



# **3M** | Futures

## **Brazil Survey Results**

# Brazil

**The 3M Futures Study was conducted across 11 countries to understand global perceptions of science and technology innovation—and its role in society.**

**The survey also highlighted Artificial Intelligence, Augmented & Virtual Reality, Sustainability and “The New Paradigm,” an area focused on the pandemic’s impact on our lives.**

France – Brazil – China – Mexico – Canada – Japan – Germany – UK – USA – India – South Korea

# Key Findings — Science & Technology Perceptions



**1**

**Brazilians want innovation in science and technology to focus on environmental and societal problems, such as humanitarian crises (immigration, famine, conflict, extreme poverty) and preparing for global pandemics/public health crises.**

- Brazilians believe that access to information, digital entertainment/news, and consumption of social media has had a net positive impact on society over the past 10 years and will continue to do so in the future. However, many Brazilians agree that too much screen time is a health issue that needs to be addressed, and that as a society, they are too dependent on technology in their everyday lives.

**2**

**Nearly 9 out of 10 Brazilians agree that diverse groups of people working on today's problems will lead to greater innovation.**

**3**

**Brazilians are extremely willing to rent/own a fully sustainable home and buy or lease an all-electric vehicle. Brazilians are less willing to fly on a commercial space flight or use an entirely AI-driven therapist.**

**Methodology:** This poll was conducted between December 6-9, 2021 among a sample of 2000 Adults. The interviews were conducted online. An oversample of N=200 of was also fielded among those 18-24 – The interviews were conducted online. Results from the full survey have a margin of error of plus or minus 2 percentage points.

# Key Findings — AI (Artificial Intelligence)



1

While most Brazilians believe artificial intelligence should be implemented in computer-related technological advancements and look forward to seeing more artificial intelligence in their everyday lives, they are also wary of their data privacy with the advancement of AI and want more information regarding the way it is used.

**Methodology:** This poll was conducted between December 6-9, 2021 among a sample of 2000 Adults. The interviews were conducted online. An oversample of N=200 of was also fielded among those 18-24 – The interviews were conducted online. Results from the full survey have a margin of error of plus or minus 2 percentage points.

# Key Findings — AR (Augmented Reality) and VR (Virtual Reality)



**1**

**Familiarity with augmented reality in Brazil is fairly high, with over two-thirds of Brazilians familiar with the term.**

- Familiarity with augmented reality technology is even higher, even if Brazilians may not realize the technology is ‘augmented reality’, as 8 out of 10 Brazilians reported using some form of AR.
- Brazilians aged 18-24, as 73% of younger Brazilians believe augmented reality plays a significant role in their everyday lives.

**2**

**Most Brazilians believe virtual reality will become more significant to everyday life over the next 5 years, and are willing to not only use a virtual reality headset, but also attend both work events and social events via virtual reality.**

**Methodology:** This poll was conducted between December 6 2021-December 18, 2021 among a sample of 2000 Adults. The interviews were conducted online. An oversample of N=200 of was also fielded among those 18-24 – The interviews were conducted online. Results from the full survey have a margin of error of plus or minus 2 percentage points.

# Key Findings — Sustainability



**1**

**Brazilians are very engaged on sustainability. 90% of Brazilians agree that businesses should be held accountable for sustainable production or their environmental impact, and 80% agree that climate change is the biggest threat to humankind.**

**2**

**Brazilians are not very willing to limit meat in their diet for environmental reasons but are much more willing to agree that the use of single use plastics are a major threat to the environment.**

**Methodology:** This poll was conducted between December 6 2021-December 18, 2021 among a sample of 2000 Adults. The interviews were conducted online. An oversample of N=200 of was also fielded among those 18-24 – The interviews were conducted online. Results from the full survey have a margin of error of plus or minus 2 percentage points.

# Key Findings — New Paradigm

**1**

**9 out of 10 Brazilians have experienced a significant life change as a result of the pandemic. Most residents are more health conscious and more reliant on technology than before the pandemic.**

- Innovations around public health and the global pandemic are very important to Brazilians. Almost half of Brazilians (46%) have lost a family member, friend, or colleague to COVID.
- Most Brazilians prefer a job where they can work from home and believe the pandemic has changed their work environment forever.

**2**

**While most Brazilians have been using technology for social interaction more often, most prefer in-person socialization, hobbies, and dining.**

**3**

**Brazilians are willing to try technological advancements in healthcare such as virtual reality doctor's appointments. However, Brazilians are not sold on telehealth as a full alternative, as most agree that it's important for doctors to see and touch patients.**

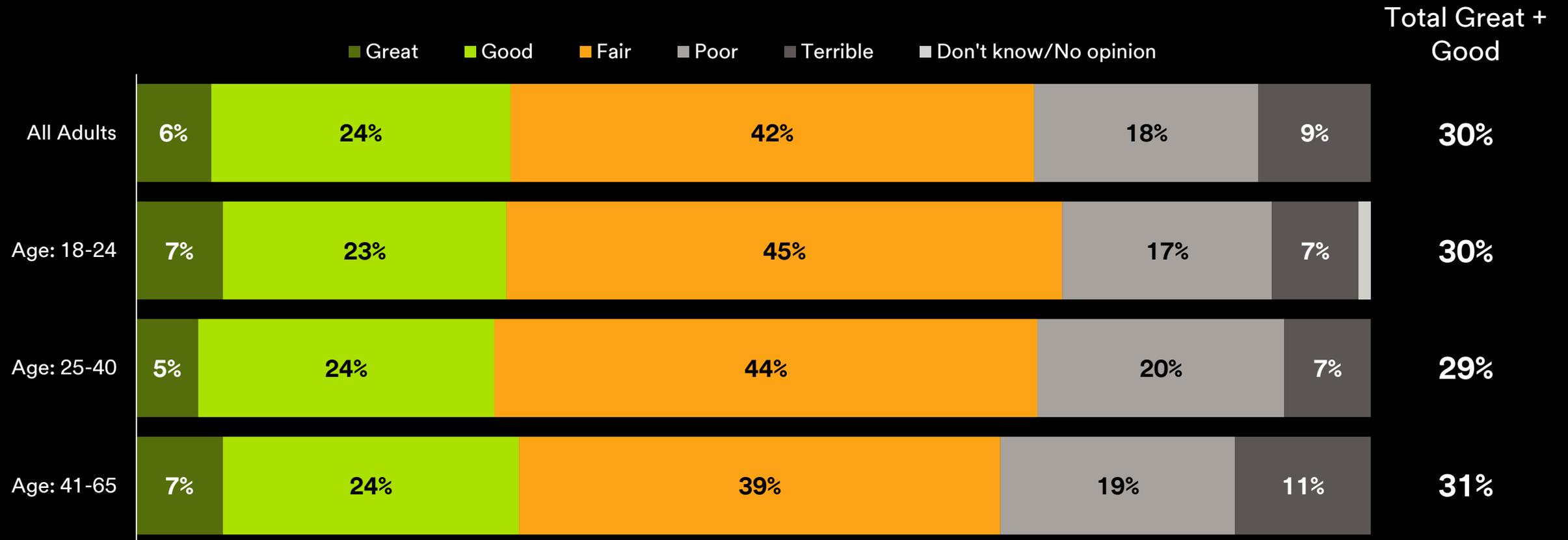
**Methodology:** This poll was conducted between December 6 2021-December 18, 2021 among a sample of 2000 Adults. The interviews were conducted online. An oversample of N=200 of was also fielded among those 18-24 – The interviews were conducted online. Results from the full survey have a margin of error of plus or minus 2 percentage points.



# **Science & Technology Perceptions**

# A plurality of Brazilian adults feel Brazil is doing fair on technological access. Perceptions of Brazil technological access is even across age groups.

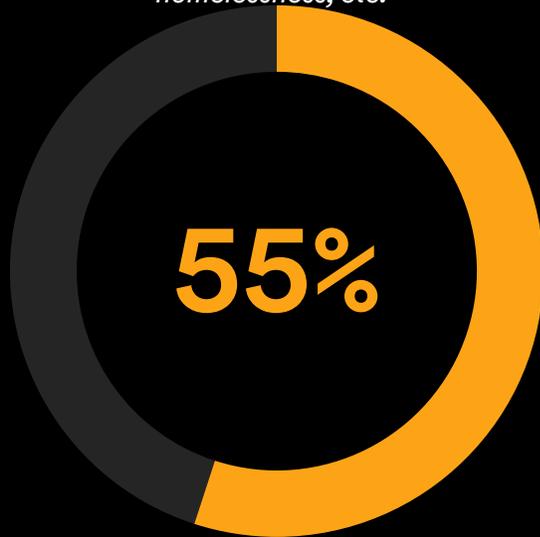
How would you rate Brazil on technological access for its citizens?



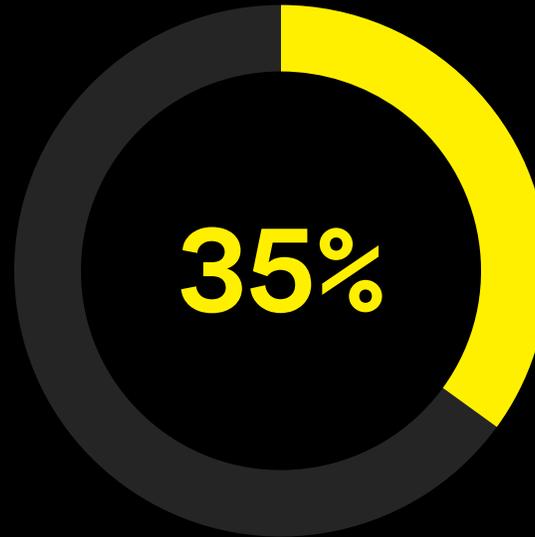
# A majority of Brazilians think science and technological innovation should focus on finding solutions for environmental and societal problems.

Which of the following statements best aligns with your belief on the primary focus of science and technological innovation? 'Science and technological innovation should...'

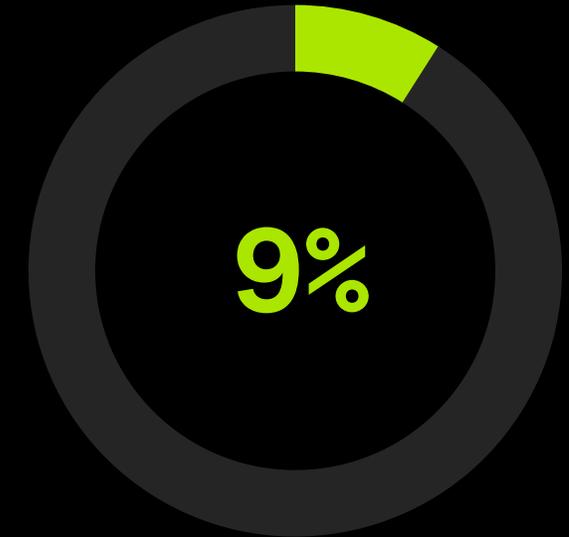
“Find solutions to today’s **environmental and societal problems**, including climate change, sustainability, social injustice, clean water access, homelessness, etc.”



“Protect us from **broader global crises** like future pandemics and public health preparedness, as well as propaganda and technological terrorism, like hacking and data stealing.”



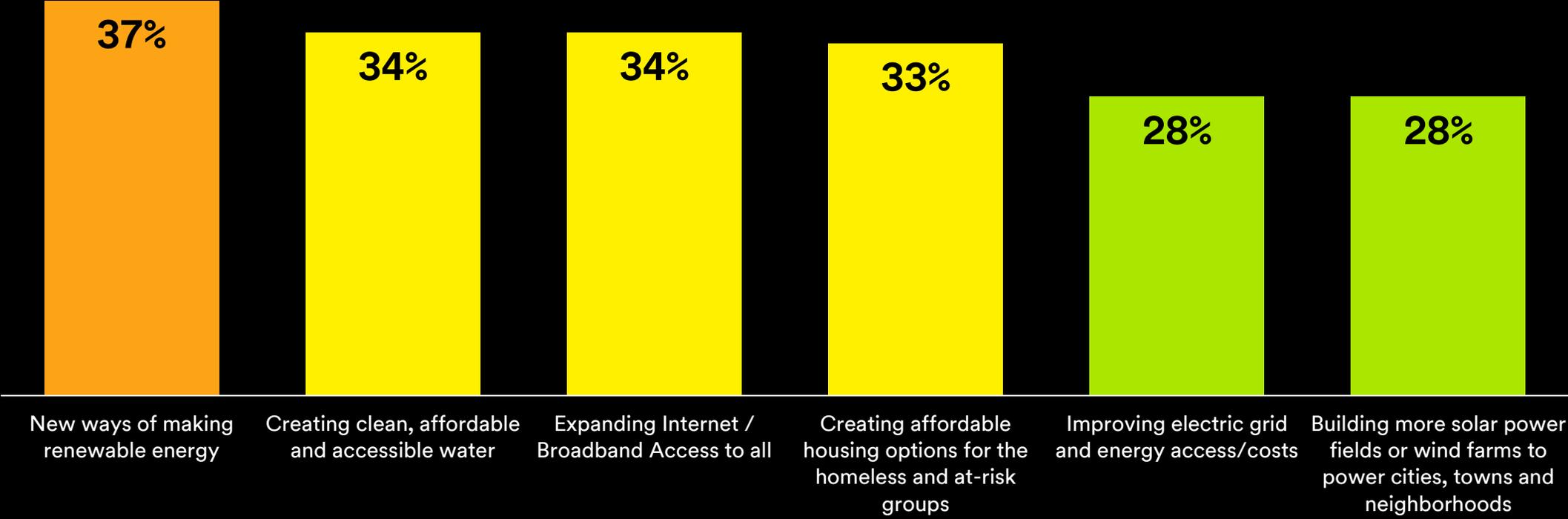
“**Advance the human race to achieve the impossible**, seeing how far we can innovate to create a futuristic and convenient world.”



# Brazilians think science and technology innovation should prioritize new ways of making renewable energy.

What infrastructure developments do you think are most important for science and technology innovation to prioritize in the next five years? Select up to 3.

### Top 5 selected:

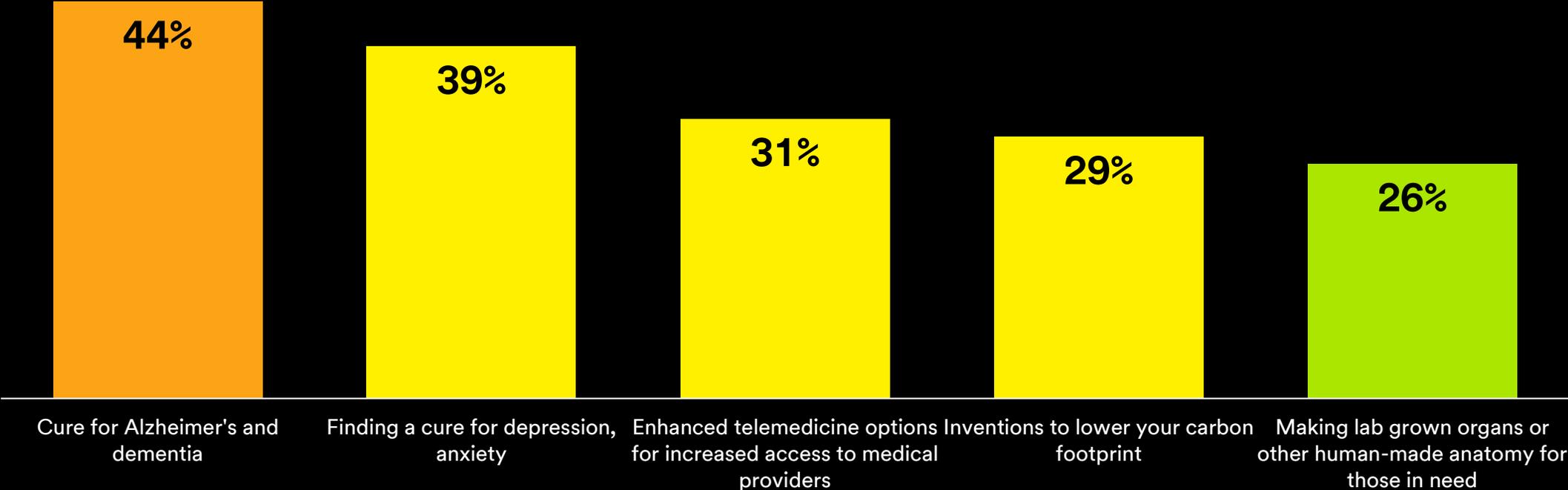


\*Creating clean, affordable and accessible water and Creating affordable housing options for the homeless and at-risk groups both included since they have the same % and are tied for the 5<sup>th</sup> selected response.

# Brazilian adults believe that it's most important for science and technology to focus innovation on a cure for Alzheimer's and dementia.

What human developments do you think are most important for science and technology innovation to prioritize in the next five years? Select up to 3.

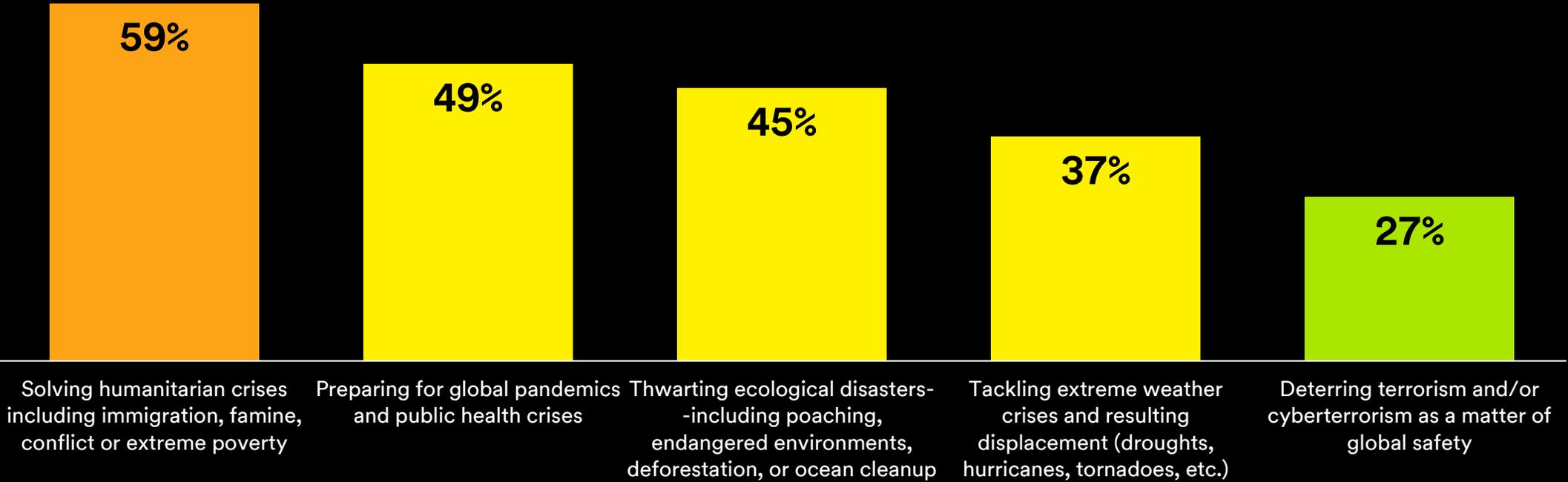
## Top 5 selected:



# Brazilians, especially those 25-65, believe science and technology should focus on solving humanitarian crises.

Which of the following global crises do you think are most important for science and technology innovation to prioritize in the next five years? Select up to 3.

### Top 5 selected:



# Brazilians agree that technology should make our lives easier, however, there are concerns about how much we rely on technology in our everyday lives and too much screen time.

How much do you agree or disagree with each of the following statements?



**of people agree...**

*“Diverse groups of people working on today’s problems will lead to greater innovation”*



**of people agree...**

*“I think that ‘too much screen time’ is a health issue that should be addressed”*



**of people agree...**

*“More progress should be made in technology and science to make our lives easier or more convenient”*

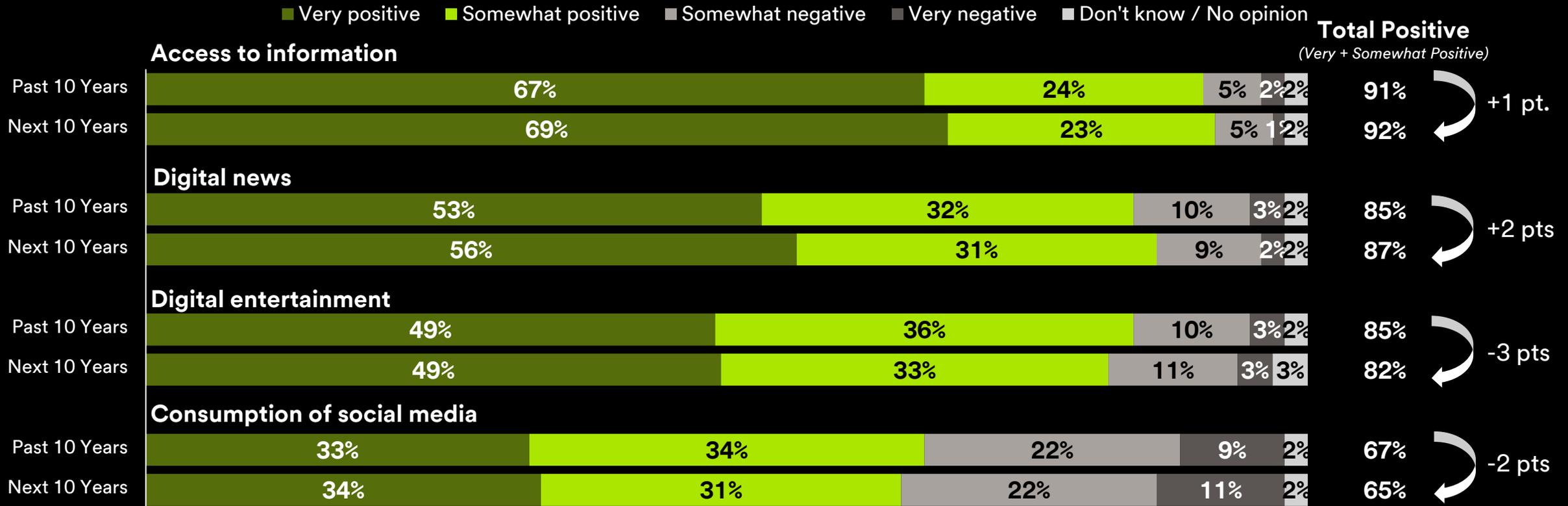


**of people agree...**

*“As a society, we are too dependent on technology in our everyday lives”*

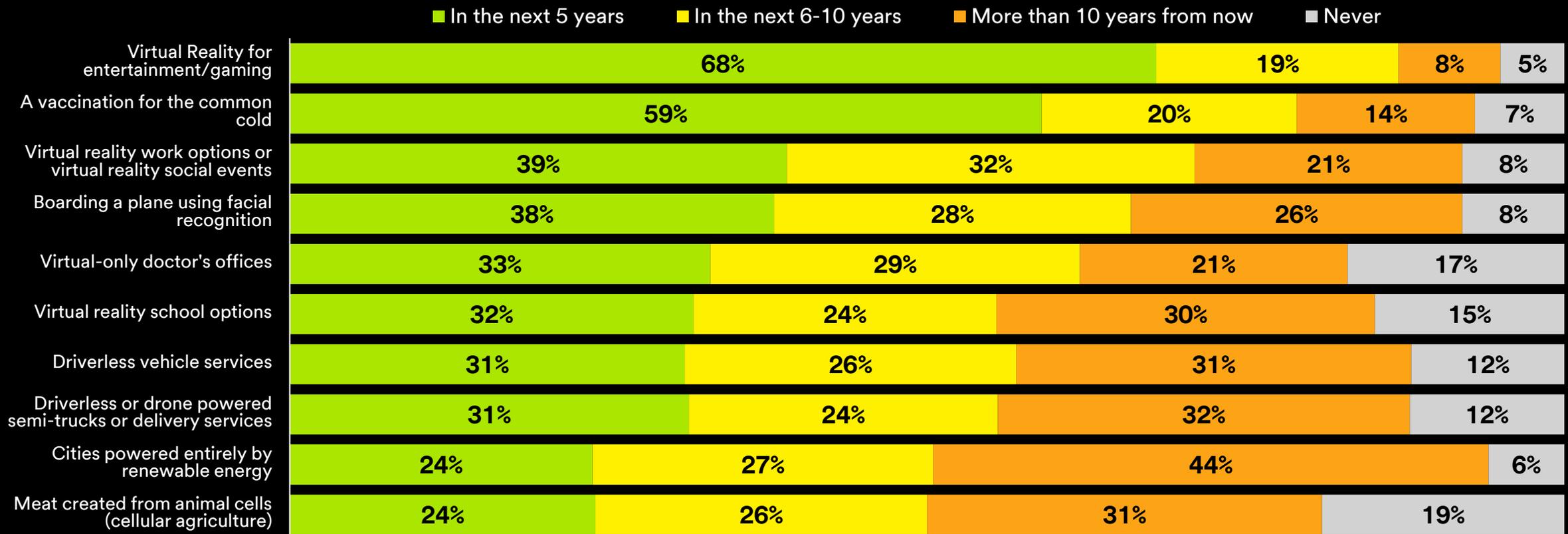
# Overall, Brazilians are positive about the impact of technological advancements in both the past 10 years and the next 10 years.

Do you believe that each of the following has had a positive or negative impact on society over the past 10 years/in the next 10 years?



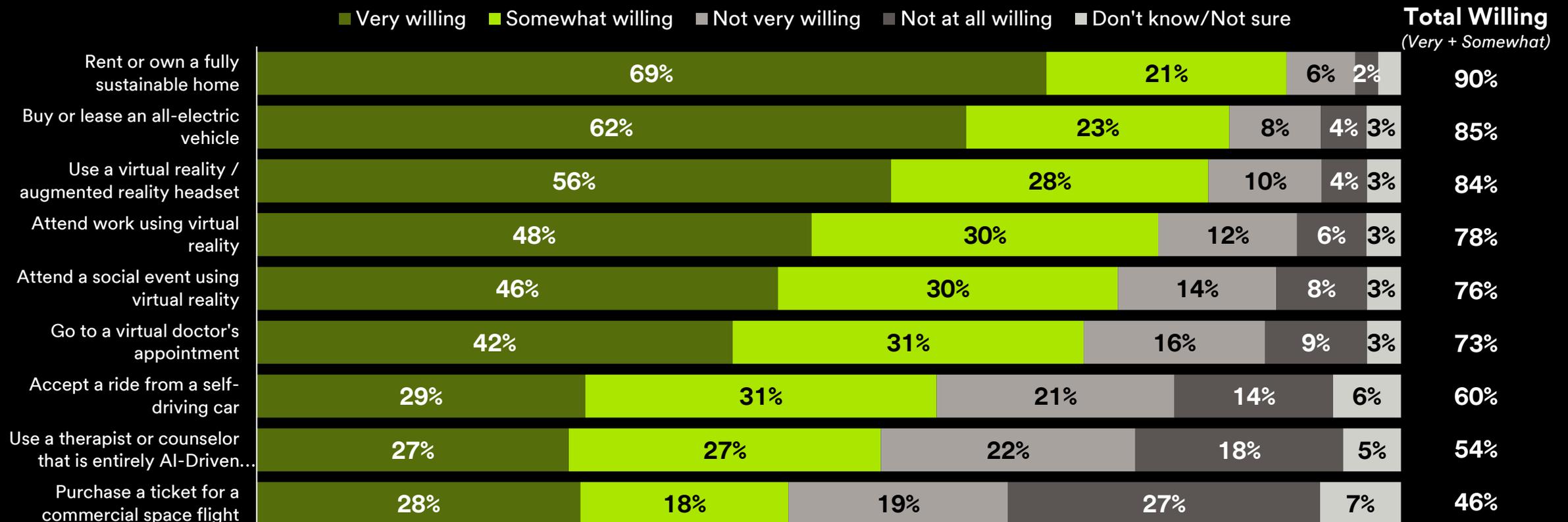
# Brazilians expect that virtual reality and a vaccination for the common cold will become a normal part of everyday lives sooner than other advancements.

When, if ever, do you believe each of the following advancements will become a normal part of people's everyday lives?



# Brazilians are most open to trying environmentally friendly advancements like fully sustainable homes or electric vehicles, and are also willing to use a VR/AR headset. However, they are less willing to travel on a commercial space flight.

How willing are you to try each of the following ?



The image features a dark background with a glowing purple circuit pattern. A large, solid purple rounded rectangle is positioned in the top-left corner. The text "AI (Artificial Intelligence)" is displayed in a bold, white, sans-serif font, centered horizontally and partially overlapping the purple rectangle and the circuit lines.

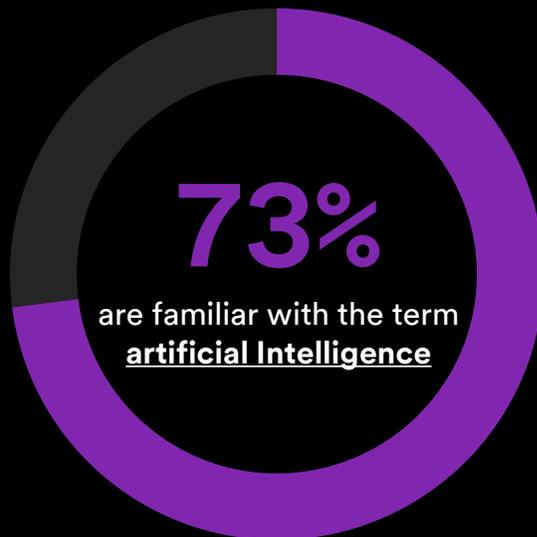
# AI (Artificial Intelligence)

# Most Brazilians are at least somewhat familiar artificial intelligence.

How familiar are you with the terms? How big of a role do you believe artificial intelligence plays in your everyday life? In the next 5 years do you expect the role of artificial intelligence in your everyday life to increase, decrease or stay the same?

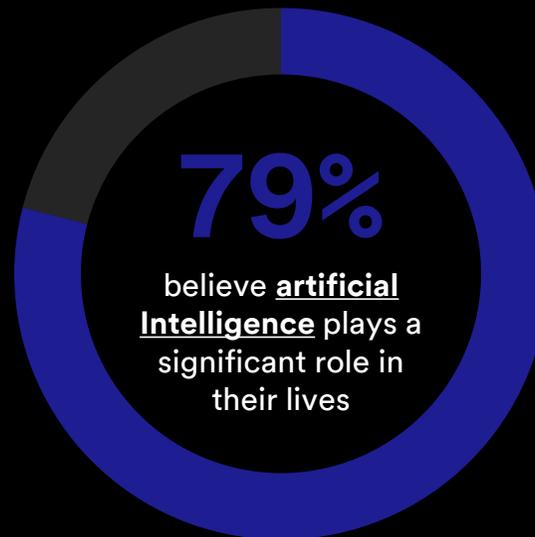
## Familiarity:

*(Very + Somewhat Familiar)*



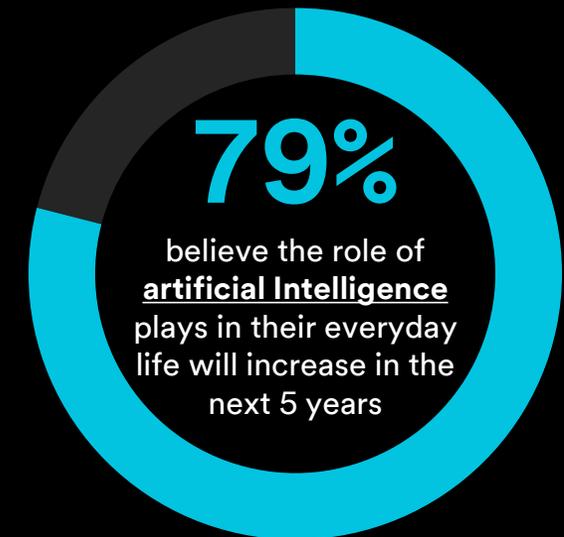
## Current Role:

*(Very + Somewhat Significant)*



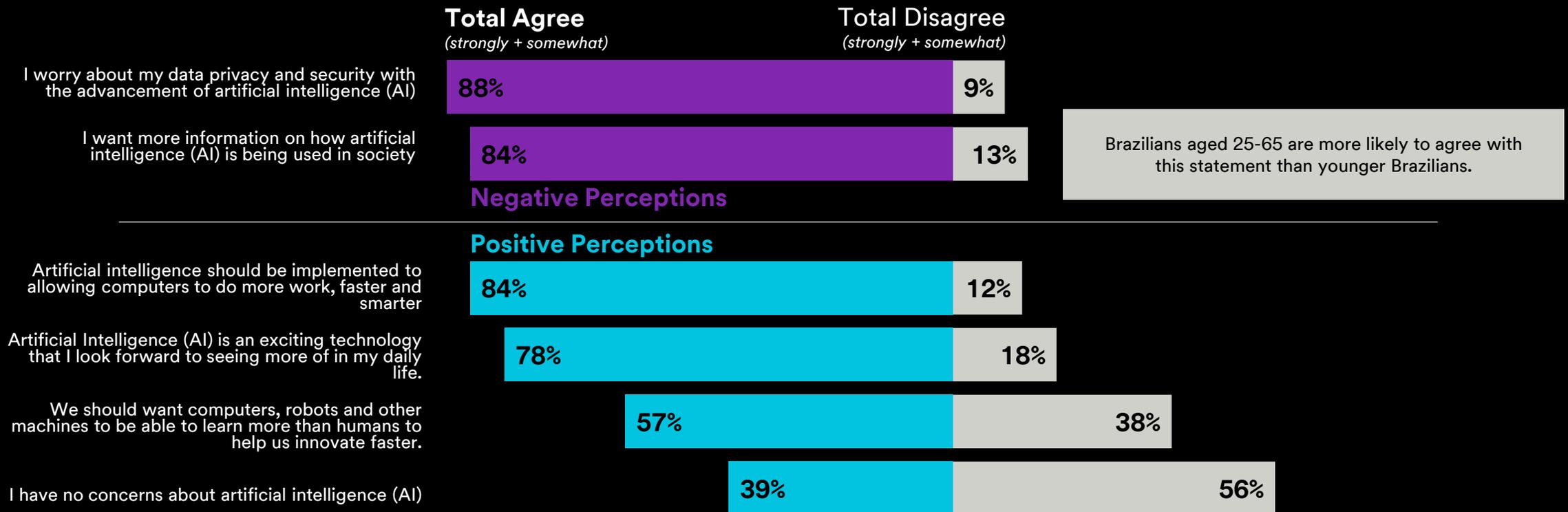
## Future Role:

*(Increase in the next 5 years)*



# Brazilians worry about data privacy and want to understand how AI is being used, but also think AI should be implemented and look forward to seeing it in everyday life.

How much do you agree or disagree with each of the following statements related to artificial intelligence (AI)?

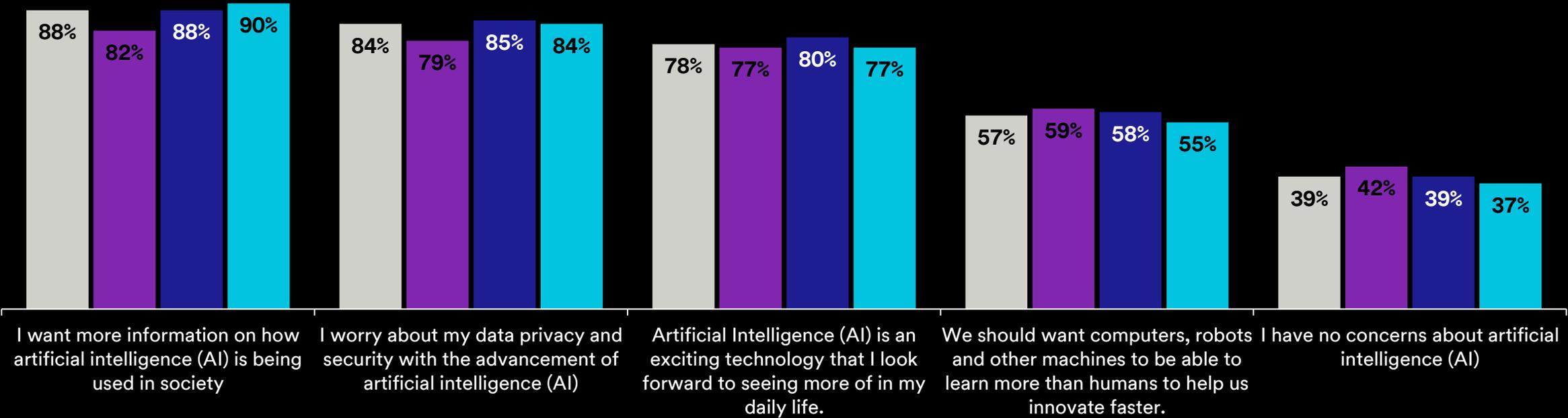


# Brazilians ages 25-40 are most optimistic about artificial intelligence and most looking forward to seeing more AI in their daily lives.

How much do you agree or disagree with each of the following statements related to artificial intelligence (AI)?

## Total Agreement (Strongly + Somewhat Agree)

■ Brazil Average ■ Age: 18-24 ■ Age: 25-40 ■ Age: 41-65





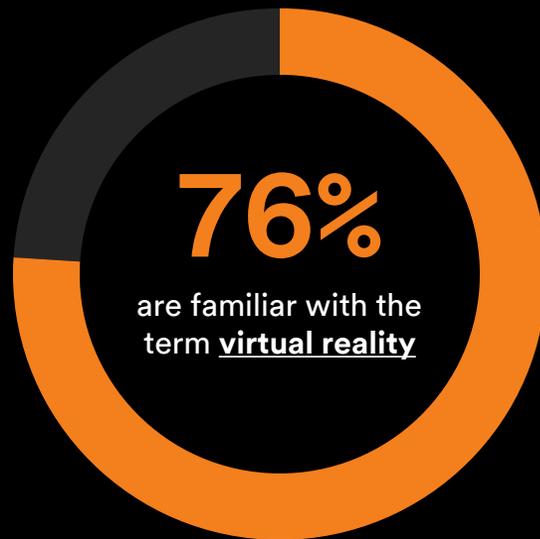
# **AR & VR** **(Augmented Reality** **& Virtual Reality)**

**About three quarters of Brazilians are familiar with VR and feel that it plays a significant role in their everyday lives. A majority agree the role of VR in their everyday lives will increase in the next 5 years.**

How familiar are you with the terms? How big of a role do you believe virtual reality plays in your everyday life? In the next 5 years do you expect the role of virtual reality in your everyday life to increase, decrease or stay the same?

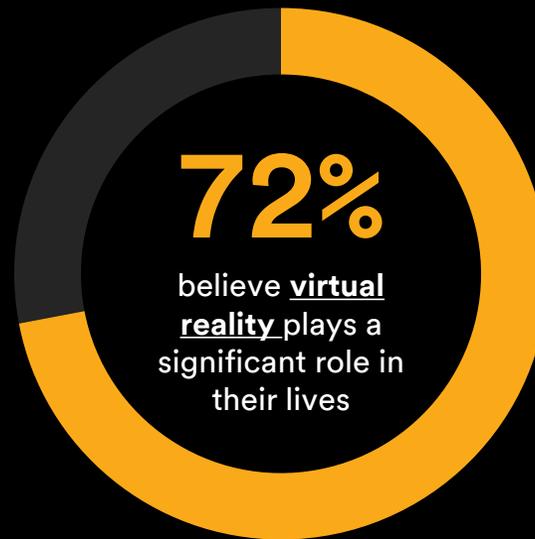
### **Familiarity:**

*(Very + Somewhat Familiar)*



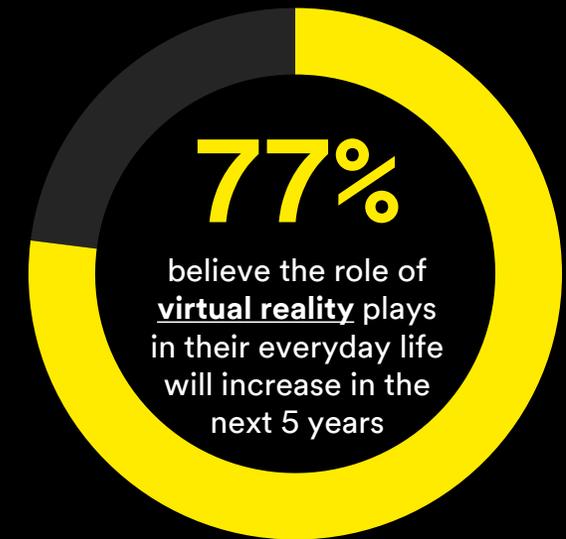
### **Current Role:**

*(Very + Somewhat Significant)*



### **Future Role:**

*(Increase in the next 5 years)*

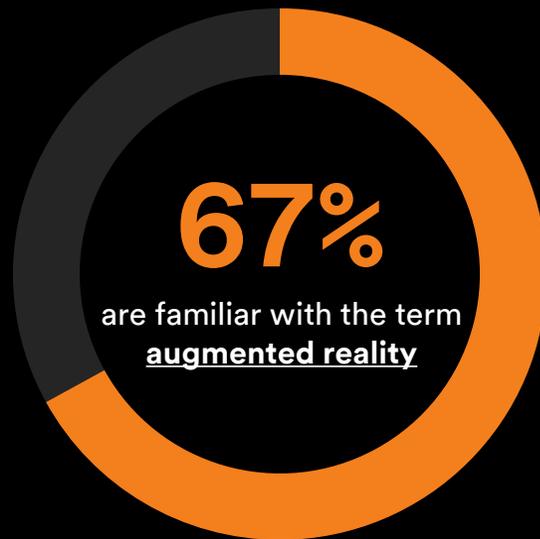


**About two-thirds of Brazilians are familiar with AR and feel that it plays a significant role in their everyday lives. A majority agree the role of AR in their everyday lives will increase in the next 5 years.**

How familiar are you with the terms? How big of a role do you believe augmented reality plays in your everyday life? In the next 5 years do you expect the role of augmented reality in your everyday life to increase, decrease or stay the same?

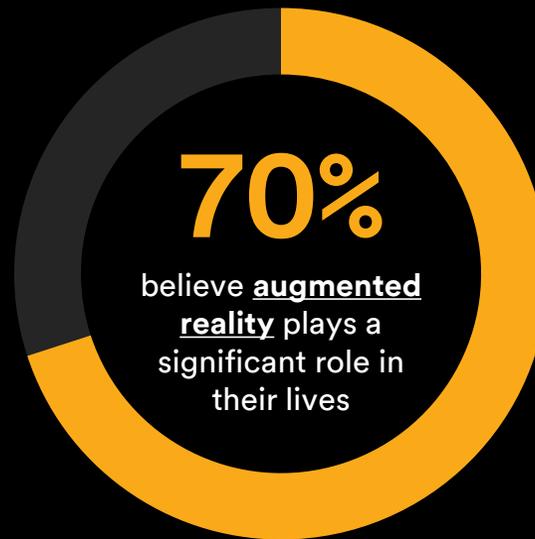
### **Familiarity:**

*(Very + Somewhat Familiar)*



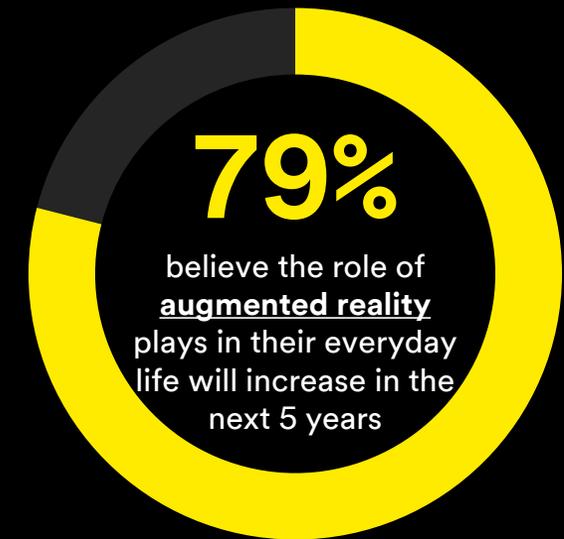
### **Current Role:**

*(Very + Somewhat Significant)*



### **Future Role:**

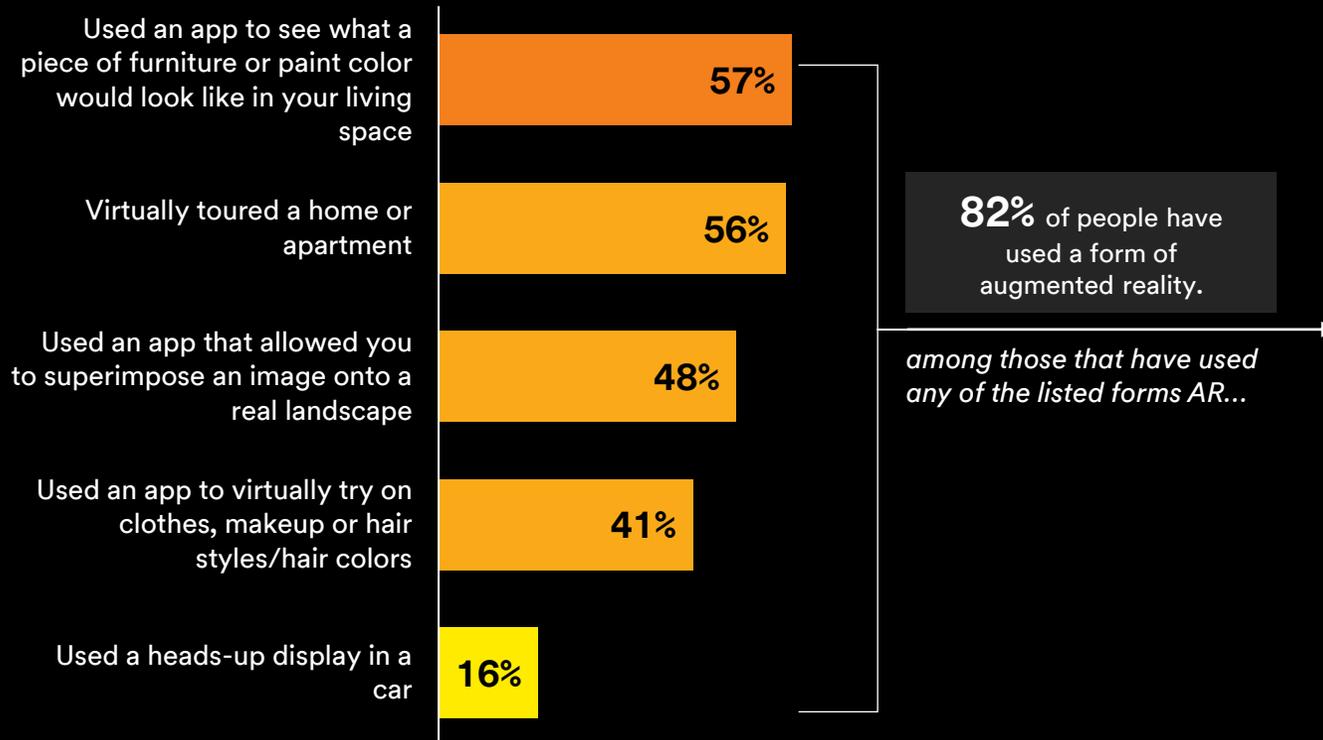
*(Increase in the next 5 years)*



# Those who have used augmented reality before are more familiar with the term and feel it plays a more significant role in their lives compared to all respondents.

Have you ever ...? How familiar are you with the terms? How big of a role do you believe augmented reality plays in your everyday life? In the next 5 years do you expect the role of augmented reality in your everyday life to increase, decrease or stay the same?

## % Have done each of the following:



## Familiarity with AR

**72% Total Familiar**

(Very + Somewhat)

**+5 vs. All Adults ▲**

## Current Role of AR

**74% Total Significant Role**

(Very + Somewhat)

**+4 vs. All Adults ▲**

## Future Role of AR

**77% Expect an Increased Role**

**29 vs. All Adults ▲**

▲ Indicates positive movement outside of the MOE

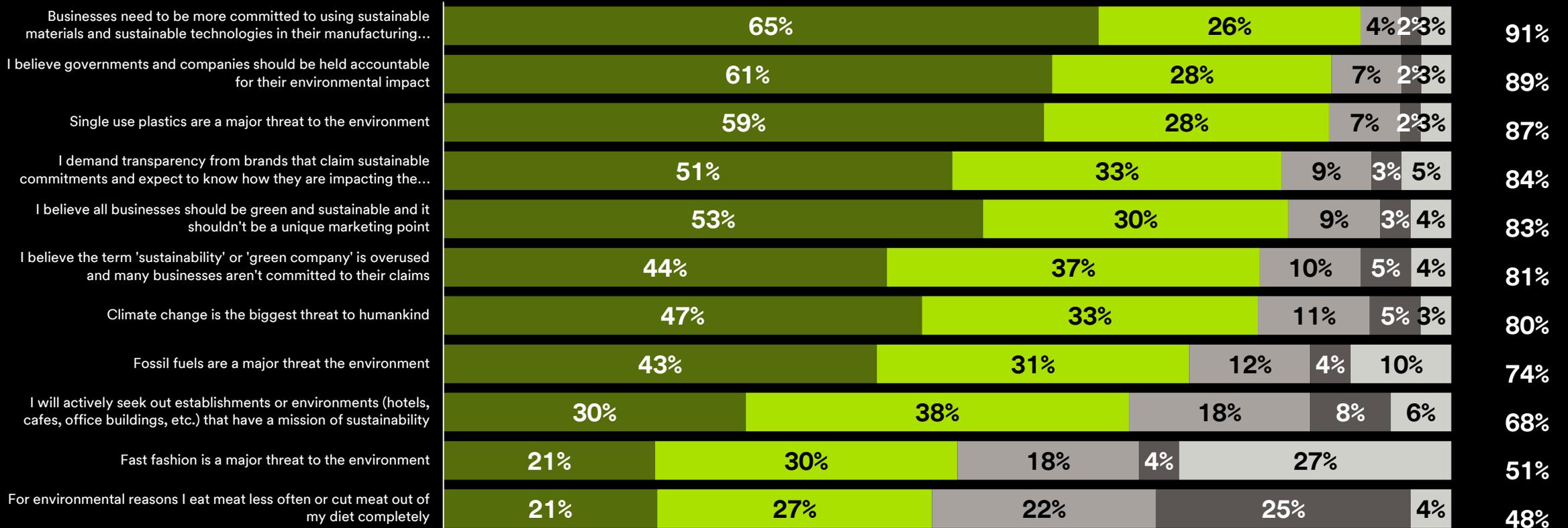
The background features several overlapping, dark green leaves of varying sizes and orientations, set against a solid black background. The leaves are positioned primarily on the left side of the frame, with some extending towards the center.

**Sustainability**

# Brazilians are most likely to agree governments/companies should be held accountable for both sustainable production and their environmental impact.

How much do you agree or disagree with each of the following statements?

■ Strongly agree   
 ■ Somewhat agree   
 ■ Somewhat disagree   
 ■ Strongly disagree   
 ■ Don't know / No opinion   
 **Total Agreement**  
 (Strongly + Somewhat)

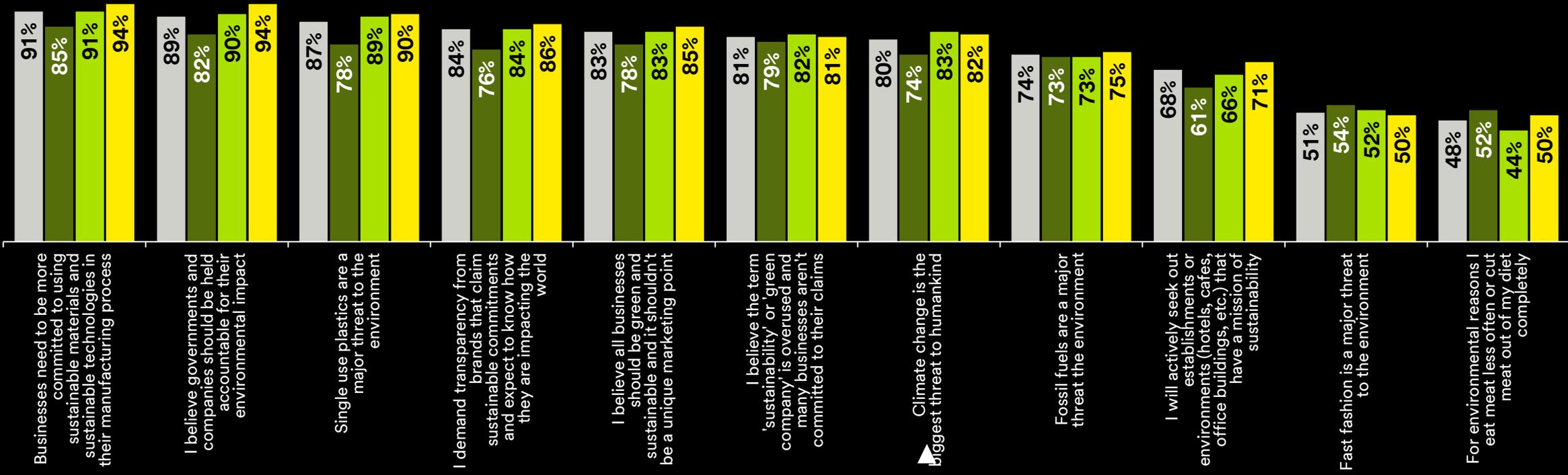


# Those age 18-24 are less likely to hold businesses accountable for sustainability efforts and less likely to actively seek out establishments with a mission of sustainability than other age groups.

How much do you agree or disagree with each of the following statements?

## Total Agreement (Strongly + Somewhat Agree)

■ Brazil Average ■ Age: 18-24 ■ Age: 25-40 ■ Age: 41-65

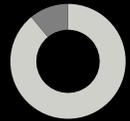




**New Paradigm**

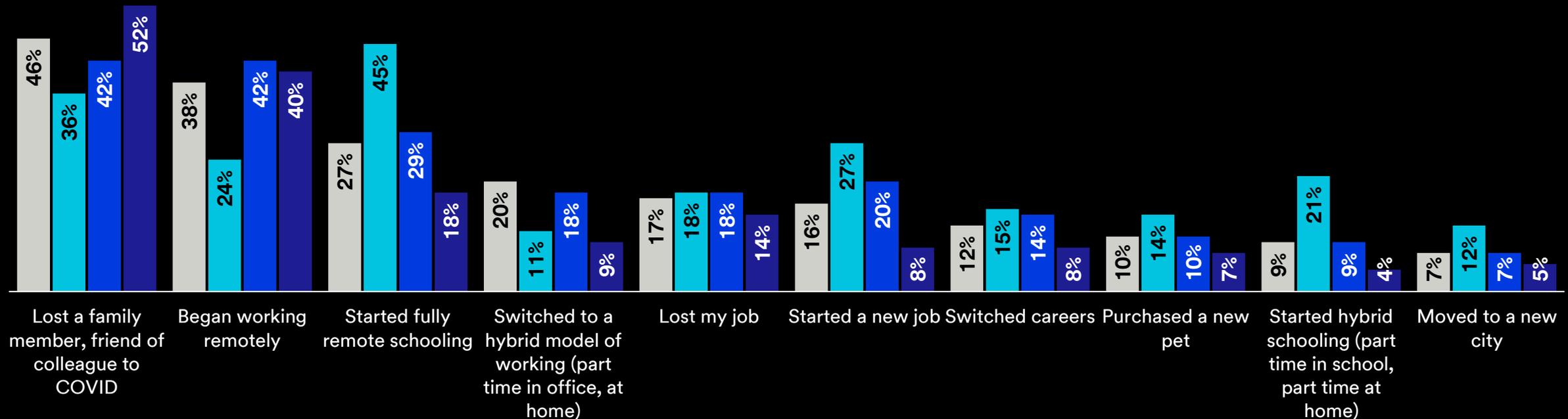
# Nearly all have experienced a significant life change as a result of the pandemic. Those age 18-24 are much more likely to have started a new job or hybrid/remote schooling.

As a result of the pandemic, have you experienced any of the following?



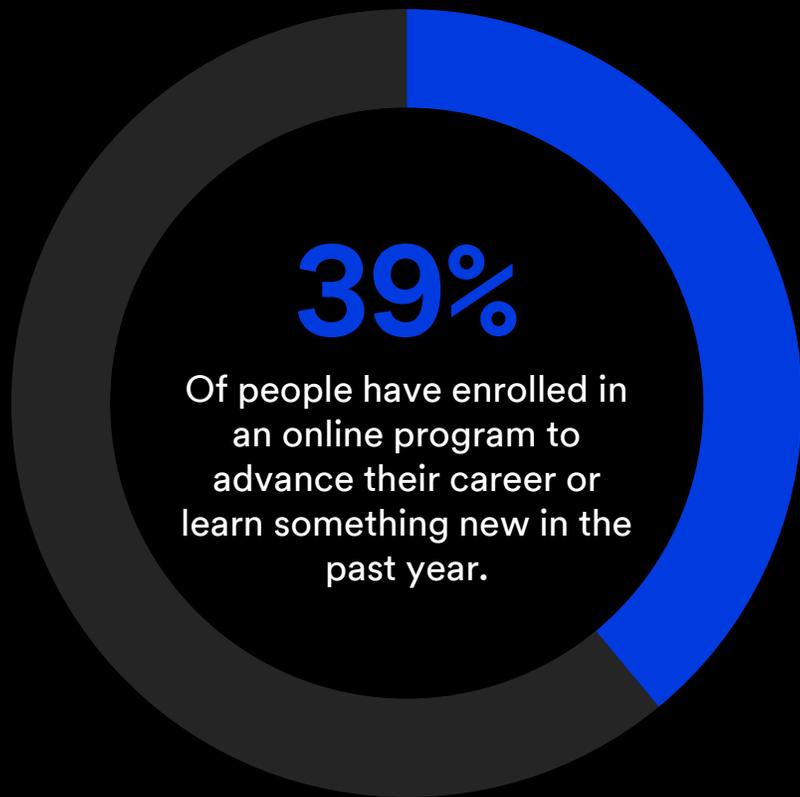
**89%** Of people have experienced a significant life change as a result of the pandemic

■ Brazil Average ■ Age: 18-24 ■ Age: 25-40 ■ Age: 41-65



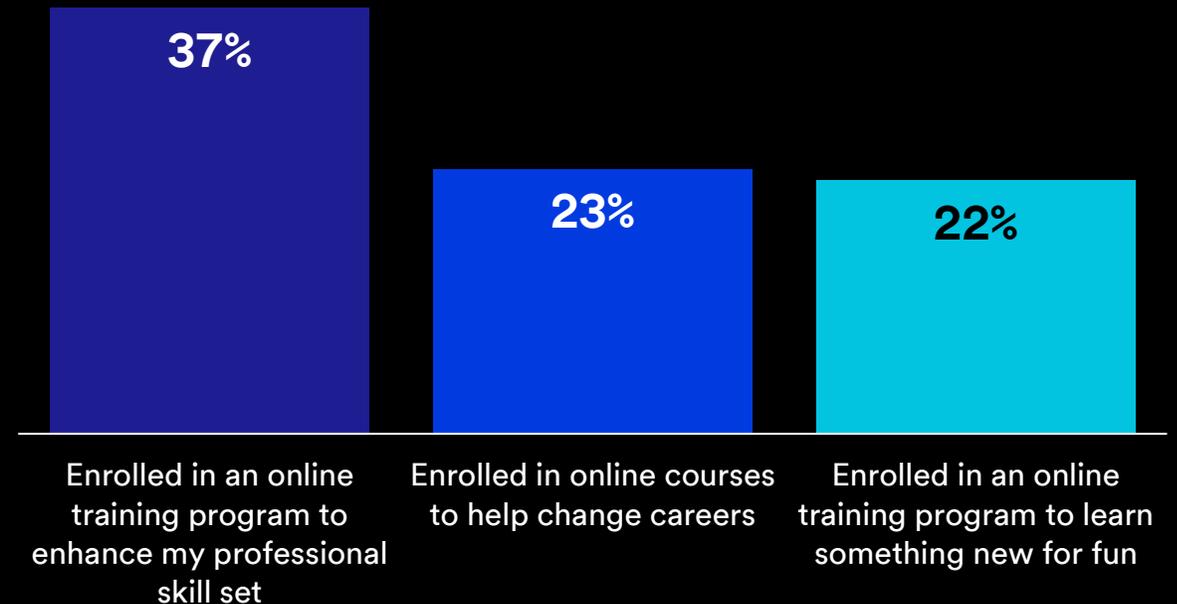
# In the past year, over one-third of Brazilians have enrolled in an online training program.

In the past year have you done any of the following?



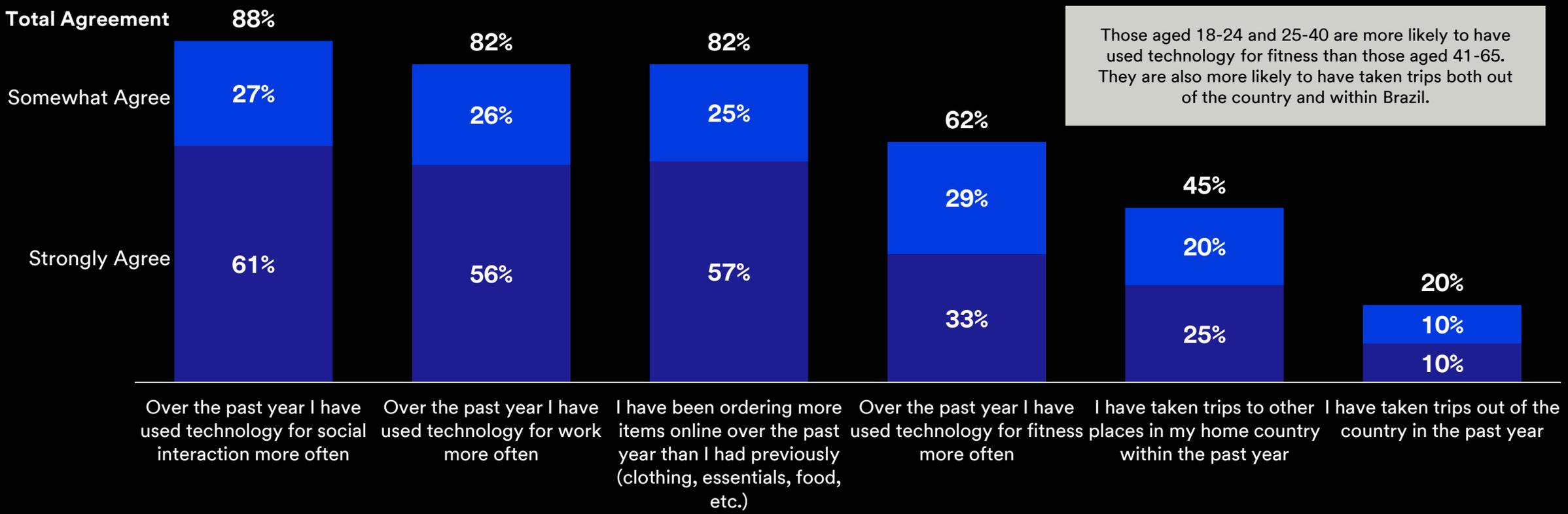
## What did they enroll in?

*(among all respondents)*



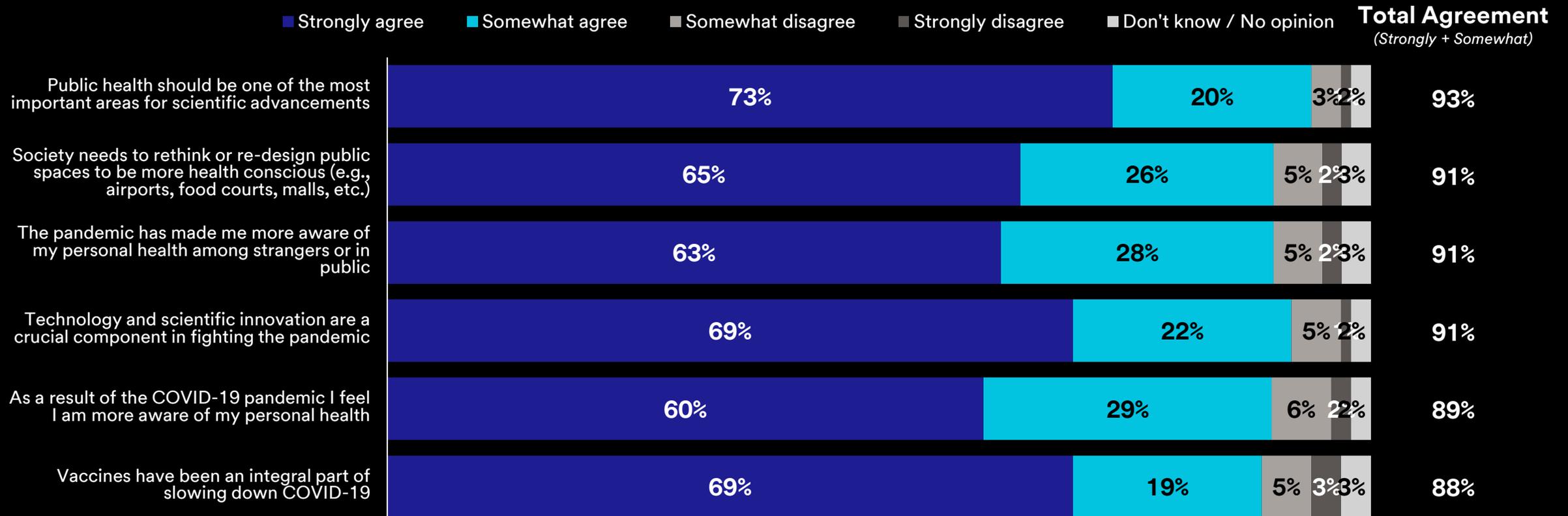
# Brazilian adults have been using technology for social interaction, work, and ordering items online more often this year than they were previously.

How much do you agree or disagree with each of the following statements?



# Nearly all Brazilians agree with all public health statements, including the importance of scientific advancements in public health and vaccines in slowing down COVID-19.

How much do you agree or disagree with each of the following statements?



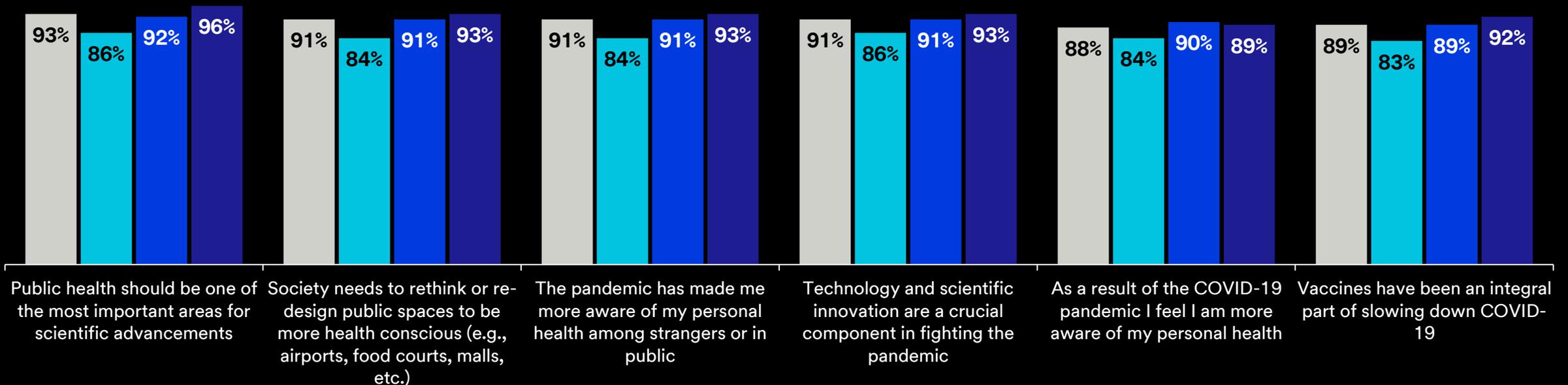
# The pandemic has had a larger impact on the way older Brazilians are aware of their personal health.

How much do you agree or disagree with each of the following statements?

## Total Agreement

(Strongly + Somewhat Agree)

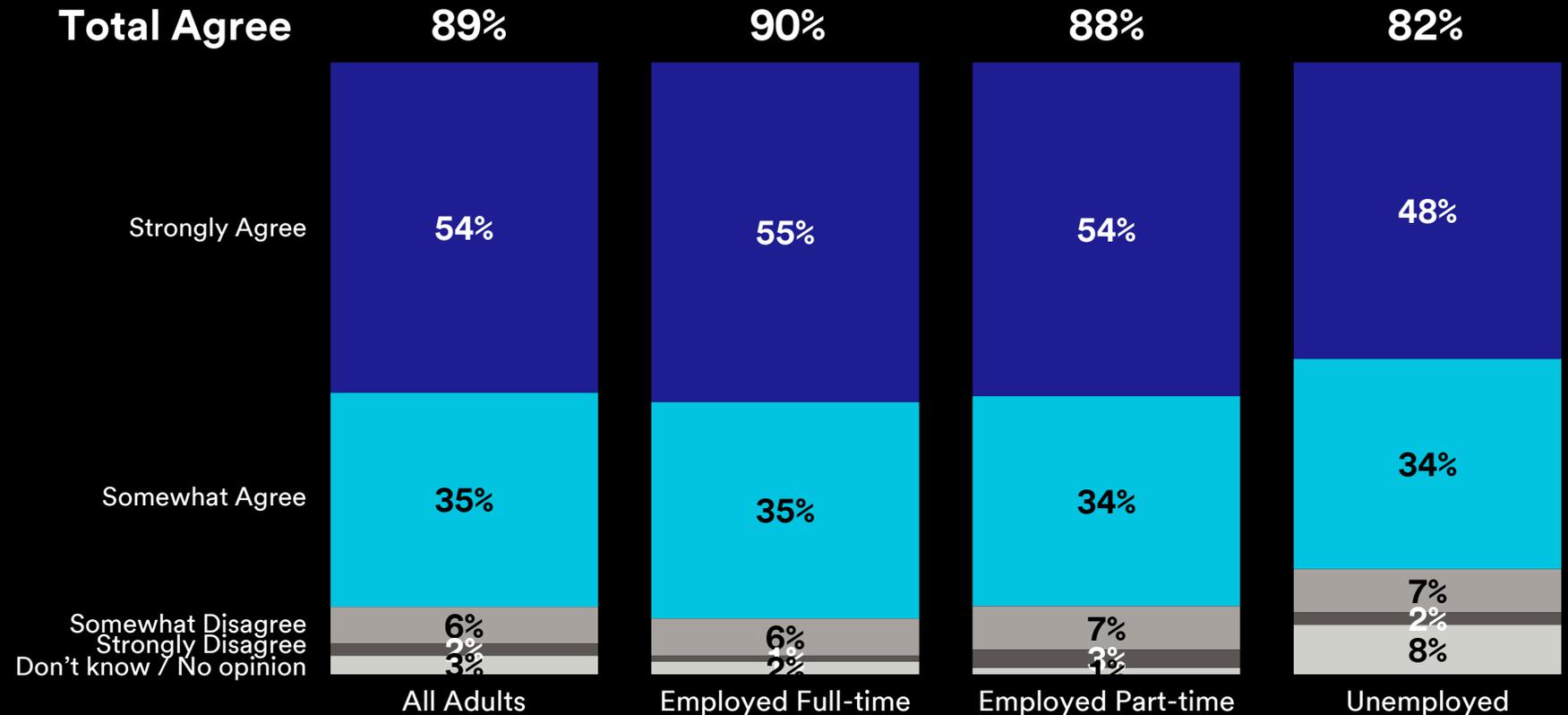
■ Global Average ■ Age: 18-24 ■ Age: 25-40 ■ Age: 41-65



# Brazilians feel that science and technology during the pandemic has changed the work environment forever – especially those currently employed.

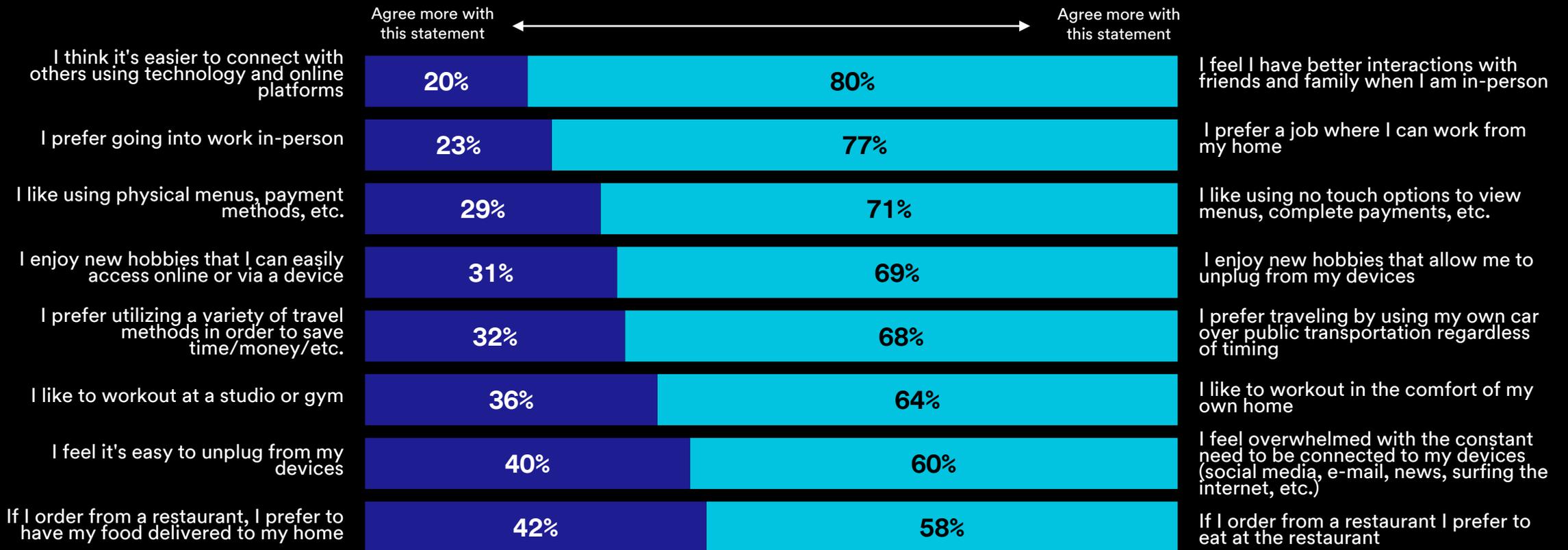
How much do you agree or disagree with each of the following statements?

*“Science and technology advancements during the pandemic have changed our work environment forever.”*



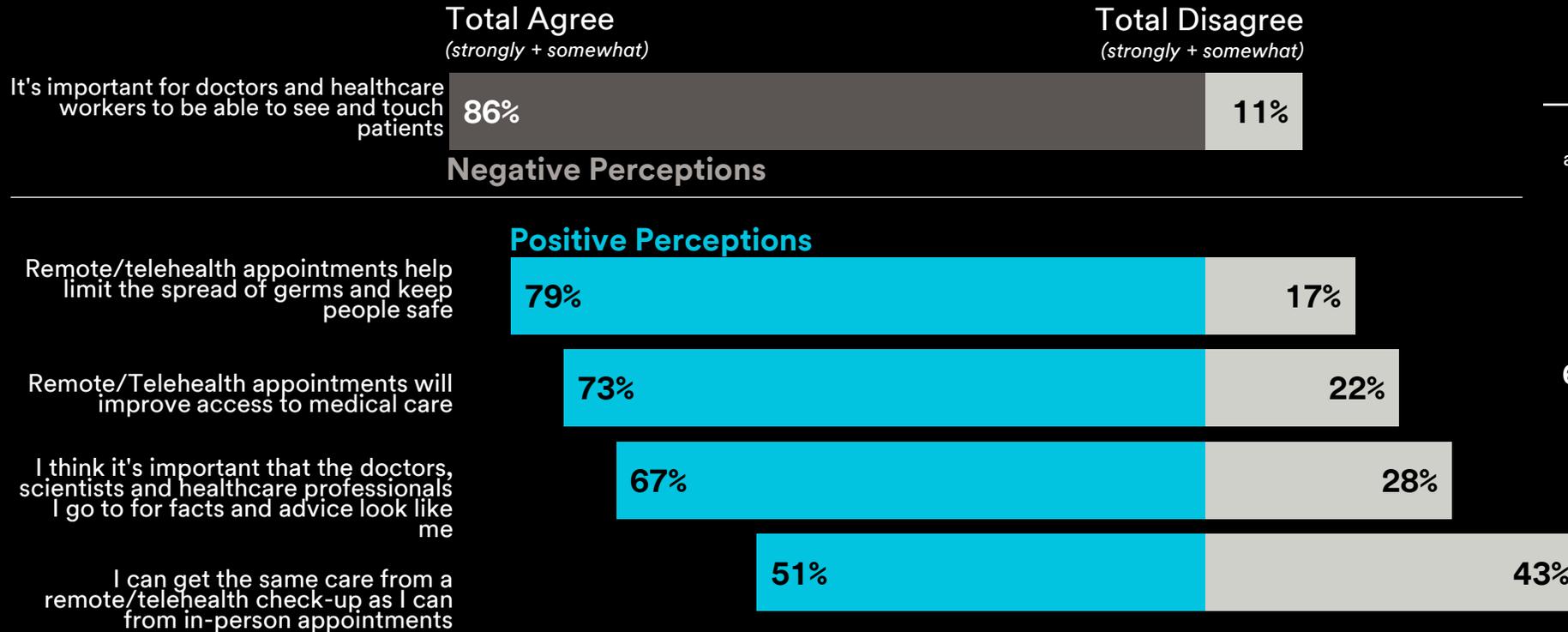
# Brazilians enjoy in-person interactions, hobbies, and dining more than virtual; however, most would prefer to work and work out at home.

Which of the following statements align more with how you currently feel?  
among those who chose one statement over the other



# Brazilians are split on perceptions of telehealth. Most agree that telehealth can keep people safe, but many also feel that it's important for doctors to see and touch patients. Those who have used telehealth have stronger positive feelings.

How much do you agree or disagree with each of the following statements?



## among those that have used telemedicine:

**86%** agreement "Remote/telehealth appointments help limit the spread of germs and keep people safe"  
+7 vs. All Adults ▲

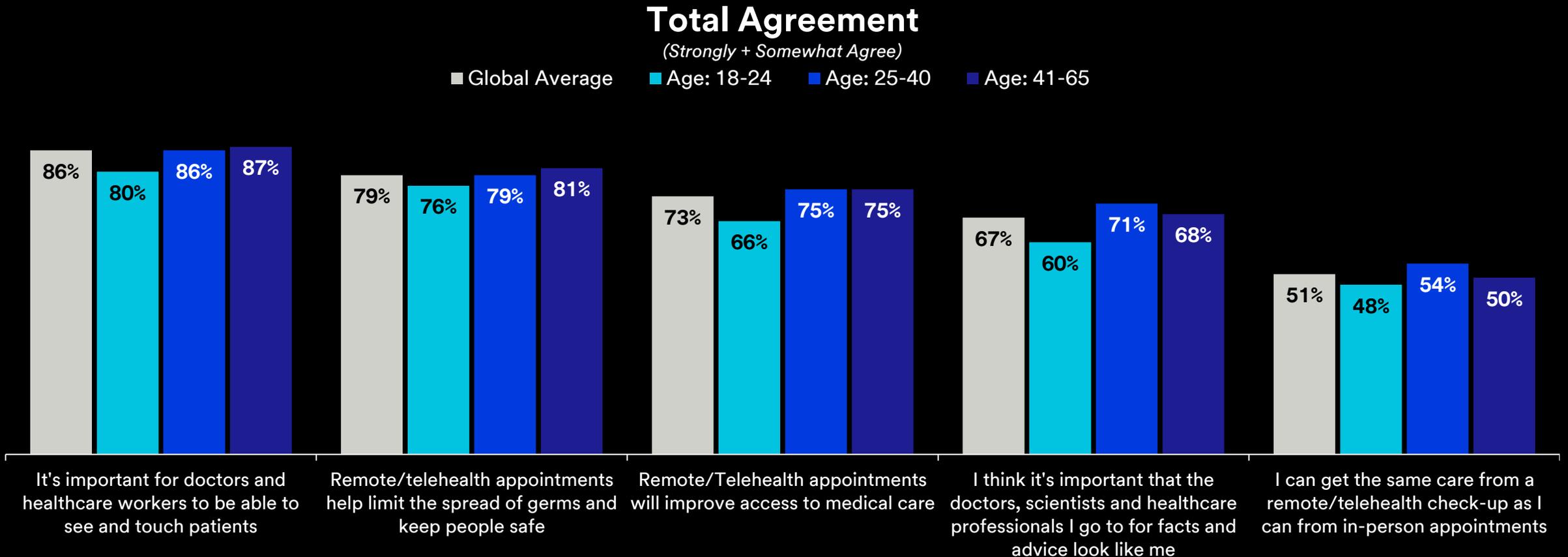
**83%** agreement "Remote/Telehealth appointments will improve access to medical care"  
+10 vs. All Adults ▲

**60%** agreement "I can get the same care from a remote/telehealth check-up as I can from in-person appointments"  
+9 vs. All Adults ▲

▲ Indicates positive movement outside of the MOE

# Most Brazilians do not agree strongly that they can get the same care from a telehealth check-up. Those ages 25-65 feel more strongly that telehealth will improve access to medical care and keeps people safe by limiting the spread of germs.

How much do you agree or disagree with each of the following statements?





**Thank you**