

Welcome to the new series **"Smarter choices + Better outcomes"** dedicated to exploring the science behind the choices being made across Coatings & Performance Monomers that are impacting how we innovate for a better, more sustainable future.

What can you expect to see here? Well, in each story, we will bring you one global challenge in sustainable development and a solution in our portfolio designed to help address it.

Get ready because we're just getting started.

The Paper Cup Challenge

The challenge



Globally
600 Billion
disposable cups
consumed per year⁽¹⁾

120 billion are consumed in the US
alone, made from paper, foam and plastic

54 billion paper cups in the US

Impact annually in the US:



2.2 billion
lbs. of waste

Enough waste
to fill **78,571**
garbage trucks



35 billion
gallons of water

Enough to fill almost
53,000 Olympic size
swimming pools

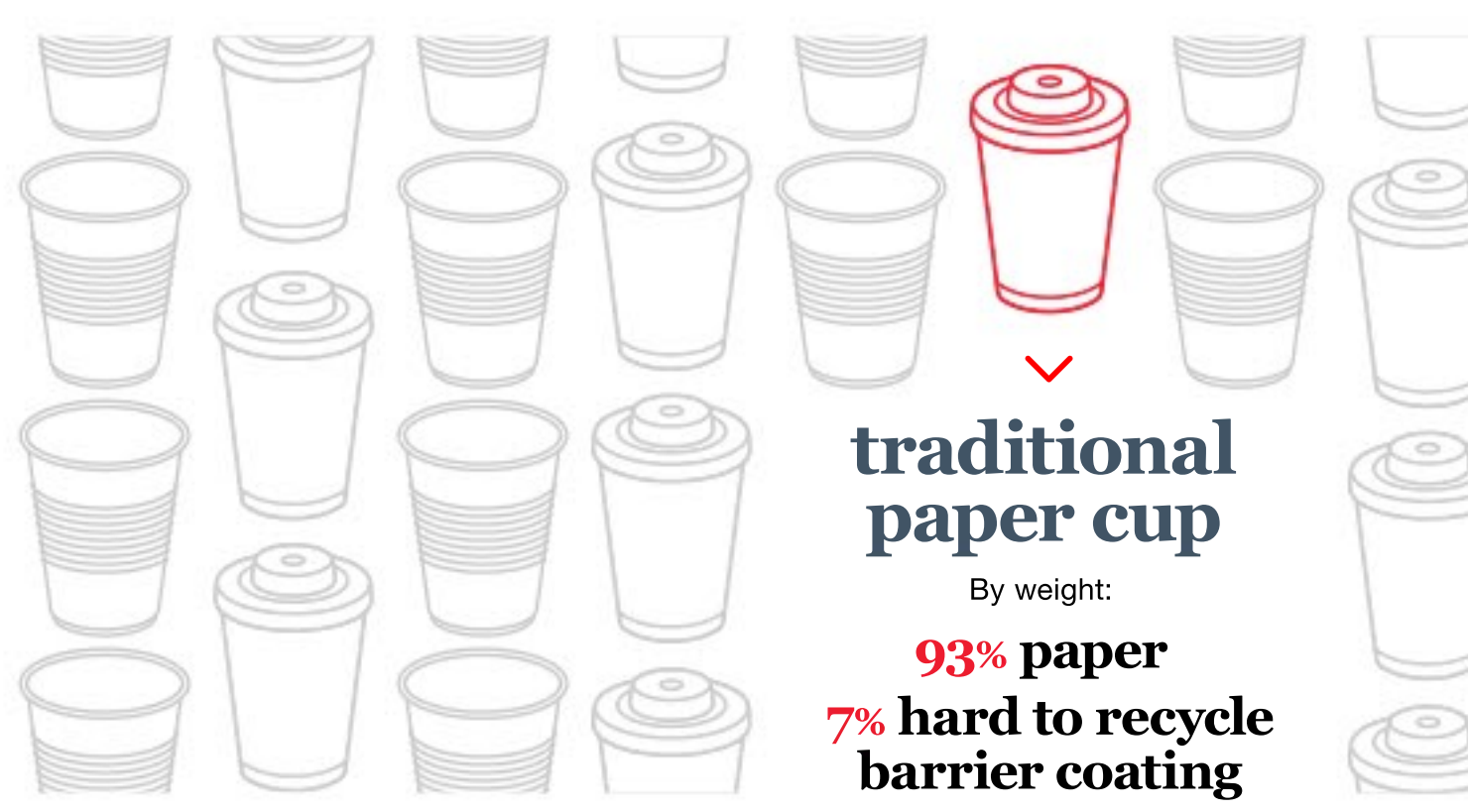


4 billion
lbs. of CO2 equivalent

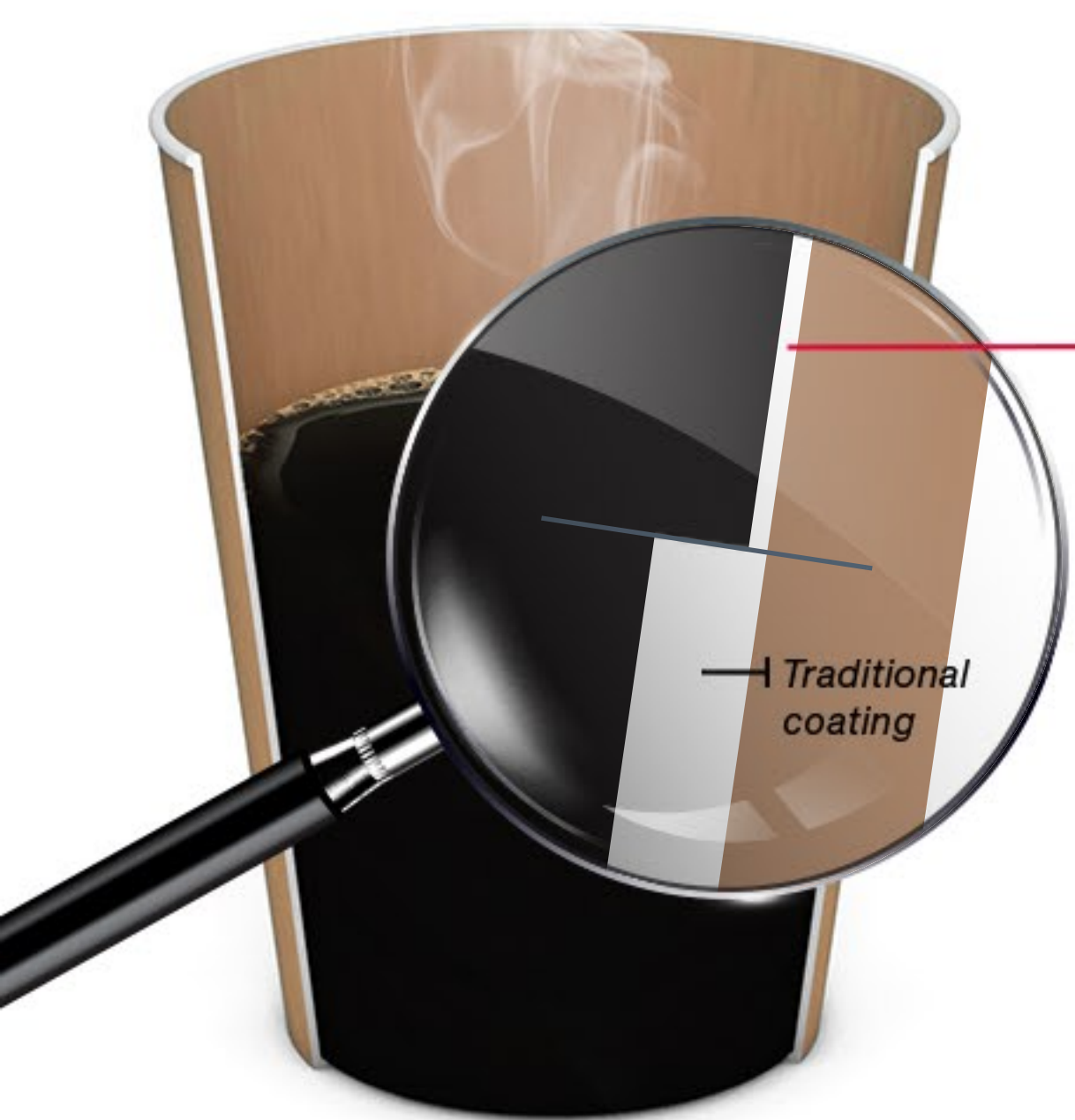
Equal to the
annual emissions
of **392,000** cars

Why do > 90% of single use cups end up in landfills?

For a paper cup to retain your hot or cold beverage without leaking, it needs to have a barrier coating. The relatively thick barrier coating in traditional paper cups lead to lower fiber recovery rates. This makes it less attractive for paper producers to increase recycling.



The smarter choice



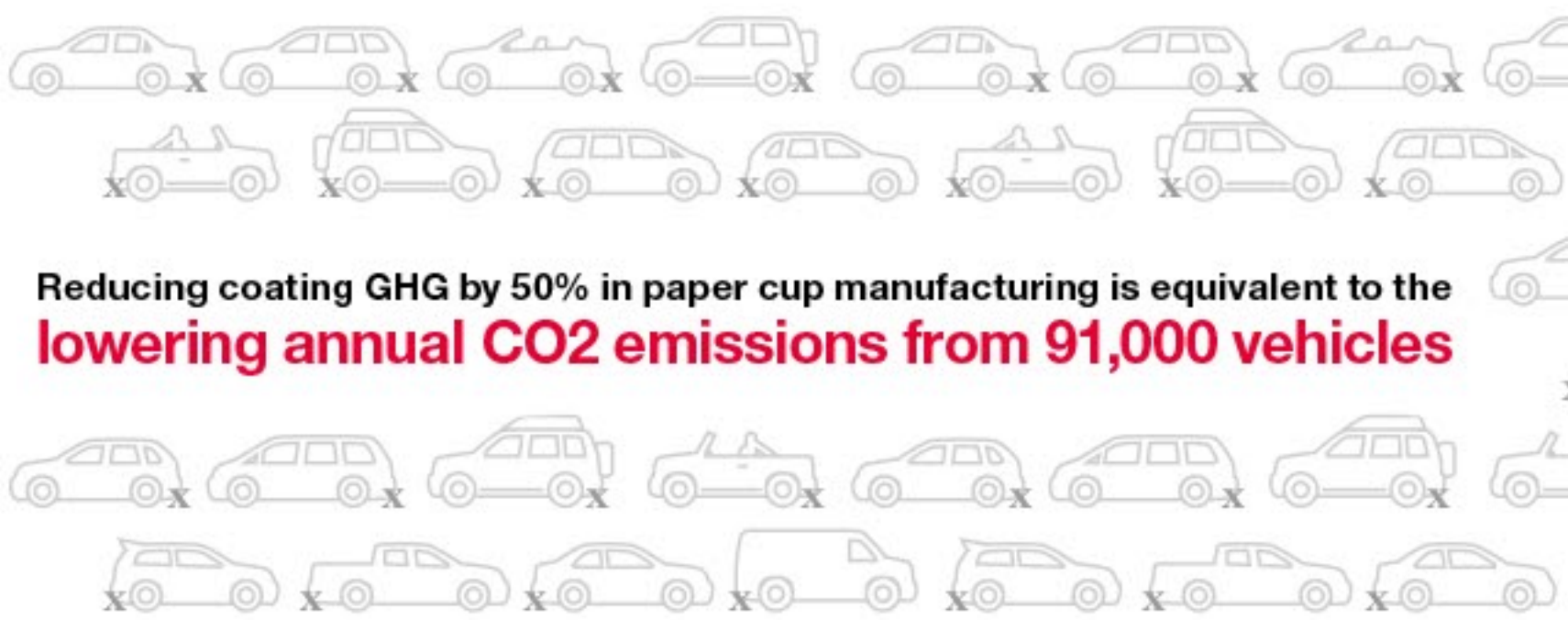
RHOBARR™ 320 Barrier Dispersion

65-70% thinner water-based barrier coating developed by Dow's R&D team.

99%
fiber recovery

up to **15%**
lower product weight

If all of the paper cups consumed in the US were made with RHOBARR 320, GHG emissions from the barrier coating would be reduced by **50%**⁽²⁾



But that's not all!

Water resource depletion

Our thinner coating solution also reduces water usage by more than 18% compared with traditional coating barriers. This reduction is equivalent to the annual potable water needs of about 917,000 people⁽²⁾.

Is this a better outcome for everyone?

For consumers

Know that the cup that you use has a favorable sustainability profile, when enjoying that mid-day pick me up!



For manufacturers

offering an economical high performing solution that integrated seamlessly with existing equipment.



For society

RHOBARR Barrier Dispersions reduces landfill waste and lowers impacts from global warming, smog, and acidification by up to 60% vs. traditional paper cup coatings.



For Dow

the RHOBARR product line is part of our continuous journey to advance a circular economy through the development of recyclable packaging.

What can you do?

1. Become a responsible consumer

by learning more about the total environmental impact of the products you consume.

3. Make sure

you check your local recycling regulations and follow them.

2. Remember

to dispose of your paper cups properly in appropriate recycling bins.

4. Become an ambassador

share this information as much as you can and help us spread the message.

Learn more

Do you want to learn more about our solutions for paper coating?

Watch this video!



RHOBARR™ 320 Barrier Dispersion A more sustainable, high performance coating

RHOBARR™ 320 Barrier Dispersion was awarded the R&D 100 Award and the Edison Award in 2020 for its breakthrough innovation and sustainability profile.



check it out

(1) City of Berkeley, CA, GreenBiz.com, Freedonia

(2) Results from an externally validated comparative Lifecycle assessment (LCA) for RHOBARR™ 320 Barrier Dispersion versus a traditional extrusion coating

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