

PULSAR*



The Audiences of Sustainability 2023

Unpacking the meanings, trends, and narratives around one of the key concepts of our time

Sustainability – It means something different to everyone

Different communities talk about the same topic differently – and sustainability, one of the key business and policy topics of our time, is no exception. In our [first report on the sustainability conversation in 2021](#), we asked whether the concept of sustainability still held any shared meaning at all, and found that while we found that that shared meaning had not dissipated completely, the business, academic, consumer, and policy conversations were diverging.

Here, we revisit the concept over 40 pages, almost the same number of data visualizations, and **2.3M datapoints**. This report unpacks:
















- How usage of words relating to sustainability map to Social, Ecological, Product, and Business dimensions
- How different industries are perceived as part of the problem or part of the solution
- The communities most involved in this conversation, and how their concerns differ
- Spotlights on Materials, Misinformation, Time dimensions, Greenwashing and so much more

Approach

Data Collection Period:

Jan 1st – Dec 15th 2023

Channels:

 X	 Blogs
 Reddit	 Forums
 Facebook	 Online News
 Instagram	 Amazon Reviews
 TikTok	 Broadcast
 Pinterest	 Radio
 Tumblr	 Google Search
 YouTube	

Markets/Languages:

Global data collection
Analysis in English-language

A global, cross-platform conversation in 2.3M datapoints

Sustainability is a near-universal topic. So any meaningful analysis has to incorporate a broad spectrum of different conversations across platforms and geographies.

From news articles setting narratives in play, to Pinterest posts advertising goods and services, to Subreddit posts sharing or criticizing specific consumer behaviors, our analysis involved 2.3M conversational datapoints.


These provide a nuanced, granular view of the many different shades of this conversation, and of the audiences participating in it. Below, we've included some examples of the types of conversation analyzed.






My boyfriend has been using this river island carrier bag since 2013, a true icon of sustainability

Shared behaviors & humor






How-to videos & advice






Creativity meets sustainability: Personalising your packaging with the environment front of mind

Conversation within industries





we hope more of these sustainable building practices become part of stays around the world!

Advertising & Marketing



Cop28 president says there is 'no science' behind demands for phase-out of fossil fuels

Exclusive: UAE's Sultan Al Jaber says phase-out of coal, oil and gas would take world 'back into caves'

Cop28 live - latest updates



UAE's Sultan Al Jaber says phase-out of coal, oil and gas would take world 'back into caves'

Reporting on current events

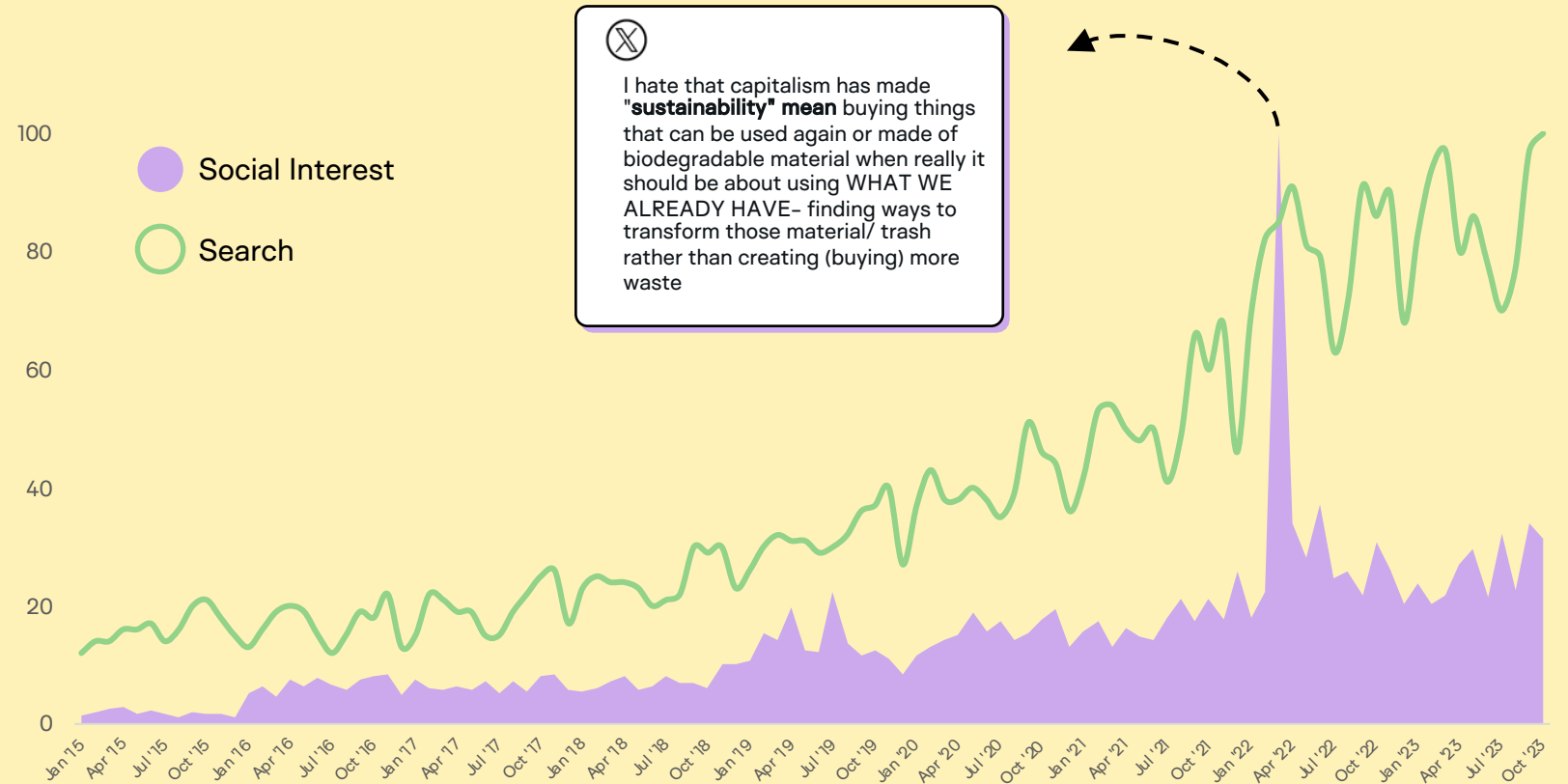
The evolving meanings of sustainability

Audience interest in the meaning of sustainability continues to grow

Just as interest in sustainability grows, audiences have also become increasingly preoccupied with the *meaning* of sustainability.

On the one hand, this reflects the passage of sustainability further into the mainstream consciousness, as its permutations, applications, and interpretations are discussed by a growing pool of people.

At the same time, it also reflects a degree of conflict and confusion, as the meaning of this concept continues to be contested and debated: from culture wars, to greenwashing and fringe beliefs and misinformation, an authoritative, all-encompassing and truly shared meaning of Sustainability does not seem within reach at this time.

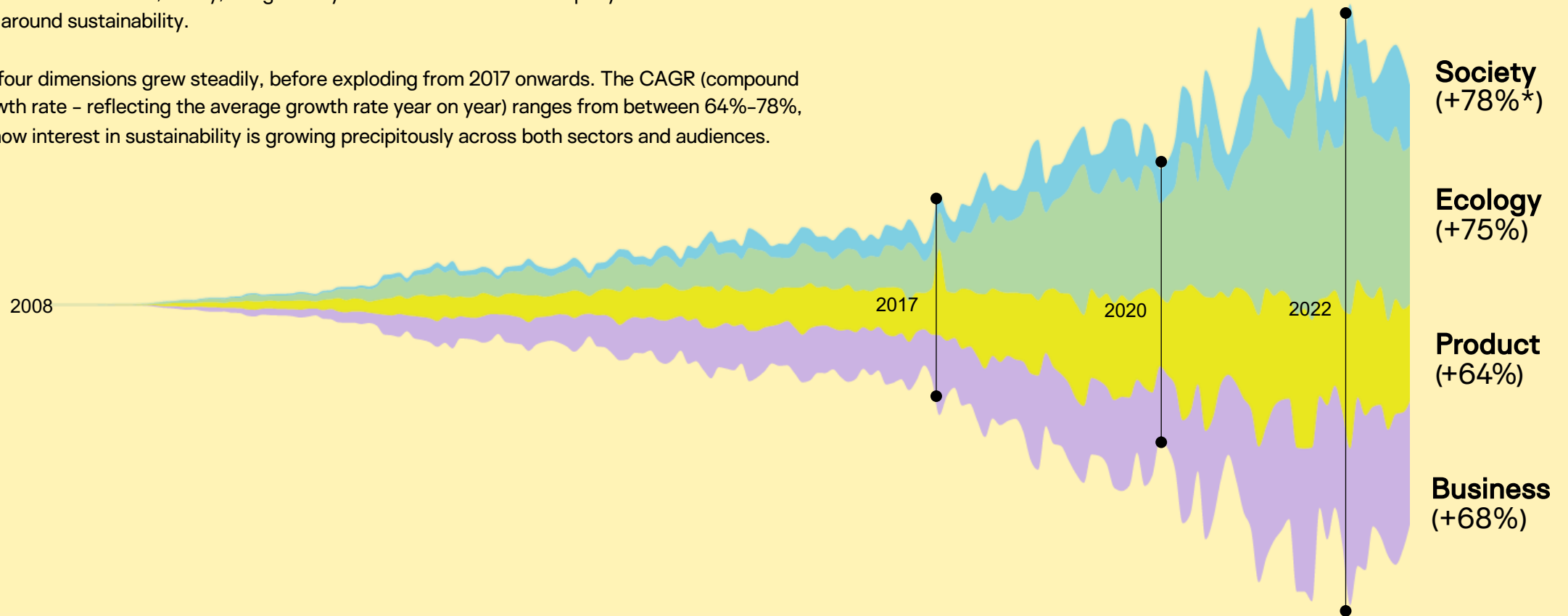


The evolving dimensions of sustainability

To better understand the nature of the sustainability conversation, and how it's evolved over time, we've divided it into four macro categories: society, ecology, product and business.

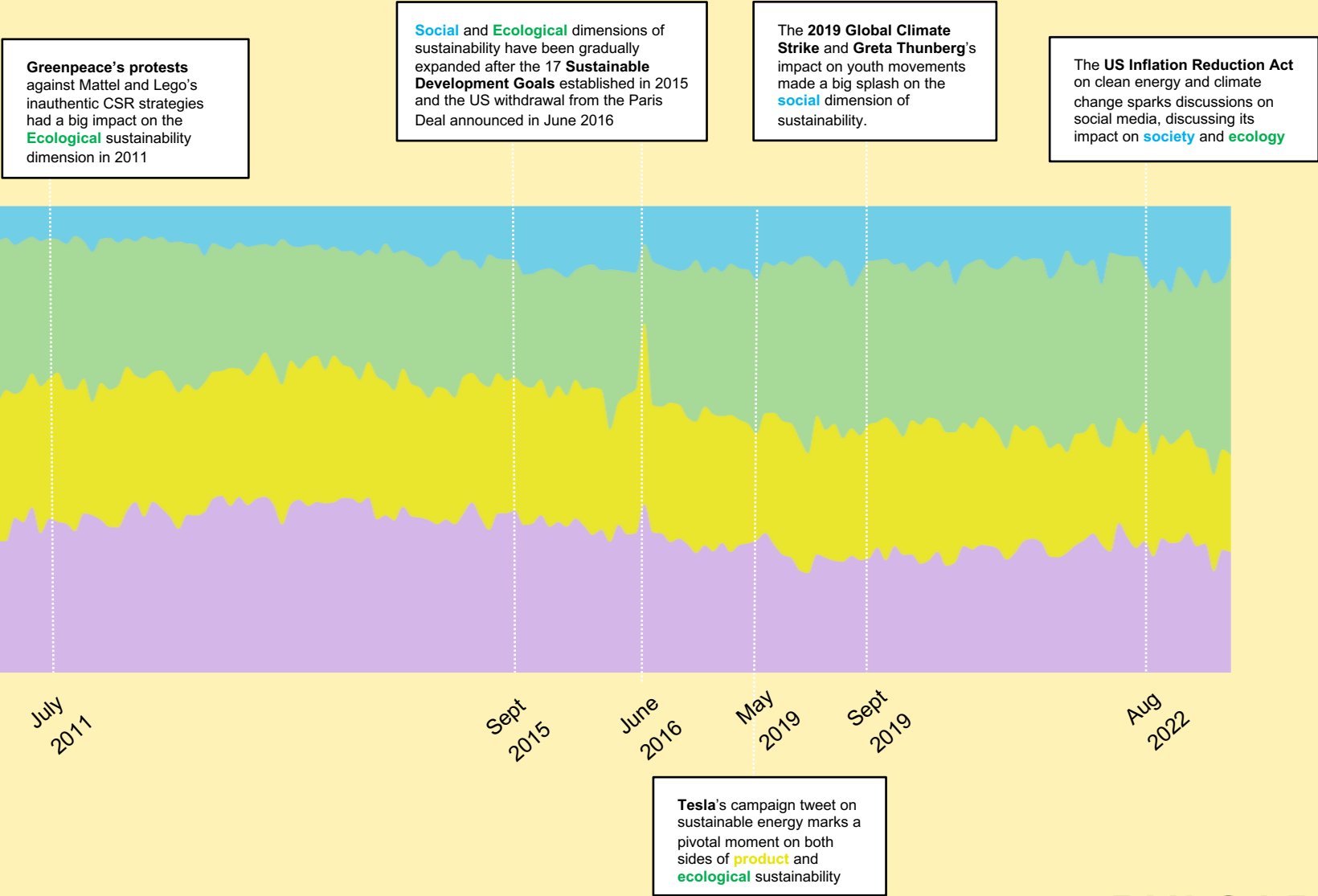
Society captures ideas of social justice, as well as basic human needs. Ecology, meanwhile, features references to the environment and the natural world. Product captures descriptors such as sustainable, organic & fairtrade. Business, finally, brings in any mention in relation to company initiatives or brand campaigns around sustainability.

We see all four dimensions grew steadily, before exploding from 2017 onwards. The CAGR (compound annual growth rate – reflecting the average growth rate year on year) ranges from between 64%–78%, reflecting how interest in sustainability is growing precipitously across both sectors and audiences.



The dimensions of sustainability: a closer look

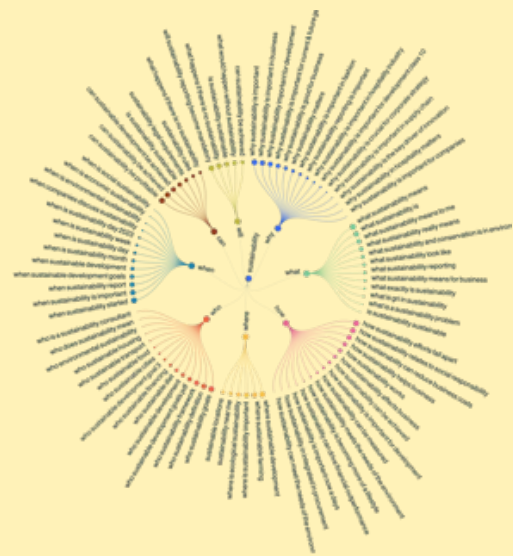
While each dimension saw substantial annual growth, this visualization shows how Ecology & Society, over time, have grown faster than Business and Product, a testament to both growing (often activist-led) awareness of ecological damage, and the increased intersectionality of the topic with societal issues.



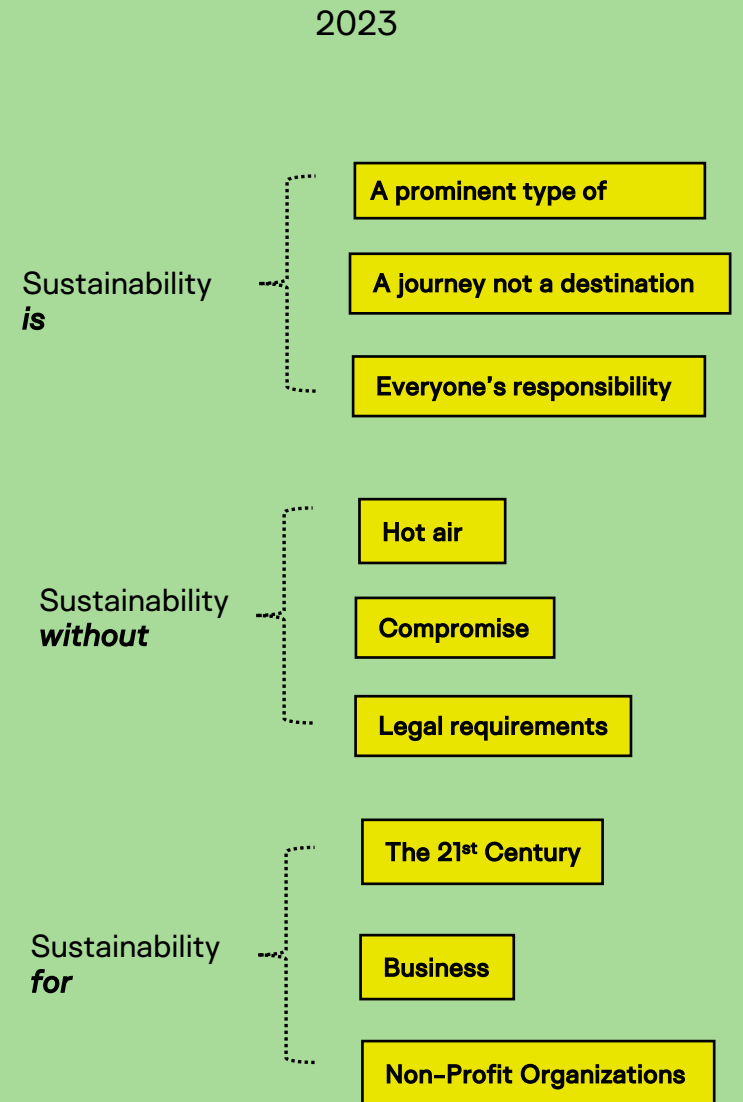
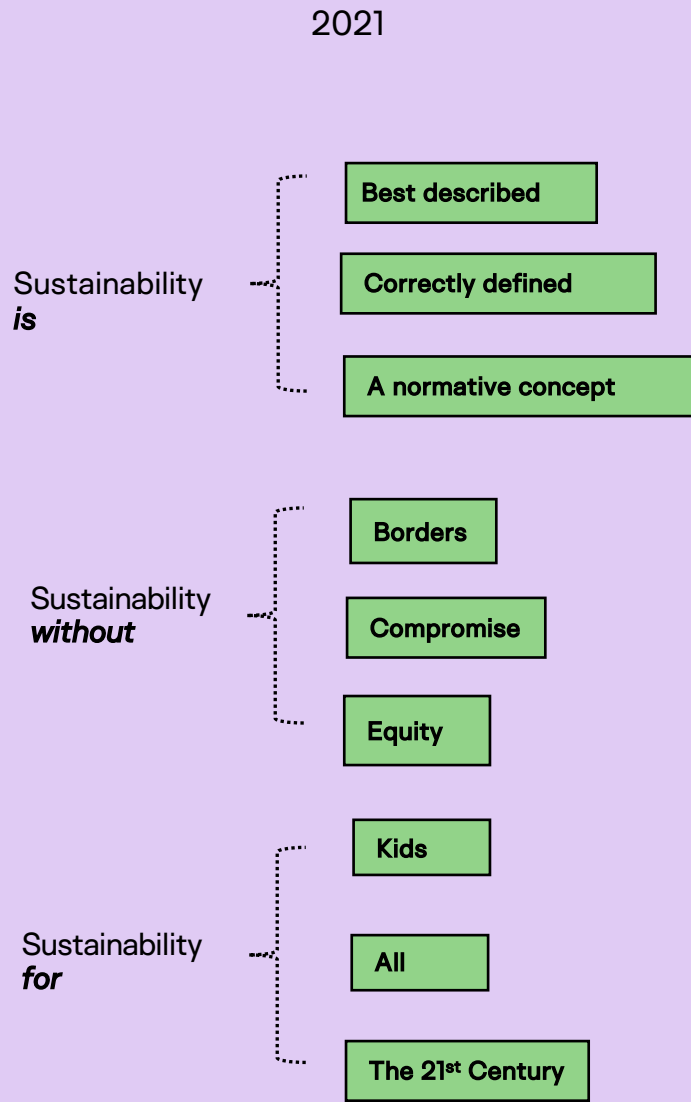
In Search of Sustainability

What people search for in relation to sustainability on Google also reveals a gradual shift, from a conceptual level to one which begins to be geared towards action and more concrete assessments.

Comparing 2021 to 2023, the focus shifts from broad definitions to practical, adaptable actions at the individual level, best exemplified by the search strings that include phrases like ‘sustainability without compromise’ or ‘sustainability is everyone's responsibility’.



The most-searched queries on Google related to sustainability between Aug and Nov 2021 and the equivalent window in 2023. Source: Pulsar TRAC



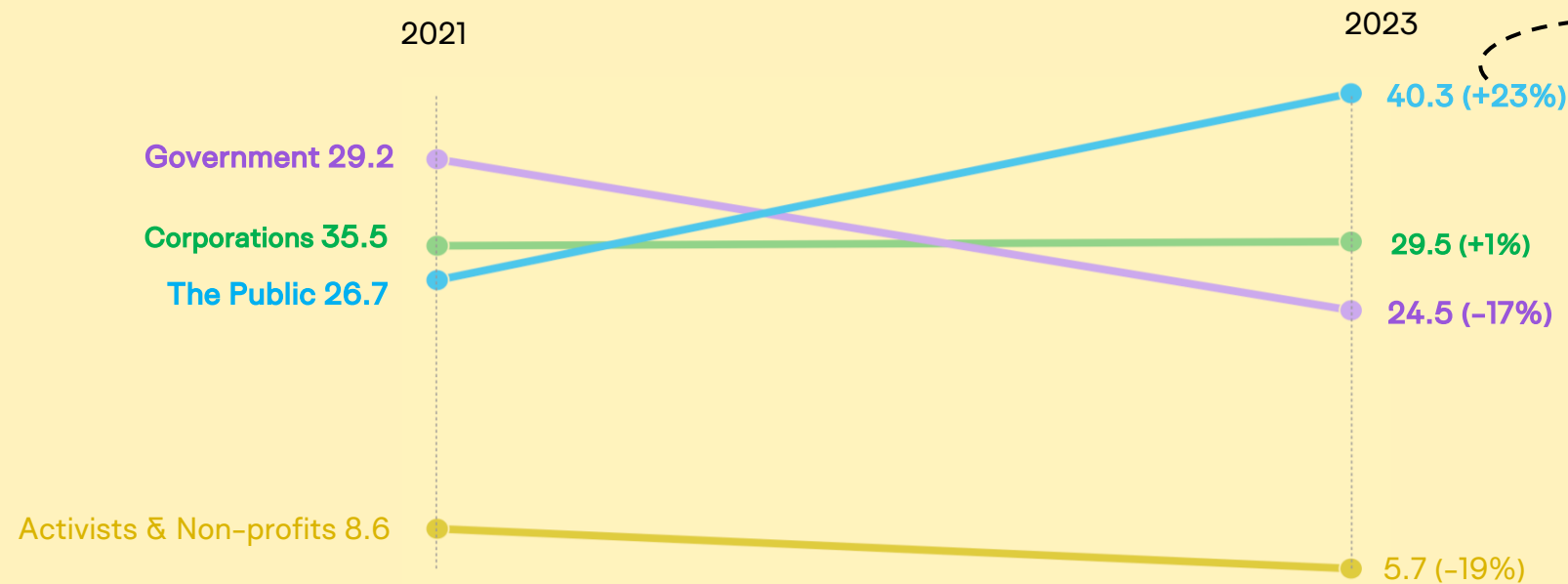
Who has agency?

The perceived actors in sustainability

Citizens & consumers increasingly seen as having a part to play.

As the climate crisis, pandemic, cost of living and international conflict constellate into a 'polycrisis', the public has emerged as the sustainability actor most discussed in conversation.

In part, this appears to stem from the collapse of trust around the traditional stewards of norms. Whose responsibility it ultimately is to 'make things happen' in the world appears to be in the process of shifting to the populace at large.



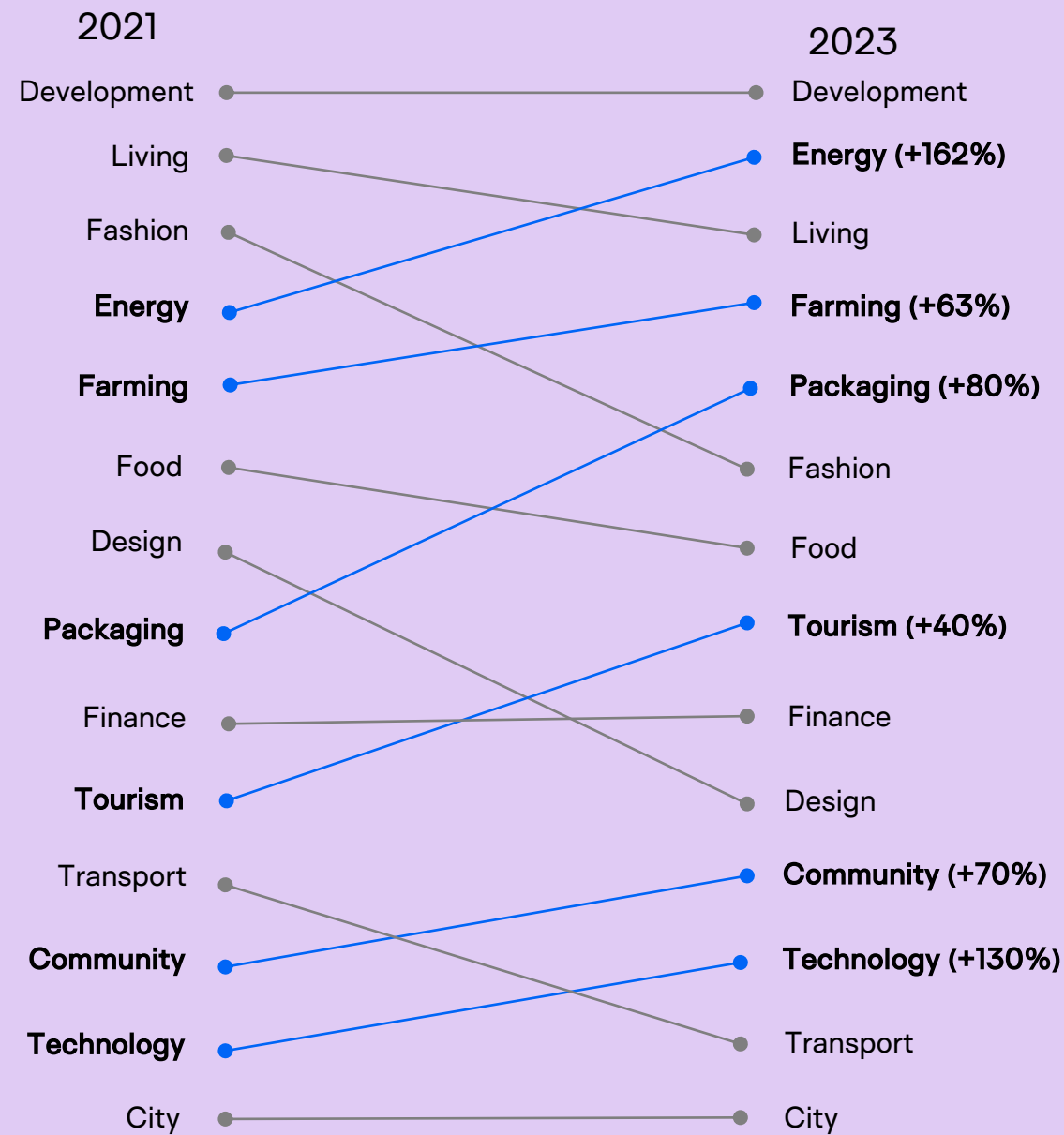
Of course, we should work to hold big corporations and governments accountable, but we shouldn't stop there. There are many things that each one of us - as individuals - can do that will make an impact (especially when millions or billions of people do them). Our actions go beyond their direct impact. They provide an example for others and they provide hope. Even - in the worst case - they do no good, at least we will have the pride of knowing that we tried.

What's in the sustainability conversation?

Sustainable...what?

By mapping how often Sustainability is used alongside other words, to form concepts like 'Sustainable Development' or 'Sustainable Fashion', we're provided with a further indicator of how perspectives are shifting from 2021 to today.

While the UN's Sustainable Development Goals seem anchored firmly to the concept, we see a growing emphasis on the producer side, with Sustainable Energy and Sustainable Farming both amongst the top four phrases in 2023. On the brand side, Packaging has also become increasingly discussed, even as phrases such as 'Sustainable Fashion' become devalued by consumer skepticism (and rising interest in 'fast fashion').



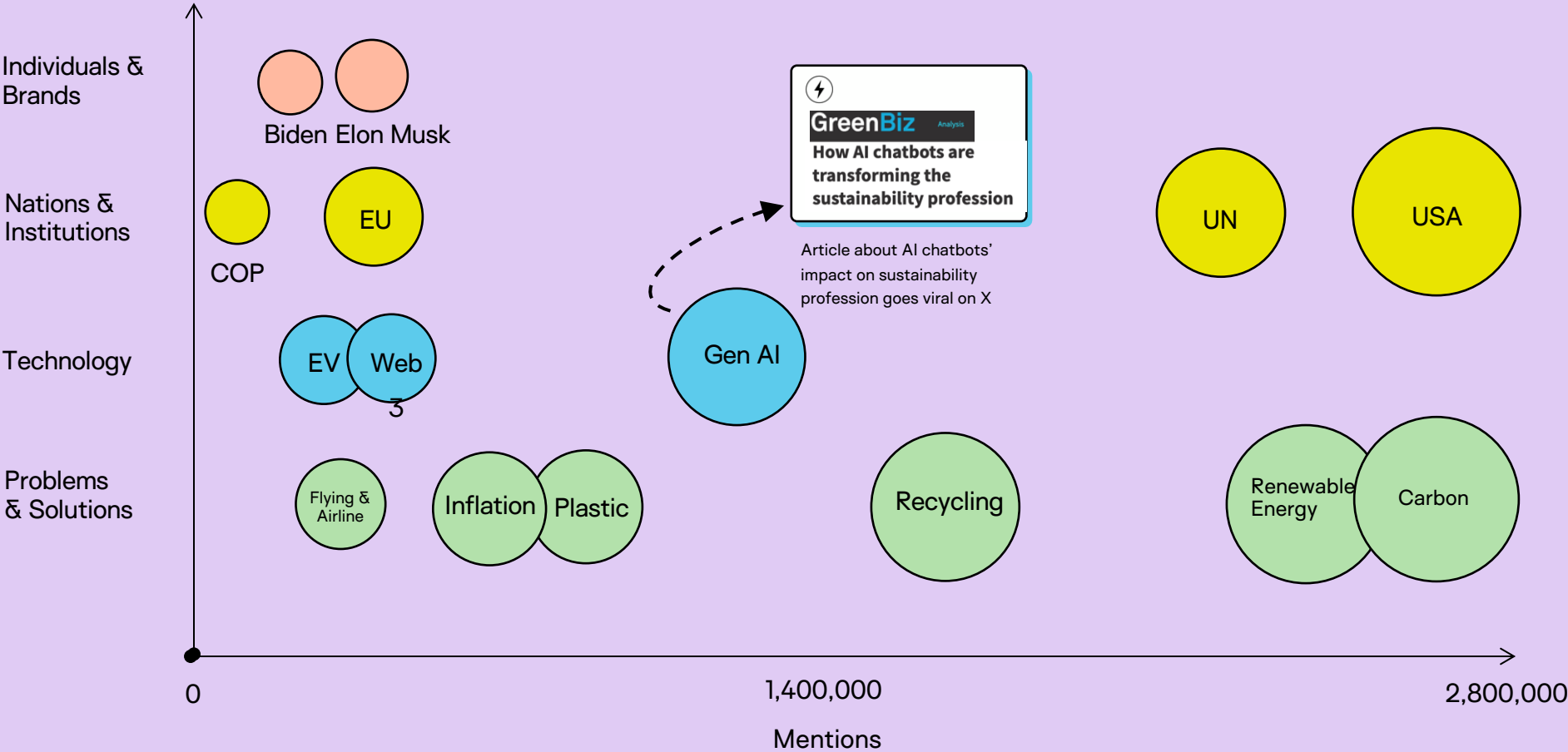
The most mentioned 'sustainable what' in the sustainability conversation across X, Facebook, Instagram, TikTok, Pinterest, News, Tumblr, YouTube, Forums, Blog and more, Aug 1 – Nov 31 2021 and the equivalent period in 2023. Source: Pulsar TRAC

What we talk about when we talk about sustainability

Mapping notable topics according to how often they're mentioned in relation to sustainability reflects the attention directed towards actors like the US or Elon Musk (who has superseded Greta Thunberg since 2021).

One notable shift to take place has been around technology. Generative AI has now superseded EVs within this conversation, in part due to the EV conversation moving into different conversational spaces, centered on infrastructure, affordability and ethical mining practices.

At the same time, AI is also exploding as a topic generally. And so, while some of this conversation reflects the potential of AI to act as a kind of 'magic bullet', some of this is simply audience excitement projecting a buzzy topics into new spaces – something brands should be aware of.

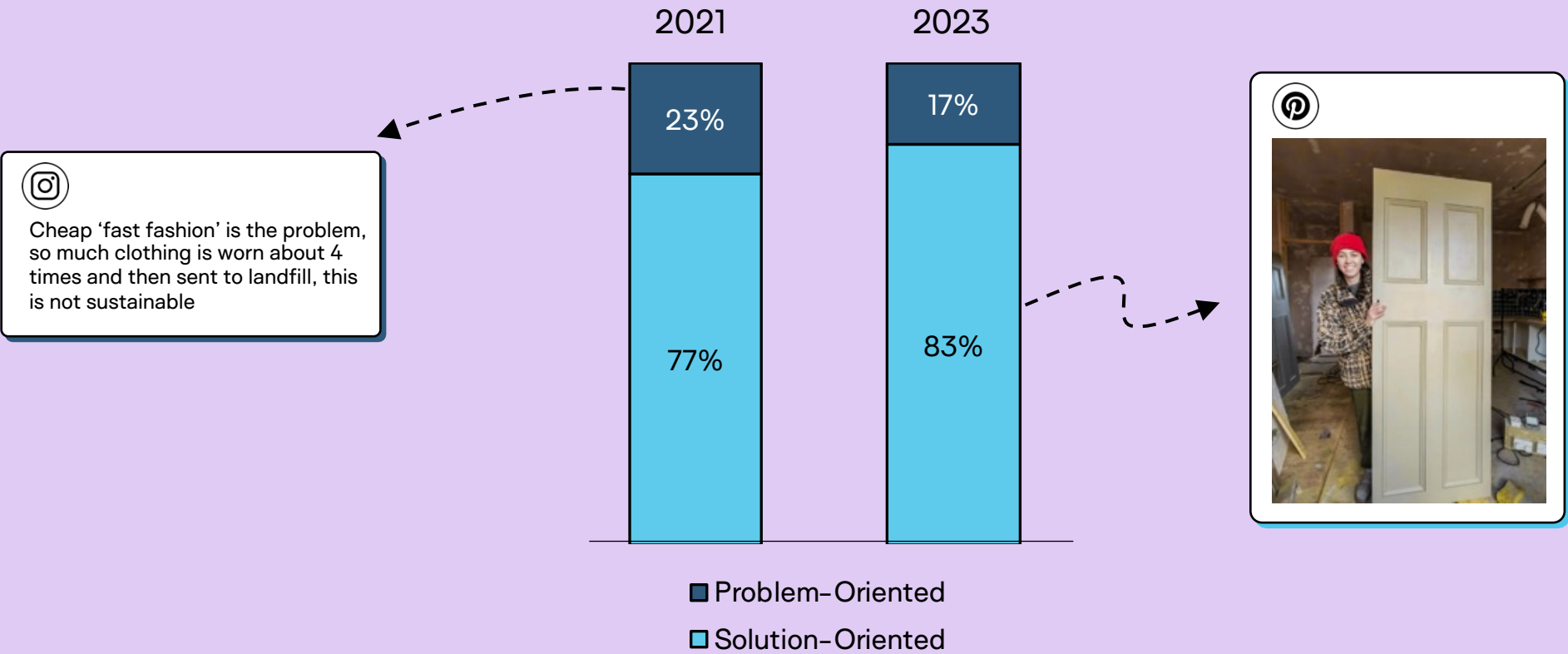


A pivot to more solution-driven discussion

More and more, and in spite of global temperatures, sustainability is evolving into a discourse centered on solutions.

There are numerous dimensions to this conversation, one of which concerns the focus on cutting-edge technology, and the potential that renewable energy, AI and more hold for the human race.

The other dimension focuses on individual DIY approaches, the acts performed by individuals, such as repurposing items, self-reliance or other similar acts of ethical consumption. These frequently intersect with the desire to save costs.



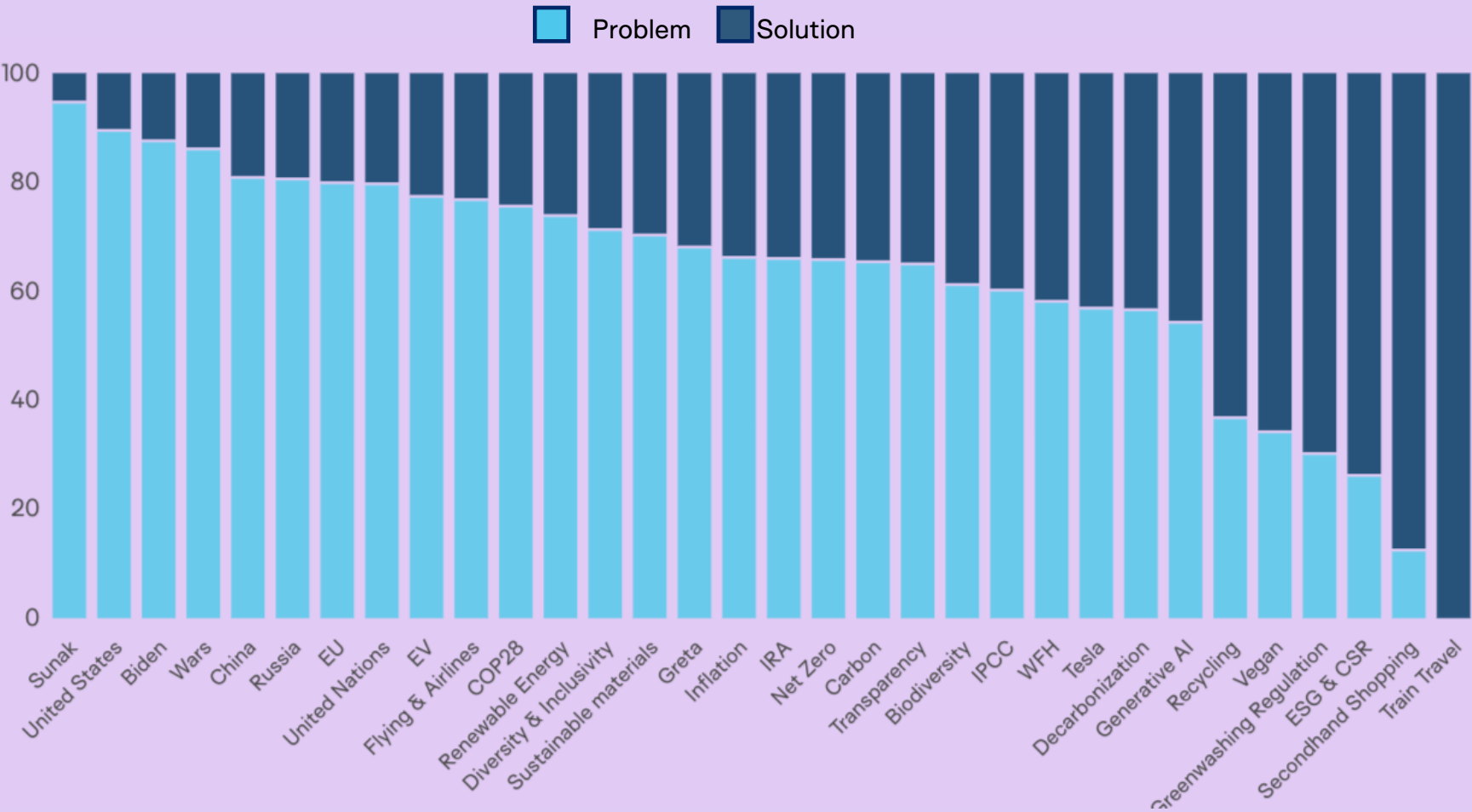
Problem or Solution?

Key topic breakdown

We can overlay this problem and solution lens across many of the topics contained in the sustainability conversation. What does it tell us?

For one thing, it suggests that blame and recrimination might, on the macro-level, account for a relatively small part of the conversation, but that on the level of individuals and institutions, from Rishi Sunak to the UN, it abounds.

Unsurprisingly, concepts, such as veganism or train travel are more likely to be cast as solutions. Where exceptions to this occur, it's often a result of previous overexposure and subsequent backlash, as in the case of Electric Vehicles.

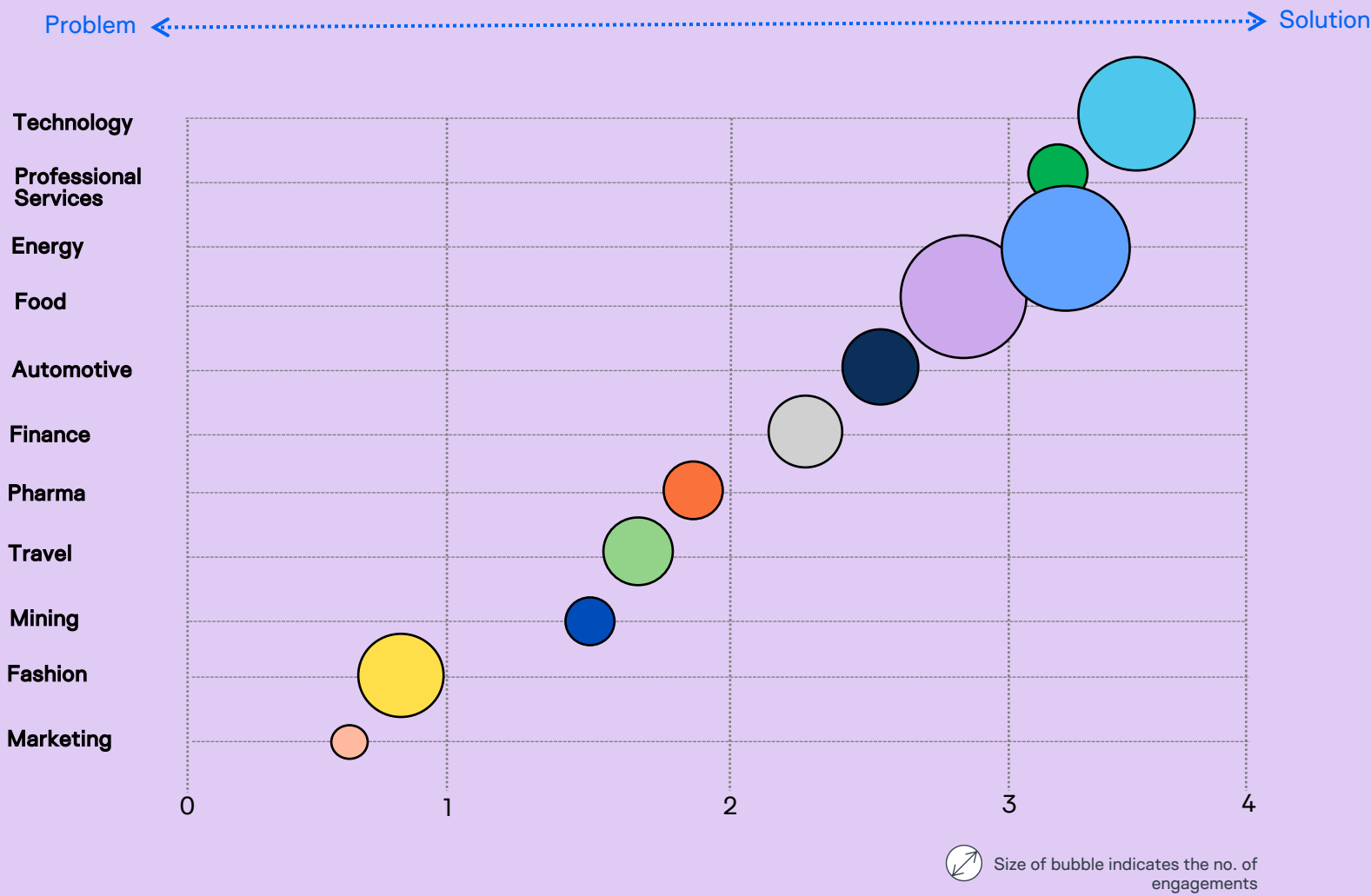


Industries or sectors are viewed as problem or solution?

Mapping industry sectors through a problem/solution lens gives us in-depth views of how each industry is viewed by global audiences.

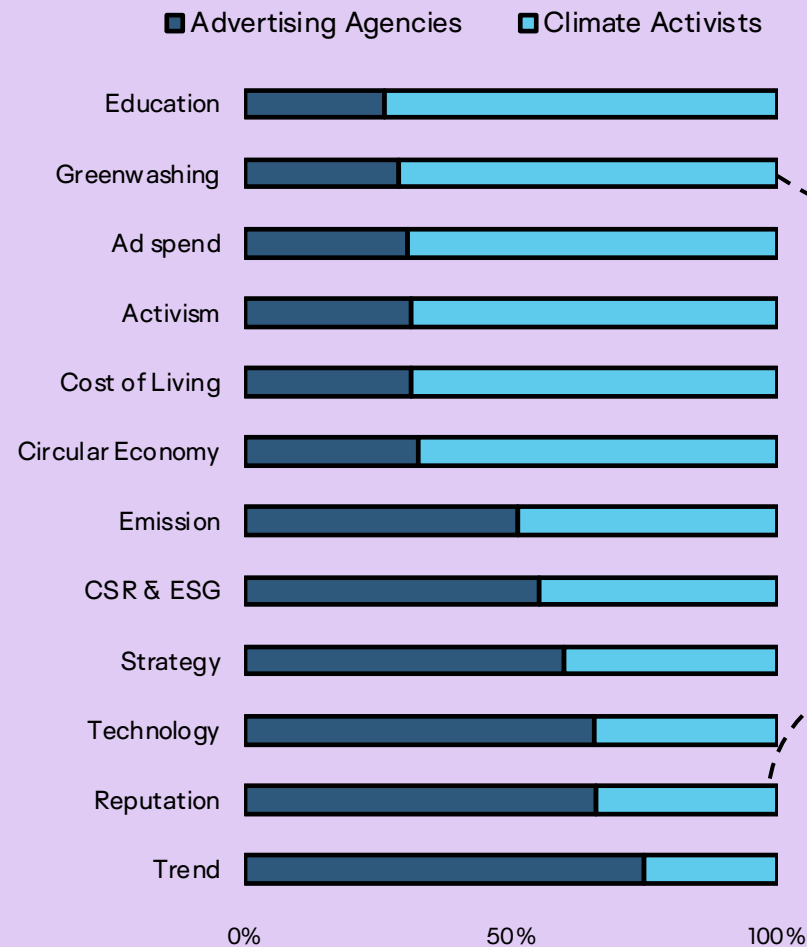
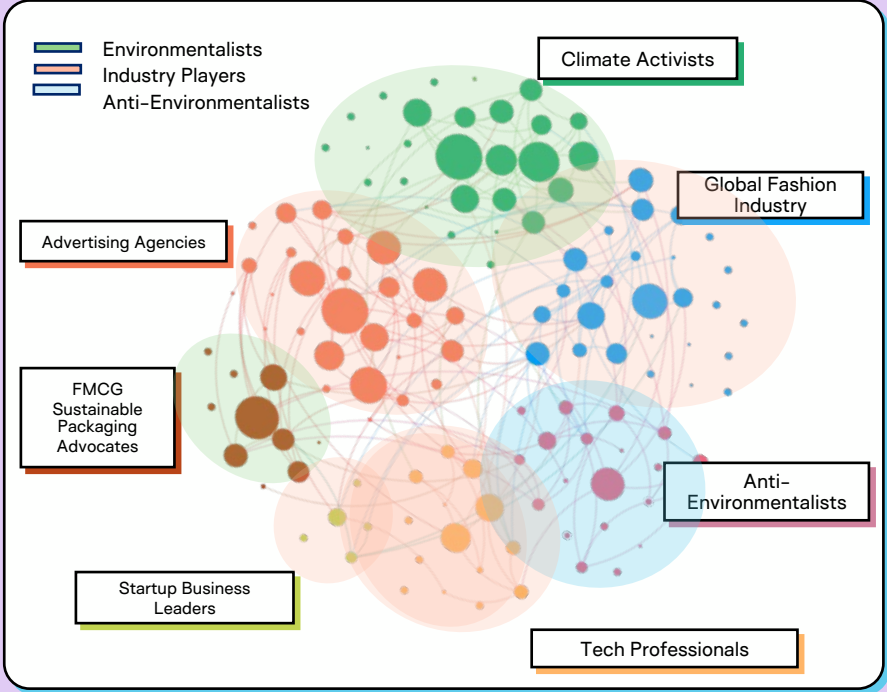
This visualization reflects a positivity around technology, which is predictable, but also around energy, which is perhaps less so. Optimism around sustainable and novel energy sources is at present outstripping negativity and blame around more transitional sources of energy.

Less positive is the conversation around Marketing & Advertising. Part of this is due to increasing suspicions of greenwashing. Set against this, people are far more likely to condemn an ad or campaign they view as bad, than praise one that hits its mark. For all that, this is also the smallest sector featured – can advertisers and marketers assume greater prominence and impact by acting as pressure groups on brands?



Who's talking about marketing & sustainability?

Understanding audiences is at the heart of what we do at Pulsar. And when we run an audience analysis on the communities mentioning marketing alongside sustainability, it becomes apparent that industry players and various stripes of environmentalist are the ones driving discussion. And while the former talk more about technology, trends and strategy, the latter are far more likely to highlight greenwashing, and the different mechanisms ('education', 'ad spend') by which it's disseminated.



ⓧ
@FossilFreeFoot @realmadrid Car brands spend billions on sports sponsorship to greenwash their PR while lobbying to delay climate policy. @badvertising11 @NewWeatherInst report Toyota & BMW sold 12m+ fossil fuel powered vehicles in 2021. BMW is #RealMadrid's sustainability partner

ⓧ
How Sustainability Marketing can elevate Financial Service Institutions brand reputation and revenue

Sector breakdown by problem vs solution SOV in the sustainability conversation across Twitter, Facebook, Instagram, TikTok, Pinterest, News, Tumblr, YouTube, Forums, Blog and more between Jan 1 - Dec 15, 2023. Source: Pulsar TRAC

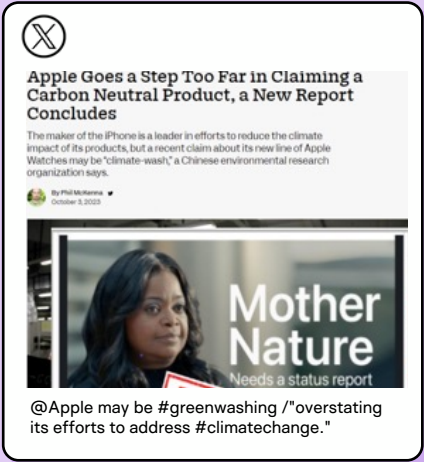
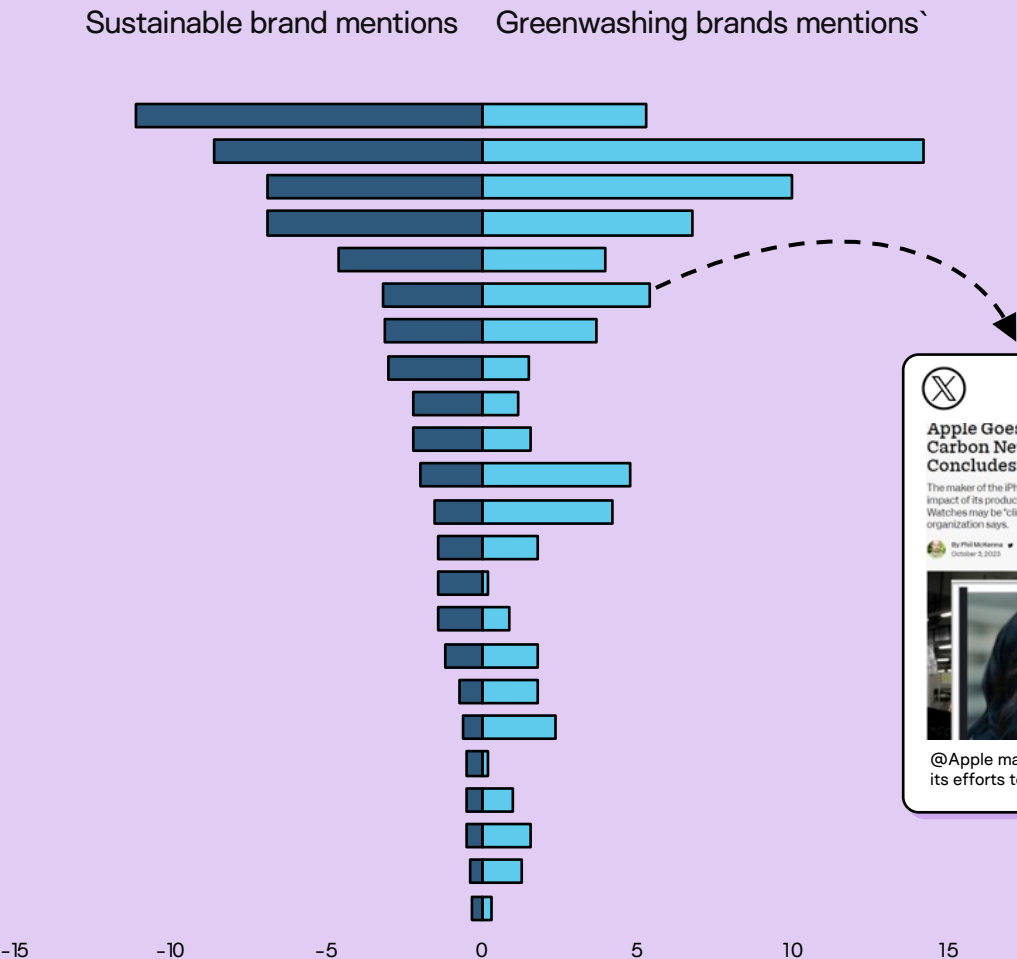
The brands most tied to sustainability...and greenwashing

As many comms & PR professionals will attest, brands appear far more likely to hit headlines and be discussed by audiences for the sustainability practices that aren't met, or else fall short of community standards.

Tesla is the notable exception. For all the controversy that attaches to its CEO's stewardship of X, it is viewed overwhelmingly positively by a dedicated audience as a proponent of a kind of win-win sustainability, in which luxury, eco-consciousness, transgression and sense of community can all reside within one company.

The correlation between the brands most mentioned in the greenwashing conversations, and those featuring prominently in the overall sustainability conversations affirms that the majority of these conversations are negative. As we will explore, however, these are not always rooted firmly in fact, but also in anti-ESG narratives propelled by misinformation spreaders.

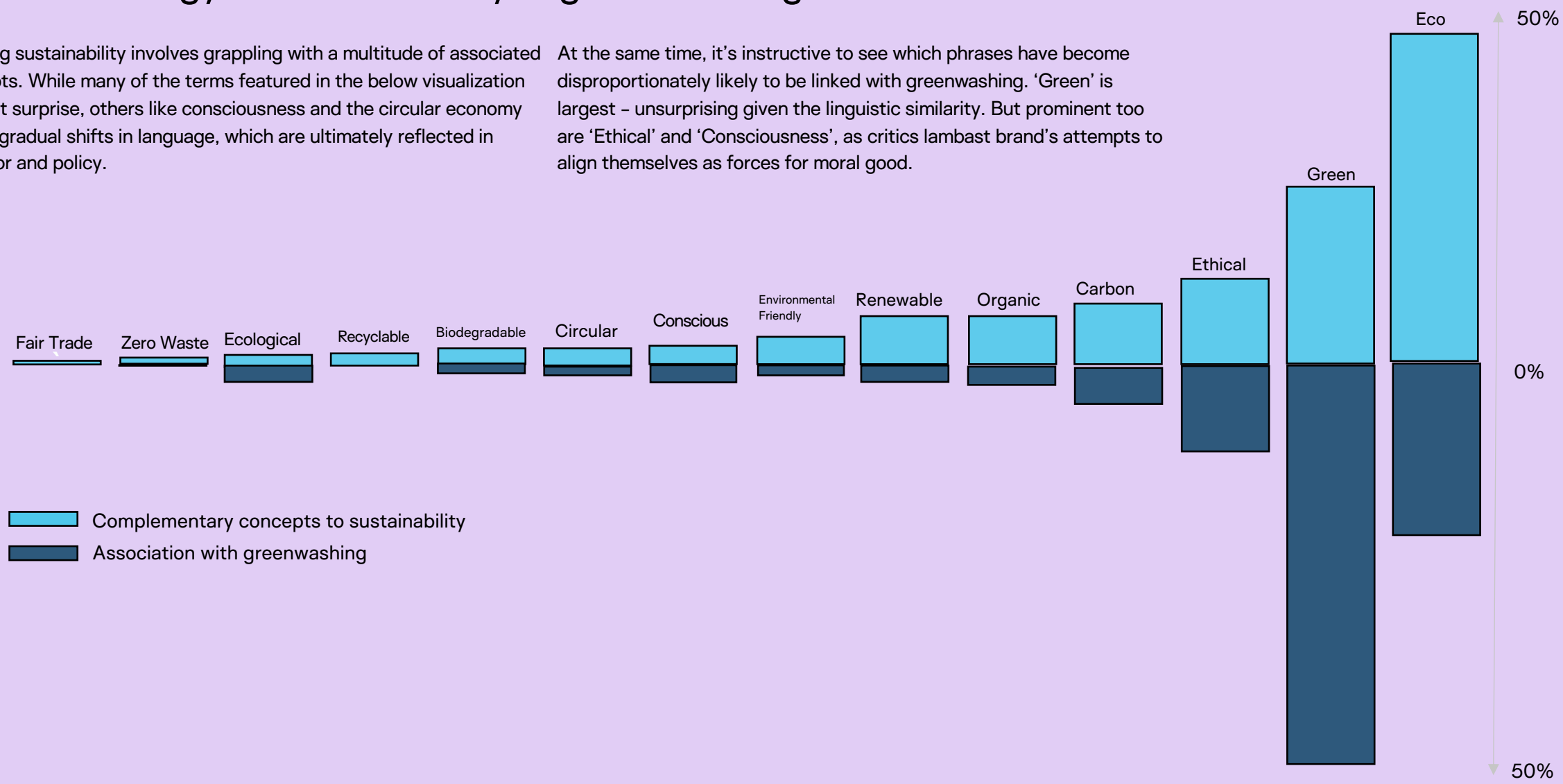
- Tesla
- Amazon
- Google
- Microsoft
- IBM
- Apple
- Toyota
- Samsung
- Meta
- Disney
- Coca-Cola
- Nike
- Ikea
- Honda
- BMW
- McDonald's
- J.P. Morgan
- American
- Express
- Chanel
- Louis Vuitton
- Hermès
- Mercedes-Benz



The terminology of sustainability & greenwashing

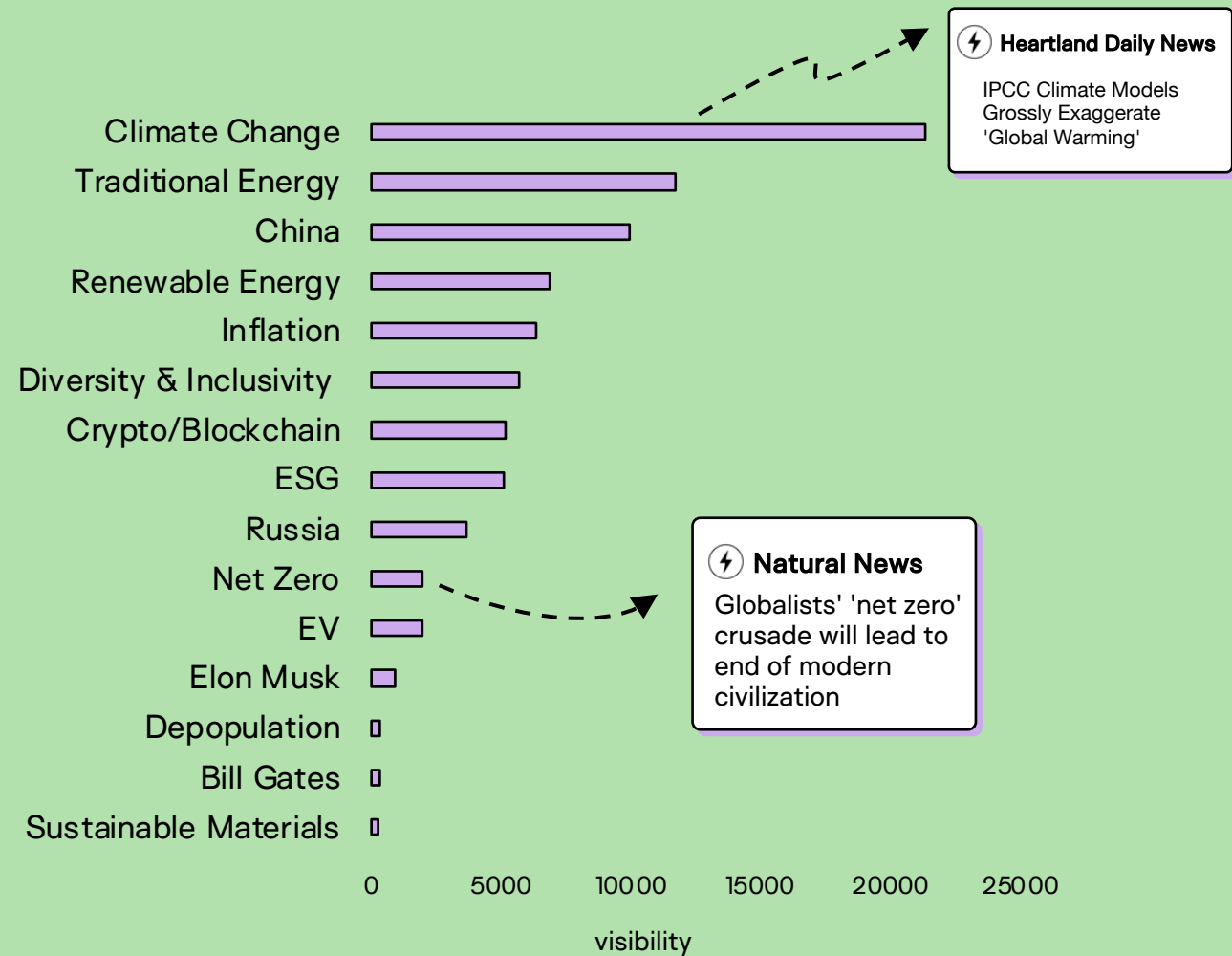
Defining sustainability involves grappling with a multitude of associated concepts. While many of the terms featured in the below visualization may not surprise, others like consciousness and the circular economy hint at gradual shifts in language, which are ultimately reflected in behavior and policy.

At the same time, it's instructive to see which phrases have become disproportionately likely to be linked with greenwashing. 'Green' is largest – unsurprising given the linguistic similarity. But prominent too are 'Ethical' and 'Consciousness', as critics lambast brand's attempts to align themselves as forces for moral good.



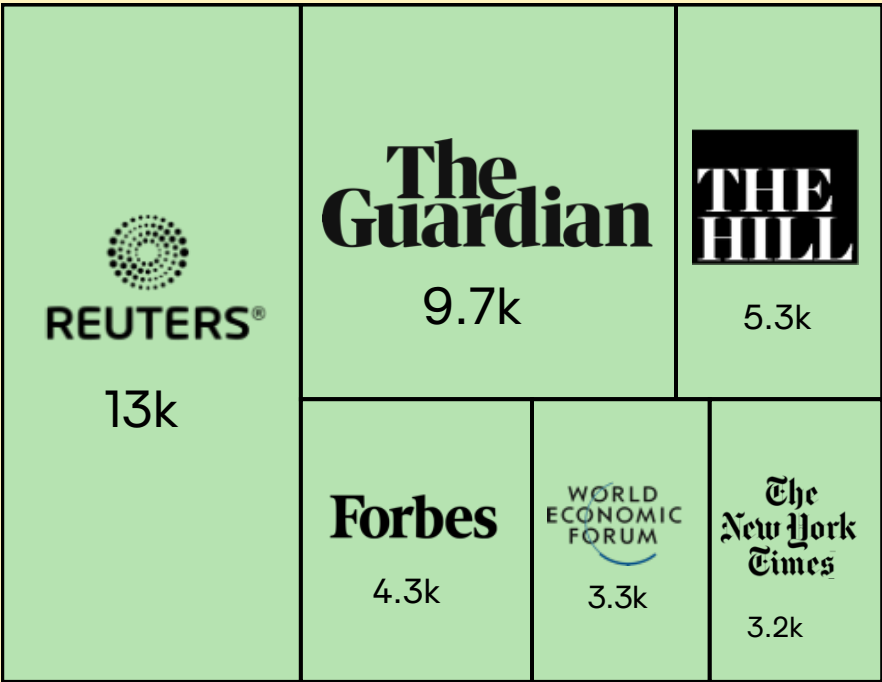
How exposed are parts of the sustainability conversation to misinformation?

Pulsar’s integration with NewsGuard, who provide reliability ratings for news sites, allows us to understand how often concepts or brands are mentioned on sites that fall foul of journalistic standards. And at first glance, sustainability appears to be a conversation relatively untroubled by misinformation. However, some context is required here. More than a few percentage points of misinformation constitutes a serious challenge, given that it incorporates all available news sources. And this is more keenly felt still in particular subtopics, such as Climate Change, where the degree of misinformation risk reaches fully 5%.



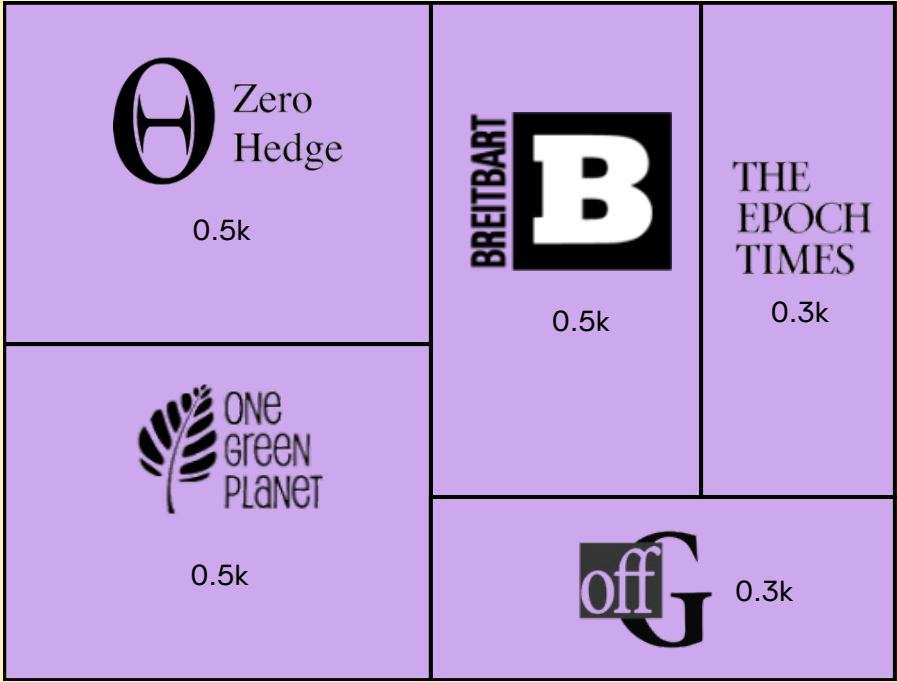
The news platforms shaping the sustainability conversation

Exploring which news sources are cited most often gives us an insight as to which publications have shaped audience opinion. Left-of-center news sources are most referenced, given their editorial emphasis on the topic, while the prominence of titles known for political reporting reflects both the topic’s politicization and the numerous initiatives instigated by governments & international bodies.



Credible sources

Amongst non-credible titles, two trends emerge. One is financial or business publications critiquing sustainability initiatives. Another is where alternative lifestyle publications link the advice they give to the broader notion of living ‘sustainably’.



Non-credible sources

Who's talking about
sustainability – and how?

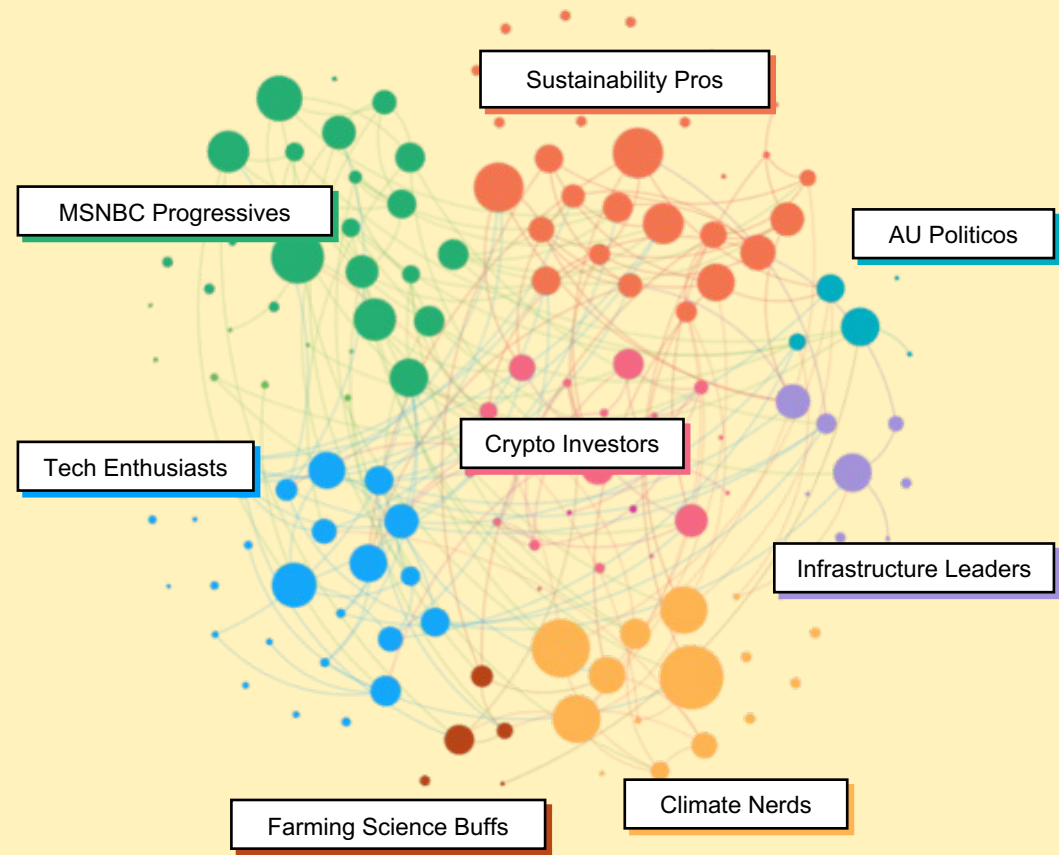
The global communities engaging in the sustainability conversation

This analysis segments the audiences according to shared online affinities & behaviors, allowing us to move beyond simple demographic data. What does it tell us?

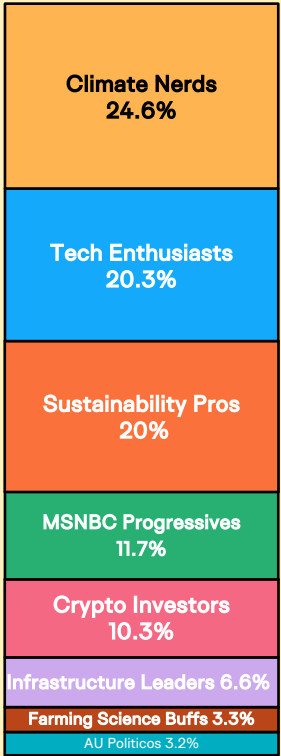
For one thing, we can see that the conversation has become more decentralized since 2021, with sustainability-specific institutions ceding space to communities draw across tech, infrastructure, politics and even farming.

What’s more, when political-minded communities discuss sustainability, they are not just as likely to talk about living sustainable lifestyles, rather than debate points of policy.

In both instances, we see sustainability being embraced as something practical and liveable, rather than abstract and political.



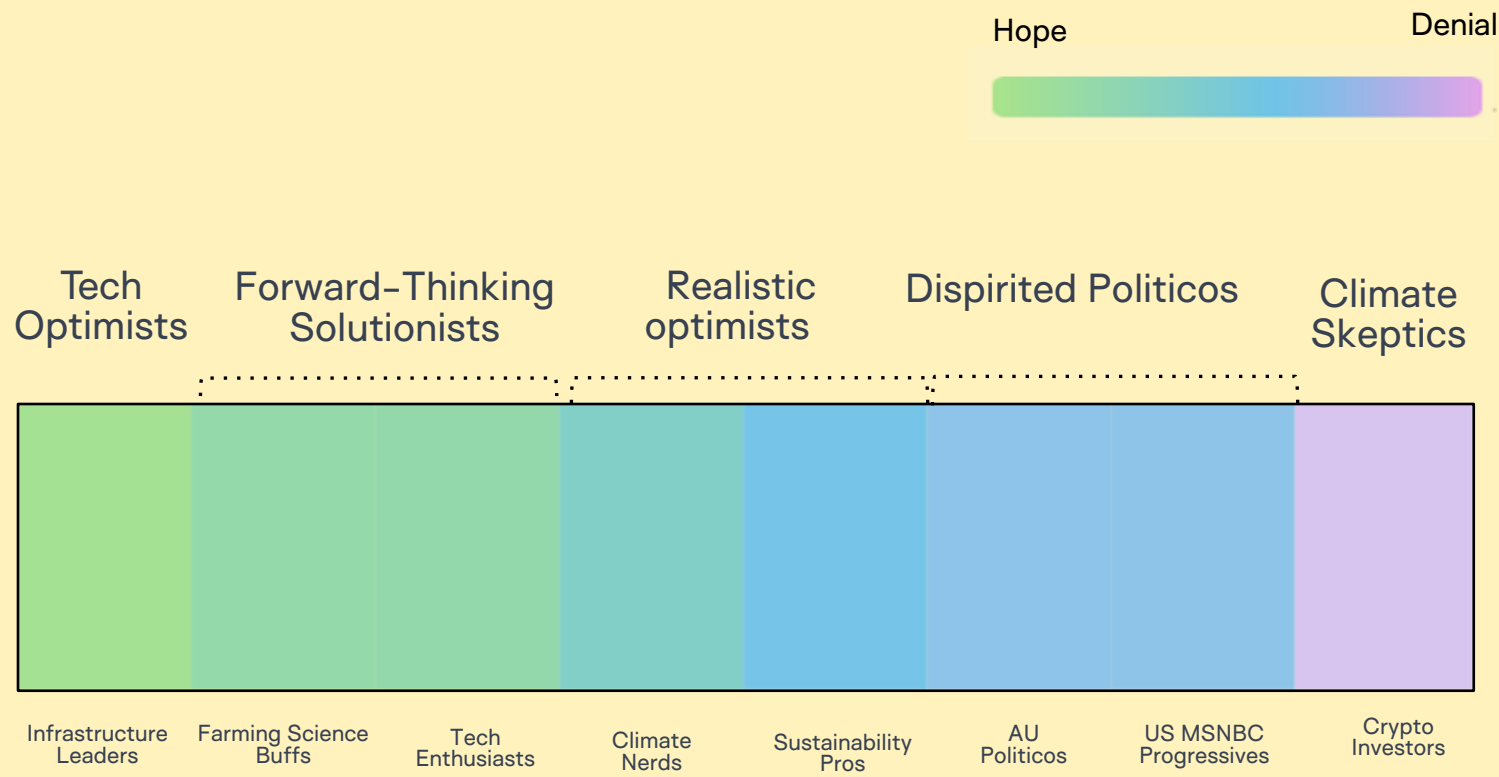
Audience Share of Voice in the Sustainability Conversation



How optimistic are different online communities?

Having identified these different communities, we can plot how they measure up against a certain perspective – in this case, the key question of how much optimism they display, versus cynicism, doom and denial.

By scoring each community according to how often they use specific words or phrases, we can see at one end the greener shades of the optimists, who see possibility and solutions in the looming crisis, and the cynics, who range (in the blue) from those dispirited by what they see to be a lack of genuine progress, to those (in purple) who shade towards denialism.



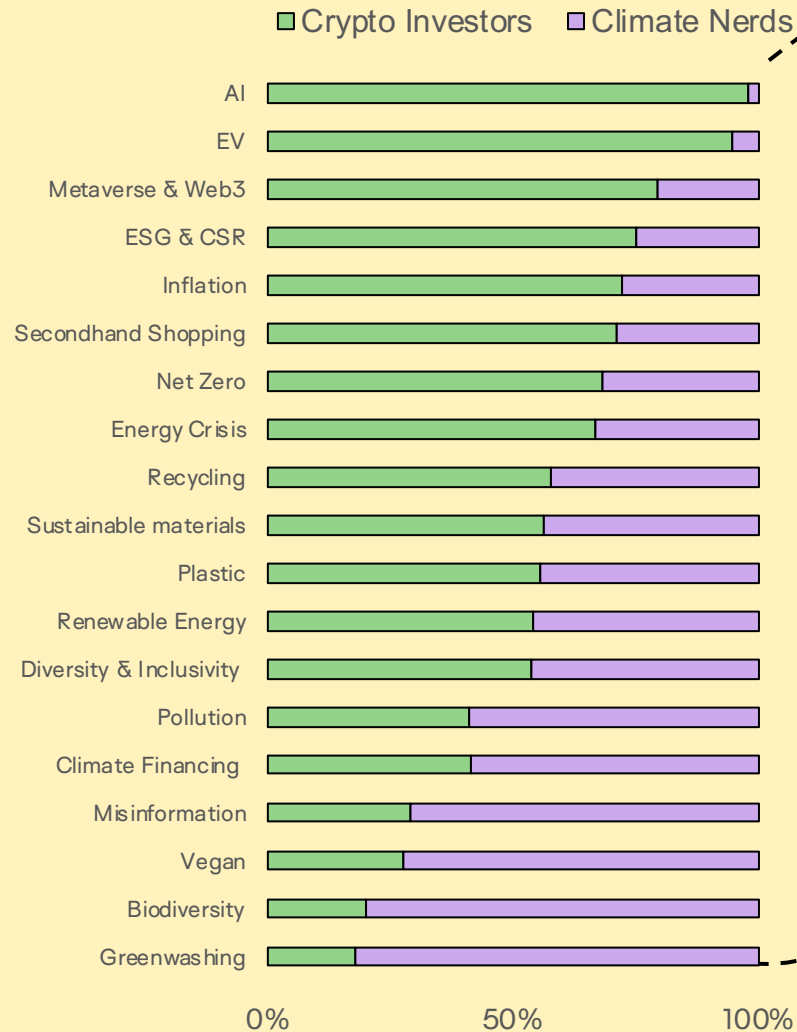
Different audiences talk about the same topic differently: Crypto Investors vs Activists

When we home in on two of the leading communities within the global audience, it becomes apparent that different communities relate to, and talk about, sustainability in very different ways.

This tells us that Climate Nerds, so named for their strong affinity for global environmentalist programs & institutions, are disproportionately likely to call out greenwashing (and misinformation) when they see it.

Conversely, Crypto Investors, whose libertarian beliefs see them show strong affinities for figures in tech and right-wing circles, are far more interested in the application of different technologies, from AI to Electric Vehicles.

(t also incorporates strong veins of skepticism around ESG & CSR models.



#AI is being used to study animal communication, with researchers aiming to decipher animal languages in support of conservation and sustainability efforts.



"I think #greenhushing is a #strategy that has come out of the cynicism that's arrived right now where people are calling out companies for foolish claims or greenwashing.

How do the Gen-Z & Millennial audiences differ?

We can take a closer look at the communities talking about the topic online by analysing a Gen-Z and Millennial audience in turn.

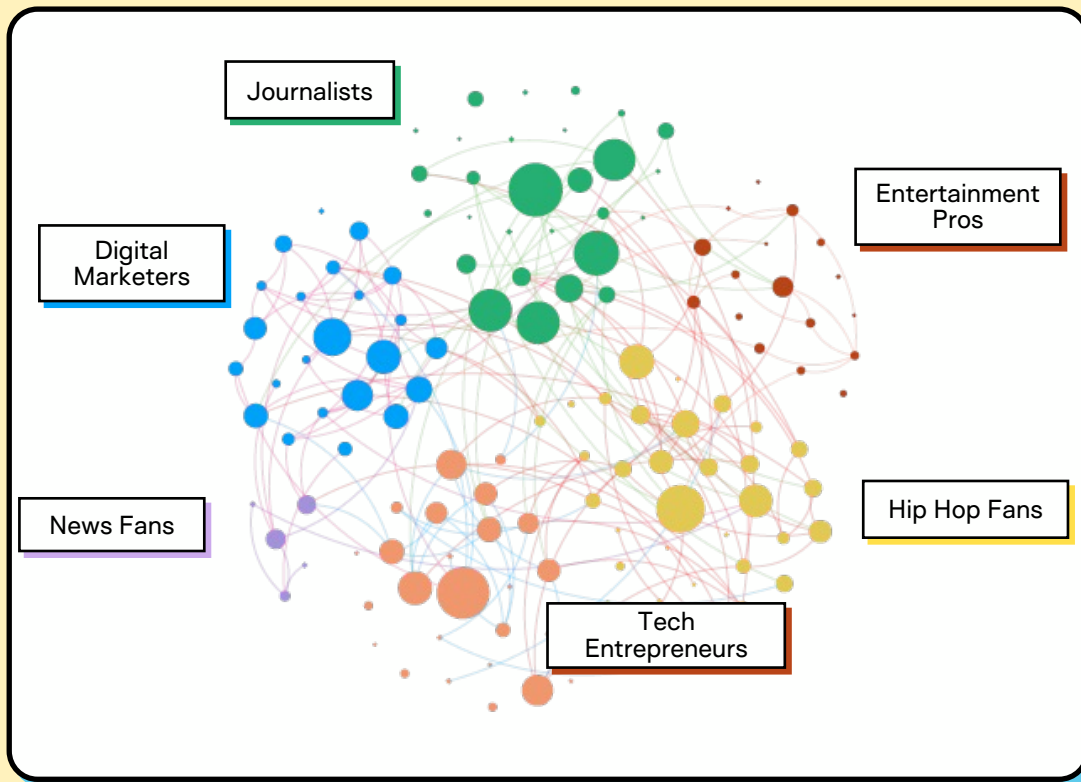
There are similarities across both, with each audience trending left-of-centre,

and incorporating strong technology and marketing segments.

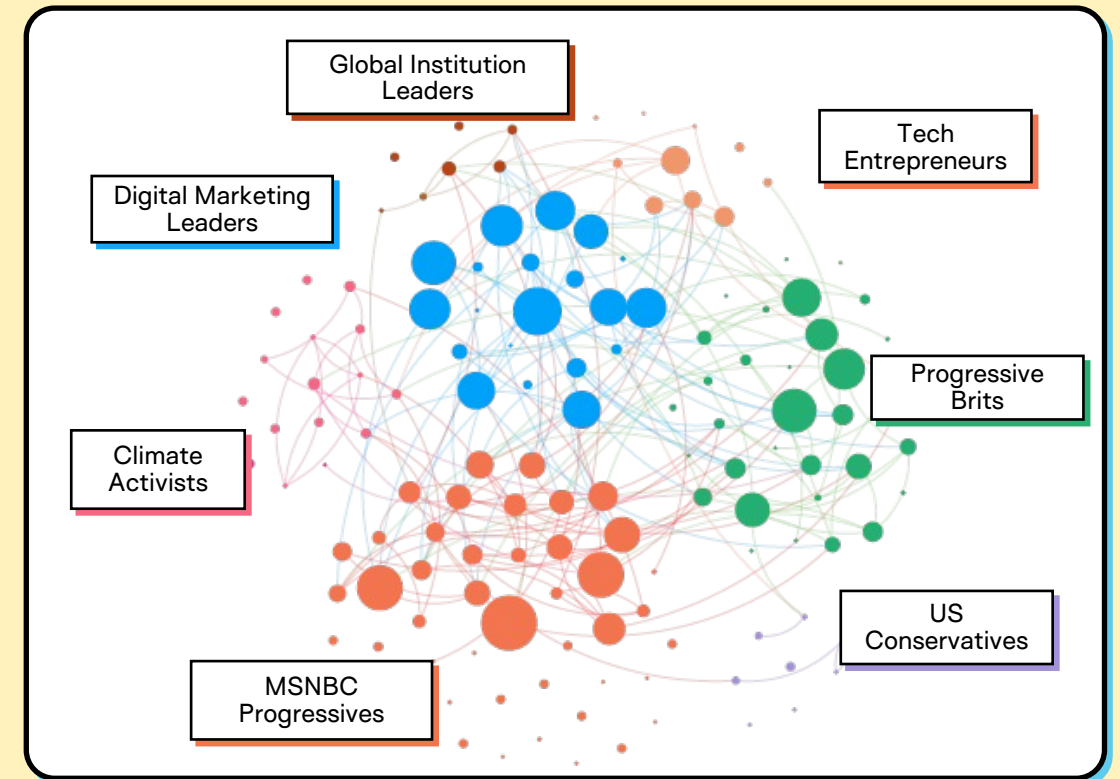
But one difference is the diversity of the Gen-Z audience, which shows more gender variance, as well as incorporating PoC communities.

This serves as another instance of how the sustainability space is opening up to a wider swathe of the population.

Gen-Z



Millennial

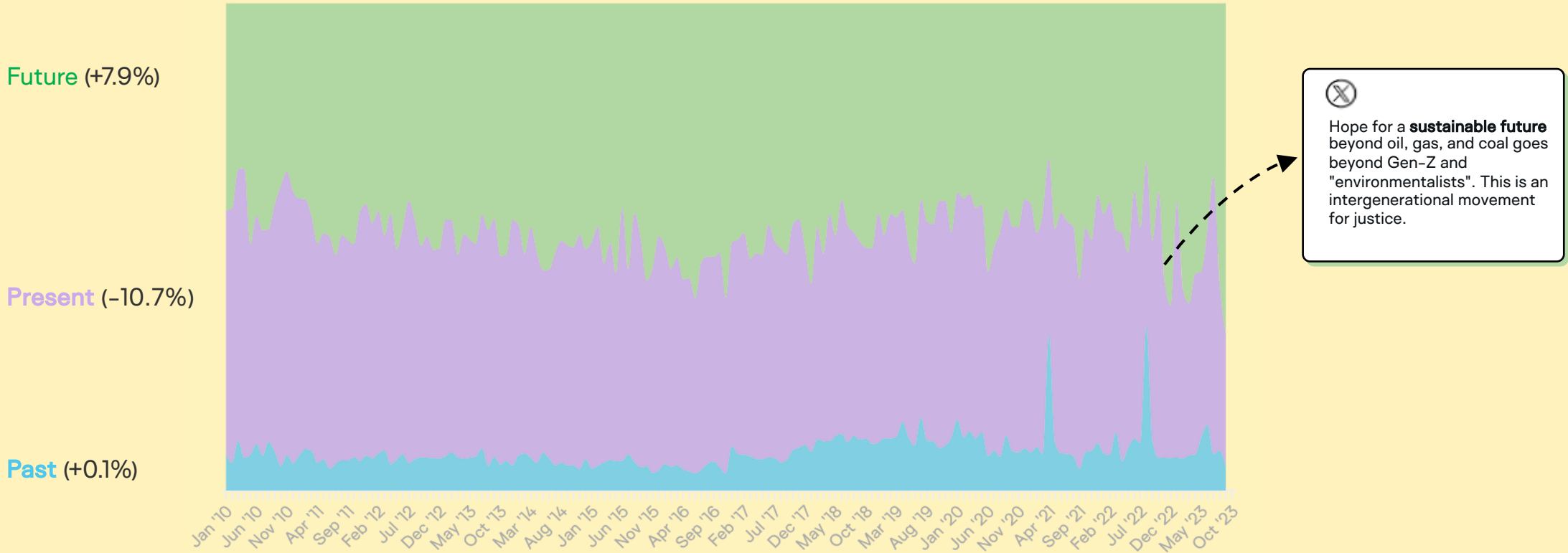


Time dimensions in the sustainability conversation

Time is a key idea in thinking about sustainability, carbon in our atmosphere, and changes in global temperature and biodiversity. We applied it as a lens to the conversation, to better understand how audiences relate to the topic.

Since 2016, there has been substantial growth (+7.9%) in the focus on the future. This broadly corresponds to the announcement of the SDG goals and Paris Agreement, which institutionalized a number of forward-looking goals.

It can be read as reflecting a growing public awareness of (and literacy in) the topic. But it can reflect both a mood of optimism, as government, brand or personal plans are laid out in the hope of affecting the outcome. But it can also reflect a pessimism, as the nightmare scenarios become more concrete and tick ever closer.

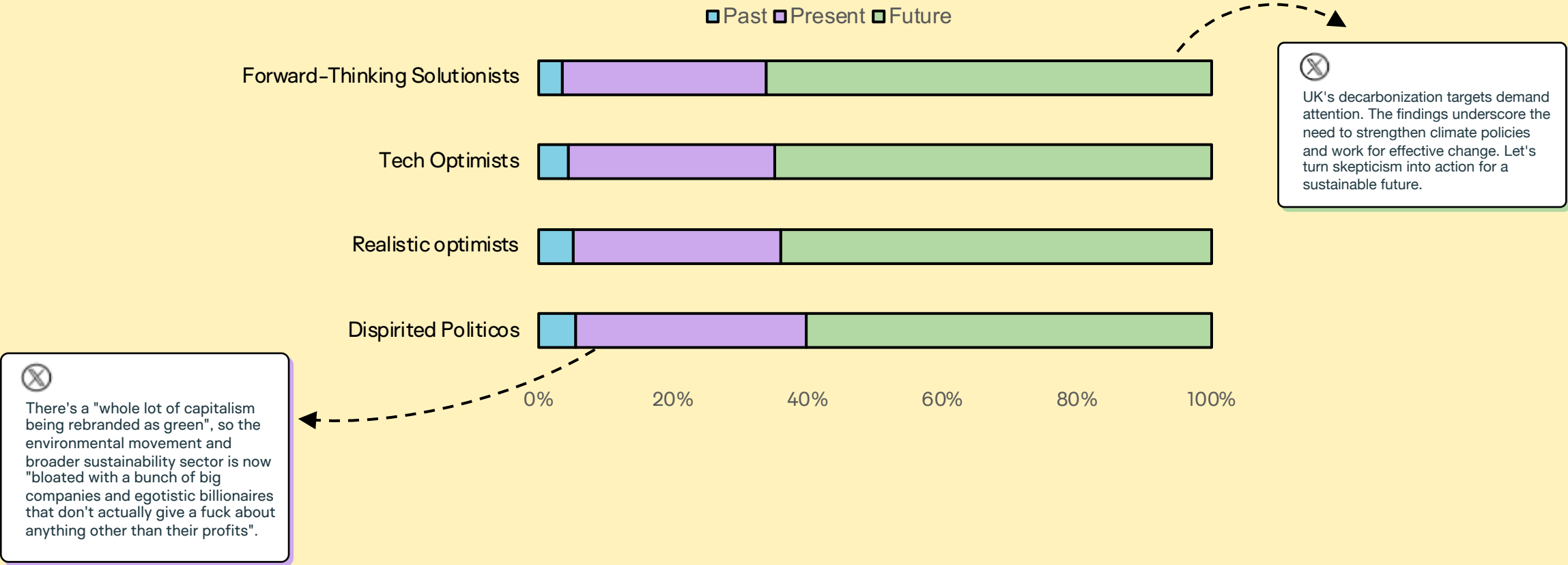


Against the clock: Language around time maps to optimism

Having previously organized the communities within the global audience according to their optimism and cynicism, we can test these assumptions by overlaying a time element.

Unsurprisingly, Forward-Thinking Solutionists, the most optimistic group, envisage sustainable future through tech and agricultural innovation.

Dispirited Politicos, meanwhile, are disproportionately likely to focus on the present, questioning both the authenticity and the effectiveness of current sustainability efforts by institutions and brands.

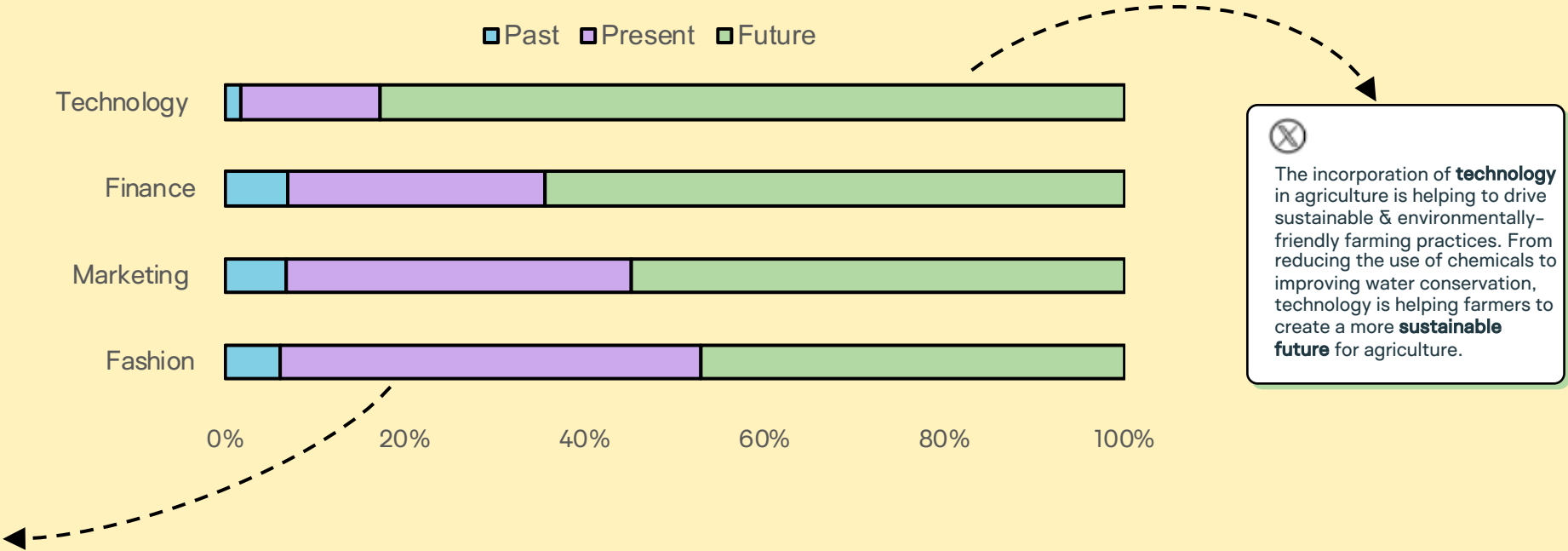


Time dimensions: industry spotlight

Similarly, we can apply that temporal lens to discussions around sectors. And it's immediately clear that these conversation are far more predicated around the present.

Marketing, for instance, faces accusations of greenwashing, despite the efforts of industry insiders to project forward. And Fashion faces serious challenges around manufacturing materials, supply chains and waste.

On the other hand, Technology is overwhelmingly identified with the future. And Finance, too appears more associate with the future than might be expected, largely due to the positioning of the green future as something individuals and brands can build a financial stake in.



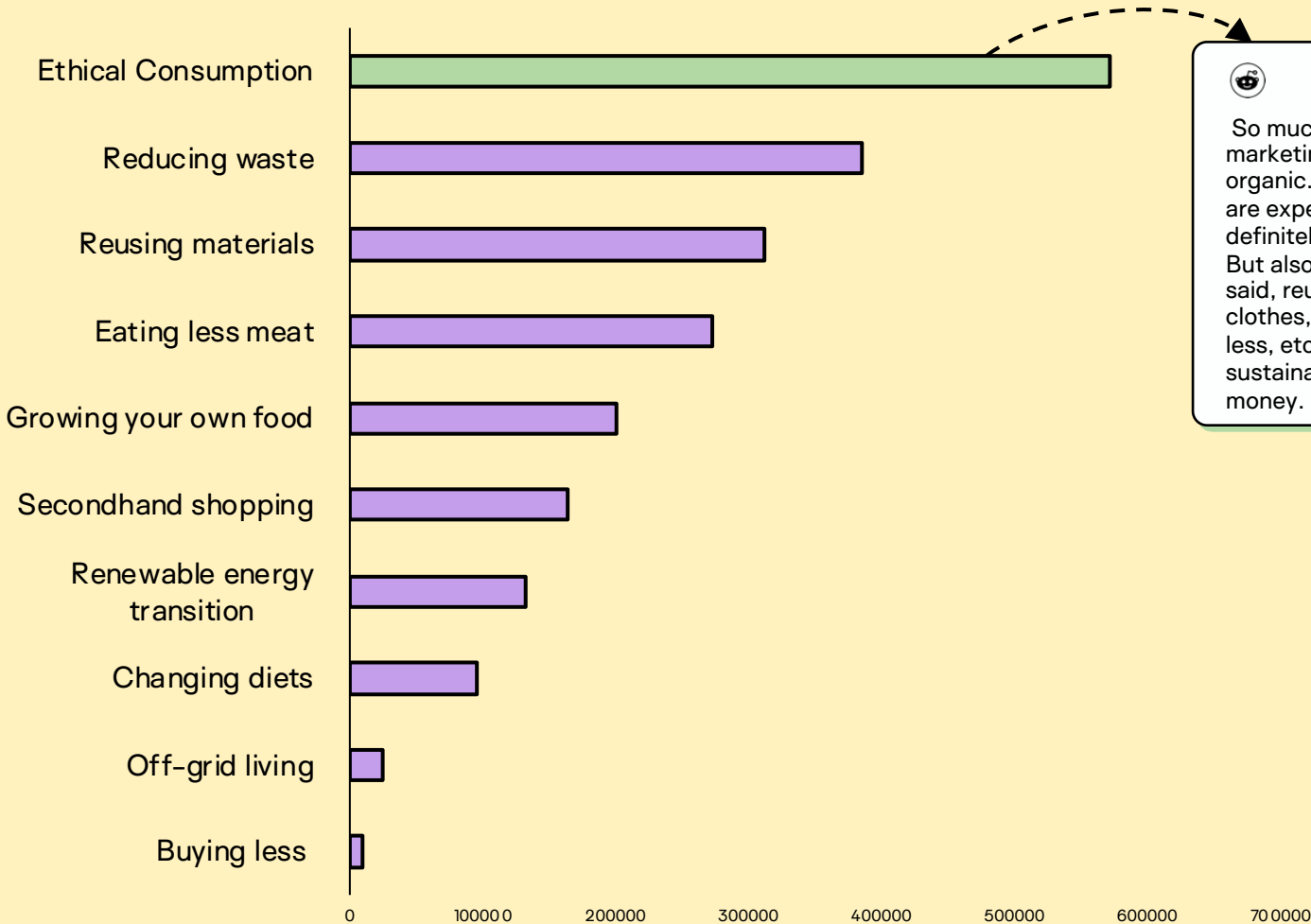
Mapping sustainable behaviors

Behaviors associated with sustainable living

Ethical Consumption, the idea of actively choosing sustainable or eco alternatives, emerges as a commonly discussed macro-category. This reflects the vital part to be played by brands and retailers in moving towards a sustainable future.

Elsewhere, there's a continued rise in references to the 'circular economy' in reusing materials, secondhand shopping and reducing waste.

We also see a few notable instances where communities look to move away from consumerism, in off-grid living and commitments to buying less, but these do not appear in any great number. Instead, the most mentioned type of 'abstinence' appears to be eating less meat, a behavior that has shifted further into the mainstream over recent years.



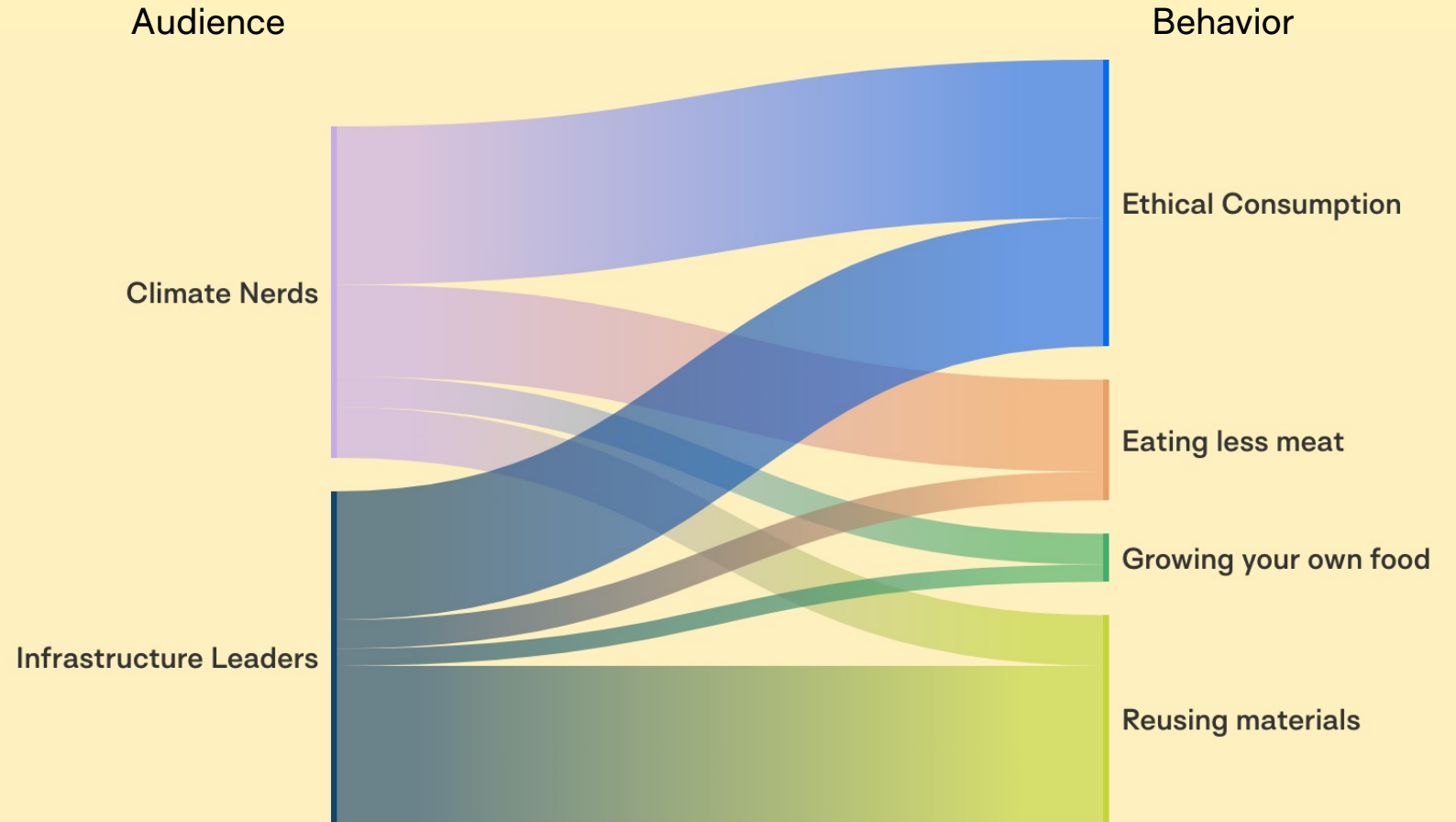
So much of “sustainable” marketing is BS. (Same with organic.) Some sustainable things are expensive and difficult; I definitely empathize with the OP. But also buying in bulk like you said, reusing items, patching clothes, fixing items, consuming less, etc. are all ways to be more sustainable that actually save money.

Different communities focus on different behaviors

By mapping these behaviors against the different communities within the global audience, we can get a sense of how these communities relate to (and engage in) different behaviors.

Ethical Consumption remains a key focus for both communities. Against that, Climate Nerds over-index for eating less meat, whereas Infrastructure Leaders (a group that incorporates architects, builders, designers and officials) are more likely to talk about reusing materials.

As such, Climate Nerds predominantly discuss consumption at a personal level, implying a commitment to sustainable living, while Infrastructure Leaders center their discussions more within business contexts.

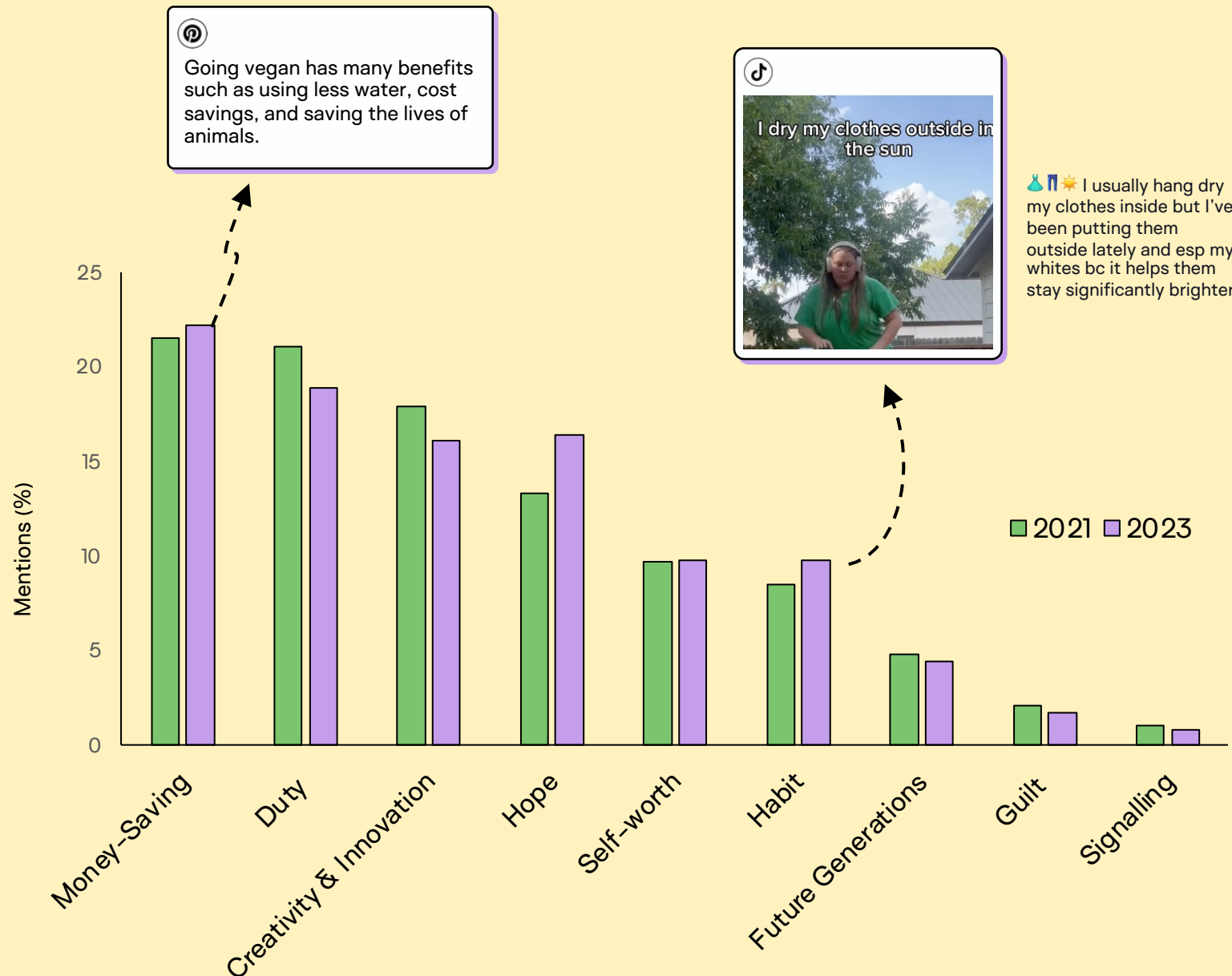


What motivates people to behave the way they do?

In 2023, the escalating climate crisis, particularly affecting food and energy costs, has affected the motivations underpinning sustainability behaviors.

Money-saving now takes precedence over virtuous elements like Duty and Hope, a change since 2021. Of course, in the context of the sustainability conversation, Money-saving is unlikely to be cited as a primary or sole reason, but rather as a reinforcement for actions taken with moral or universal principles in mind.

At the same time, the influence of Habit is becoming more entrenched as a reason for long-term behavioral change.



Mentions of drivers in the Sustainability conversation across Twitter, Facebook, Instagram, TikTok, Pinterest, News, Tumblr, YouTube, Forums, Blog and more between Aug 1 – Nov 30 in 2021 and the equivalent period in 2023. Source: Pulsar TRAC

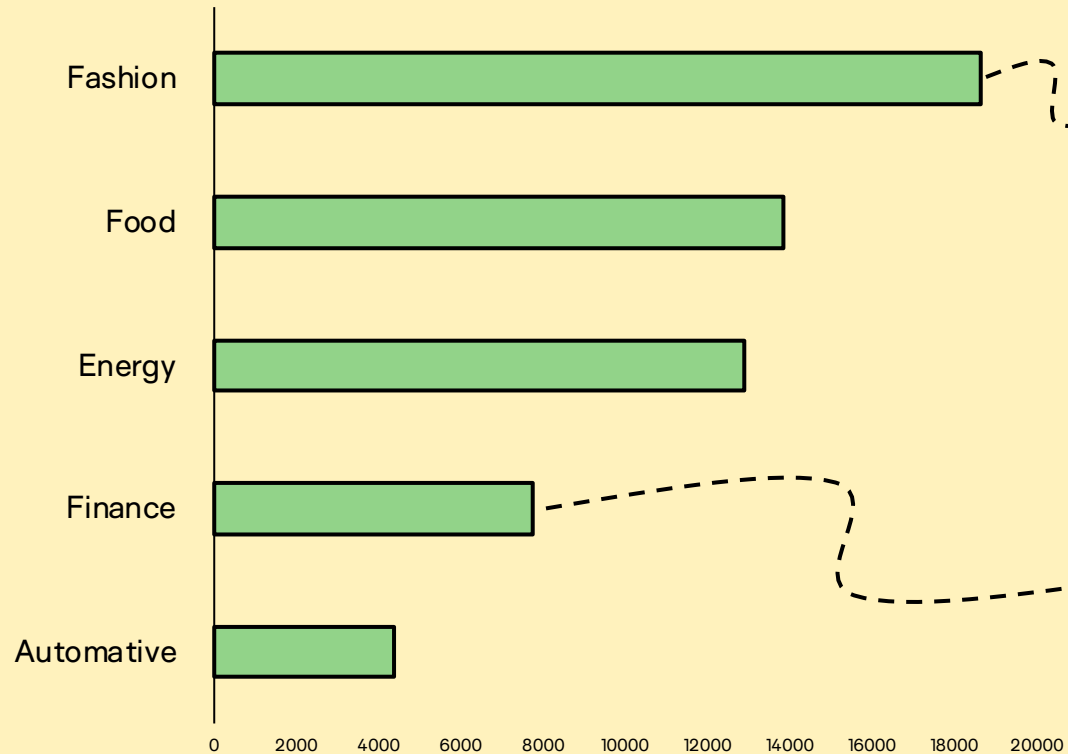
Compromising for change:

The sectors where audiences are talking about compromise

The conversation around sustainability has only grown more nuanced. Away from the win-win attitude espoused by certain green investors, most audiences are willing to compromise in some areas to see change, but not others.

Fashion, for instance, is one place where many audiences are open to compromising their own behavior, whether that relates to buying less clothes, or spending more money on more eco-friendly alternatives.

Food is another where consumers are open to individual compromise, while Energy and Finance emerge as sectors where a kind of collective compromise, on the part of stakeholders, companies and governments.



I've been worried about climate change my whole life. **I've found compromise more workable than absolutism.** because I already bought most of my clothes secondhand and ate less meat and dairy than average.



If we defer **investments in climate change mitigation and nature preservation**, the accumulating impacts could be detrimental to sustainability and societal advancement, and **compromise our resilience when confronted by the next major global shock**

Industry Spotlights

How audiences talk about leading brands in the sustainability conversation

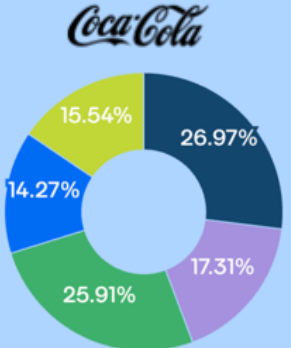
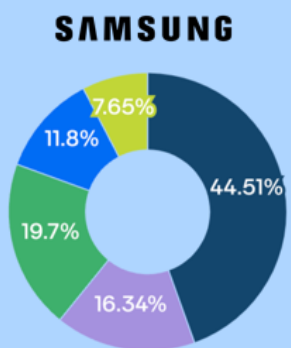
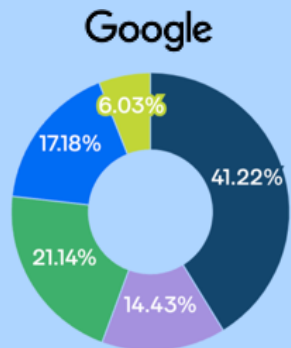
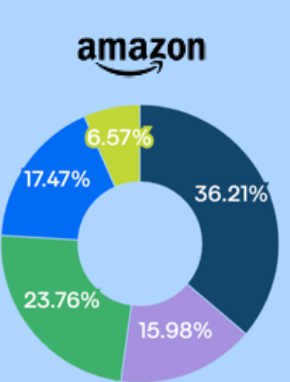
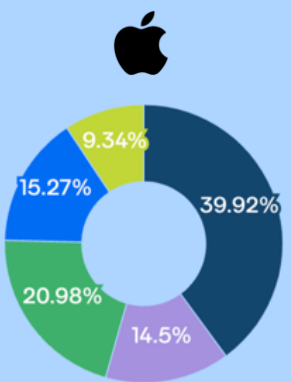
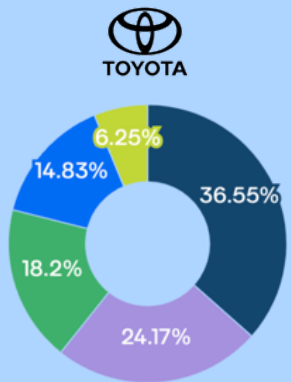
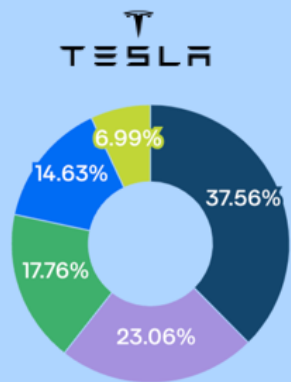
Clearly, the sustainability conversation differs from brand to brand, not only with regards to their product lines but also the concepts and initiatives they're linked to.

Technological Innovation is unsurprisingly popular, given the preponderance of tech companies, and the willingness of consumer goods firms like Nike to embrace new innovation.

Car manufacturers, Tesla and Toyota also stand out, experiencing a surge in Net Zero and Emissions mentions. While the former fields most positive press, the latter faces accusations of of greenwashing for its perceived lack of electrification.

Retailers Coca-Cola and Nike, meanwhile, are mentioned alongside Ecosystem and Resources, given the intersection between sustainability initiatives and workers' rights, particularly in the global south.

Technology Innovation Net Zero & Emission Ecosystem & Resources Social Sustainability Circular Economies



Top brand association with Sustainability & Greenwashing in the Sustainability conversation across X, Facebook, Instagram, TikTok, Pinterest, News, Tumblr, YouTube, Forums, Blog and more between Jan 1 – Dec 15, 2023. Source: Pulsar TRAC

Fashion spotlight: styles

From Y2K thrifting to plastic woes

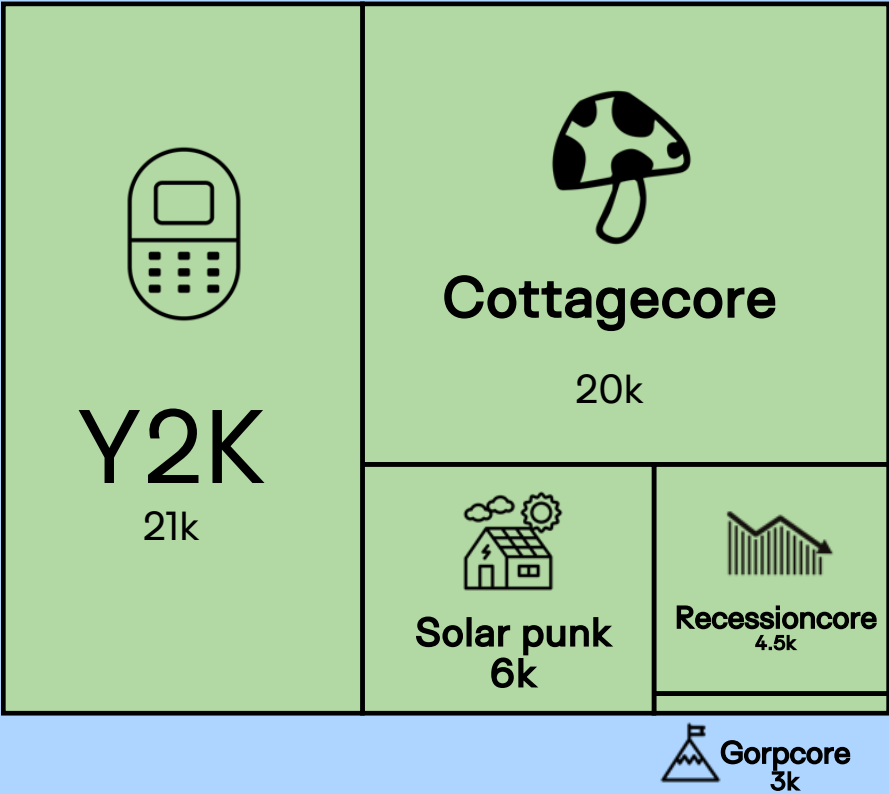
While sustainability is a universal concept that can be reflected across all styles, it's noteworthy to spot the trends most linked with the idea.

The largest, Y2K and Cottagecore marry nostalgia with sustainable values.

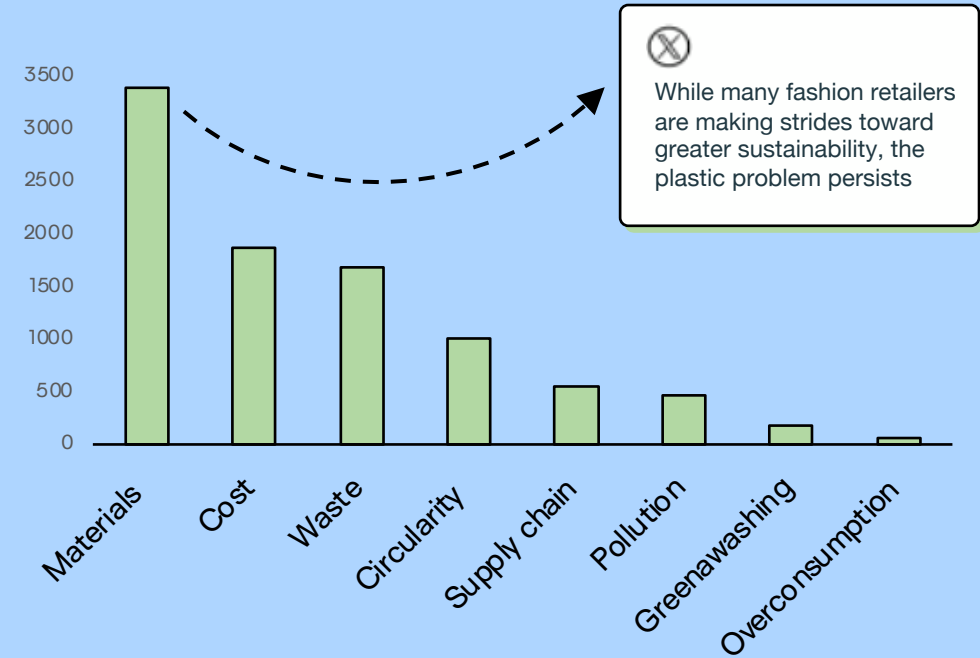
Solarpunk, meanwhile, influenced by anime and internet culture, symbolizes hope, while Recessioncore and Gorpcore champion practical sustainability through minimalism and efficiency.

So what concerns do audiences have? Materials emerge as clear leader, with the idea of unrecyclable, fast fashion items entering mass circulation a recurrent source of worry, particularly amongst younger generations.

Top aesthetics



Top concerns

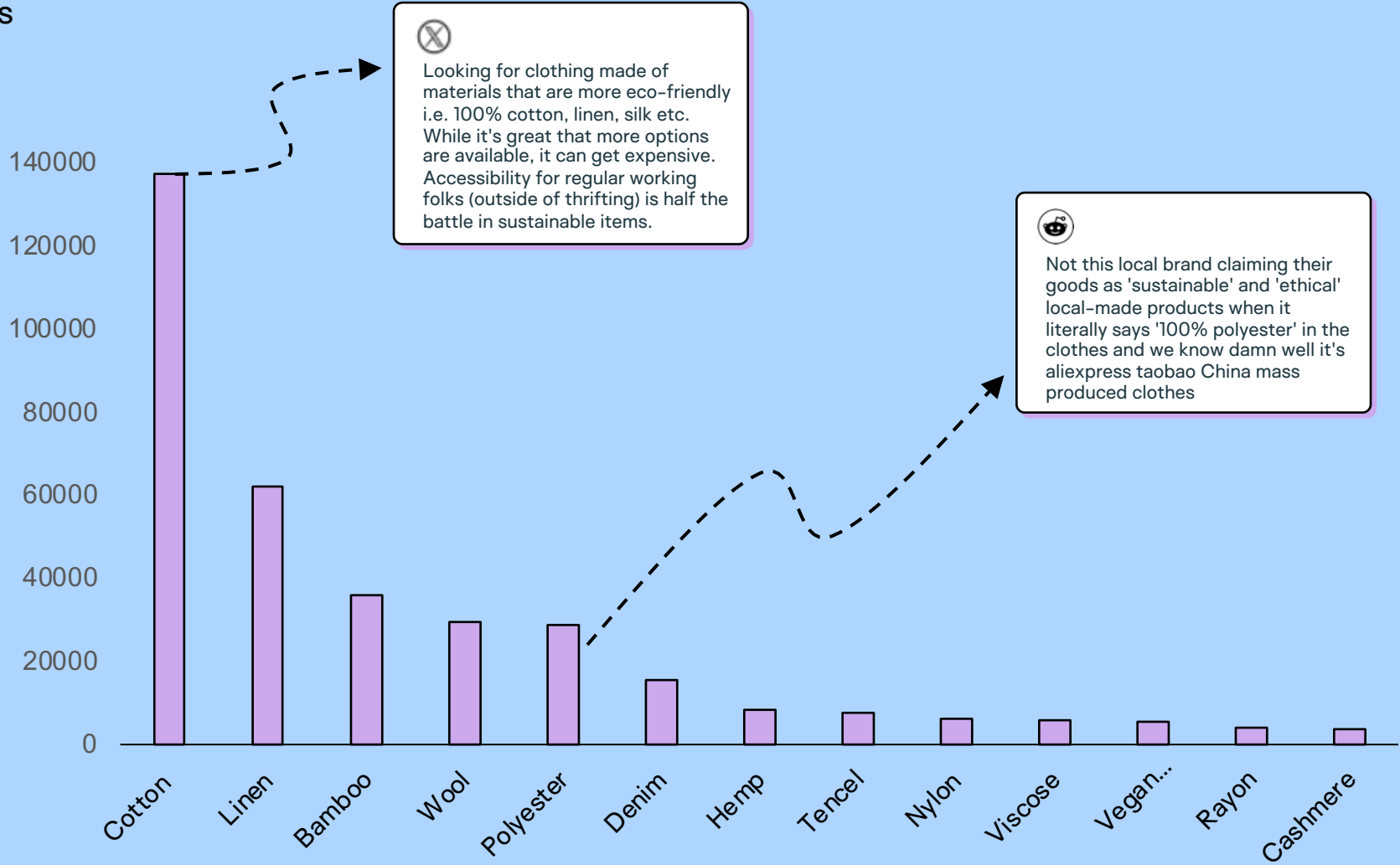


Fashion spotlight: materials

How audiences discuss sustainable materials

Sustainable fashion is anchored in organic materials like cotton and bamboo, but the 'organic' label is no longer taken at face value, fuelling discussions on outsmarting brands' greenwashing tactics.

For instance, Cotton, often hailed as the epitome of sustainability with labels like '100% cotton' or 'organic cotton', forms barriers to widespread adoption, including the elevated cost and persistent challenges in production. Discussions are shifting beyond labels, focusing on production processes and ethical practices, reflecting a consumer push for authenticity.



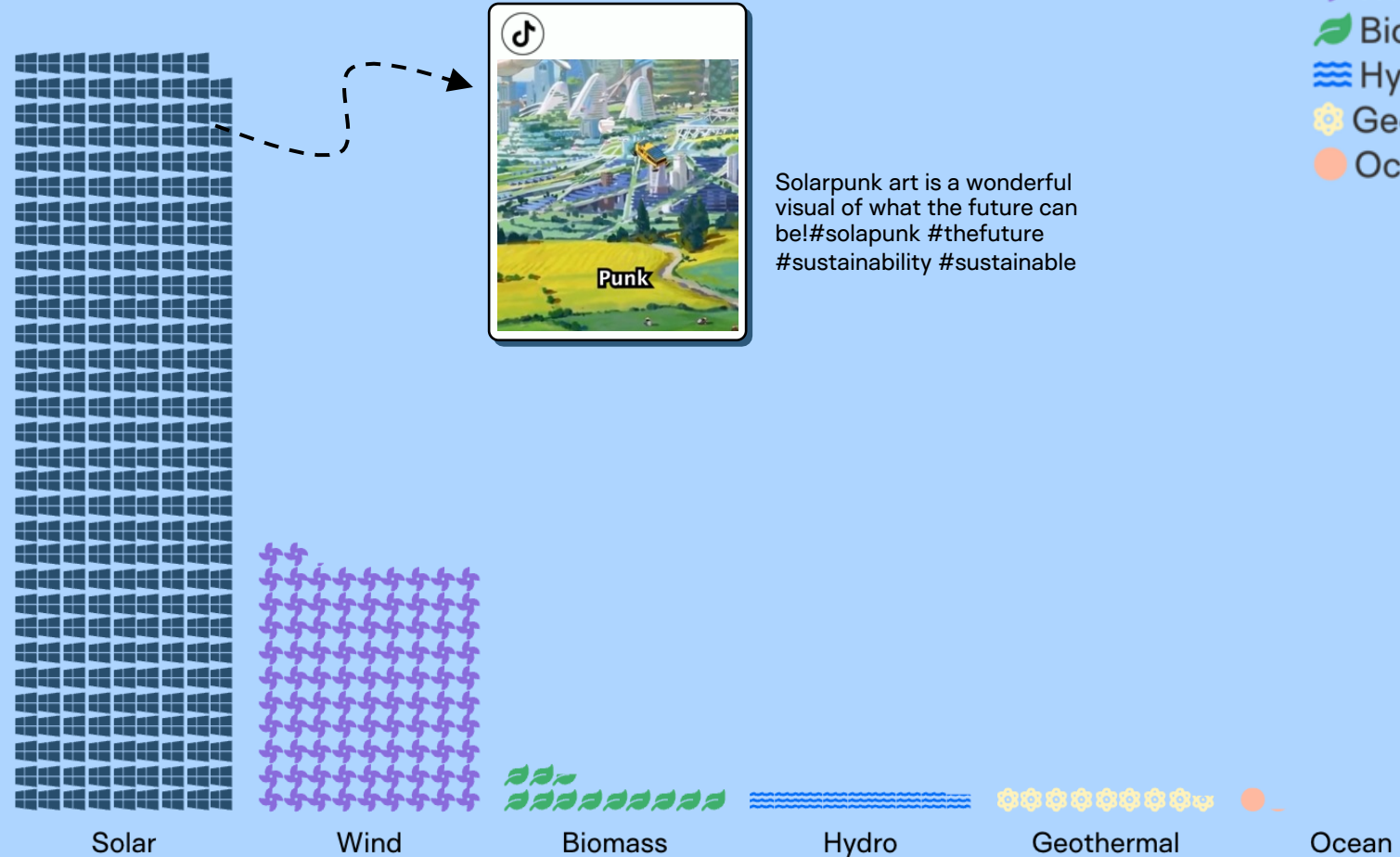
Energy spotlight

Which renewable energy is perceived as the future of sustainability?

Amidst conversations about sustainability, solar power emerges as a standout renewable energy solution. Its prevalence is not only due to broad discourse across households and institutions but also because 'solar' has become an emblem of hopecore aesthetics for Gen-Z, infusing discussions with a sense of optimism for a sustainable tomorrow.

Alongside solar and wind, we also see the continued emergence of alternative sources, like biomass, hydroeletrics and geothermal energy production.

Many such mentions occur either via industry publications or subreddits, both of which support knowledge spread and advocacy amongst hyper-engaged pockets of the population.



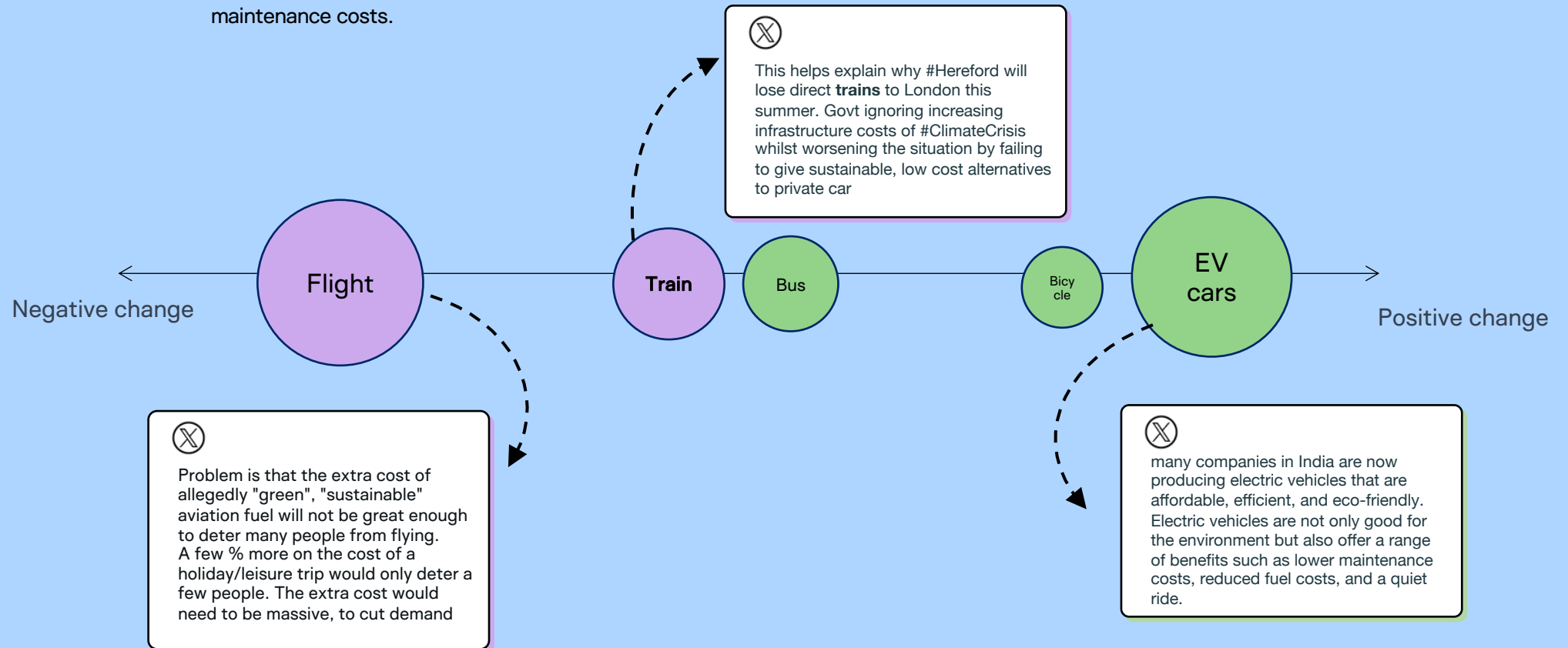
Energy spotlight

From flight shame to EVs

The transportation sector is a key domain where our energy-conscious attitudes are most apparent. When we examine various modes of transportation along different attitude spectrums, electric vehicles (EVs) emerge as the most positively anticipated choice. This enthusiasm is not only rooted in environmental benefits but also in the anticipation of lower maintenance costs.

On the flip side, flights are often seen as the most controversial mode of transportation in sustainability discussions, thanks to the rise of 'flight shaming' movements. These campaigns highlight the environmental costs of frequent flying, aiming to foster a sense of responsibility and encourage individuals to minimize air travel.

However, there remains a noticeable gap between awareness and tangible changes, a space where trains come into focus. While people recognize trains as a sustainable mode of transportation, the existing poor infrastructure acts as a significant barrier to widespread adoption.



Contributors



Dahye Lee
Marketing Research Lead, Pulsar
dahye.lee@pulsarplatform.com
[LinkedIn](#)



Alex Bryson
Head of Content, Pulsar
alex.bryson@pulsarplatform.com
[LinkedIn](#)



Davide Berretta
VP Brand & Content, Pulsar
davide.berretta@pulsarplatform.com
[LinkedIn](#)



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info@pulsarplatform.com