Guides
from Playfair+

The Problem With Plastic

PlayfairData®

How to Use

This Guide from Playfair+ will walk you through some of the Tableau innovations designed and curated for use in the interactive workbook, The Problem With Plastic.

[Explore our workbook: The Problem With Plastic ›](#)

The true value of Guides from Playfair+ is the hand-selected array of resources produced by the award-winning Playfair Data experts at your disposal; tutorials, training videos, and template tools not only document the data visualizations and the engineering features that brought this dashboard design to life in Tableau, but offer a comprehensive "open-hood" look at some of the industry-leading techniques found in our visual analytics products.

Icon legend:

These icons indicate there is at least one blog post on the visualization.

These icons indicate there is at least one video on the visualization.

New to Tableau?
We recommend starting with our Cornerstone Module.

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Global Features

01 Dashboard Navigation

Create an image-only navigation bar to navigate through the various views.

[Watch: How to Make a Navigation Bar with Buttons](#) >

02 Pop-Out Menu

Create a pop-out menu with additional information, such as a summary, resources, or a how-to-use guide.

[Read: How to Do Advanced Dynamic Zone Visibility](#) >

[Watch: How to Add a Show/Hide Button to a Layout Container](#) >
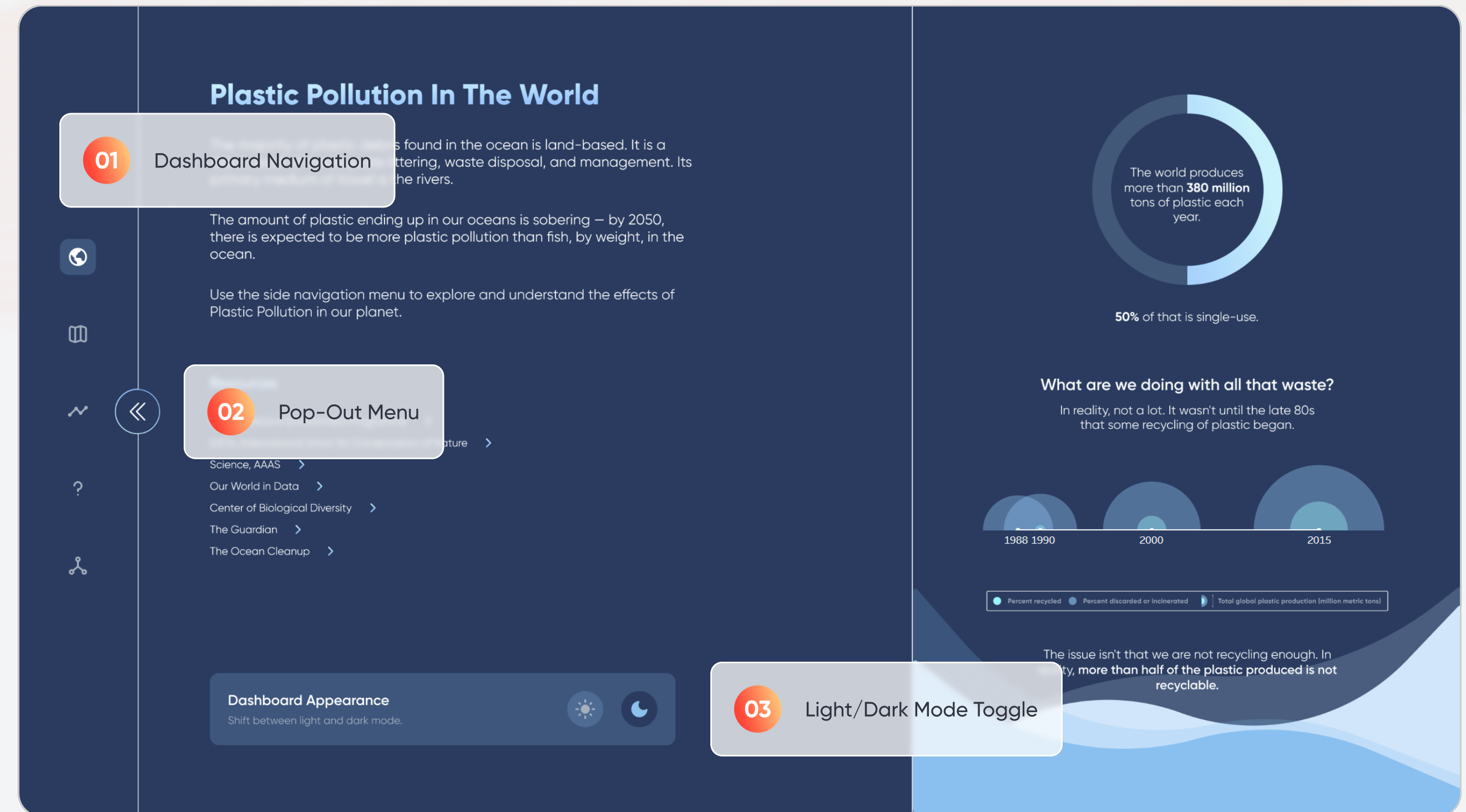
03 Light/Dark Mode Toggle

Allow the user to switch between a light and dark mode version of the dashboard.

[Read: How to make a Boolean toggle](#) >

[Read: How to Create Light Mode and Dark Mode Dashboards in Tableau](#) >

[Watch: How to make an integrated toggle switch](#) >

[Watch: Three ways to make terrific toggles](#) >

Plastic Pollution In The World

01 Dashboard Navigation

...s found in the ocean is land-based. It is a ...ttering, waste disposal, and management. Its ...he rivers.

The amount of plastic ending up in our oceans is sobering — by 2050, there is expected to be more plastic pollution than fish, by weight, in the ocean.

Use the side navigation menu to explore and understand the effects of Plastic Pollution in our planet.

02 Pop-Out Menu

...ature >
Science, AAAS >
Our World in Data >
Center of Biological Diversity >
The Guardian >
The Ocean Cleanup >

The world produces more than **380 million** tons of plastic each year.

50% of that is single-use.

What are we doing with all that waste?

In reality, not a lot. It wasn't until the late 80s that some recycling of plastic began.

1988 1990   2000   2015

● Percent recycled ● Percent discarded or incinerated ● Total global plastic production (million metric tons)

The issue isn't that we are not recycling enough. In ...ty, more than half of the plastic produced is not recyclable.

Dashboard Appearance
Shift between light and dark mode.

03 Light/Dark Mode Toggle

View: The Problem With Plastic

01 Donut Chart

Read how to create effective, expanding donut charts in Tableau.

Read: How to Make an Expanding Donut Chart in Tableau ›

02 Radial Bar Chart

Learn how to build a radial bar chart in Tableau.

> 🚧 **Check back soon for this tutorial!**
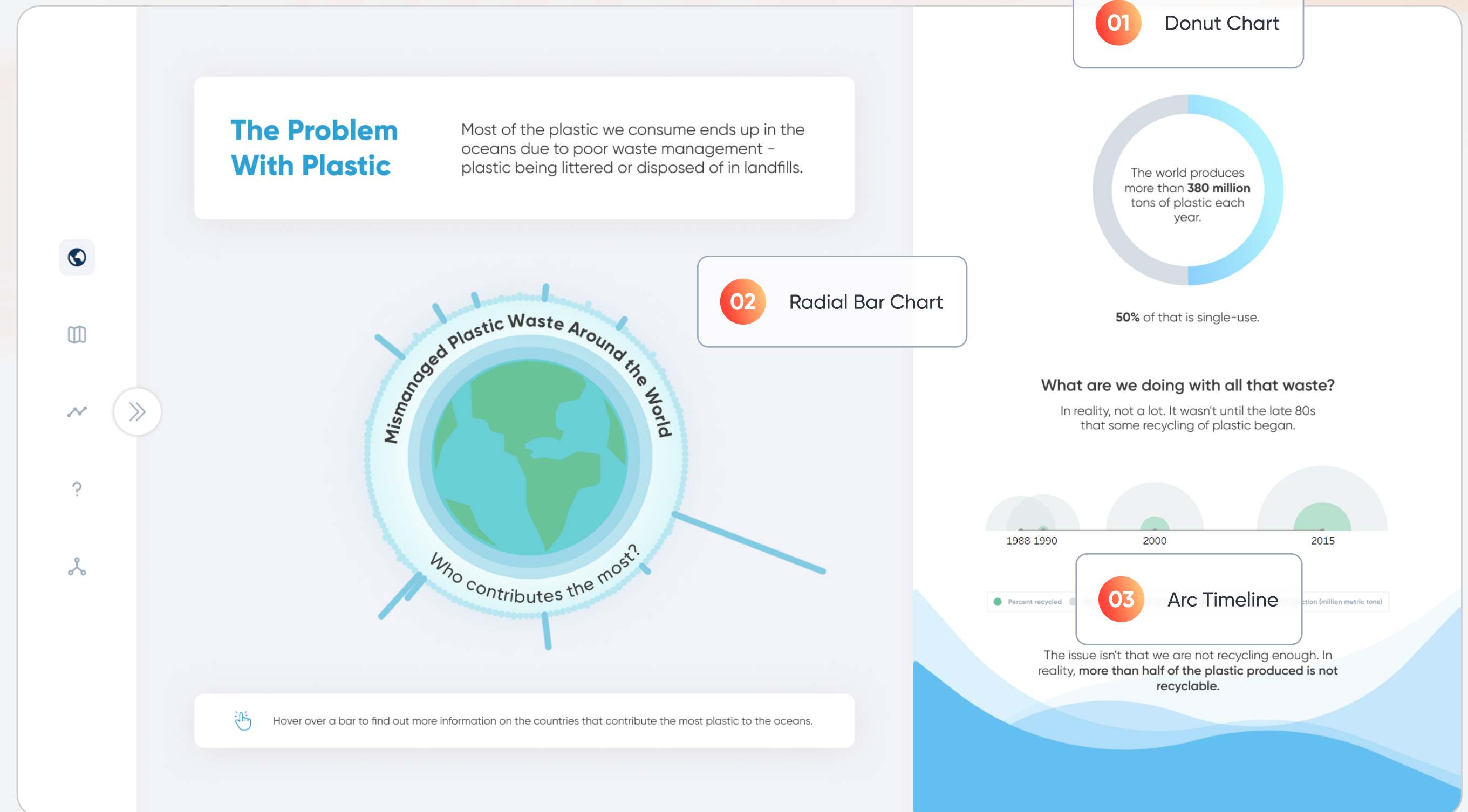> Our team is working hard to bring you more insights.

03 Arc Timeline

Explore how to build timelines in Tableau.

Watch: How to Make a Timeline in Tableau ›

Watch: Two Ways to Make a Tableau Timeline when Events Overlap ›

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01 Donut Chart

The Problem With Plastic

Most of the plastic we consume ends up in the oceans due to poor waste management - plastic being littered or disposed of in landfills.

02 Radial Bar Chart

The world produces more than **380 million** tons of plastic each year.

50% of that is single-use.

What are we doing with all that waste?

In reality, not a lot. It wasn't until the late 80s that some recycling of plastic began.

Mismanaged Plastic Waste Around the World

Who contributes the most?

1988 1990   2000   2015

● Percent recycled   ... (million metric tons)

03 Arc Timeline

The issue isn't that we are not recycling enough. In reality, **more than half of the plastic produced is not recyclable.**

🖐 Hover over a bar to find out more information on the countries that contribute the most plastic to the oceans.

✨ **Tip:** Incorporating static elements such as body copy, links, and color legends in the background images of your workbook can help with more efficient load times.

View: Great Garbage Patches

01 River Mapping

Explore ways to incorporate rivers into a map using spatial data.

Read: How to Use Spatial Data to Map Rivers and Roads in Tableau ›

Watch: An Introduction to Mapping in Tableau ›

02 Dynamic Buffer

Learn how to map in Tableau by drawing a circle (called a buffer in Tableau) around the city of your choice.

Watch: An Introduction to Mapping in Tableau ›

Great Garbage Patches

Five gyres circle our oceans, and every ocean gyre has a garbage patch. They are not on maps and aren't visible from space, but tons of plastic gets trapped in immense whirlpools where ocean currents group them, creating "patches".

01 River Mapping

© 2023 Mapbox © OpenStreetMap

A majority of the plastic debris in our oceans is land-based, and rivers are its primary means of travel.

Explore the locations with the largest plastic input from rivers around the world.

Plastic input in tonnes

- 500,000
- 300,000
- 100,000
- 5,000

02 Dynamic Buffer

© 2023 Mapbox © OpenStreetMap

How Big Is The Great Pacific Garbage Patch?

Viewing: **Orlando, Florida, United States**

Scientists estimate a surface area of 1.6 million square kilometers through research consisting of a fleet of 30 boats, 652 surface nets, and two flights over the patch to gather aerial imagery of the debris over a timeframe window to account for drifts in the plastic.

Select location

Watch out! Large geospatial files can slow down load times. Aim to filter your data to just the relevant data points where possible.

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View: Plastic Debris Decomposition Rate

01 Paginated, Interactive Timeline

Have a large range of time with limited space? Paginate your timeline!

[Watch: How to make a timeline](#) ❯

[Watch: How to do pagination](#) ❯

[Watch: How to make a timeline when events overlap](#) ❯
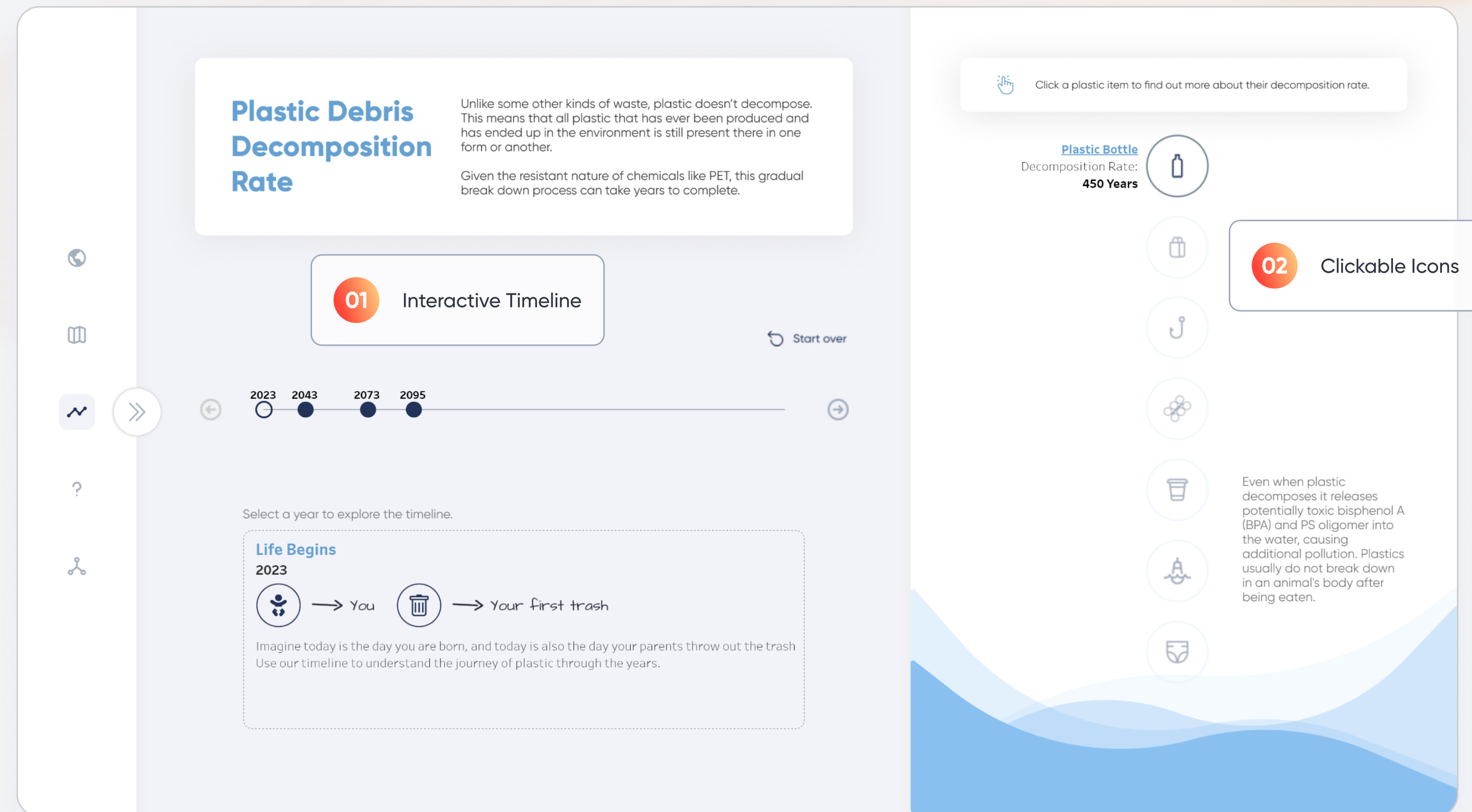
02 Clickable Icons

Incorporate clickable icons to reveal more information.

[Read: How to Do Button Swapping with Parameters in Tableau](#) ❯

[Watch: How to Add a Show/Hide Button to a Layout Container in Tableau](#) ❯

[Watch: How to Show Selections With Button Swapping in Tableau](#) ❯

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Plastic Debris Decomposition Rate

Unlike some other kinds of waste, plastic doesn't decompose. This means that all plastic that has ever been produced and has ended up in the environment is still present there in one form or another.

Given the resistant nature of chemicals like PET, this gradual break down process can take years to complete.

Click a plastic item to find out more about their decomposition rate.

Plastic Bottle
Decomposition Rate:
450 Years

01 Interactive Timeline

↺ Start over

2023 2043 2073 2095

Select a year to explore the timeline.

Life Begins
2023

⬤ → You   🗑 → Your first trash

Imagine today is the day you are born, and today is also the day your parents throw out the trash Use our timeline to understand the journey of plastic through the years.

02 Clickable Icons

Even when plastic decomposes it releases potentially toxic bisphenol A (BPA) and PS oligomer into the water, causing additional pollution. Plastics usually do not break down in an animal's body after being eaten.

View: The Missing Plastic Problem, Part 1

01 Jitter Plot

Learn how to create a jitter plot in Tableau.

[Read: Why and How to Make Customizable Jitter Plots](#) ›

[Watch: Why and How to Make Jitter Plots in Tableau](#) ›

02 Image in Tooltip

Learn how to add images to tooltips.

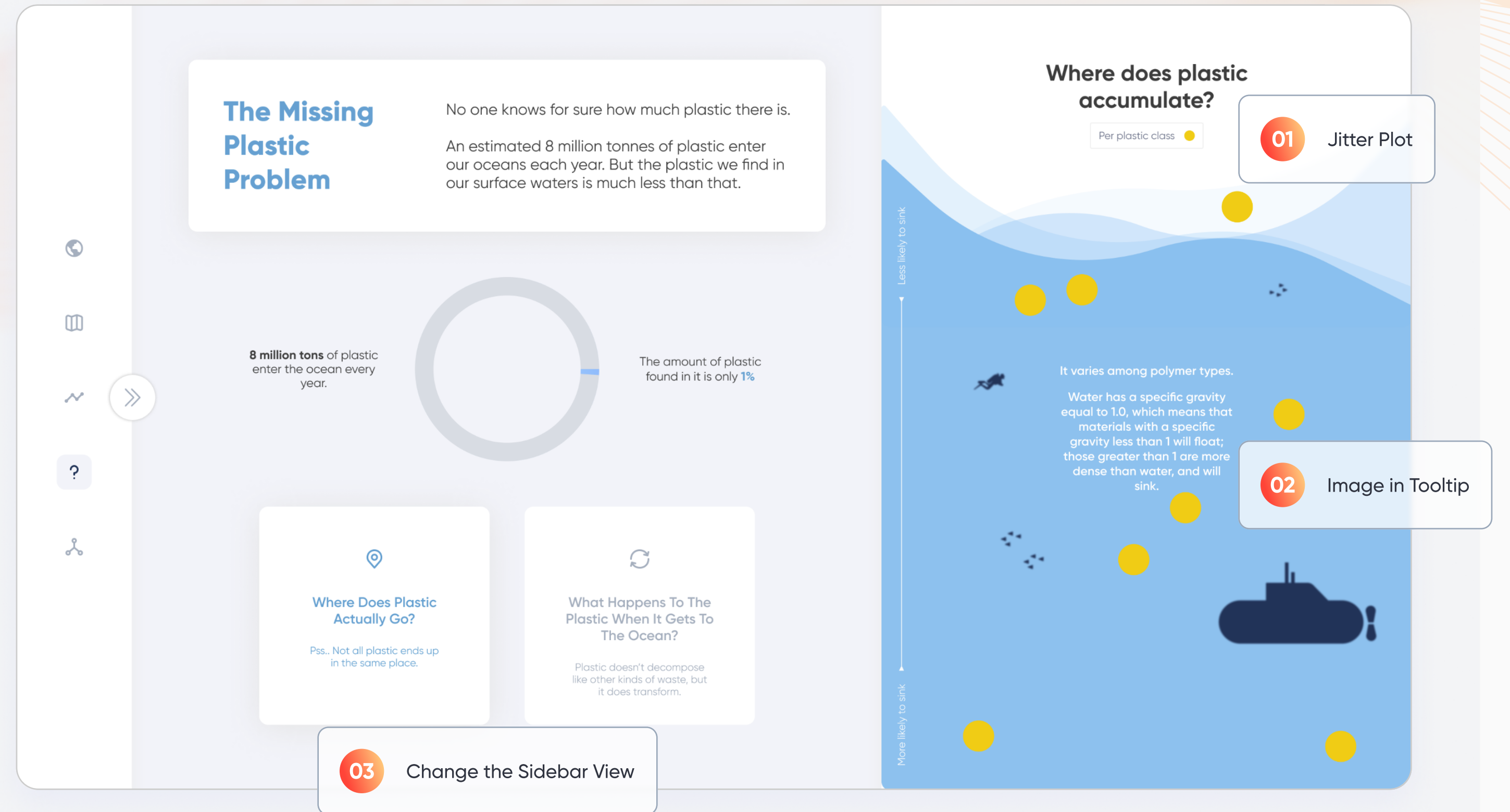[Read: How to Add an Image to a Tooltip in Tableau](#) ›

03 Change the Sidebar View

Learn how to swap out one portion of a dashboard for another.

[Watch: Three Ways to Add a Button to a Tableau Dashboard](#) ›

[Watch: How to Make a Navigation Bar with Buttons in Tableau](#) ›

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The Missing Plastic Problem

No one knows for sure how much plastic there is.

An estimated 8 million tonnes of plastic enter our oceans each year. But the plastic we find in our surface waters is much less than that.

8 million tons of plastic enter the ocean every year.

The amount of plastic found in it is only **1%**

01 Jitter Plot

Where does plastic accumulate?

Per plastic class

It varies among polymer types.

Water has a specific gravity equal to 1.0, which means that materials with a specific gravity less than 1 will float; those greater than 1 are more dense than water, and will sink.

02 Image in Tooltip

Where Does Plastic Actually Go?

Pss.. Not all plastic ends up in the same place.

What Happens To The Plastic When It Gets To The Ocean?

Plastic doesn't decompose like other kinds of waste, but it does transform.

03 Change the Sidebar View

View: The Missing Plastic Problem, Part 2
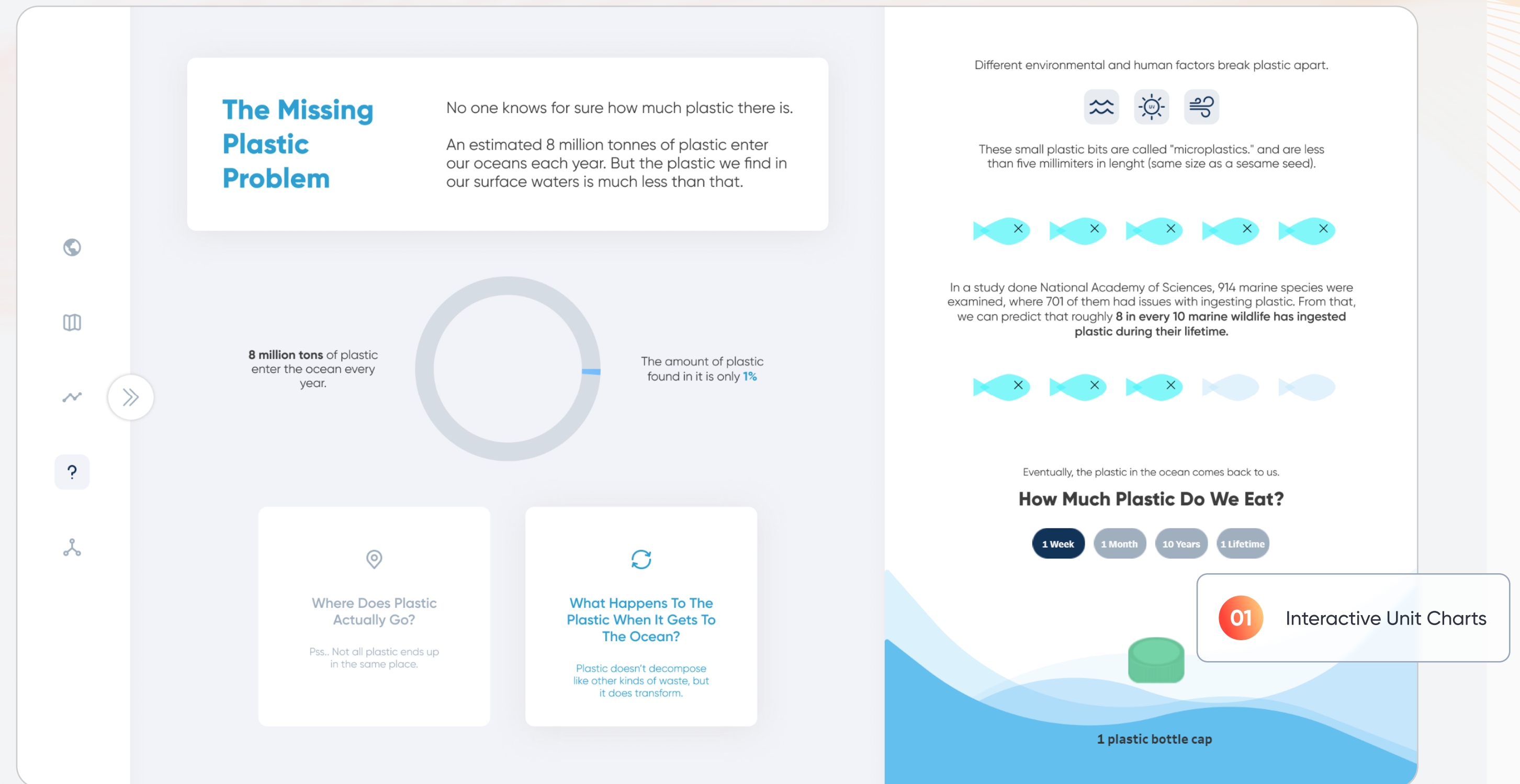
01   Interactive Unit Charts

Master sheet swapping in Tableau, allowing users to choose how the data is displayed.

[Read: How to Do Better Sheet Swapping with Tableau's Dynamic Zone Visibility](#)   ›

[Read: Tableau Tip: How to Do Better Sheet Swapping](#)   ›

[Watch: How to do Sheet Swapping with Tableau Layout Containers](#)   ›

The Missing Plastic Problem

No one knows for sure how much plastic there is.

An estimated 8 million tonnes of plastic enter our oceans each year. But the plastic we find in our surface waters is much less than that.

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Where Does Plastic Actually Go?

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What Happens To The Plastic When It Gets To The Ocean?

Plastic doesn't decompose like other kinds of waste, but it does transform.

Different environmental and human factors break plastic apart.

These small plastic bits are called "microplastics." and are less than five millimiters in lenght (same size as a sesame seed).

In a study done National Academy of Sciences, 914 marine species were examined, where 701 of them had issues with ingesting plastic. From that, we can predict that roughly **8 in every 10 marine wildlife has ingested plastic during their lifetime.**

Eventually, the plastic in the ocean comes back to us.

How Much Plastic Do We Eat?

1 Week   1 Month   10 Years   1 Lifetime

1 plastic bottle cap

01   Interactive Unit Charts

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View: The Zero Waste Hierarchy

01 Clickable Bar Chart

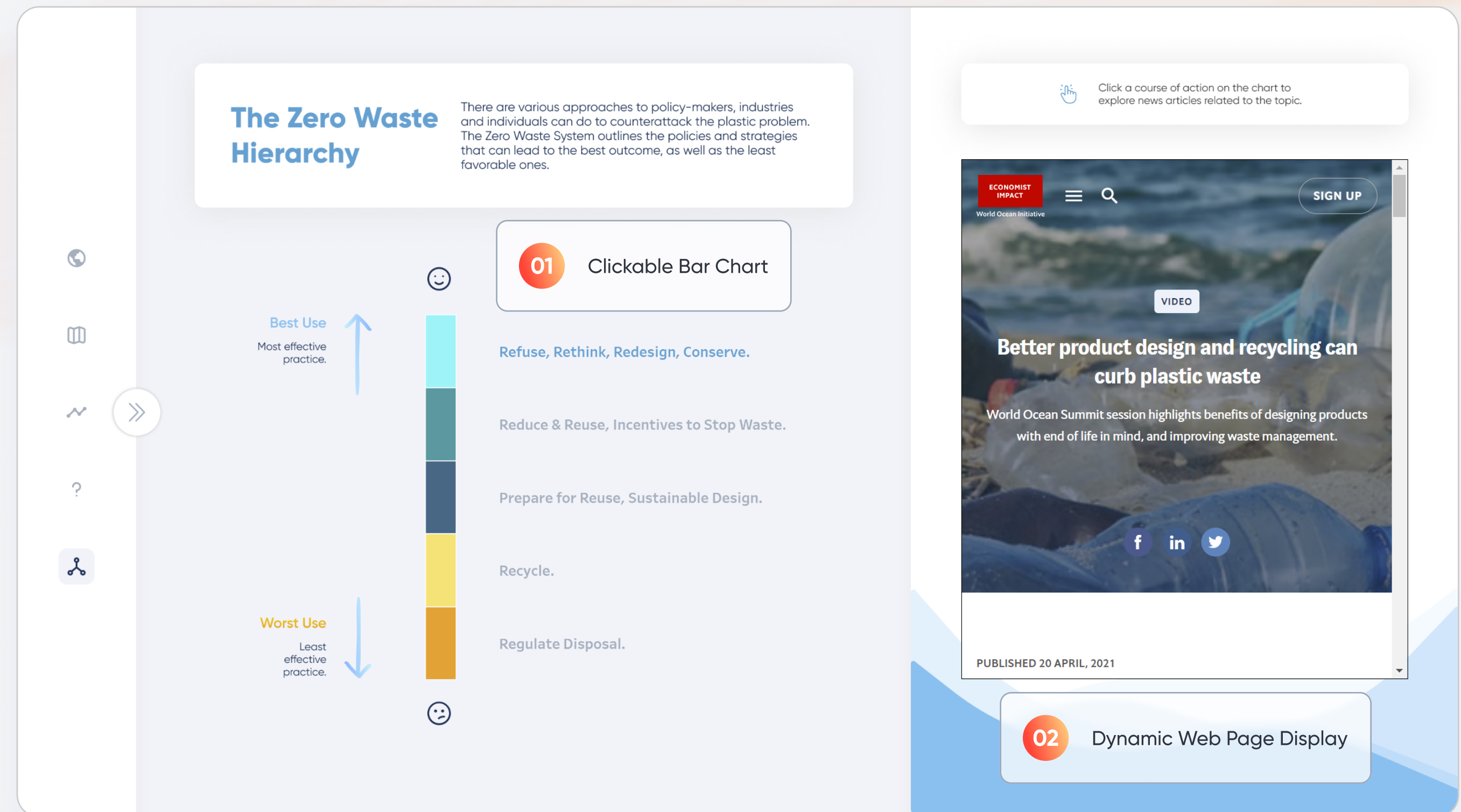Create a clickable bar chart that updates information across the dashboard.

Read: Three Ways to Make Beautiful Bar Charts in Tableau ›
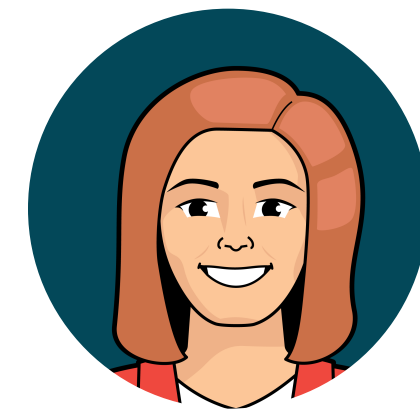
02 Dynamic Web Page Display

Dynamically display web pages depending on the zero waste category selected.
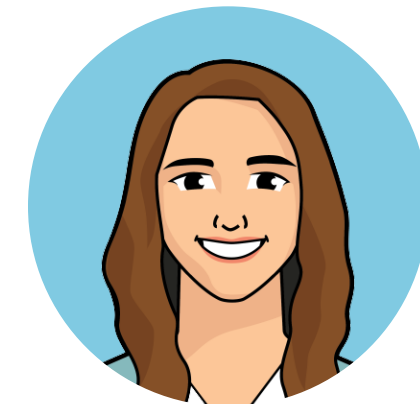
Read: How to Use Dynamic URL Actions in Tableau ›

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Questions?

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