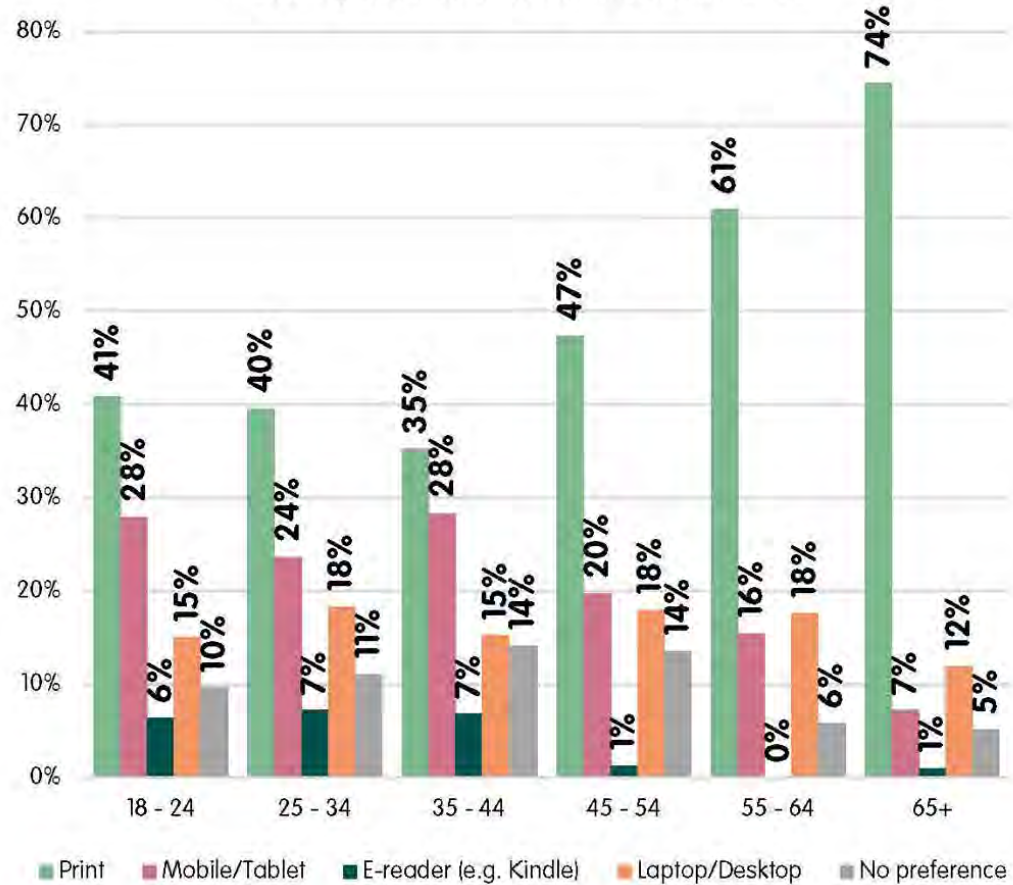
Bills & Statements



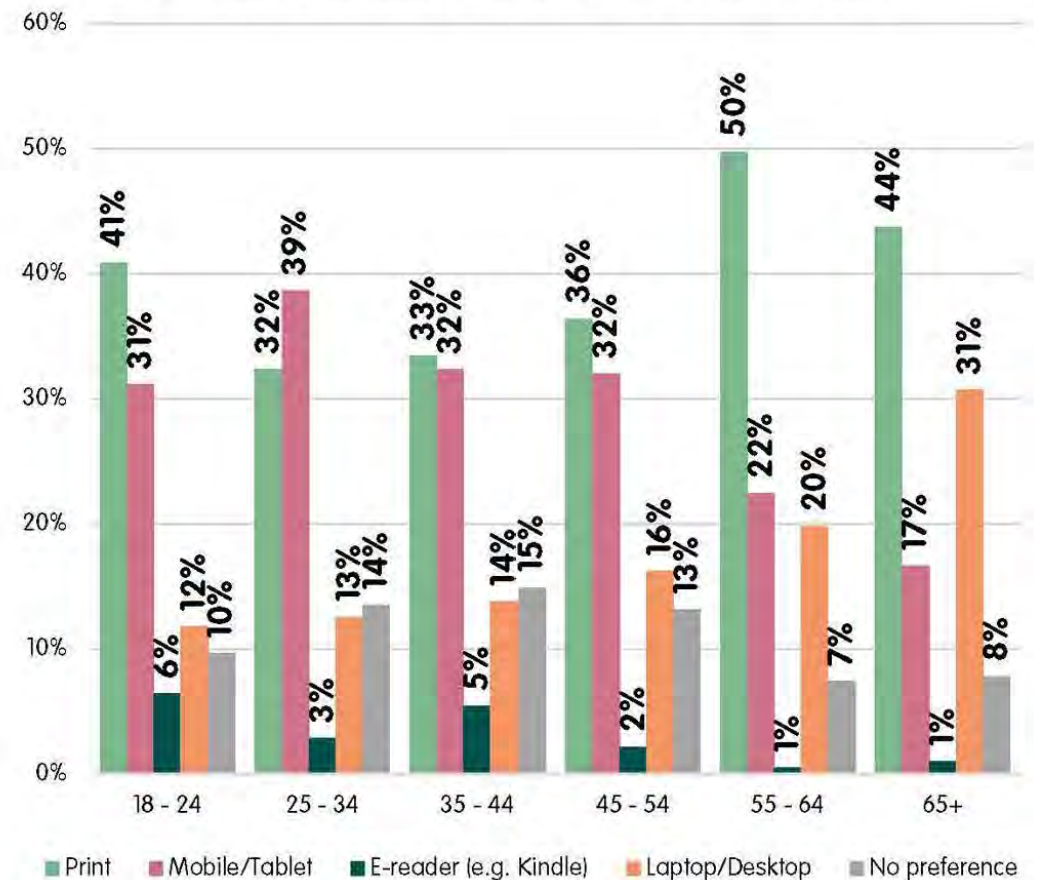


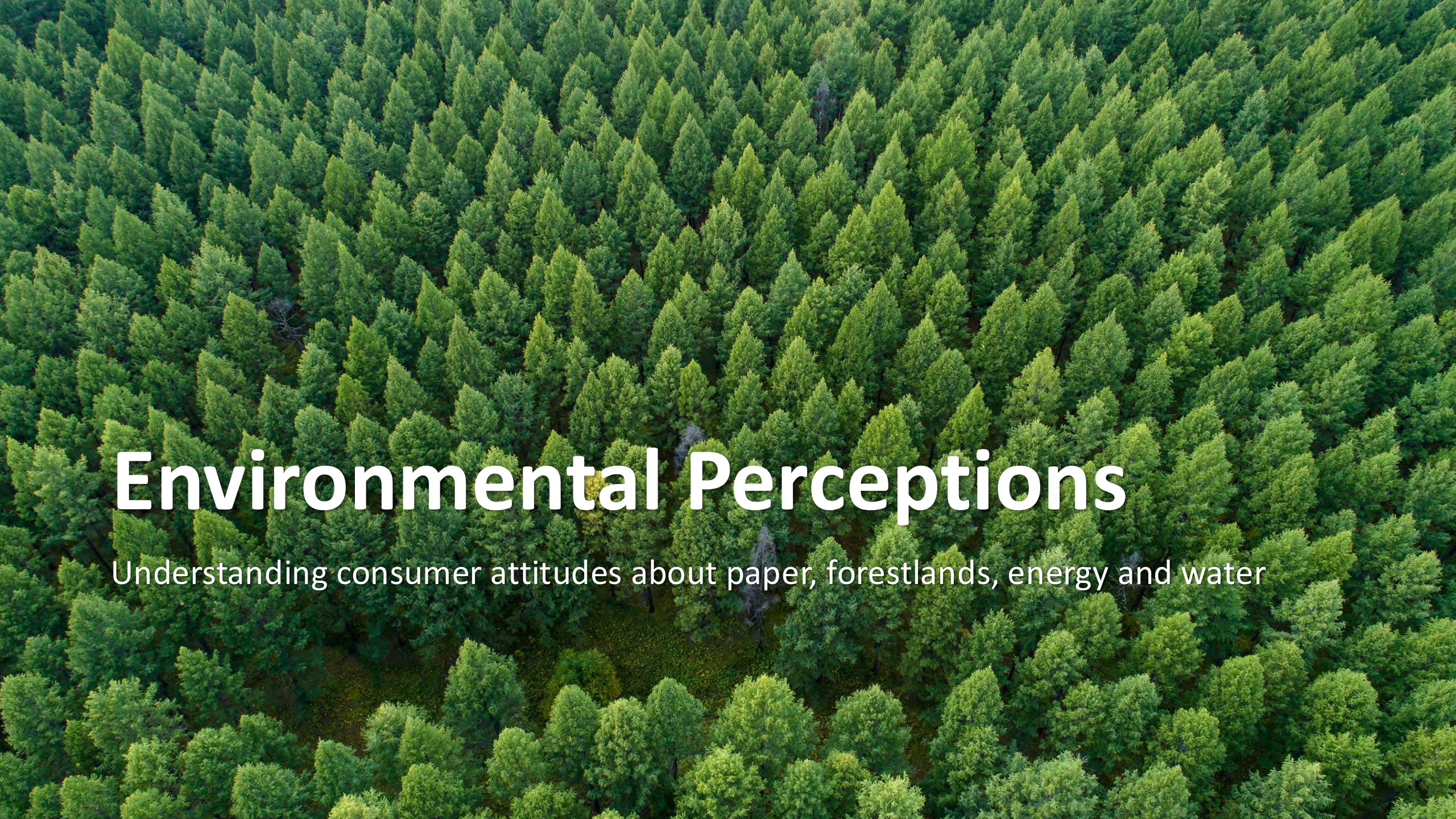
How do you prefer to read or receive...?

Federal, State and Local Tax Statements



Personal Information Sent From Doctors & Hospitals



An aerial photograph of a vast, dense forest. The trees are mostly coniferous, with a rich green canopy that fills the entire frame. The perspective is from directly above, looking down on the forest floor. The lighting is even, highlighting the texture of the needles and the density of the growth.

Environmental Perceptions

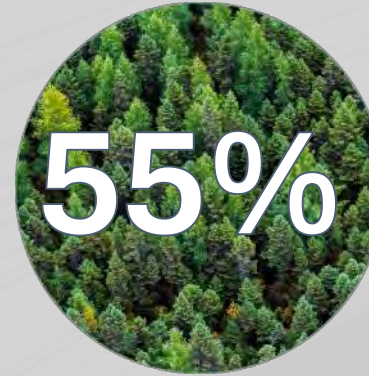
Understanding consumer attitudes about paper, forestlands, energy and water

Trend Tracker Survey 2025 Preview

Environmental Consumer Perceptions



Think Paper & Paper-based packaging are bad for the environment



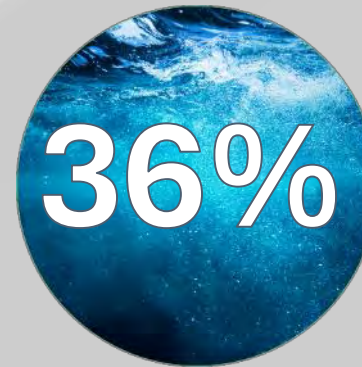
Think U.S. forests are reducing in size



Think that more than 60% of paper & paper-based packaging gets recycled



Think paper & paper-based packaging are a major cause of greenhouse gas emissions



Think paper & paper-based packaging manufacturing uses excessive amounts of water

Q To what extent do you agree with the following statements?

When I purchase paper products, I pay attention to forestry certifications labels on the product

41%

Paper and paper packaging are bad for the environment

48%

It is important to use paper products from sustainably managed forests i.e., forests that conform to strict environmental standards, ensuring long-term forest growth

68%

0% 10% 20% 30% 40% 50% 60% 70% 80%

■ Agree or Strongly Agree 2021

Q To what extent do you agree with the following statements?

When I purchase paper products, I pay attention to forestry certifications labels on the product

41%

45%

Paper and paper packaging are bad for the environment

48%

44%

It is important to use paper products from sustainably managed forests i.e., forests that conform to strict environmental standards, ensuring long-term forest growth

68%

69%

0% 10% 20% 30% 40% 50% 60% 70% 80%

■ Agree or Strongly Agree 2021

■ Agree or Strongly Agree 2023

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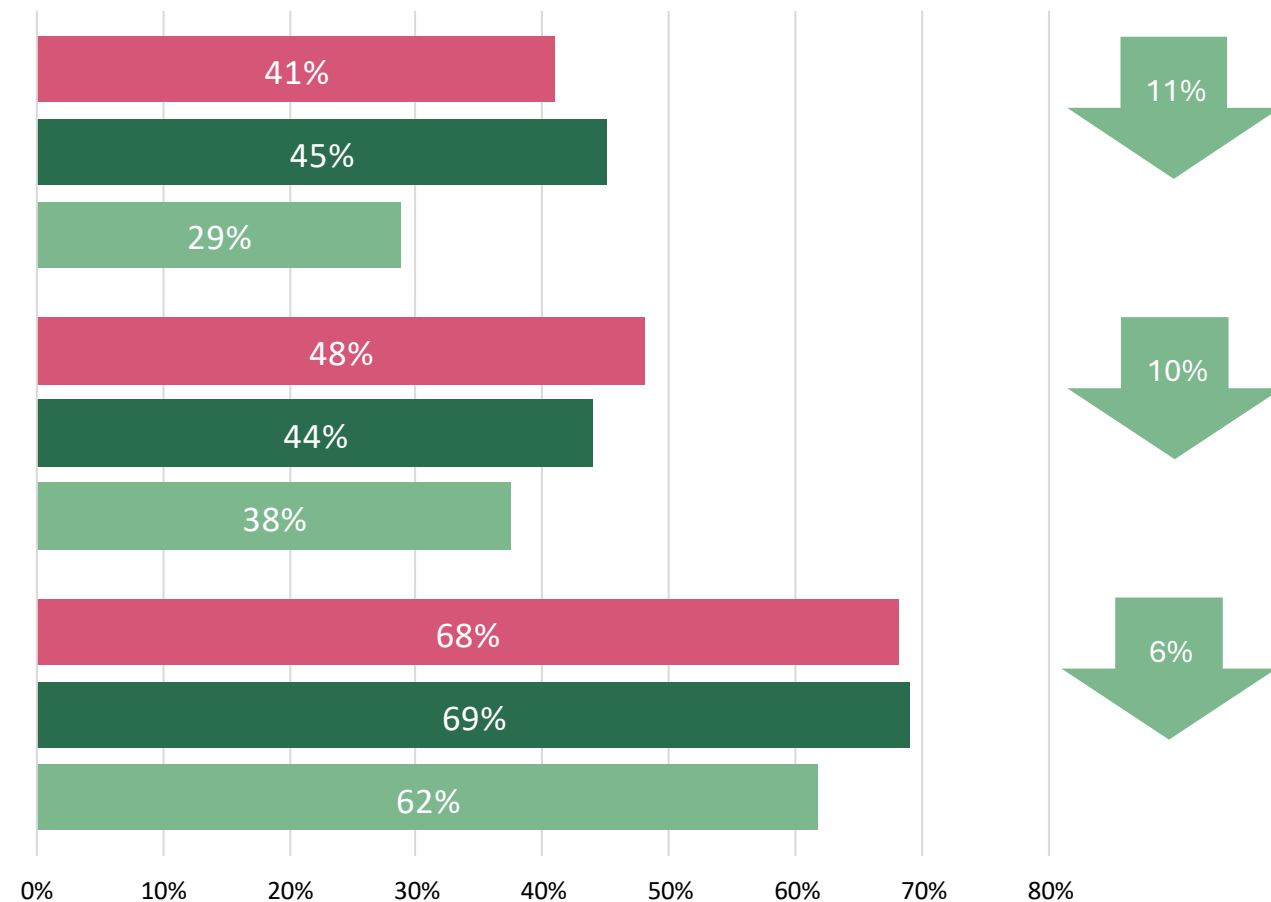
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■ Agree or Strongly Agree 2021

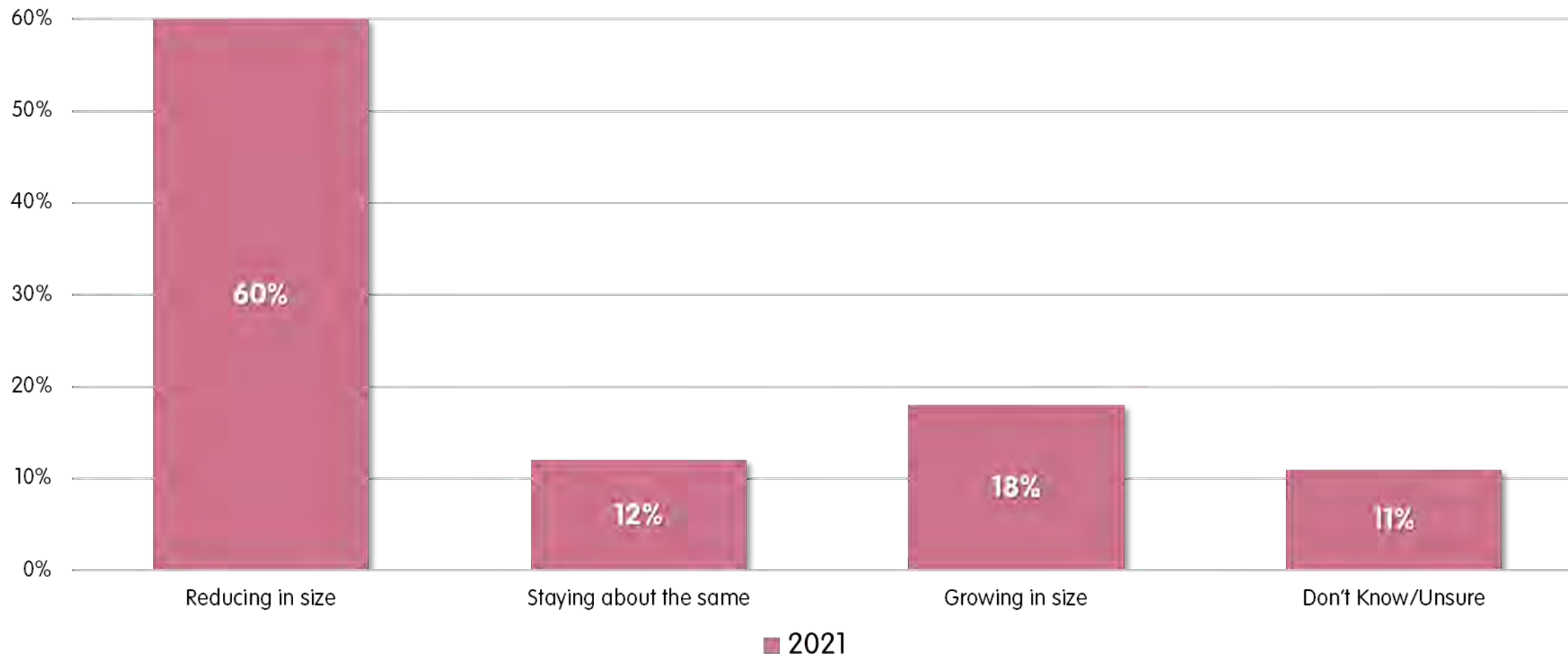
■ Agree or Strongly Agree 2023

■ Agree or Strongly Agree 2025



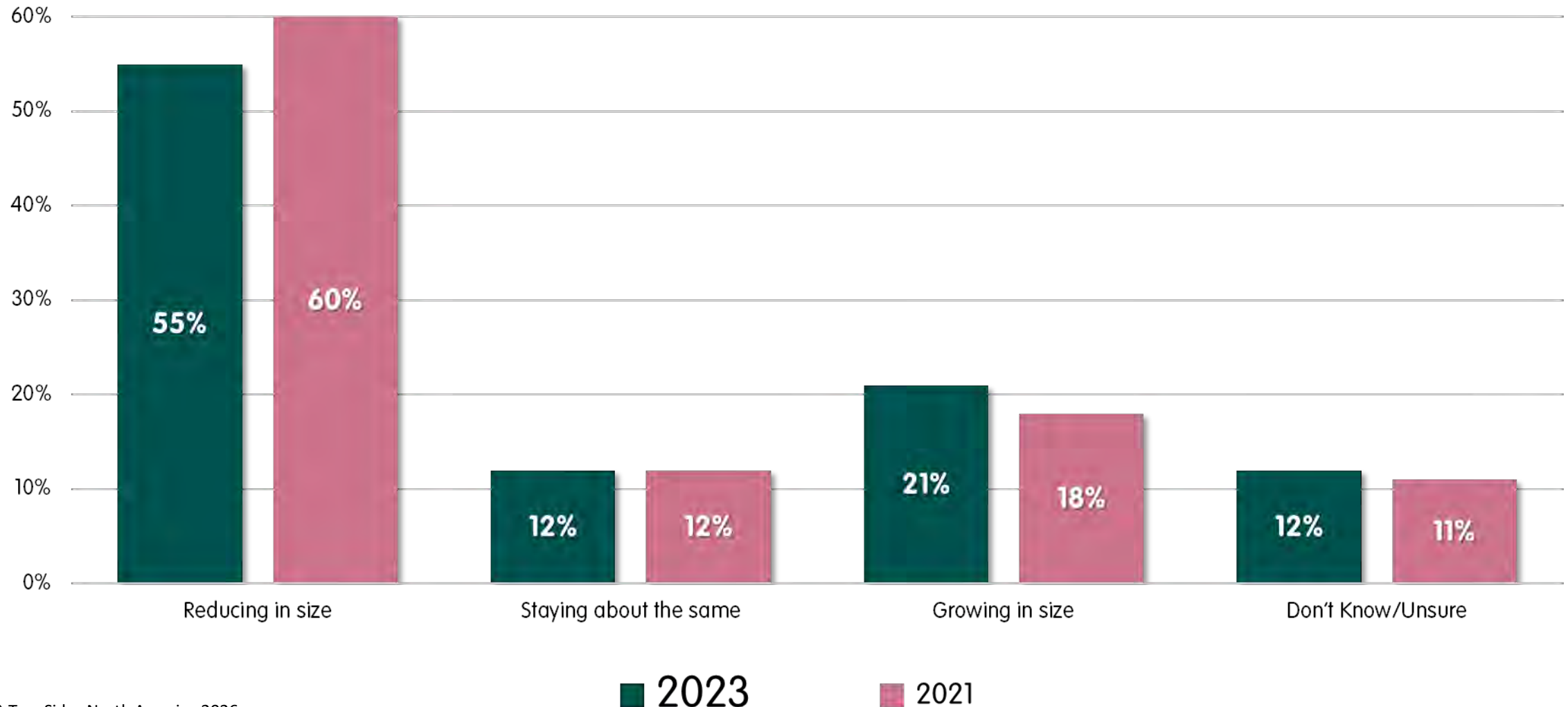
Q

What do you believe has been happening to the size of U.S. forest area since the year 2000?



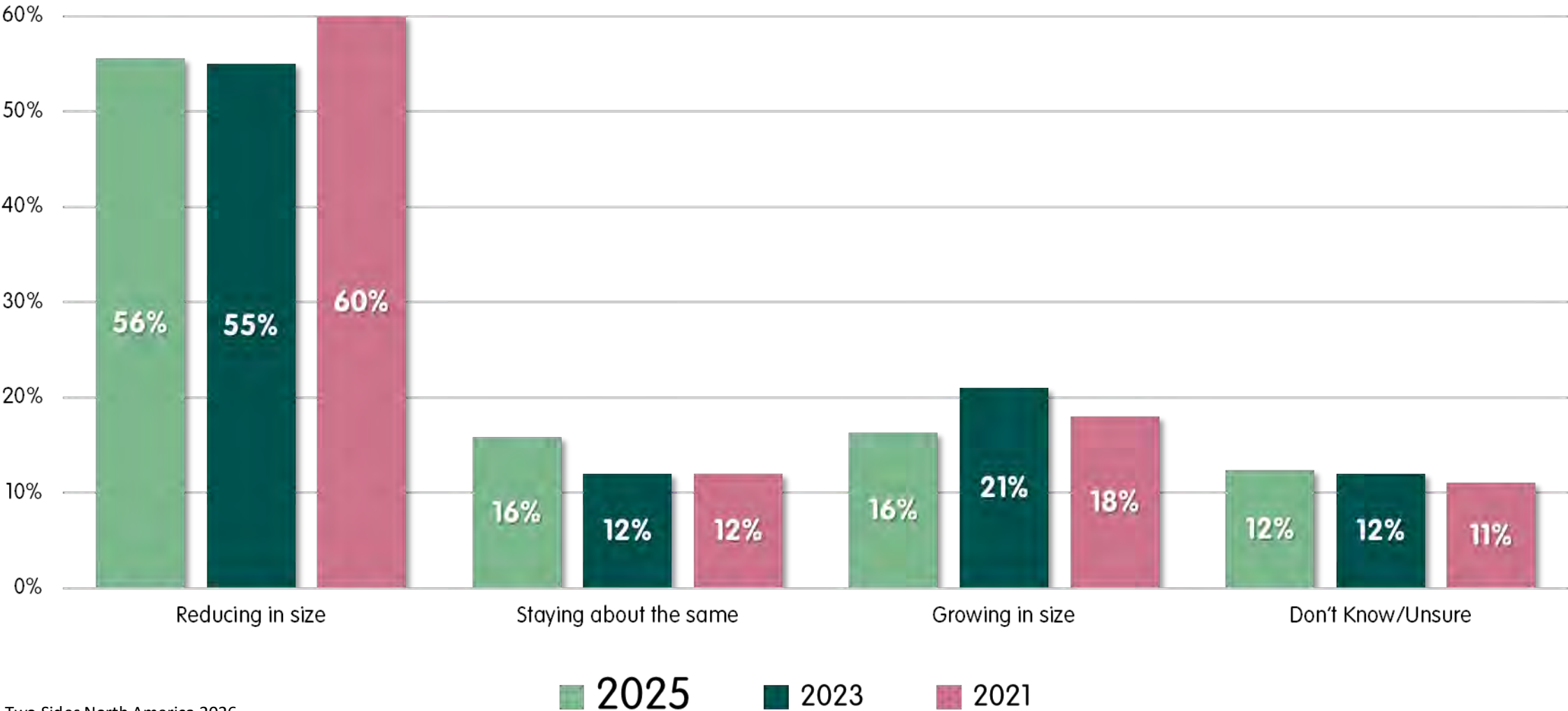


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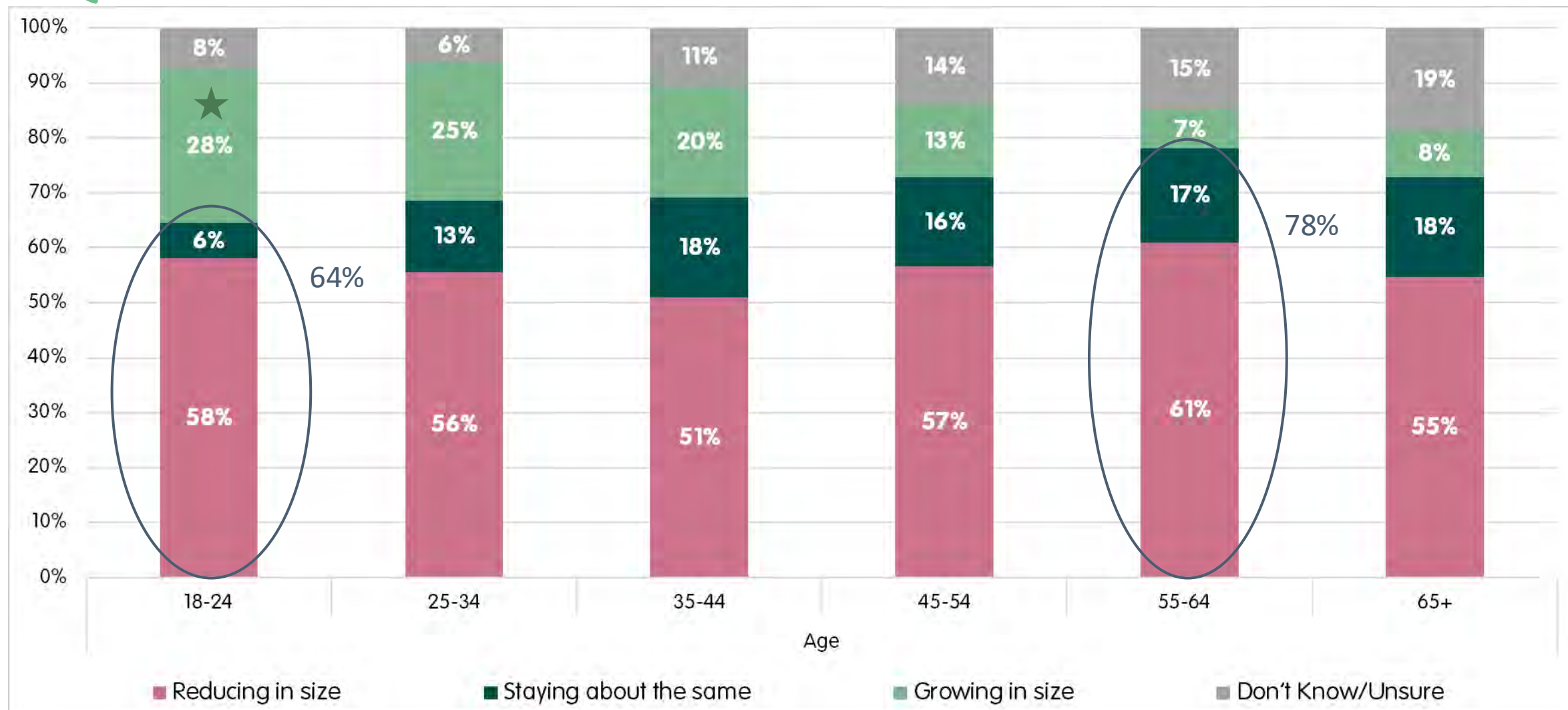


What do you believe has been happening to the size of U.S. forest area since the year 2000?





What do you believe has been happening to the size of U.S. forest area since the year 2000?



Busting the Myth

The production and use of paper and paper-based packaging cause deforestation



What is deforestation?

- The permanent conversion of forestland to non-forest use
- Sustainable harvesting of trees to make products that benefit society is not considered deforestation because the trees will grow back

— UN Food and Agriculture Organization

Primary Causes

Globally: Agriculture

US: Urban Development

Canada: Agriculture,
Mining, and Oil & Gas
Expansion

The Facts

- North American forests are a renewable resource and are not shrinking. Net U.S. forest area grew by ~10 million acres between 2000 and 2025.

— UN FAO

- Tree harvesting in the U.S. occurs on less than 2% of forestland each year compared to the nearly 3% disturbed annually by natural events like insects, disease and fire.

— U.S. Forest Service

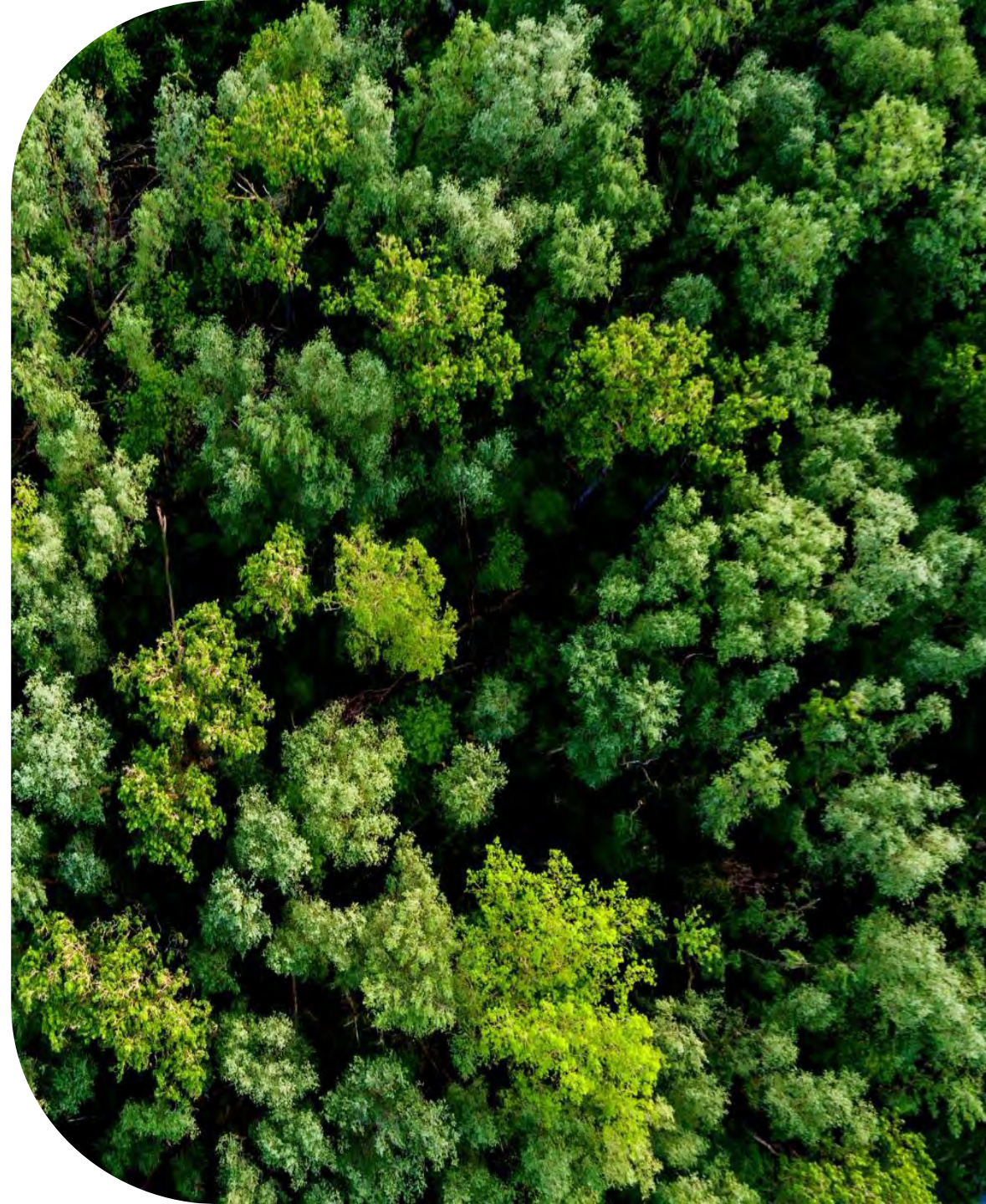


The Facts

- More than half (~60%) of forestland in the U.S. is privately owned
- More than 11 million “family forest owners”
- Close to 90% of wood harvested in the U.S. comes from these privately owned forests, which provide most of the wood for domestically produced paper products.

— U.S. Forest Service

— AF&PA





The Facts

- The demand for sustainable paper products is a powerful economic engine keeping U.S. lands forested vs. development or non-forest uses.

Busting the Myth

The production of paper
uses excessive amounts
of water

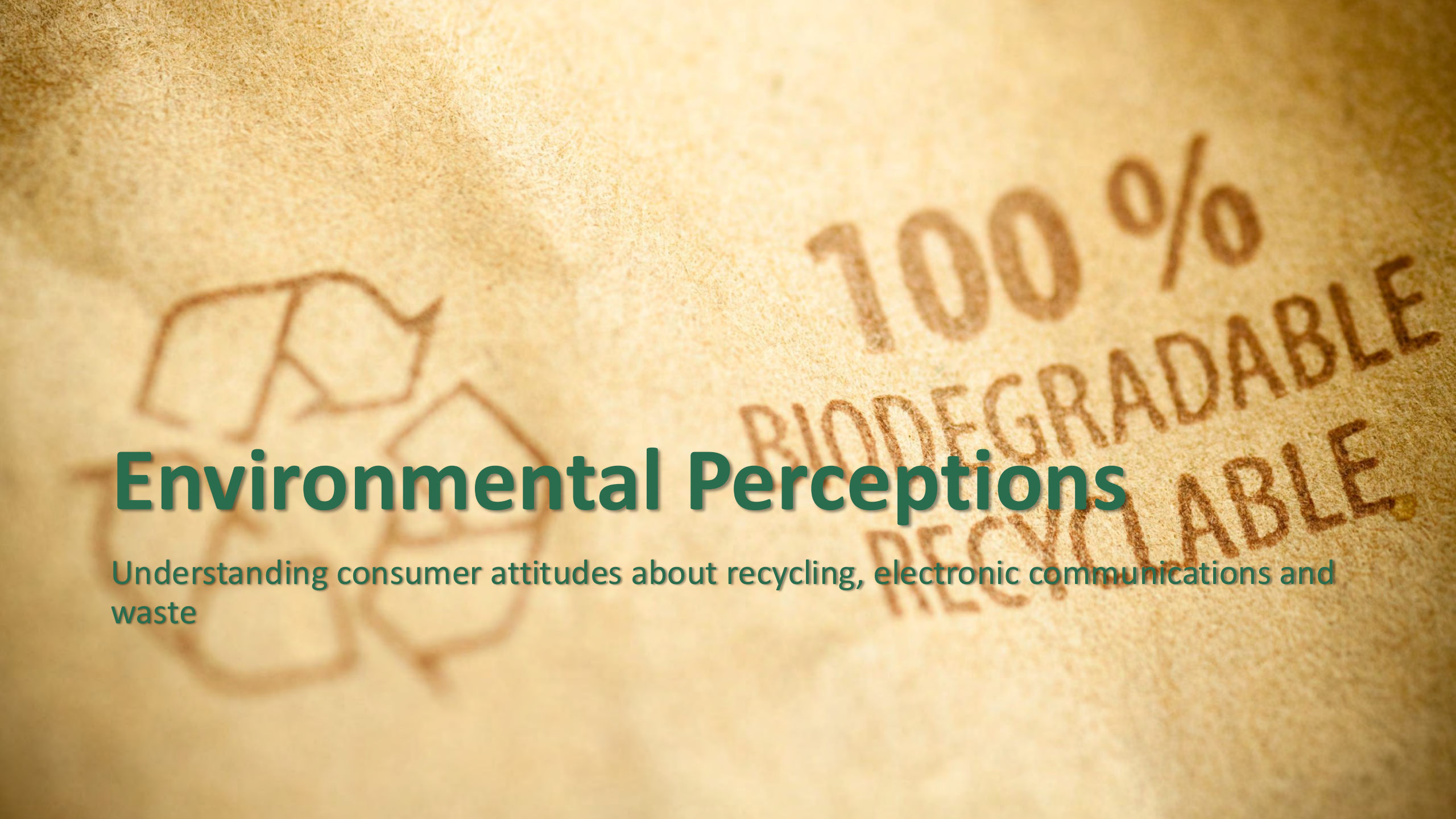


The Facts

- Most of the water used in the papermaking process is not consumed by the process
- Process water is recycled 10X or more, then it's cleaned to meet strict water quality standards – and nearly **90% is returned** to the source
- About **1% of the water remains** in the manufactured products
- The rest evaporates as steam back into the environment

— NCASI



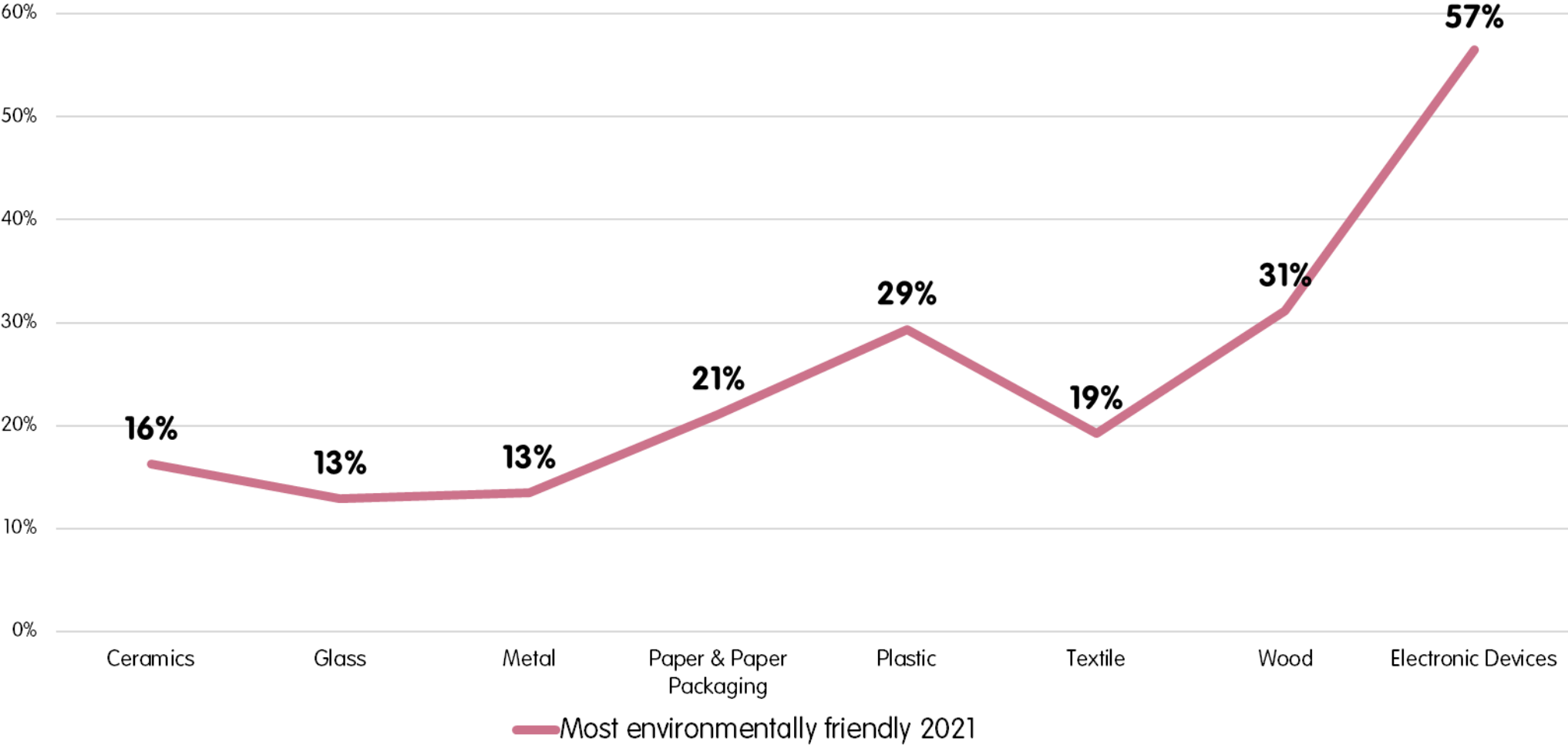


Environmental Perceptions

Understanding consumer attitudes about recycling, electronic communications and waste



In your opinion, how environmentally friendly are the following materials/products?

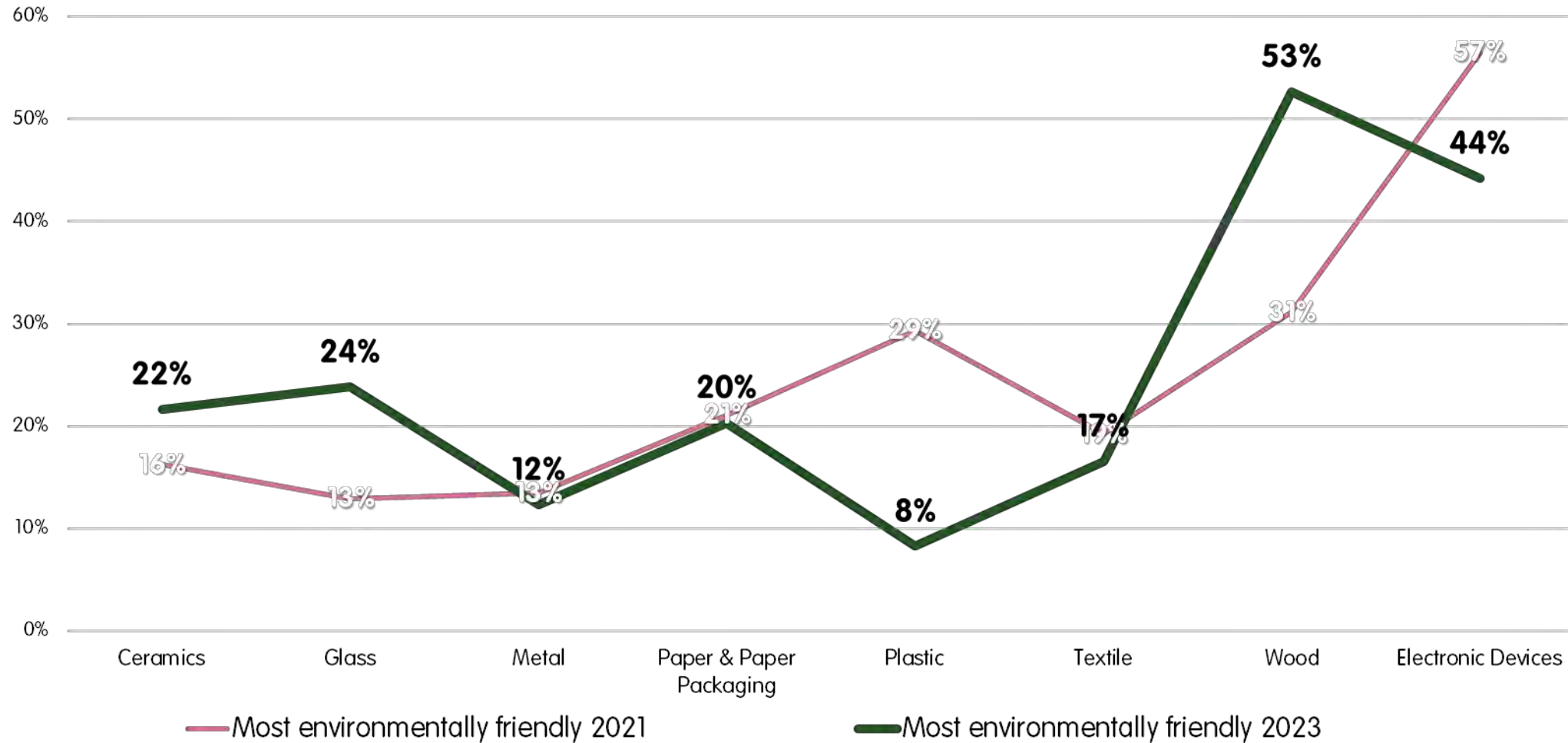


Q

In your opinion, how environmentally friendly are the following materials/products?



Comparing The Trends

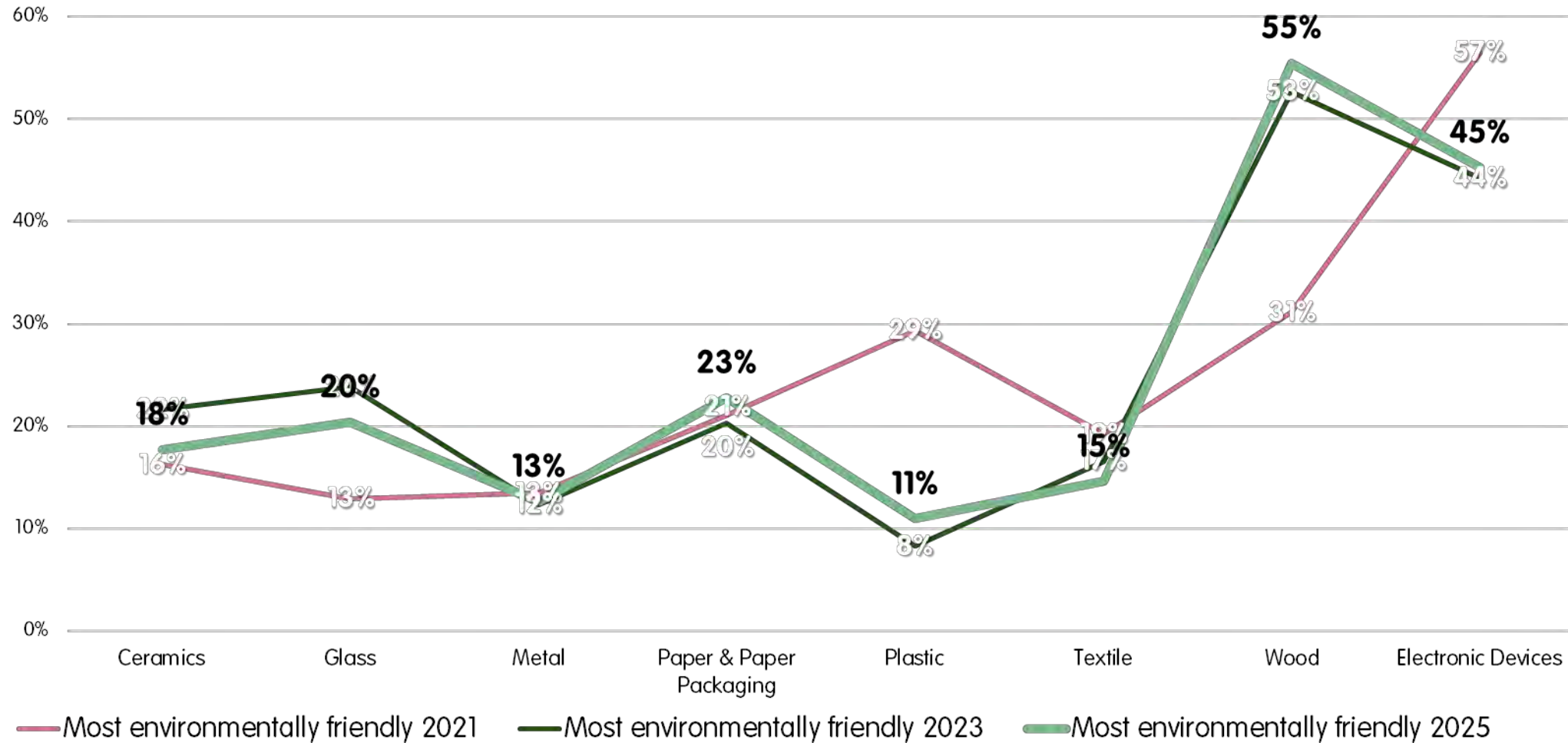




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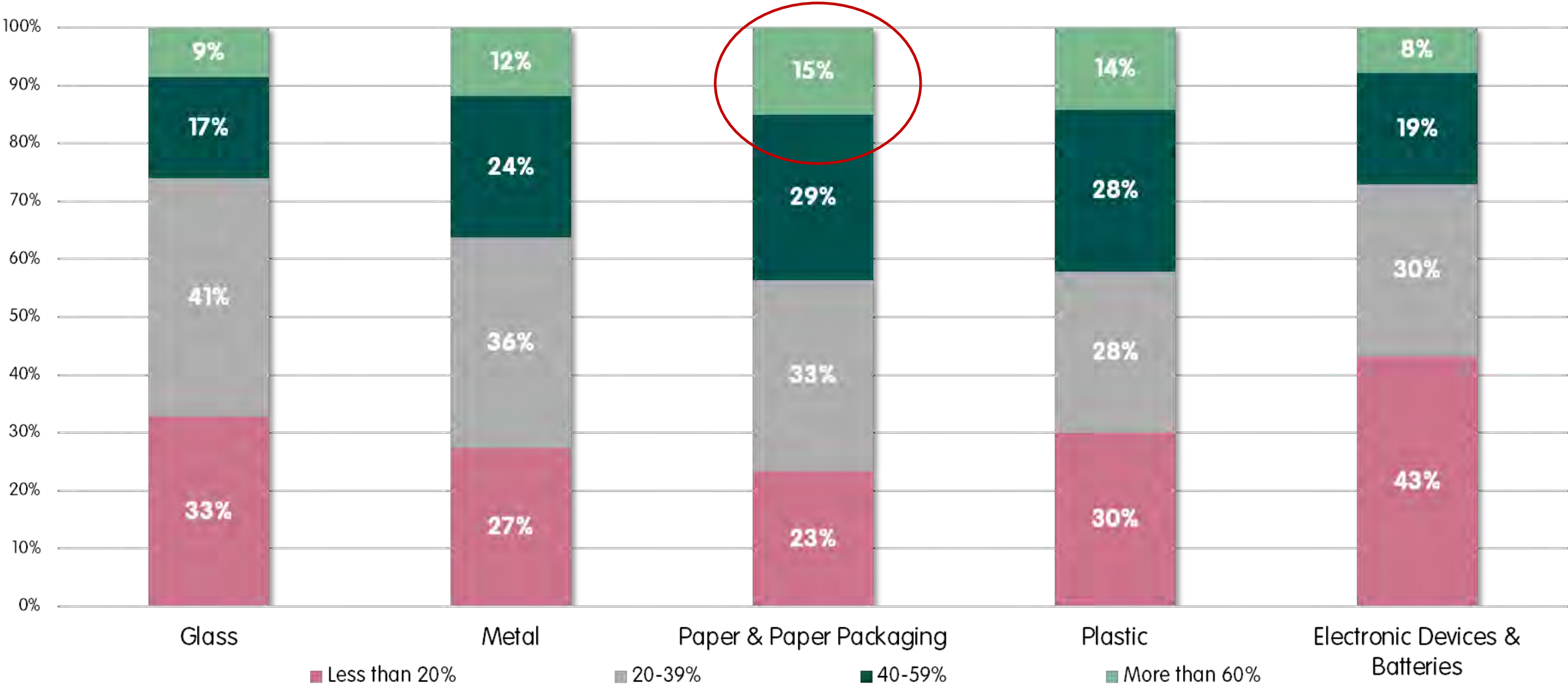


Comparing The Trends



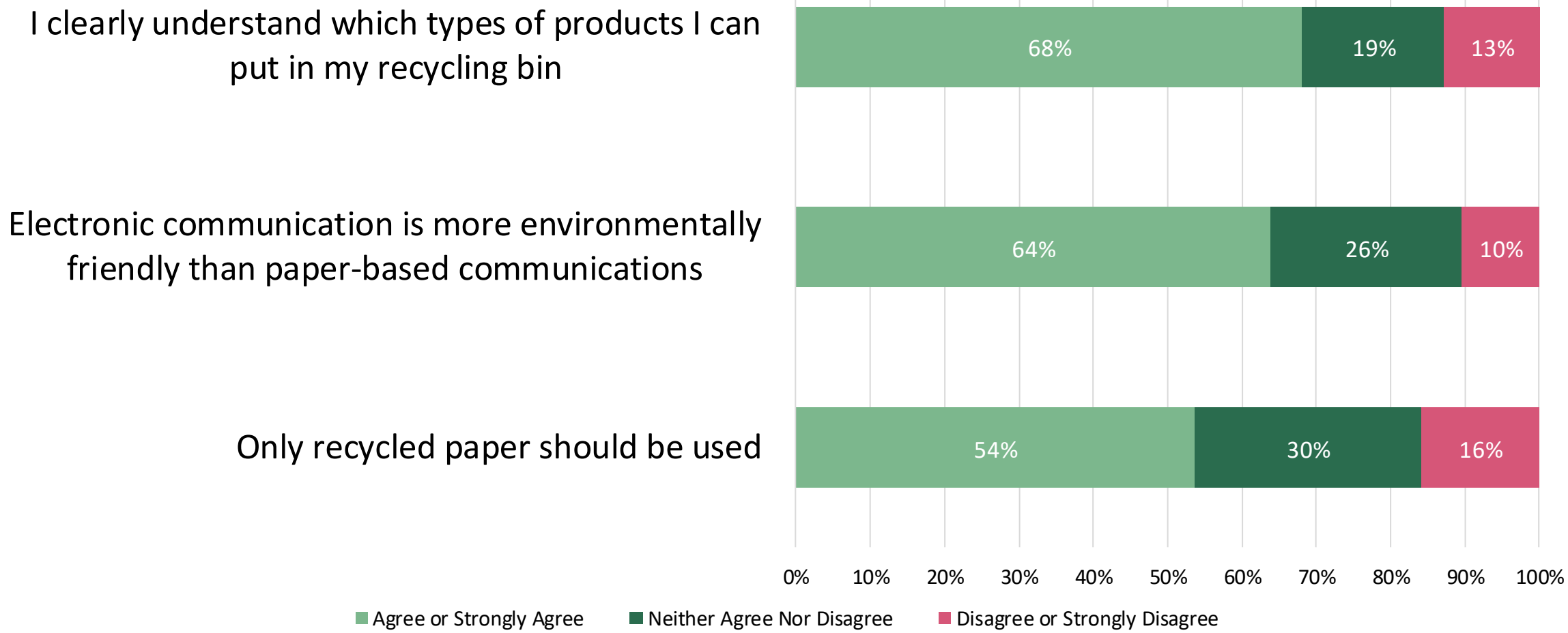


When thinking about the following products, what percentage do you think is recycled in the U.S.?





To what extent do you agree with the following statements?



Busting the Myth

Using paper products is
wasteful - most paper
goes to landfills



The Facts

- 60% - 64% of paper and paper-based packaging in the U.S. is recycled, and that number jumps to 69% - 74% for corrugated boxes
 - EPA, AF&PA
- This compares with plastic at 13%, glass at 31% and metals at 34%
 - EPA, Glass Recycling Foundation



Why is Paper Recycling Such an Overwhelming Environmental Success Story?

- The U.S. paper industry has voluntarily invested billions of dollars in recycling infrastructure over the last 30 years
- Overwhelming support from consumers, communities and businesses



Busting the Myth

To be truly sustainable,
all paper must contain
100% recycled content



The Facts

- Recycled fiber must originate somewhere, and that origin is the fresh fiber that made up the paper product that got recycled



The Facts

- Paper can't be recycled indefinitely
- Repeated collecting, cleaning and de-inking, bleaching eventually weakens the fibers to the point they can't bond into new paper, so they must be replaced with fresh fiber

Paper can be recycled 5 to 7 times



The Facts

- Without the continuous introduction of virgin fiber into the manufacturing system to replace worn-out recycled fiber, the manufacture of recycled paper products would quickly come to a halt





Busting the Myth

Electronic communication
is a green alternative to
print on paper

The Facts

Raw Materials

- Electronic devices are made with non-renewable raw materials that require environmentally intensive mining and drilling.
- By 2028, North America is estimated to have over 500 million internet users, up from 400 million in 2020.

— Global E-Waste Monitor

— Statista





The Facts

Energy Consumption

- Electronic communication uses massive amounts of mostly fossil fuel energy to manufacture and operate devices and the server farms that support them
- Electricity consumption from data centers, artificial intelligence (AI) and the cryptocurrency sector could double by 2026. This demand is roughly equivalent to the electricity consumption of Japan.

— International Energy Agency, 2025

The Facts

Waste Generation

- Since 2010, the growth of e-waste generation outpaced formal collection and recycling by almost a factor of 5
- Globally, only 22% of e-waste is documented as properly collected and recycled
- As levels of e-waste increase, so does improper and unsafe treatment and disposal, posing significant threats to the environment and human health

— Global E-Waste Monitor



Your Paper Sustainability Elevator Pitch

Paper Contributes to the Circular Economy

The paper life cycle is already circular

- Uses an infinitely renewable resource (trees from sustainably managed forests) to supply fiber and capture/store carbon
- Cleans and returns nearly all process water to the environment
- Recovers a high percentage of paper that is recycled multiple times into new products



1

Paper is made from an **infinitely renewable resource** – trees that are purpose-grown, harvested and re-grown in sustainably managed forests – or from recycled paper

2

Harvesting trees to make paper products is **not a cause of deforestation** because the trees will grow back through natural regeneration or sustainable forest management

3

Paper manufacturing is **not a major source of greenhouse gas emissions** contributing to climate change. Paper industry emissions total less than 1% of total U.S. emissions.

4

Nearly all the water used in paper manufacturing is **cleaned to meet strict water quality standards and is returned to its source**

5

Paper and paper-based packaging get recycled more than any other material in the U.S. municipal waste stream

6

The **lifecycle of paper is already circular**, minimizing resource use, carbon emissions and waste

7

Electronic communication is not always greener than print on paper. While electronic communication has transformed our lives in many positive ways, it also has **wide-ranging environmental impacts that continue to grow**



Greenwashing

Greenwashing

Disinformation disseminated by
an organization to present an
environmentally responsible
public image.

—Oxford Dictionary

Two Sides 2022 Greenwashing Study

65% of those who have seen greenwashing claims say these messages influence them to switch from paper to electronic communications

Two Sides Anti-greenwashing Campaign Results

- **Nearly 220** leading North American companies have removed or changed claims (>1,300 globally)
- Represents **billions** of misleading environmental messages removed



LOWE'S

Financial Impact of Greenwashing

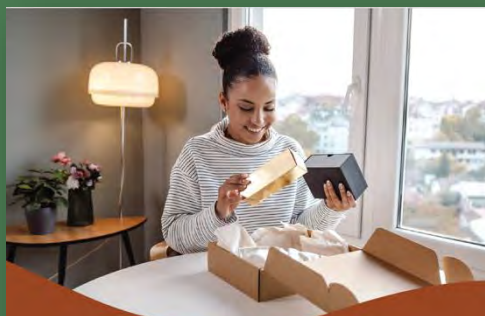
Annual North American Paper, Print and Mailing Revenue
Preserved by Two Sides Anti-Greenwashing Campaign

> \$300,000,000

*Two Sides 2022 Greenwashing Study



Everyone whose livelihood is connected to paper, packaging, mail, and print, or who wants to have consumer choice and equal access to information has a stake in making the sustainability case for paper!



**Cut the tape.
Open the box.
Make the moment.**

Paper is recyclable, renewable, tactile, and part of our lives—making learning clearer, packaging smarter, and memories more meaningful.

Discover Love Paper at lovepaperma.org




**Plant it.
Grow It.
Use it Again.**

Paper is recyclable, renewable, sustainable, and part of our lives—making paper products the clear environmental choice. It's okay to love paper.

Know The Facts About Paper

- Growing Forests**
Forests are renewable—in fact, U.S. forested area grew by about 10 million acres between 2000 and 2025.
- It's the Little Things**
Paper towels, tissues, and other paper products are dependable, essential, and sustainable.
- Reuse Again**
Paper fibers can be recycled up to 7 times. Your notebook, your coffee sleeve—they've got more life ahead.




**Paper.
There When
It Matters.**

Paper is recyclable, renewable, tactile, and part of our lives—making learning clearer, packaging smarter, and memories more meaningful.

Know The Facts About Paper

- Lifeline on Paper**
1 in 5 rural Americans have no broadband—paper mail keeps them connected.
- The Feel is Real**
Flipping pages, underlining a sentence that hits—physical interaction with material creates stronger memory cues.
- Reuse Again**
Paper fibers can be recycled up to 7 times. Your notebook, your coffee sleeve—they've got more life ahead.



Discover Love Paper at lovepaperma.org



**One Sheet.
Many Lives.**

Paper is recyclable, renewable, tactile, and part of our lives—making learning clearer, packaging smarter, and memories more meaningful.

Know The Facts About Paper

- Reuse Again**
Paper fibers can be recycled up to 7 times. Your notebook, your coffee sleeve—they've got more life ahead.
- Digital Isn't Forever**
Files get lost. Paper keeps your records tangible, reliable, and lasting.
- Protected Forests**
When forests have economic value, they're more likely to be preserved—not cleared for other uses.



Discover Love Paper at lovepaperma.org

Love Paper Campaign

- Consumer-facing campaign supporting the sustainability and value of paper-based products



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Thank you!



Print, Paper and
Paper Packaging
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