



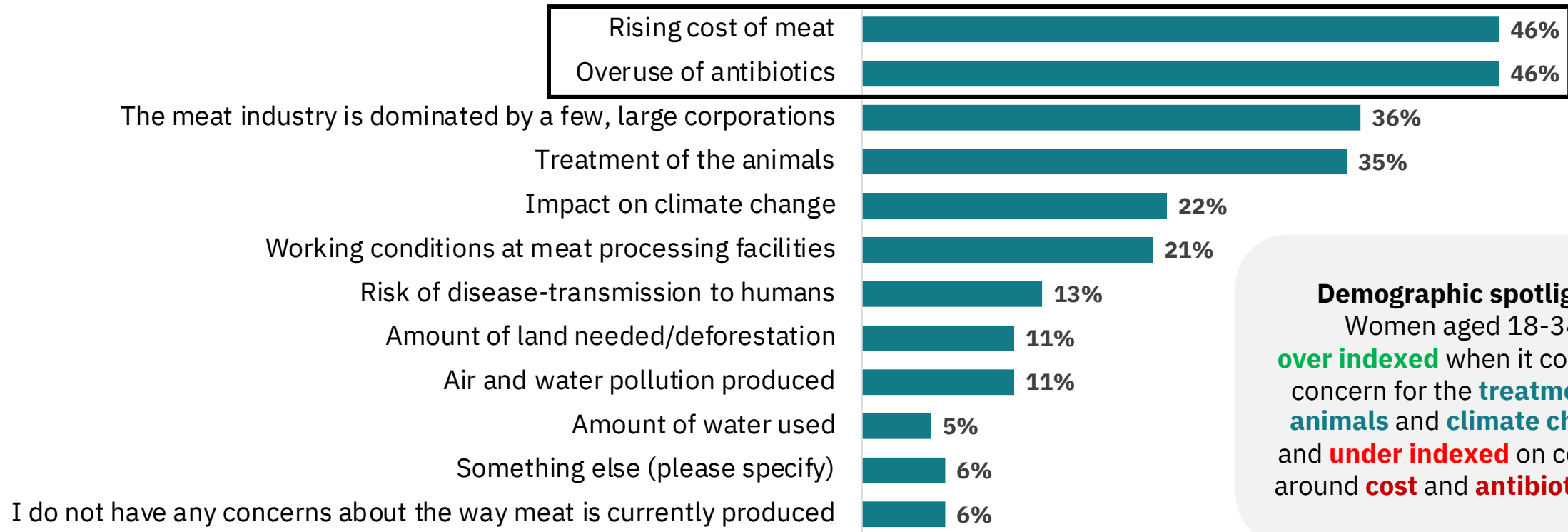
Cultivated meat consumer insights

Findings from a recent study by Embrapa,
commissioned by the Good Food Institute

Top reported concerns about how meat is produced today were the rising cost of meat and overuse of antibiotics.

“What concerns do you have about the current way meat is produced?”

Percent of participants, select top three concerns



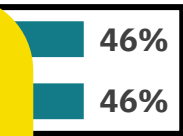
Demographic spotlight:
Women aged 18-34
over indexed when it comes to concern for the **treatment of animals** and **climate change** and **under indexed** on concern around **cost** and **antibiotic use**.



Top reported concerns about how meat is produced today were the rising cost of meat and overuse of antibiotics.

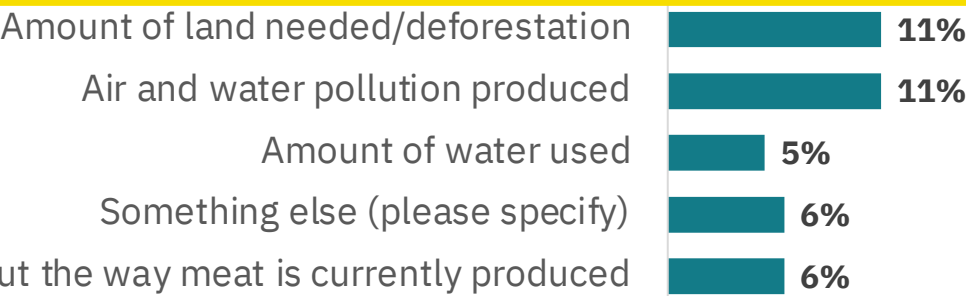
“What concerns do you have about the current way meat is produced?”

Percent of participants, select top three concerns



The meat i

Meanwhile, some of the largest concerns with **cultivated meat** are the idea of unknown risks, which indicates that more consumer education can continue to improve consumer openness to the category.

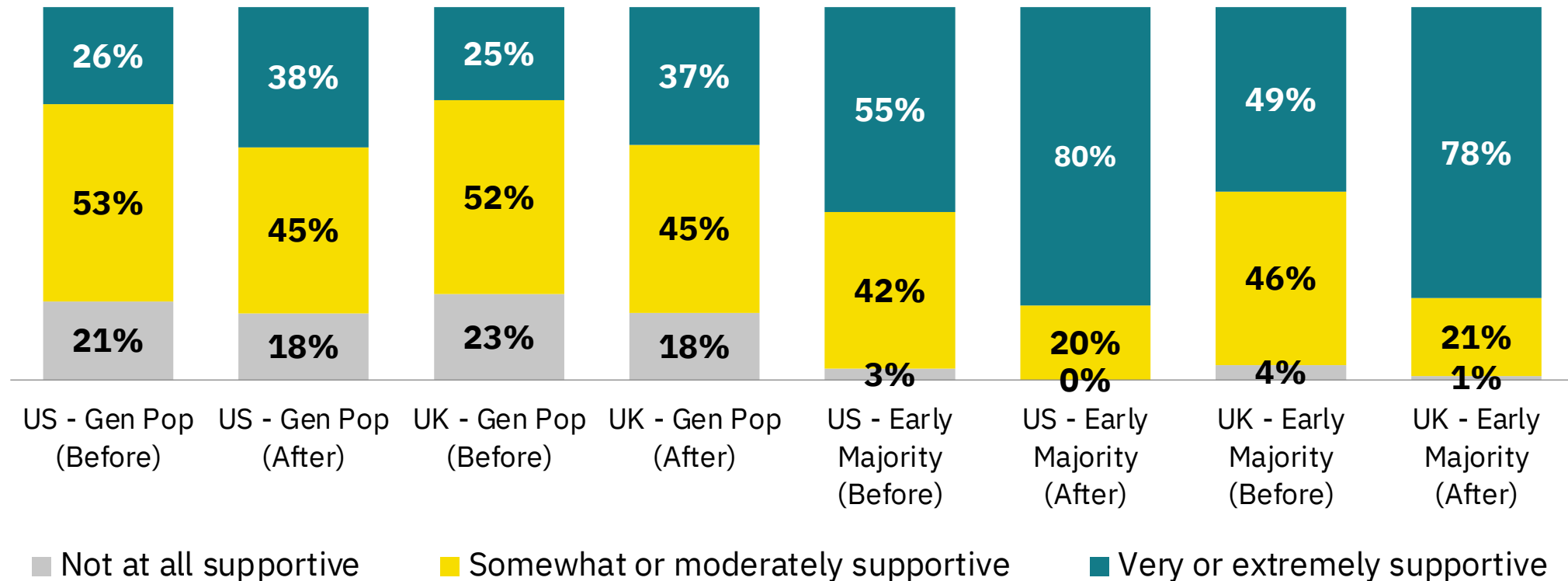


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over indexed when it comes to concern for the **treatment of animals** and **climate change** and **under indexed** on concern around **cost** and **antibiotic use**.



Support for cultivated meat increases after cultivated meat technology is explained to consumers.

Levels of support for cultivated meat before and after technology description, by country and segment



Cultivated meat's sensory characteristics appeal more than the benefits of how it's made.

Top 2 most appealing:

- **Cultivated meat looks, cooks, and tastes the same as conventional meat.**
- **Cultivated meat is essentially the same as the beef, pork, chicken, and fish we eat today.**

Others:

- Genuine animal cells are sampled humanely from an animal.
- Cultivated meat is a new way of producing meat for people to eat.
- Cultivating meat is similar to growing plants from cuttings in a greenhouse.
- Cultivated meat is grown directly from animal cells.
- Cultivated meat is made by placing a small sample of animal cells in a cultivator - a nutrient-rich environment - that allows it to grow.
- Cultivated meat is produced in a facility similar to a brewery.

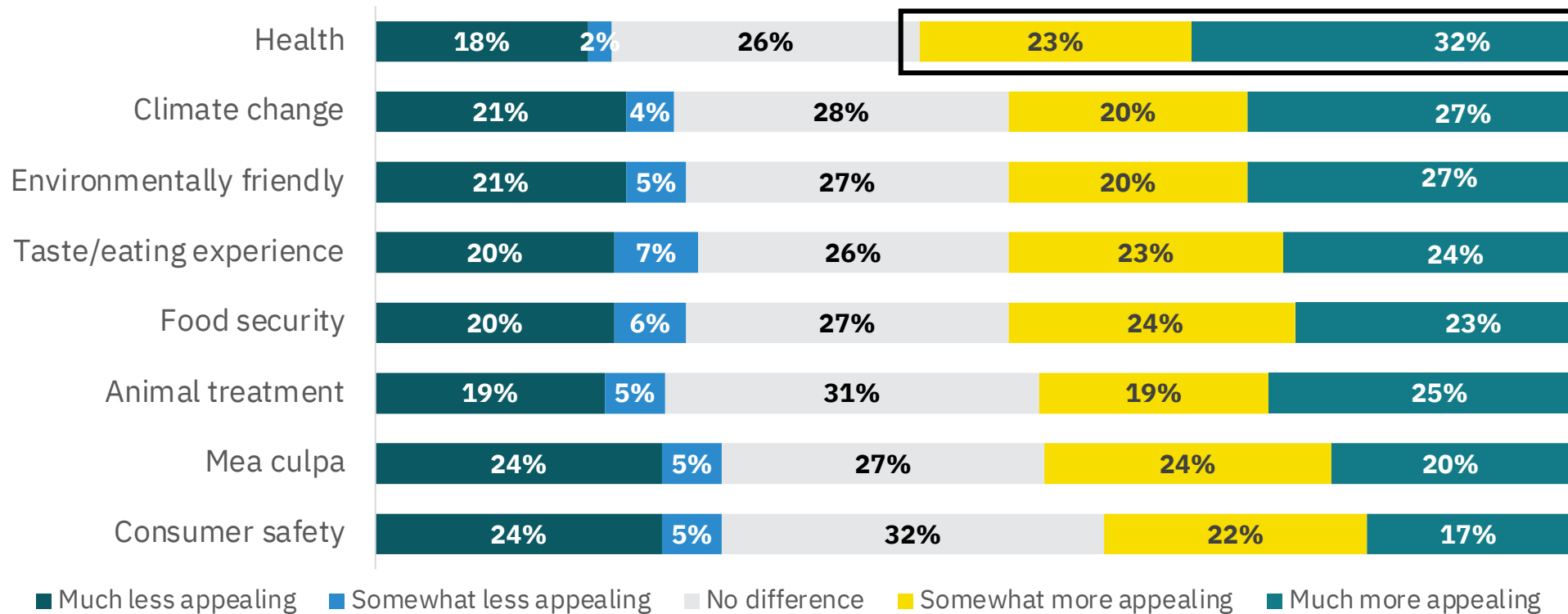


Health-focused messaging including cultivated meat's lack of hormones, steroids, antibiotics, and lowered foodborne illness/pandemic risk drives the most appeal.

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“Please indicate if each message makes cultivated meat more or less appealing to you.”

Percent of participants



Nearly half of respondents are open to trying cultivated meat, driven by their curiosity around the innovation.

After cultivated meat was described to respondents, **45% of respondents stated they'd be likely to try cultivated meat.**

Reasons for interest in trying cultivated meat *(multi-select question)*

- Curiosity/novelty 65%
- Environmental reasons 51%
 - Animal welfare 51%
- Global food security 44%
 - Health reasons 23%
 - Something else 5%



Nomenclature

Nomenclature considerations

When identifying terms for emerging food categories like cultivated meat, there are several considerations to keep in mind:



Differentiation. Terms should distinguish between existing products (e.g., conv. meat and PB meat) and the new product. This is also important to regulators.



Descriptiveness. It's important that the term helps consumers understand what it is (and, in some cases, what it isn't).



Brevity. There needs to be a concise way to describe a product without using too many terms or adjectives.



Appeal. It's important that the term is not unfairly biased in ways that would lead to low appeal.

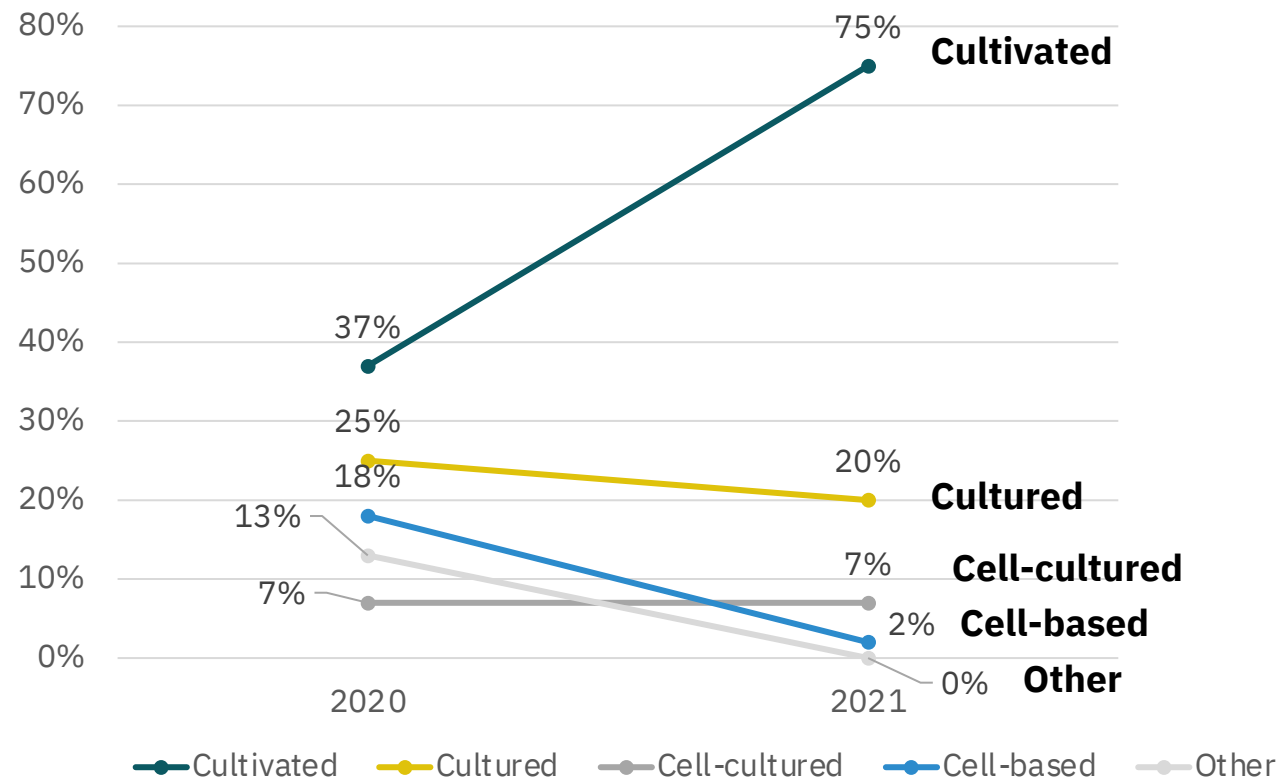


Accuracy. Terms should be accurate descriptions of the product.

And remember—consumer understanding has a huge opportunity to **improve further** once products are available in the market in different channels like retail and foodservice!

The industry is mostly coalescing around the term “cultivated meat.”

Nomenclature used by companies in 2020 vs. in 2021 indicates movement toward “cultivated”



In the past few years, terminology for this technology coalesced around specific terms for products derived from animal cell culture, with **cultivated** rising above others by a wide margin.

Spotlight on cultivated seafood:

Survey results from 7 companies indicated that cultivated was the most-used term, followed by cell-cultured. There is a diversity of opinions on the best term in the seafood category.

Term	Usage
Cultivated	71%
Cell-cultured	29%
Cell-based	14%
Cultured	0%



Cultivated meat and cell-cultured meat terms performed best (and statistically equally) on differentiation.

The research found that, overall, **cultivated** and **cell-cultured** terms were **similarly effective** at differentiating from conventionally produced meat.



Cultivated meat is one of the most accurate and descriptive terms for its brevity.



Cultivated meat. Accurate and descriptive of the production process.



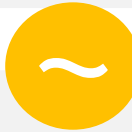
Cell-cultured meat. Accurate from a science perspective and descriptive of the production process (although terminology has moved from "cultured" to "cultivated.")



Cultured meat. Accurate and somewhat descriptive of the production process (terminology has moved from "cultured" to "cultivated.")



Cell-cultivated meat. Accurate and descriptive of the production process.



Cell-based meat. Accurate but not descriptive of the process. Confusing as other production types (including both conventionally produced animal-based meat as well as plant-based meat) contain cells.



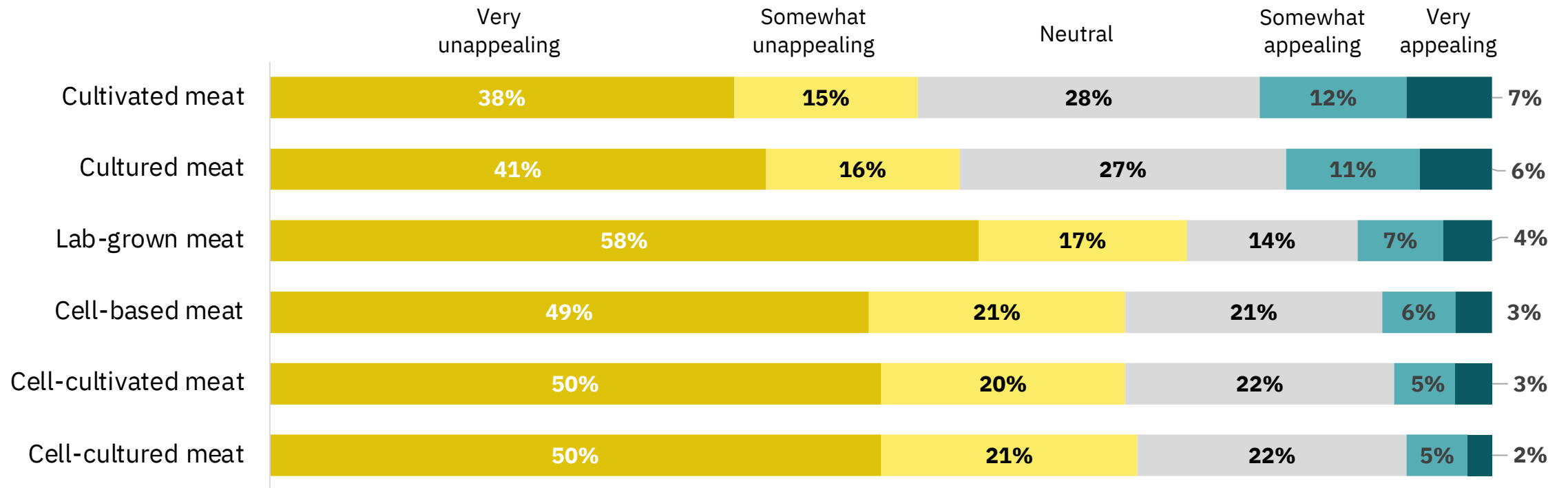
Lab-grown meat. Inaccurate as, at scale, the production process occurs at a production facility, rather than in a lab.

Consumers find “cultivated meat” to be the most appealing term (and the least unappealing term).



“How appealing do you think each of the following sounds?”

Percent of participants

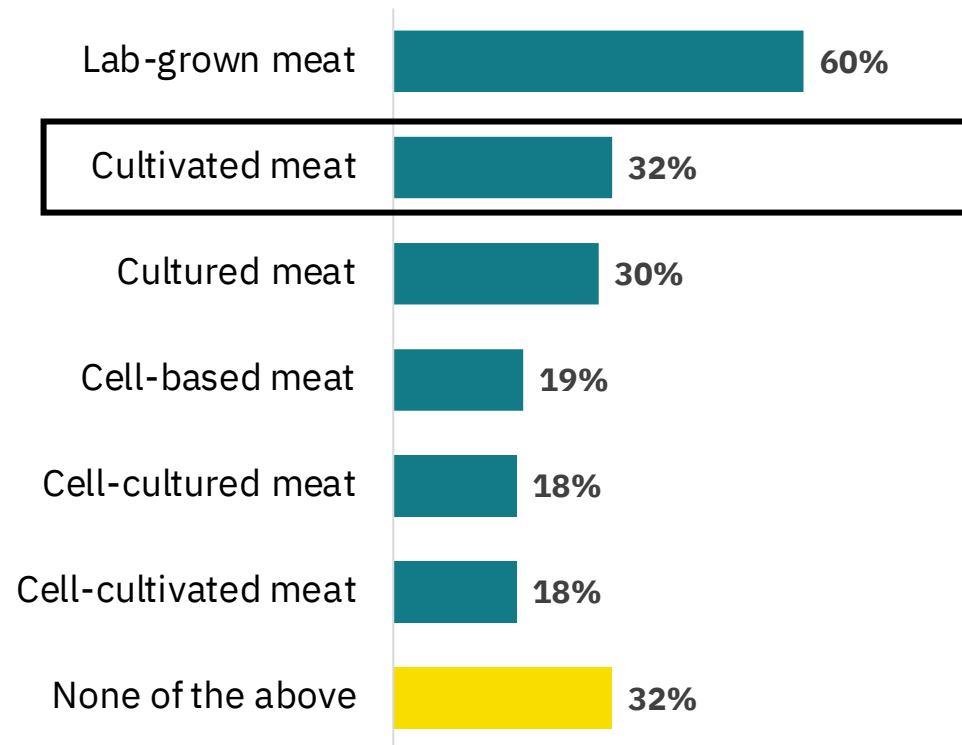


After the sensational term “lab-grown meat,” “cultivated meat” is the next most familiar term to consumers.

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“Which of the following have you heard of before?”

Percent of participants, multi-select question



Demographic spotlight:

People of color and younger consumers were even more likely to report having heard cultivated meat before.

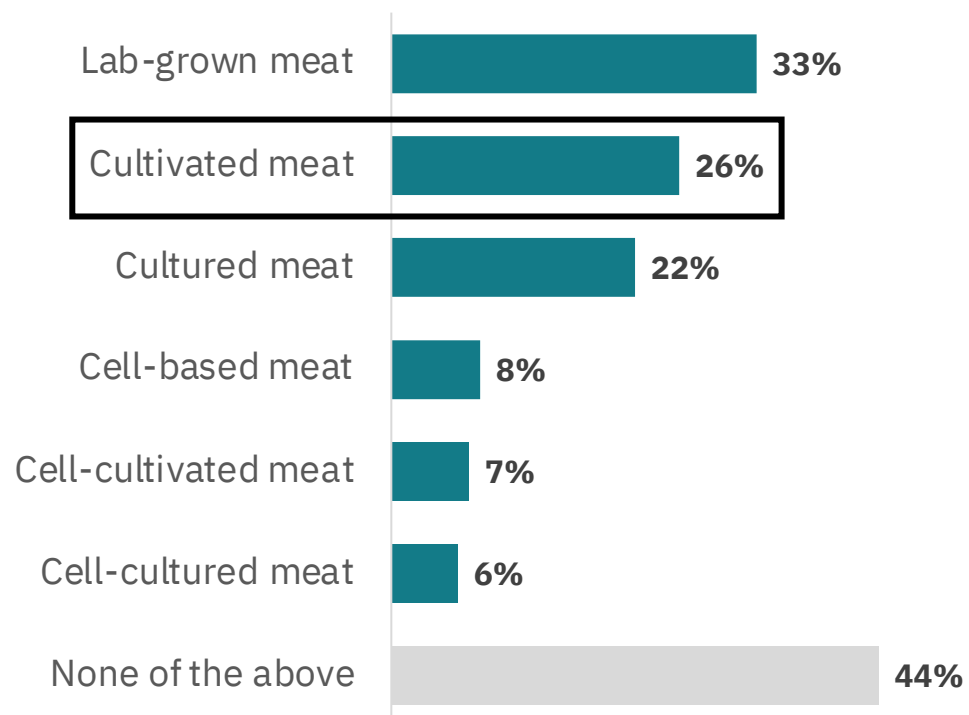
And we expect consumer familiarity with terms like “cultivated meat” to further improve as products come to market.



“Cultivated meat” rose to the top in terms of comfortability using personally and seeing on packaging.

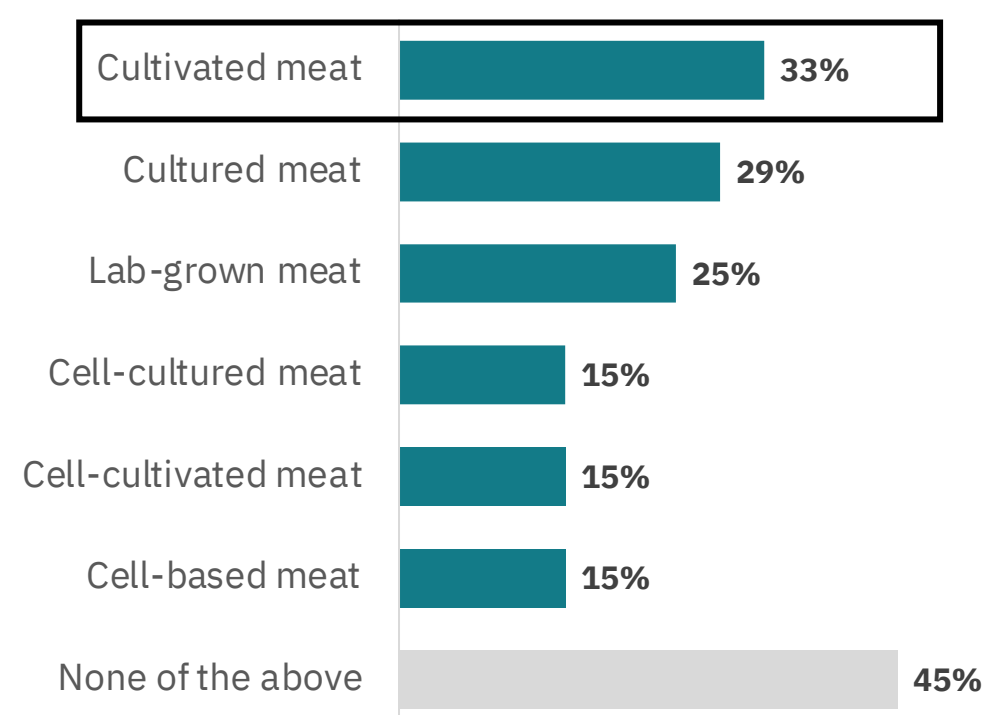
“Which of the following names can you imagine using personally?”

Percent of participants, multi-select question



“Which term(s) would you be comfortable seeing on an ingredient list on food packaging?”

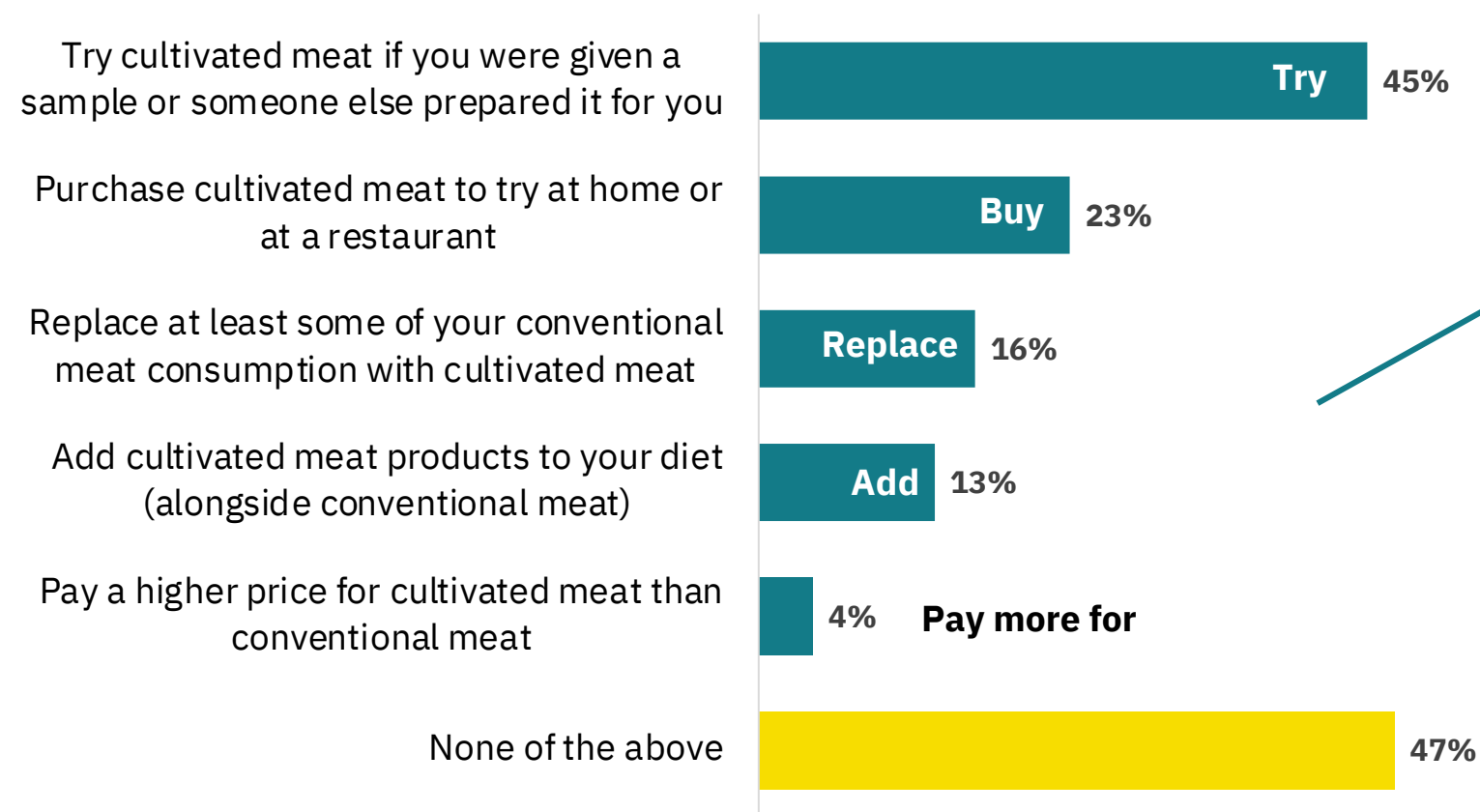
Percent of participants, multi-select question



Nearly half of consumer are open to trying cultivated meat, driven by their curiosity around the innovation.

“Based on the initial description of cultivated meat, which of the following are you likely to do?”

Percent of participants, multi-select question



Reasons for interest in trying cultivated meat

(multi-select question)

- Curiosity/novelty 65%
- Environmental reasons 51%
 - Animal welfare 51%
- Global food security 44%
 - Health reasons 23%
 - Something else 5%

Consumers willing to try cultivated meat if given a sample.

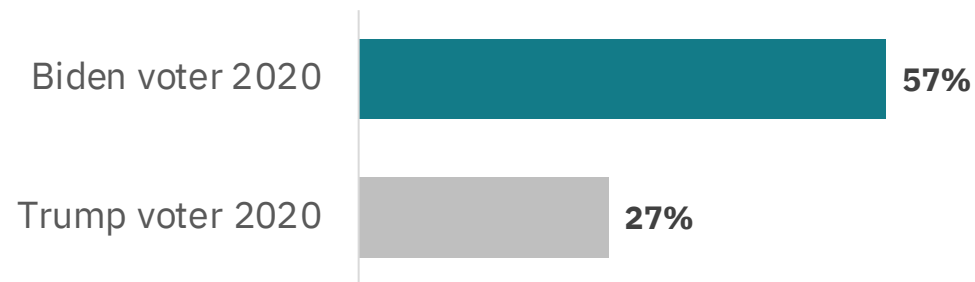
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Overall average = 45%

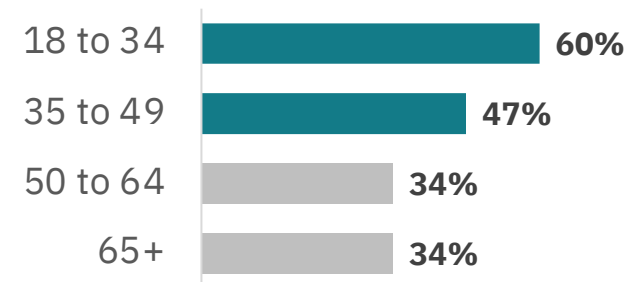
Teal = Over indexed

Grey = Under indexed

Politics



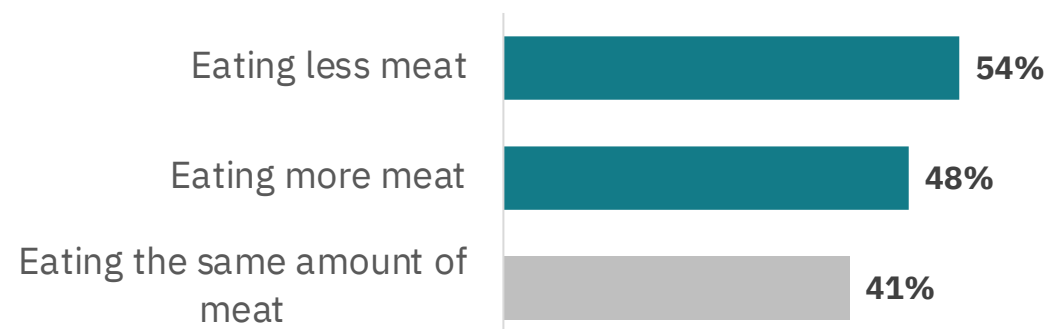
Age



Region

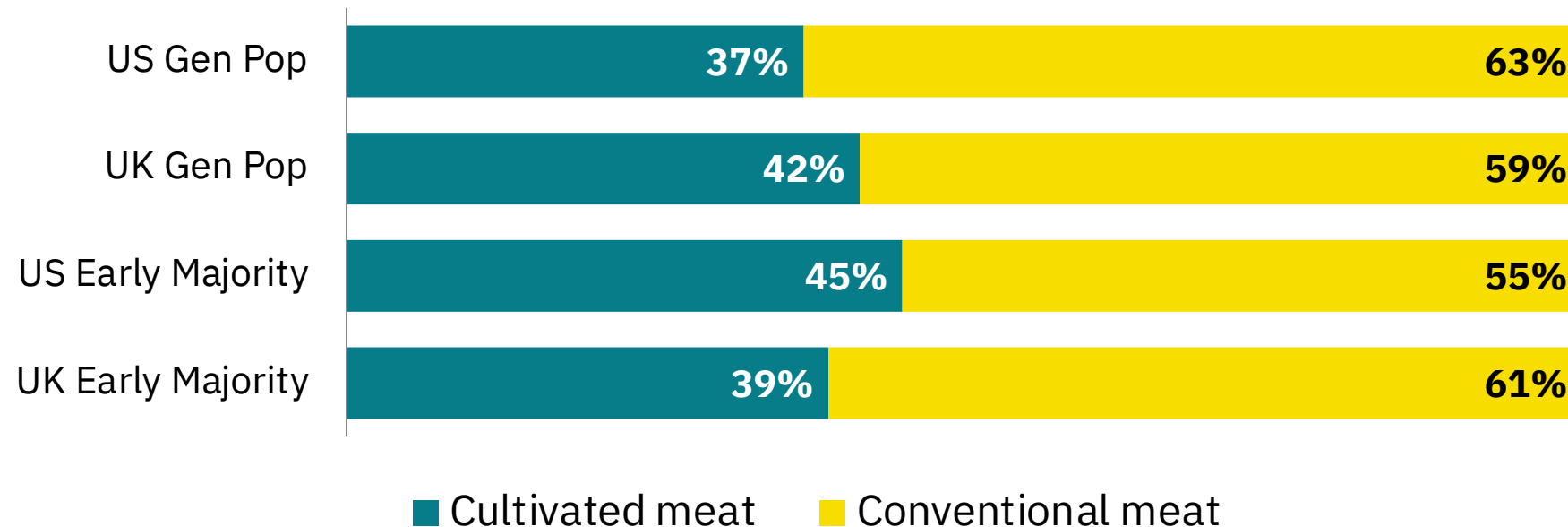


Meat consumption (over the past few years)



Consumers expect ~40% of their future meat consumption will come from cultivated sources

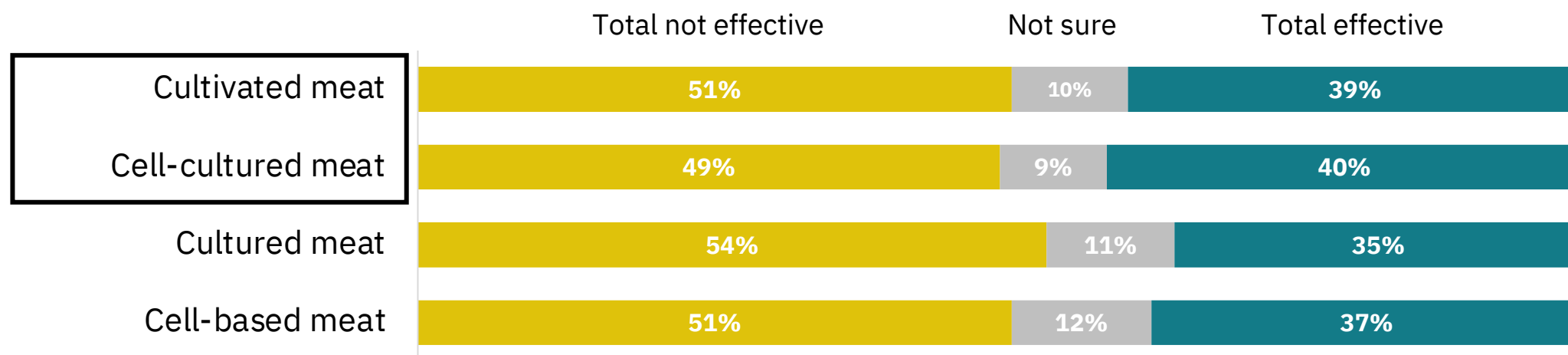
Average expected percentage of meat from each production method by country and segment



Cultivated meat and cell-cultured meat terms performed best (and statistically equally) on differentiation.

“How effective is each of the following names at distinguishing between this type of meat and conventional meat?”

Percent of participants



In sum, the research found that, overall, **cultivated and cell-cultured terms were similarly effective at differentiating from conventional meat.**

Cultivated meat outperformed or performed similarly to cell-cultured meat on differentiation with these groups.

Groups that found **cultivated meat** to be a **more effective** term for differentiation by at least 4 percentage points:

Black respondents

Asian American and Pacific Islander respondents

Respondents living in the South

Respondents who were neutral to the concept of cultivated meat before receiving messaging about it

Groups that found **cultivated meat** to be **similarly effective** compared to cell-cultured meat for differentiating with conventional meat:

Respondents of all income levels

Respondents who identify as people of color as well as respondents who identified as white

Respondents who were non-college-educated

Both Trump and Biden voters (2020)

Respondents who said they were **not familiar** with this type of meat production as well as those who said they **were familiar**.

Both women and men