



3M | Futures

China Survey Results

China

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

Chinese citizens want innovation in science and technology to focus on fixing environmental and societal problems – specifically prioritizing public health, renewable energy, and telemedicine over the next 5 years.

2

Many feel that “too much screen time” is a health issue that should be addressed, and we are too reliant on technology in our everyday lives. However, despite those perceptions most feel that technological advancements like access to information, digital entertainment and digital news will have a similar impact on society over the next 10 years as they’ve had over the past 10 years.

3

People expect a lot of new innovations in science and technology to become a part of our everyday lives over the next 10 years and most are willing to try new advancements with the exception of taking a commercial space flight or using an entirely AI-driven therapist.

Methodology: This poll was conducted between December 2-December 13, 2021 among a sample of 2,000 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

Most are familiar with AI technology and recognize its role in their everyday lives, this is especially true among those ages 25-40.

- Regardless of the role people feel AI is currently playing in their everyday lives, they expect it to increase over the next 5 years, and many believe cutting-edge AI advancements like driverless vehicles will be a part of our lives in the next 10 years.

2

While there is excitement around AI technology, people have concerns related to data privacy and want more transparency on how the technology is being used in society.

Methodology: This poll was conducted between December 2-December 13, 2021 among a sample of 2,000 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 and usage of augmented reality, and virtual reality is higher for those ages 25-40.

- Most have interacted with AR technology in some form. Those who have interacted with AR are more likely to believe the technology's role in their everyday lives will increase in the next 5 years than those who have not.

2

Virtual reality is expected to be a normal part of our everyday lives sooner than other advancements, especially in uses related to gaming and entertainment.

- Most Chinese citizens are willing to use a VR or AR headset, which is on par with willingness to try most other technological advancements.

Methodology: This poll was conducted between December 2-December 13, 2021 among a sample of 2,000 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

Most Chinese citizens agree that businesses need to be more committed to using sustainable materials for manufacturing. Additionally, a majority want large companies and governments to be held responsible for their environmental impact.

- Chinese citizens also believe that “green” or “sustainable” shouldn’t be unique marketing points for companies.

2

Single-use plastics are viewed as a bigger threat to the environment, than fossil fuels and fast fashion.

Methodology: This poll was conducted between December 2-December 13, 2021 among a sample of 2,000 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

The pandemic has made a lasting impact on people’s lives. Most have had a significant life change as a result of the pandemic, and most agree that it has made them more aware of their personal health. As a result of all of this change there is room for innovations that impact public health, how we work, schooling, and other aspects of our everyday lives.

2

Since most prefer in-person socialization and seek out hobbies that allow them to unplug, technology-driven innovations may be met with some resistance among those trying to decrease the amount of tech in their lives.

3

Chinese citizens want science and technology to prioritize enhancing telemedicine options for increased access to medical providers in the next 5 years. Most agree with positive statements about telemedicine; however, a majority also agree that it is important for doctors to see and touch patients.

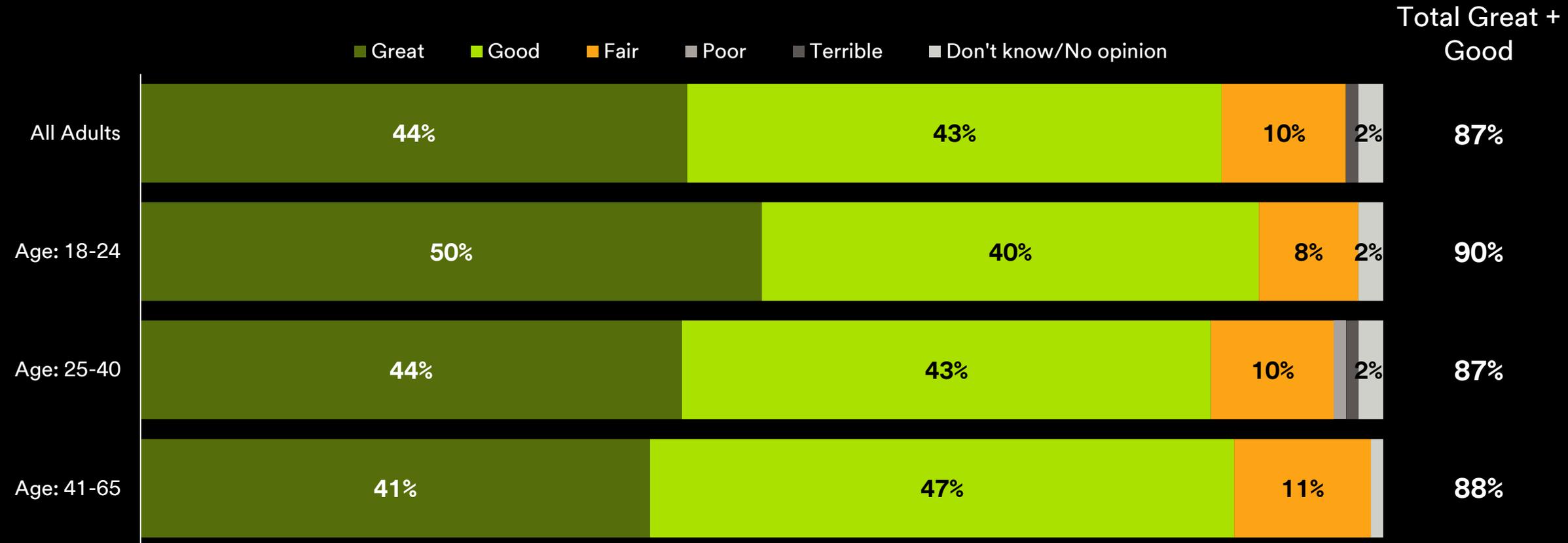
Methodology: This poll was conducted between December 2-December 13, 2021 among a sample of 2,000 Adults. The interviews were conducted online. An oversample of N=200 of was also fielded among those 18-24 – The interviews were conducted online. Results from the full survey have a margin of error of plus or minus 2 percentage points.



Science & Technology Perceptions

Most rate China good or great on its technological access for its citizens.

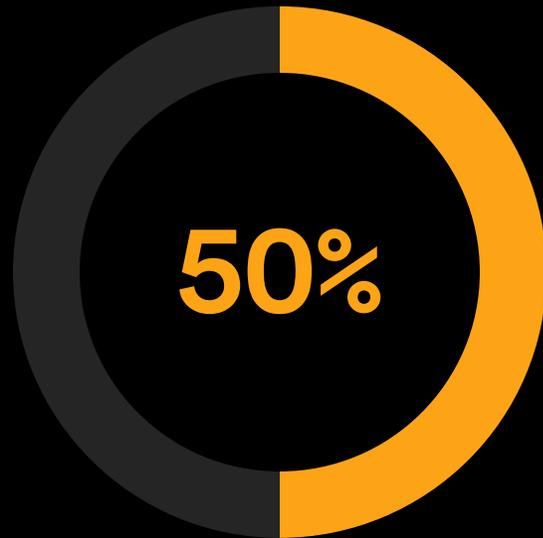
How would you rate China on technological access for its citizens?



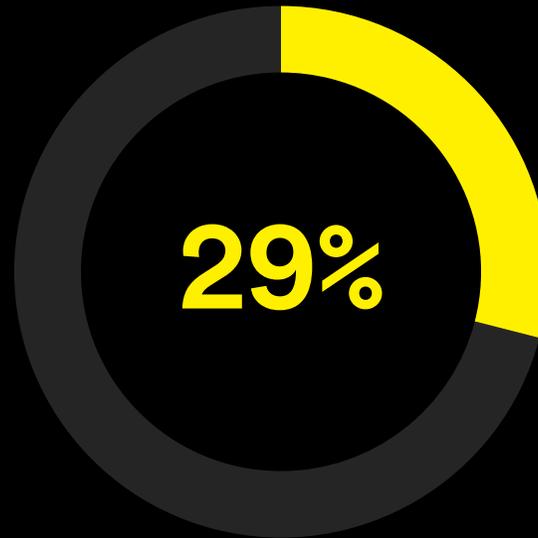
Half believe that finding solutions to environmental and societal problems should be the primary focus of science and technological innovation.

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

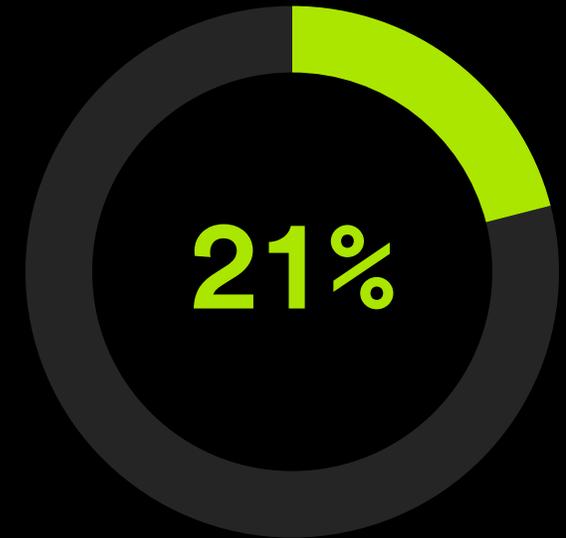
"Find solutions to today's **environmental and societal problems**, including climate change, sustainability, social injustice, clean water access, homelessness, etc."



"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."



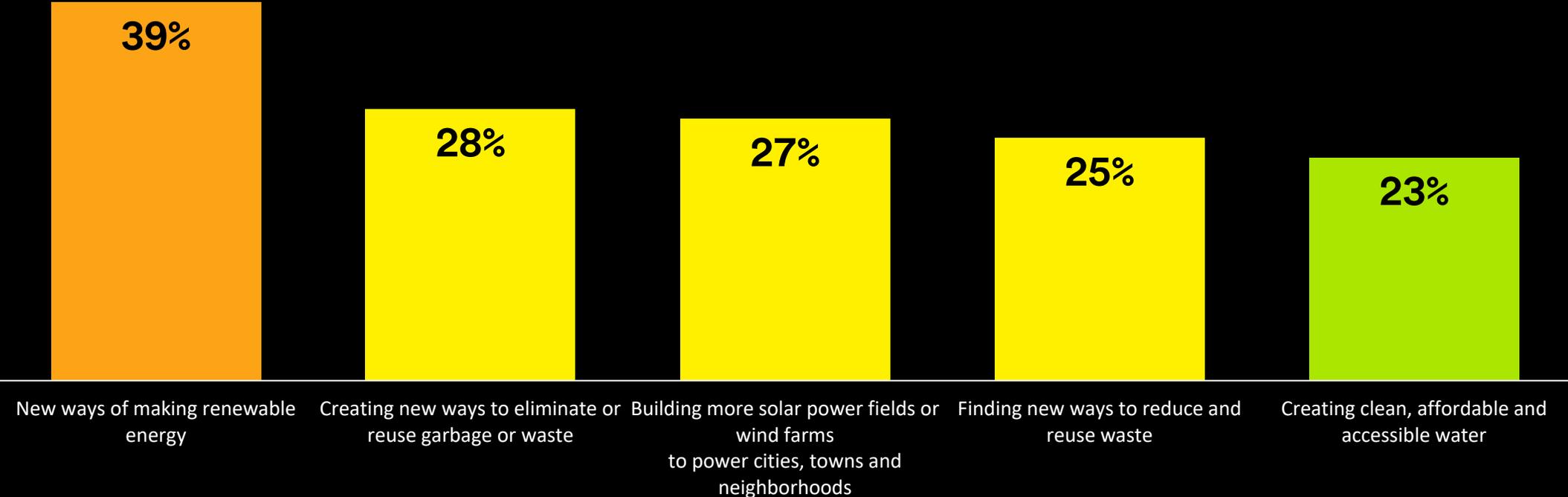
"**Advance the human race to achieve the impossible**, seeing how far we can innovate to create a futuristic and convenient world."



Finding new ways of making renewable energy is considered the most important infrastructure development for science and technology to prioritize in the next 5 years.

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.

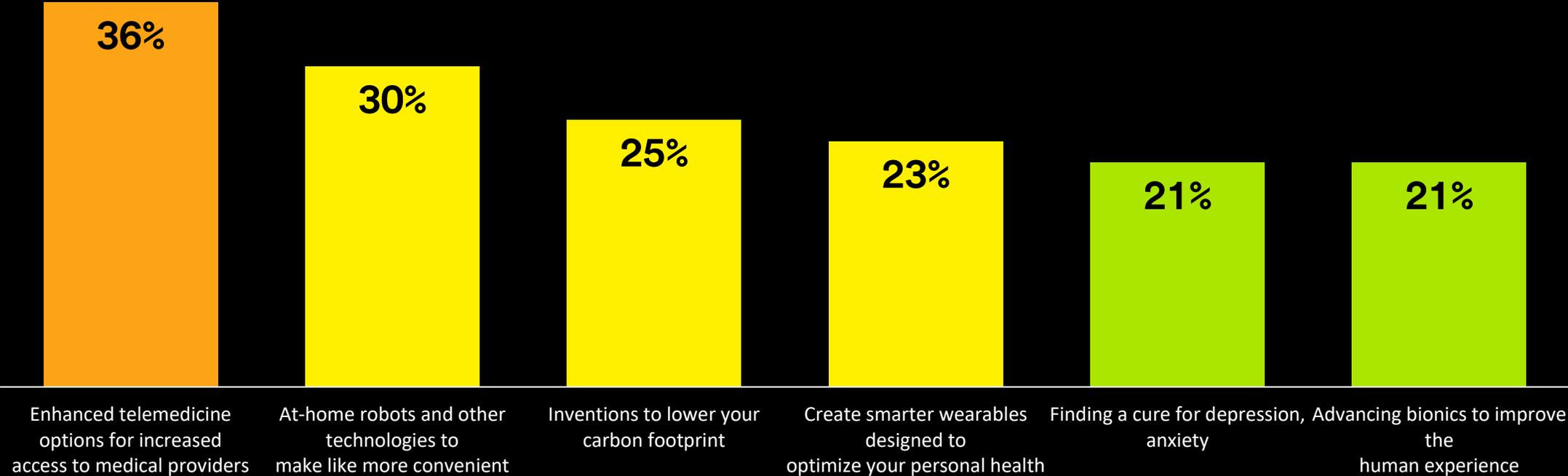
Top 5 selected:



Enhancing telemedicine options for increased access to medical providers is considered the most important human development that science and technology should prioritize in the next 5 years.

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:

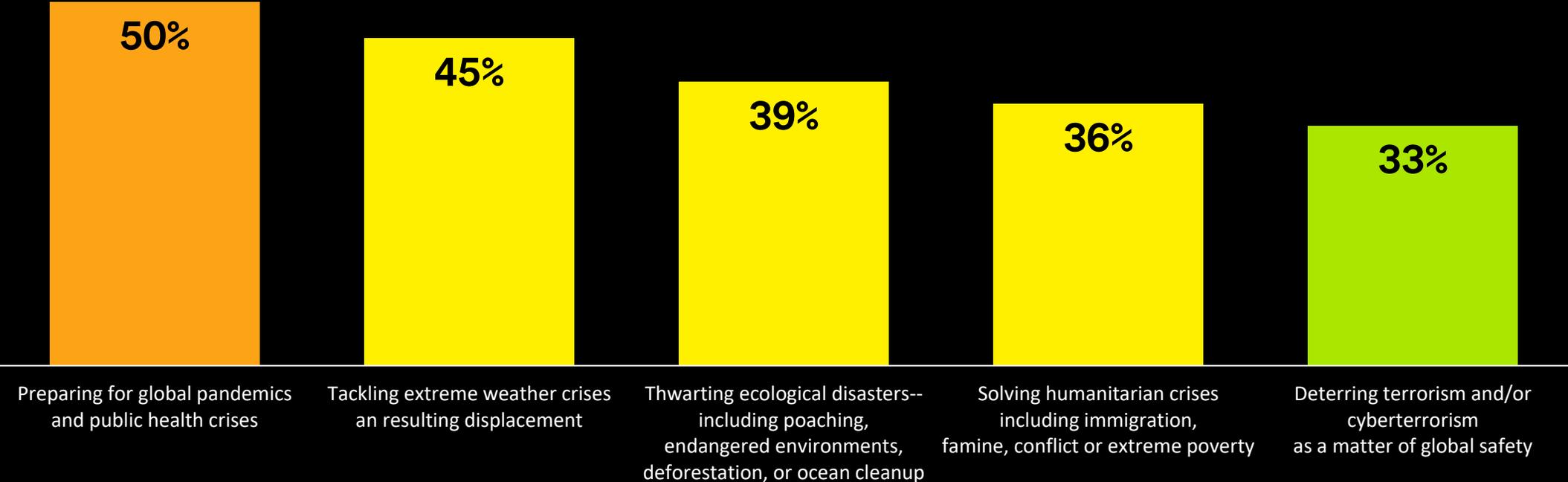


*Finding a cure for depression, anxiety and advancing bionics to improve the human experience both included since they have the same % and are tied for the 5th selected response.

Preparing for global pandemics and public health crises is the global crisis that Chinese citizens feel science and technology should prioritize in the next 5 years.

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:



Chinese citizens 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?

 **91%**

of people agree...

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

 **83%**

of people agree...

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

 **90%**

of people agree...

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

 **74%**

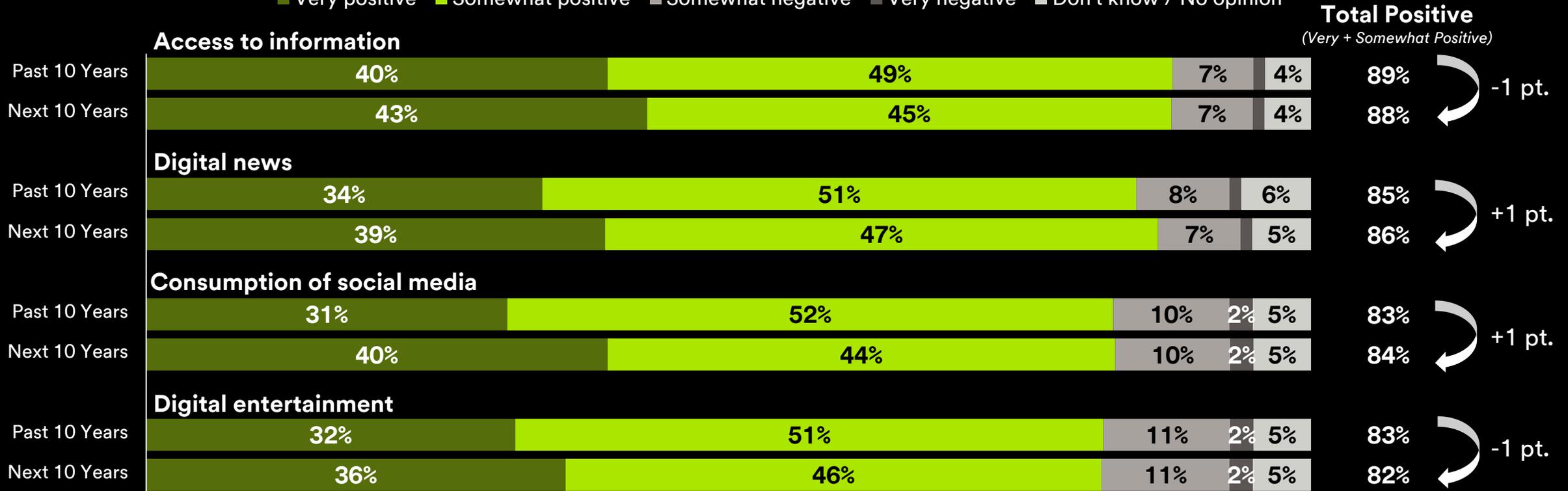
of people agree...

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

Chinese citizens believe that technological advancements will have a similar impact on society in the next 10 years that they've had over the past 10.

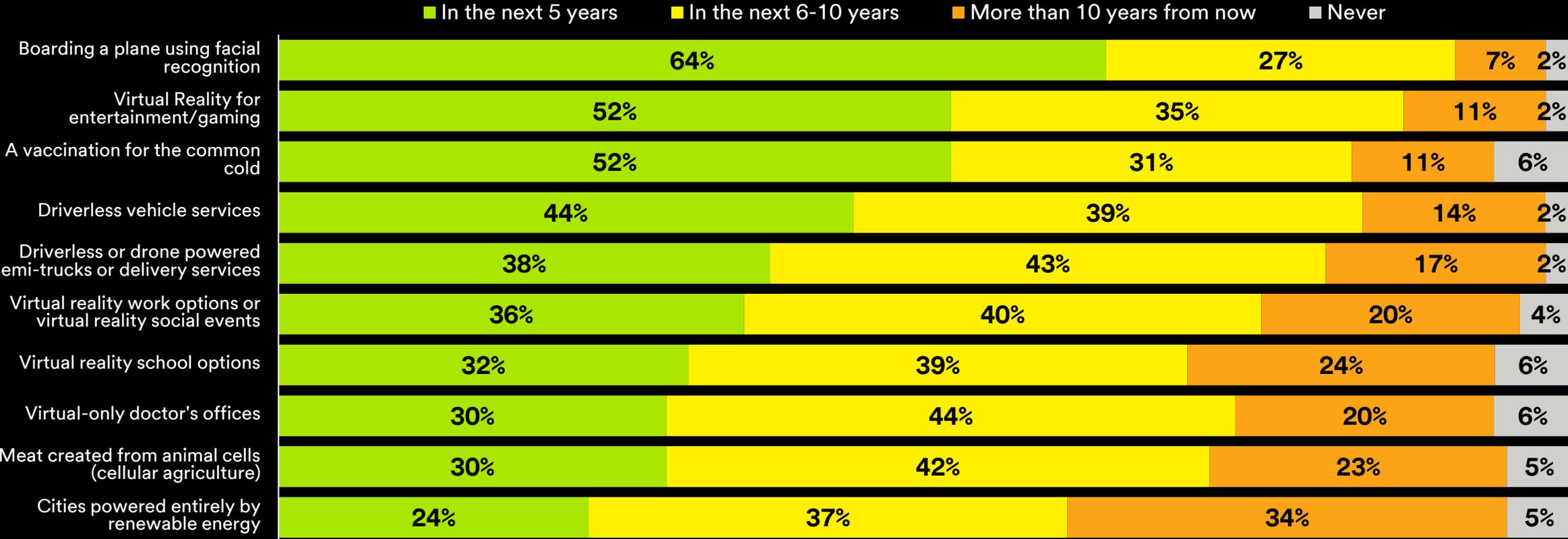
Do you believe that each of the following has had a positive or negative impact on society over the past 10 years/in the next 10 years?

■ Very positive
 ■ Somewhat positive
 ■ Somewhat negative
 ■ Very negative
 ■ Don't know / No opinion



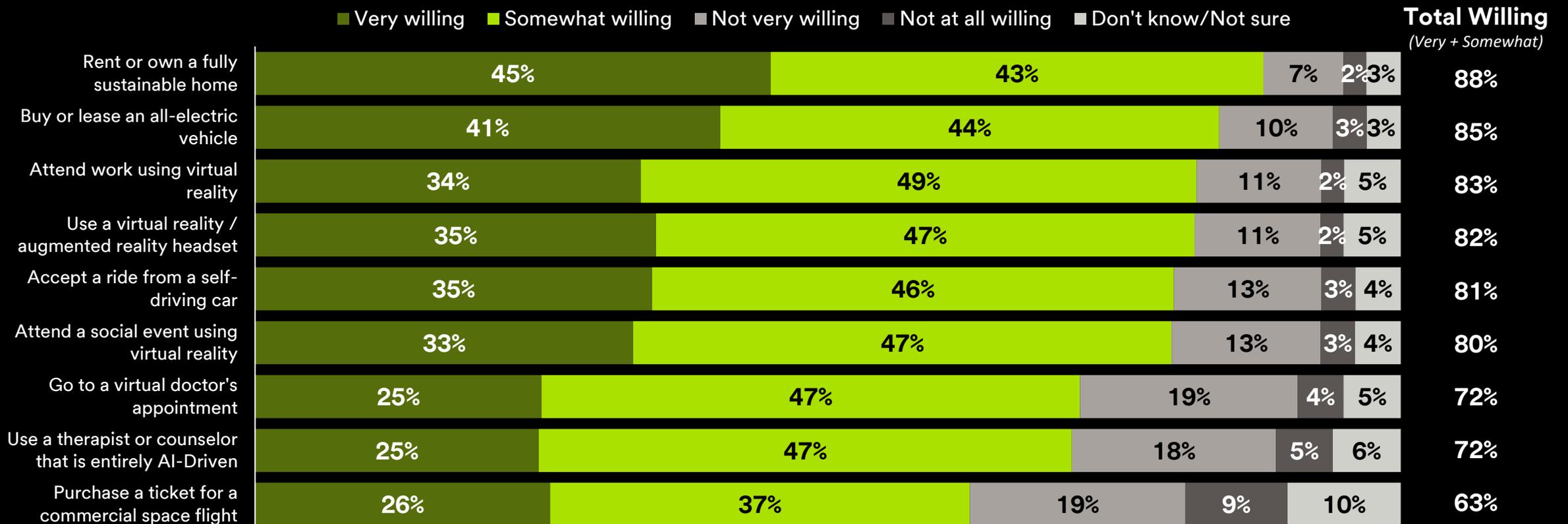
Most believe that boarding a plane using facial recognition, virtual reality for entertainment or gaming, and a vaccination for the common cold will be a normal part of our everyday lives sooner than other advancements.

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



Chinese citizens are most willing to rent or own a fully sustainable home and are less willing to take a commercial space flight or use a therapist that is entirely AI-driven.

How willing are you to try each of the following ?



The background features a dark purple and black color scheme with glowing circuit-like patterns. A large, rounded purple rectangle is positioned in the top-left corner. The text "AI (Artificial Intelligence)" is centered in a bold, white, sans-serif font.

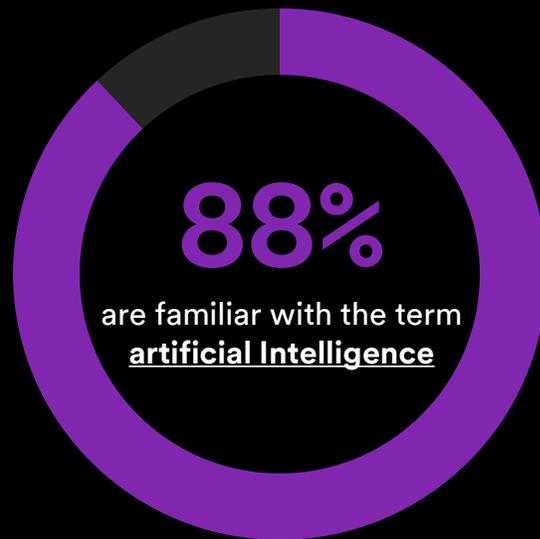
AI (Artificial Intelligence)

Most are familiar with AI and feel that it plays a significant role in their everyday lives. Most also agree the role of AI 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 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?

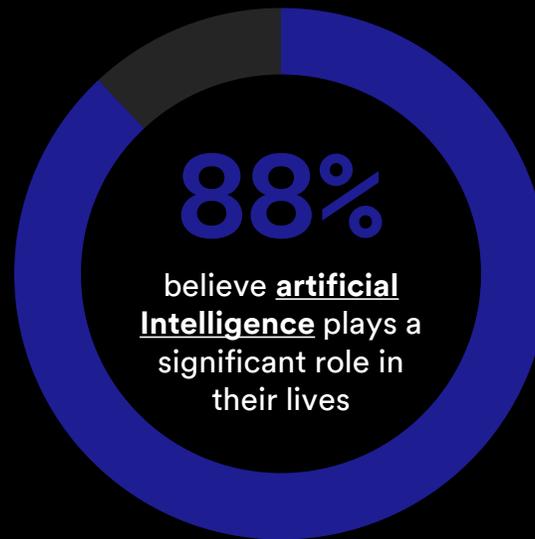
Familiarity:

(Very + Somewhat Familiar)



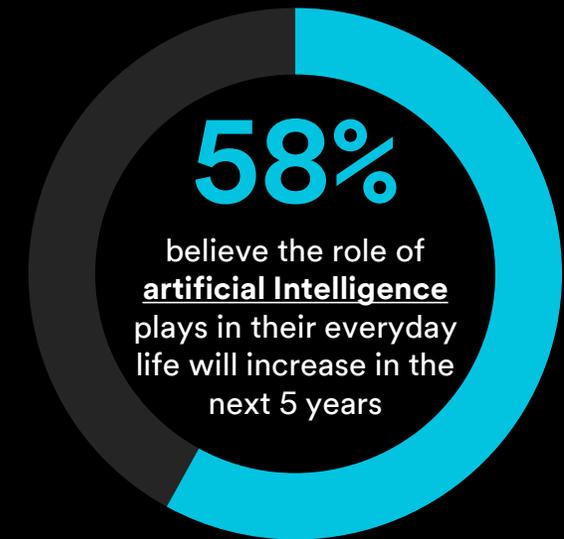
Current Role:

(Very + Somewhat Significant)



Future Role:

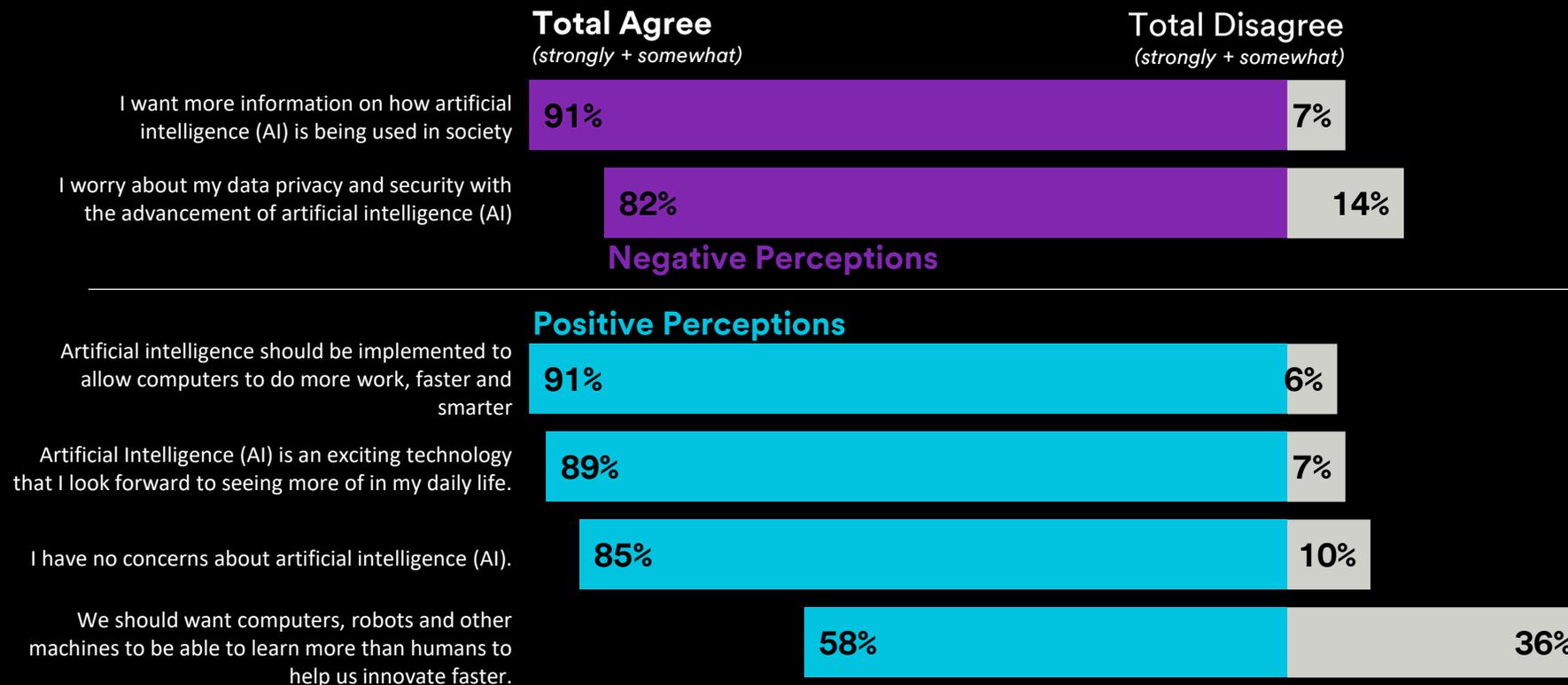
(Increase in the next 5 years)



Those ages 25-40 believe AI plays a more significant role in their everyday lives than other groups.

Chinese citizens are split on their perception of AI technology. Most have concerns but most are also excited about the technology.

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



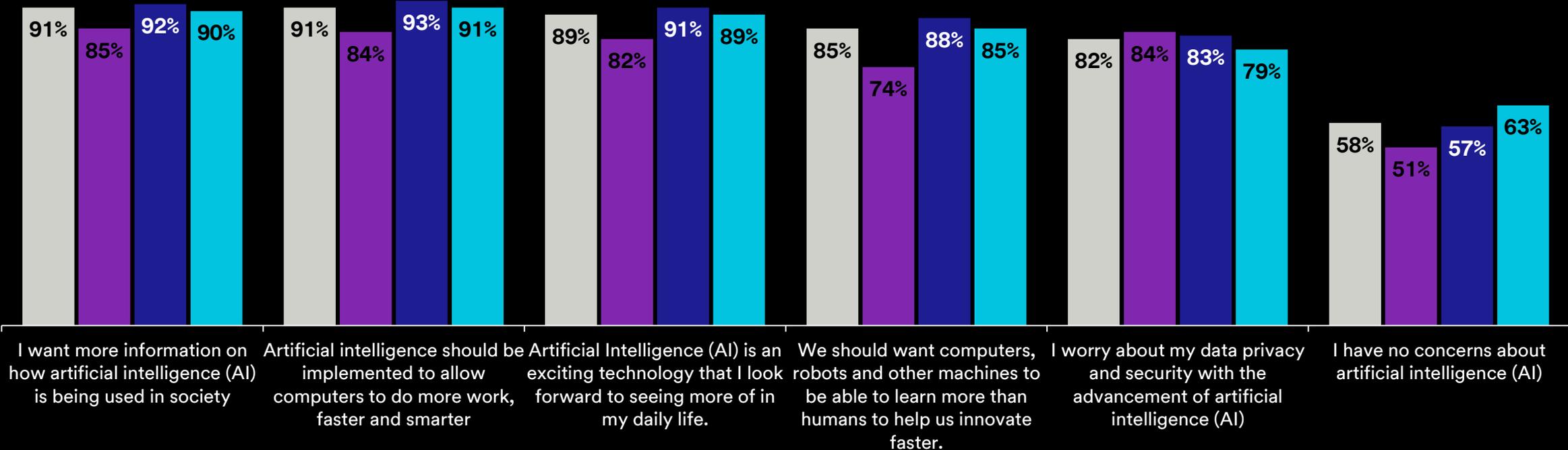
Those ages 25+ are more likely to have a positive sentiment about AI technology, though this group also agrees that they want more information on the technology and worries about data privacy.

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

Total Agreement

(Strongly + Somewhat Agree)

■ All Adults ■ Age: 18-24 ■ Age: 25-40 ■ Age: 41-65





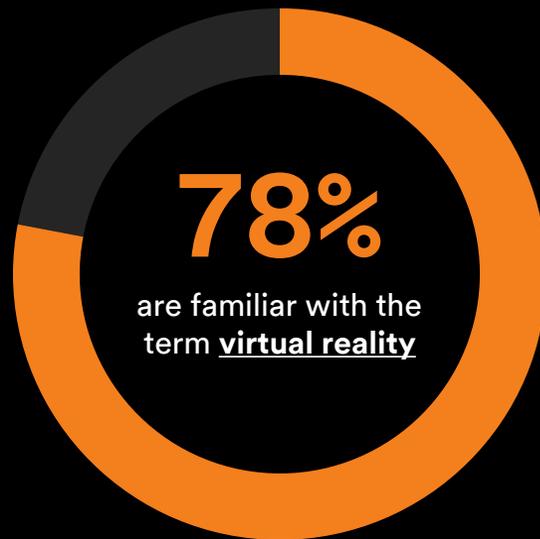
AR & VR **(Augmented Reality** **& Virtual Reality)**

Most 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?

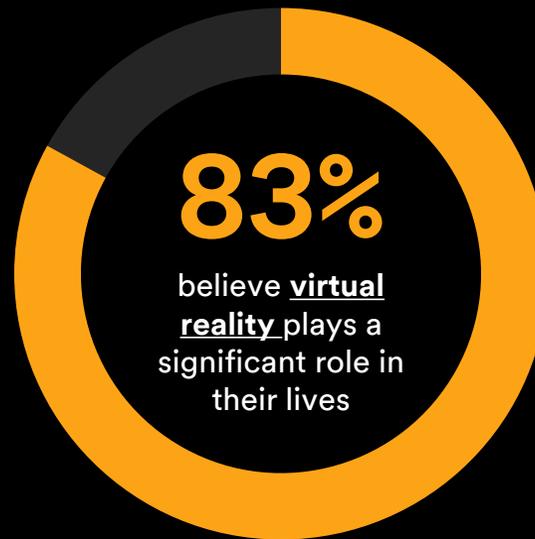
Familiarity:

(Very + Somewhat Familiar)



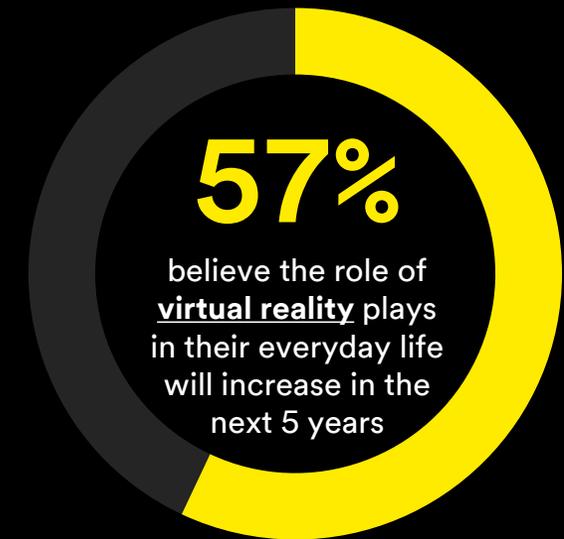
Current Role:

(Very + Somewhat Significant)



Future Role:

(Increase in the next 5 years)



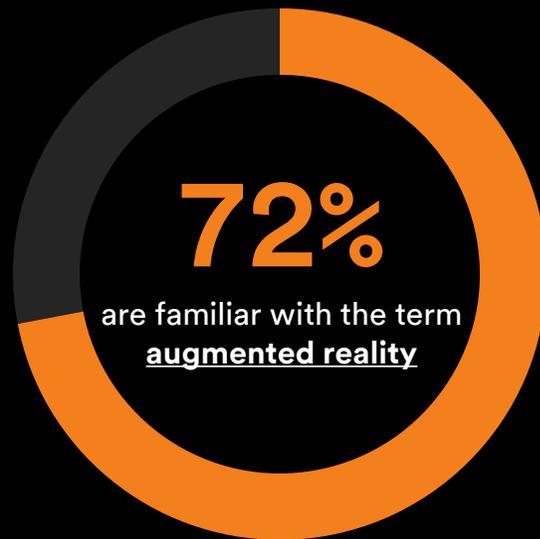
Those ages 25-40 are more familiar with VR than other groups.

Most 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?

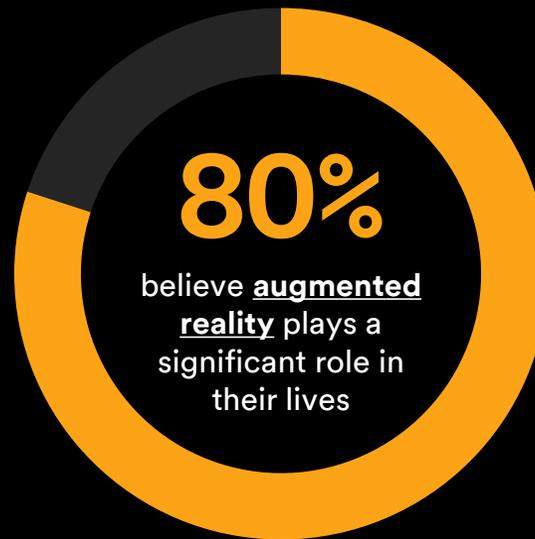
Familiarity:

(Very + Somewhat Familiar)



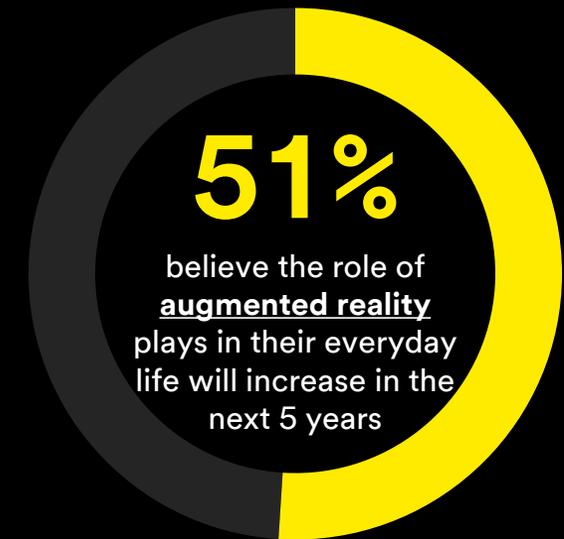
Current Role:

(Very + Somewhat Significant)



Future Role:

(Increase in the next 5 years)

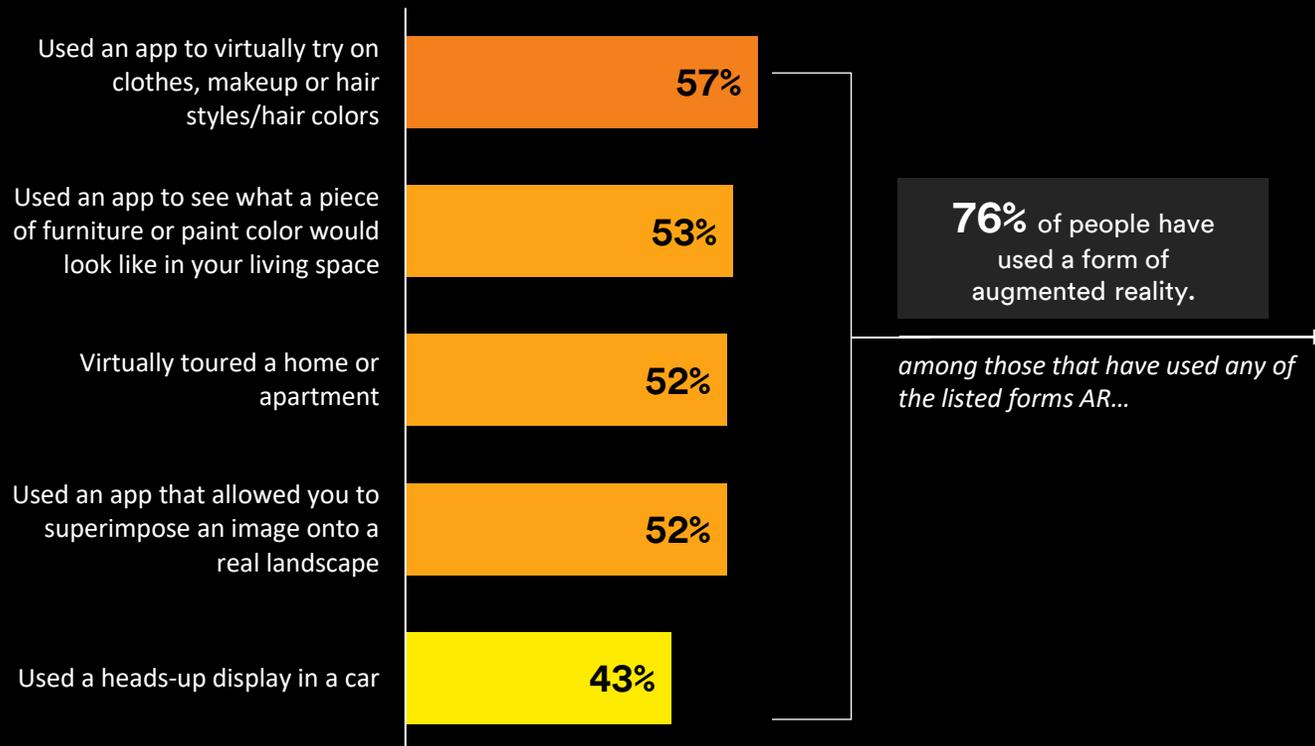


Those ages 25-40 are more familiar with AR than other groups.

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 the general population.

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

78% Total Familiar

(Very + Somewhat)

+6 vs. All Adults ▲

Current Role of AR

86% Total Significant Role

(Very + Somewhat)

+6 vs. All Adults ▲

Future Role of AR

70% Expect an Increased Role

+19 vs. All Adults ▲

▲ Indicates positive movement outside of the MOE

The image features a black background with several overlapping, stylized green leaves on the left side. The leaves are rendered in a dark green color with a slight gradient and are arranged in a fan-like pattern. The word "Sustainability" is written in a bold, white, sans-serif font across the middle of the image, partially overlapping the leaves.

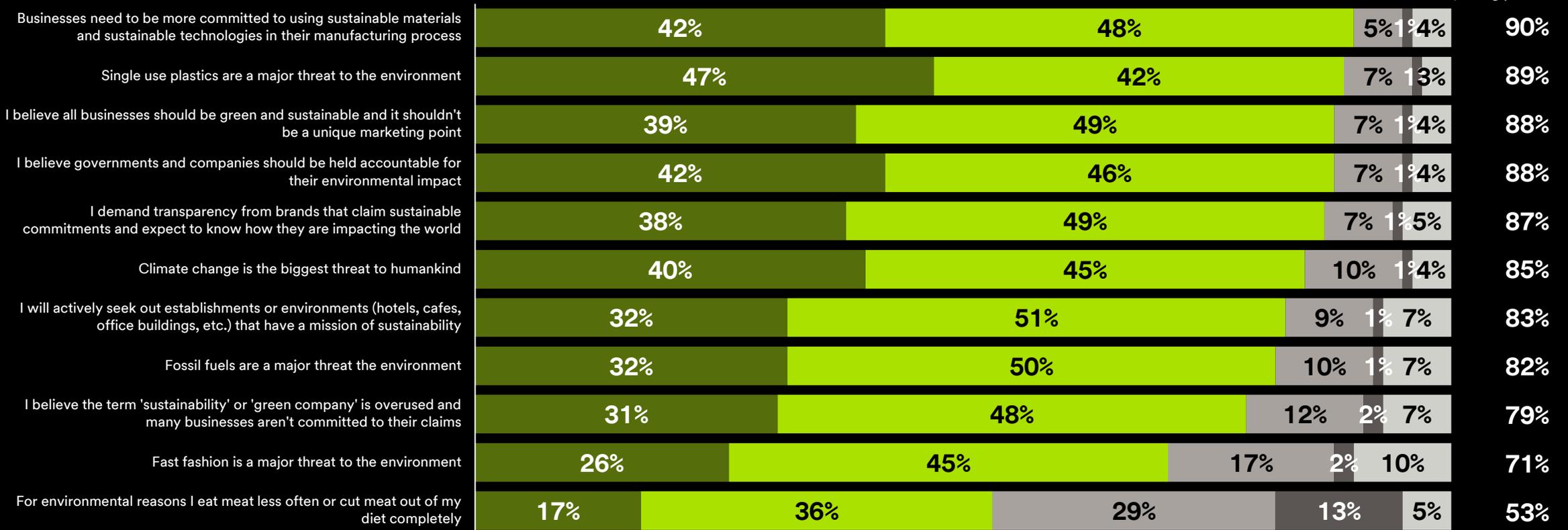
Sustainability

Most agree that that businesses need to be more committed to using sustainable materials for manufacturing and that single-use plastics are a major threat to the environment.

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)



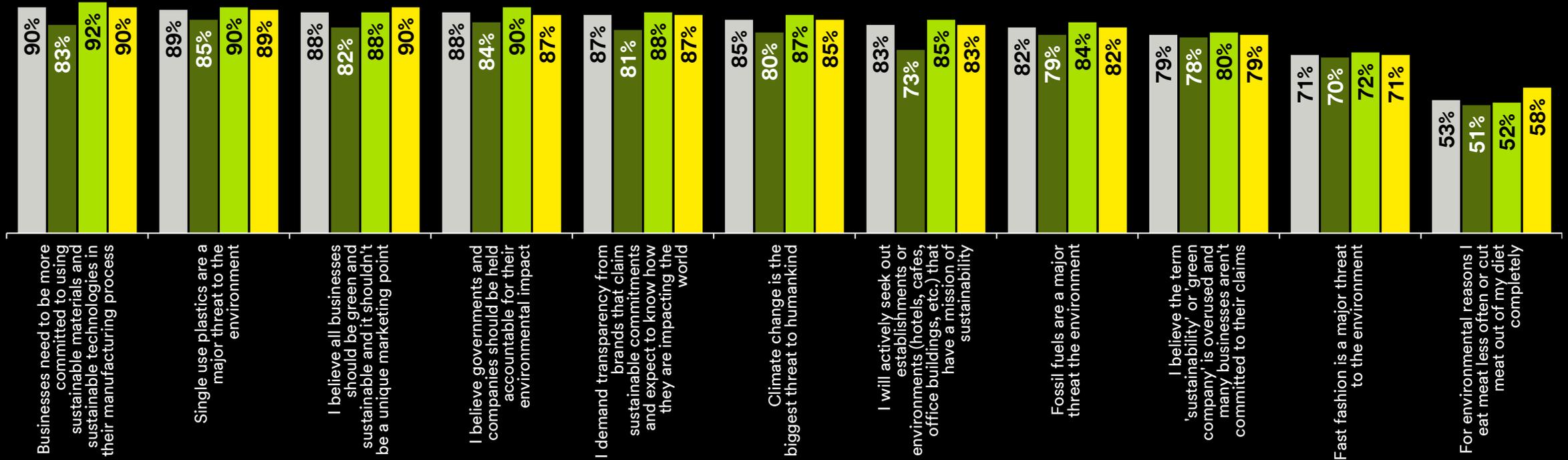
Those over the age of 25 are more likely to agree with each pro-environmental statement than those ages 18–24.

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

Total Agreement

(Strongly + Somewhat Agree)

■ All Adults ■ Age: 18-24 ■ Age: 25-40 ■ Age: 41-65

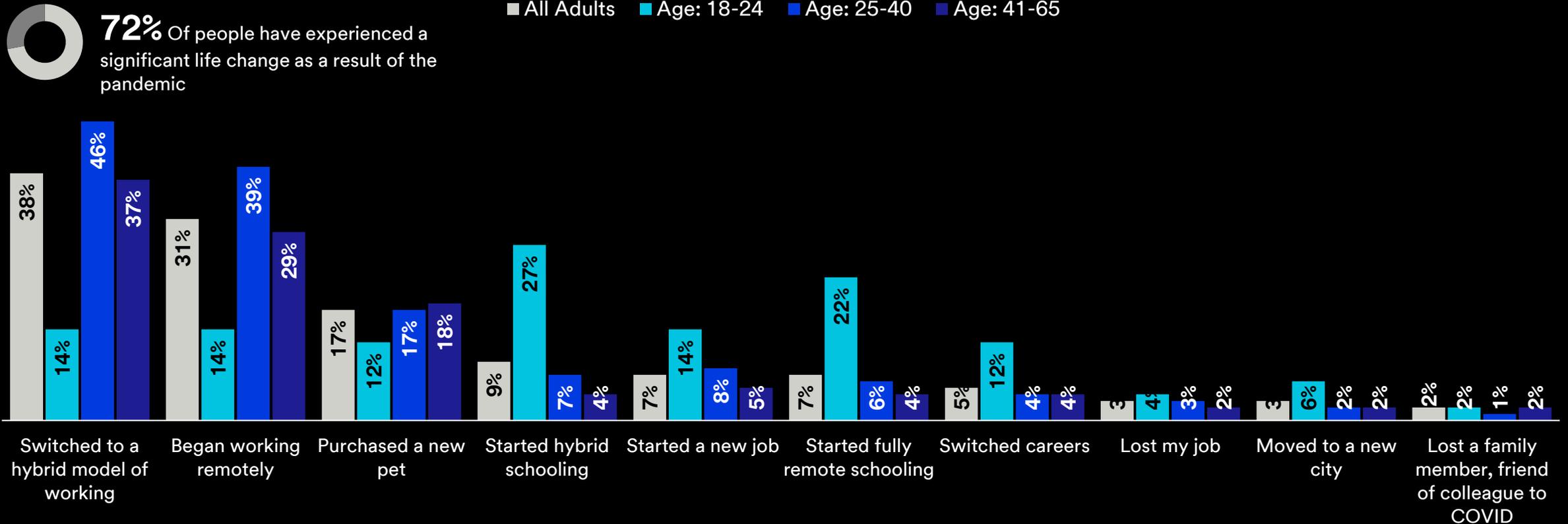




New Paradigm

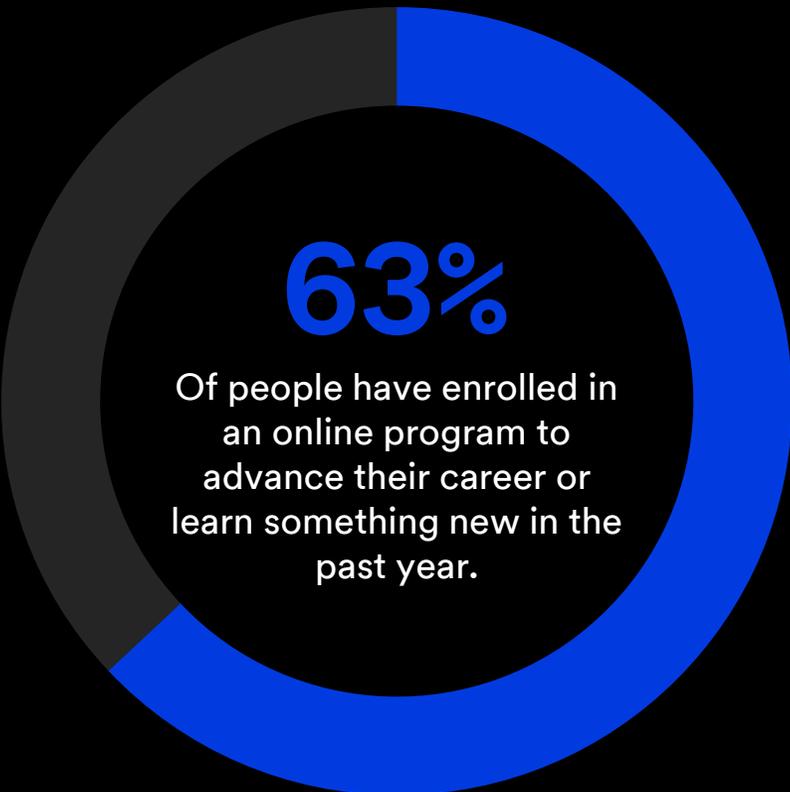
A majority have experienced a significant life change as a result of the pandemic. Those age 25+ are more likely to have switched to a hybrid model of work or began working fully remotely compared to other groups.

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

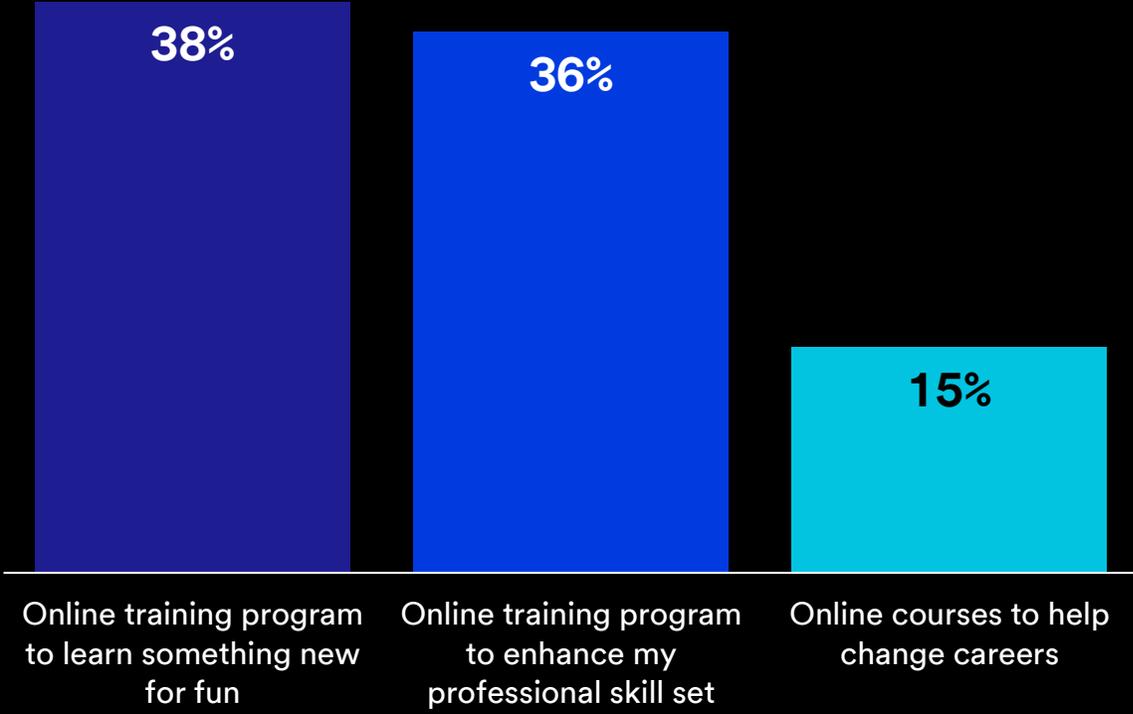


In the past year, most have enrolled in an online training program to advance their career or learn something new.

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

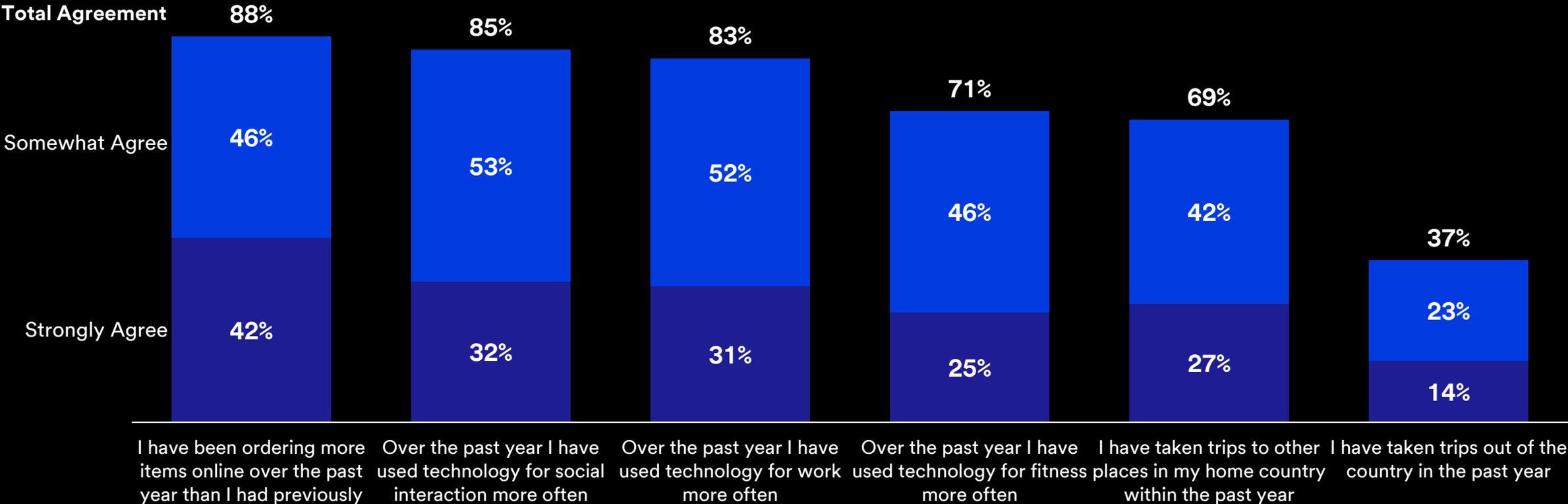


What did they enroll in? *(among all respondents)*



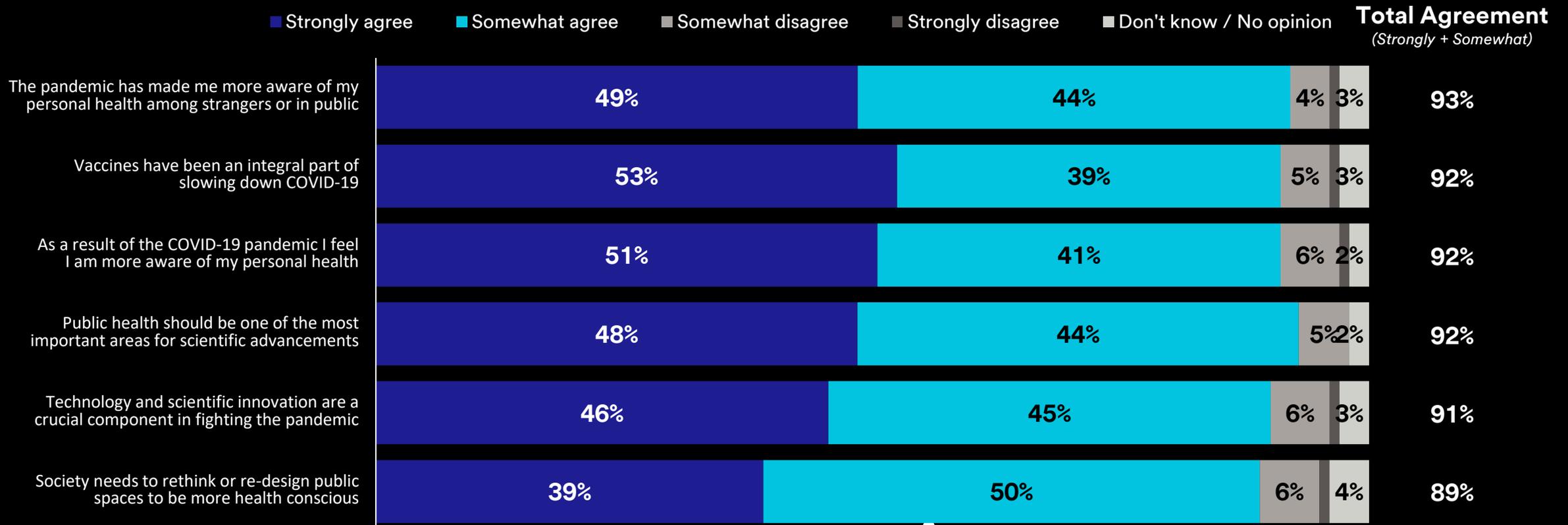
Over the past year, most have ordered more items online, used technology more often for social interaction, and used technology for work more often than they had previously.

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



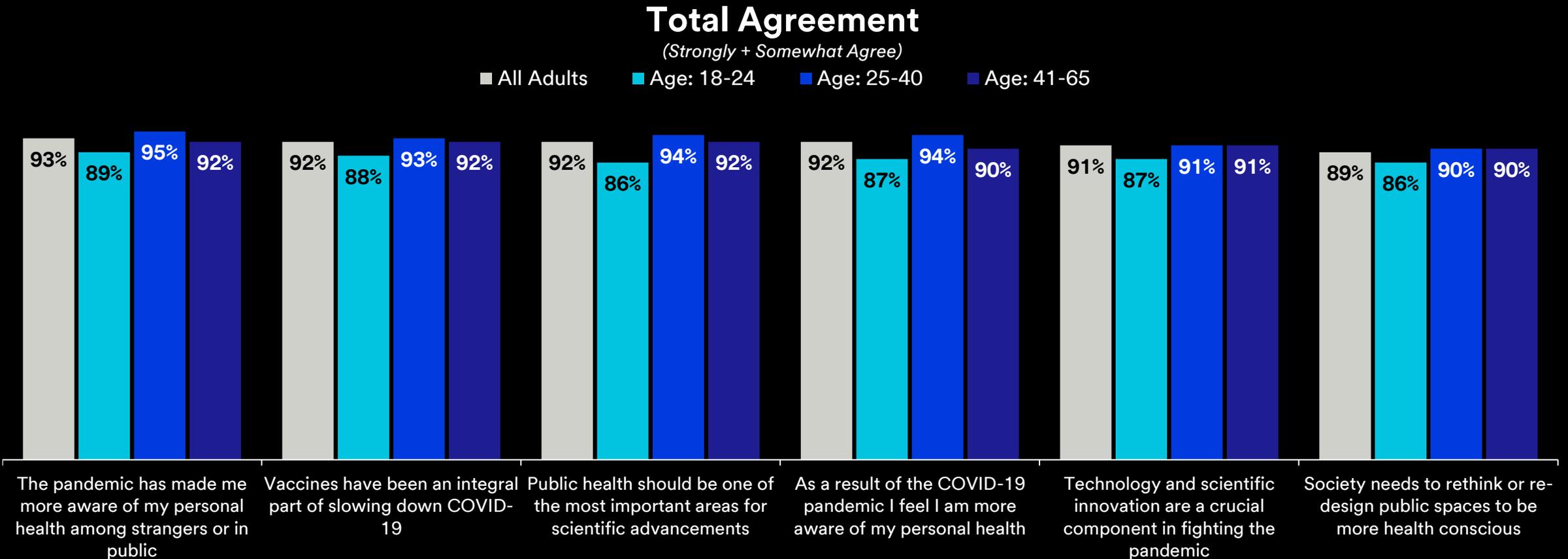
The pandemic has impacted how most view public health and the role of science and technology in keeping people safe.

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



Those ages 25+ are more likely to agree with statements related to the pandemic's impact on science and technological advancements in public health.

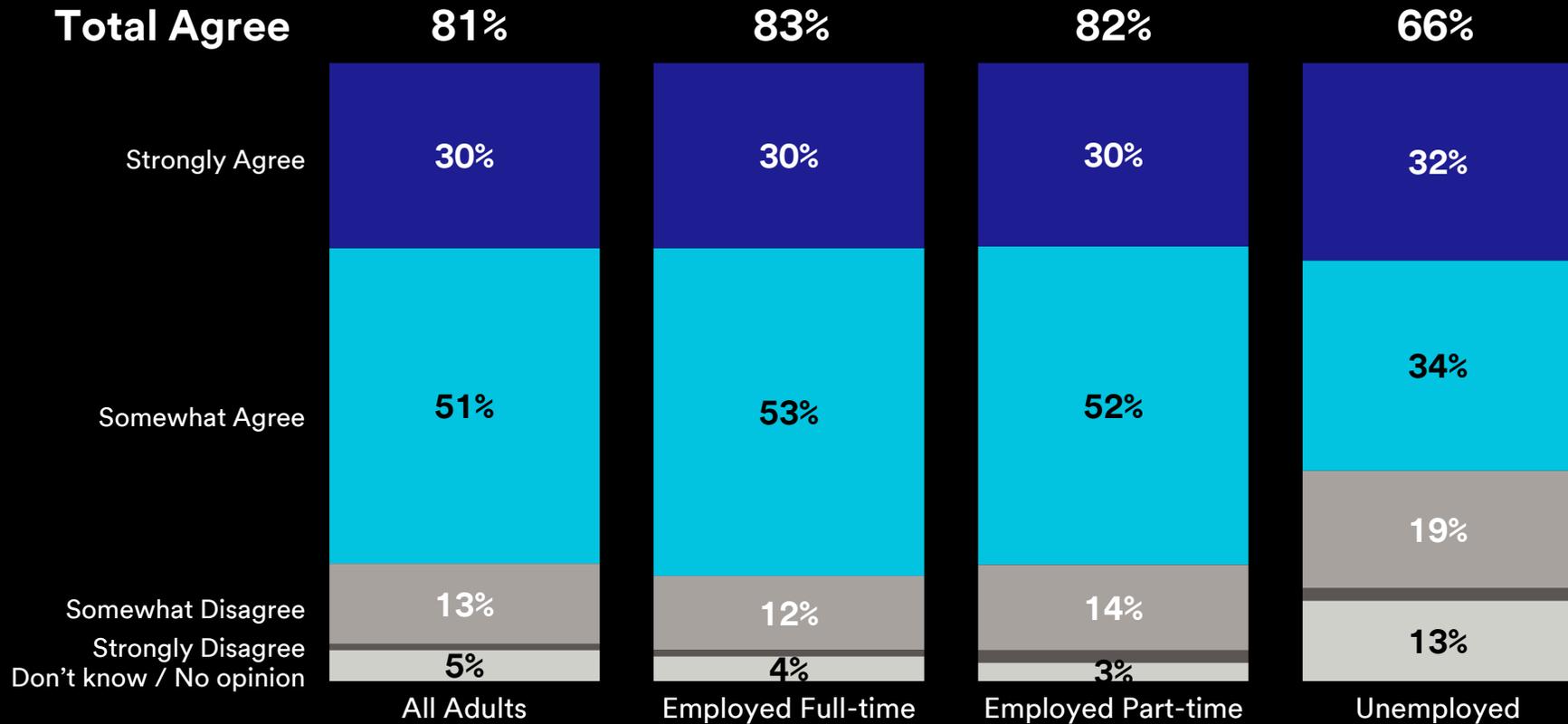
How much do you agree or disagree with each of the following statements?



Most agree science and technology during the pandemic have changed the work environment forever.

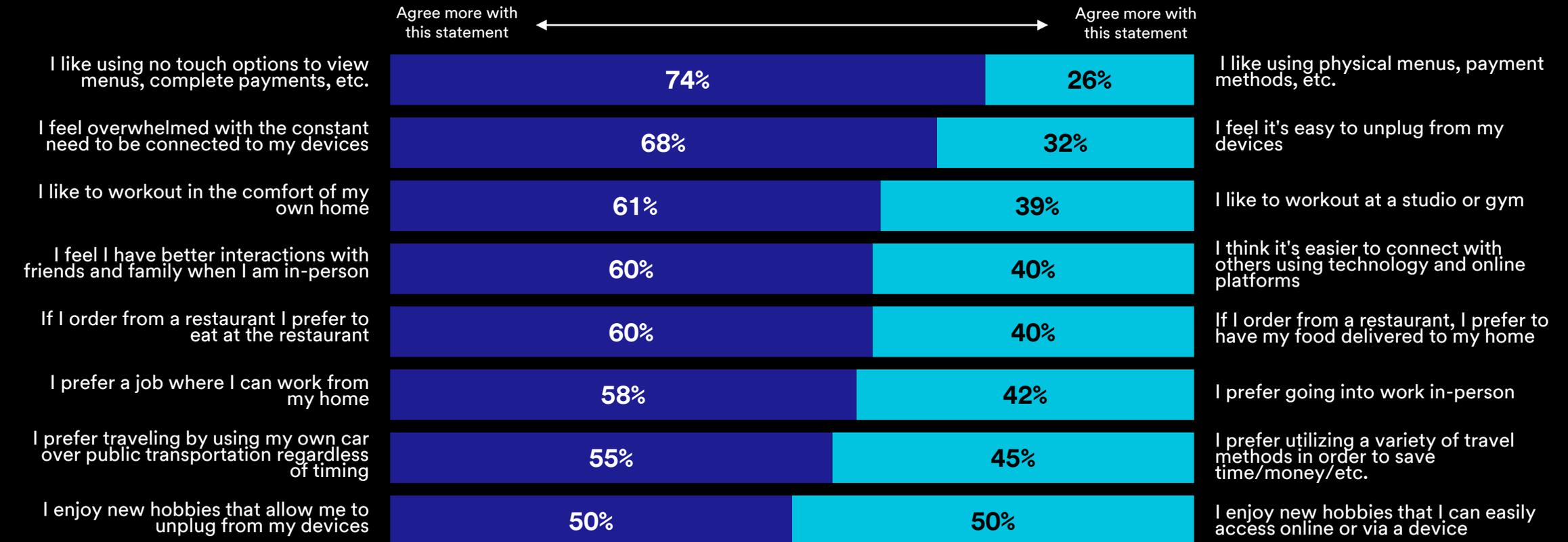
How much do you agree or disagree with each of the following statements?

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



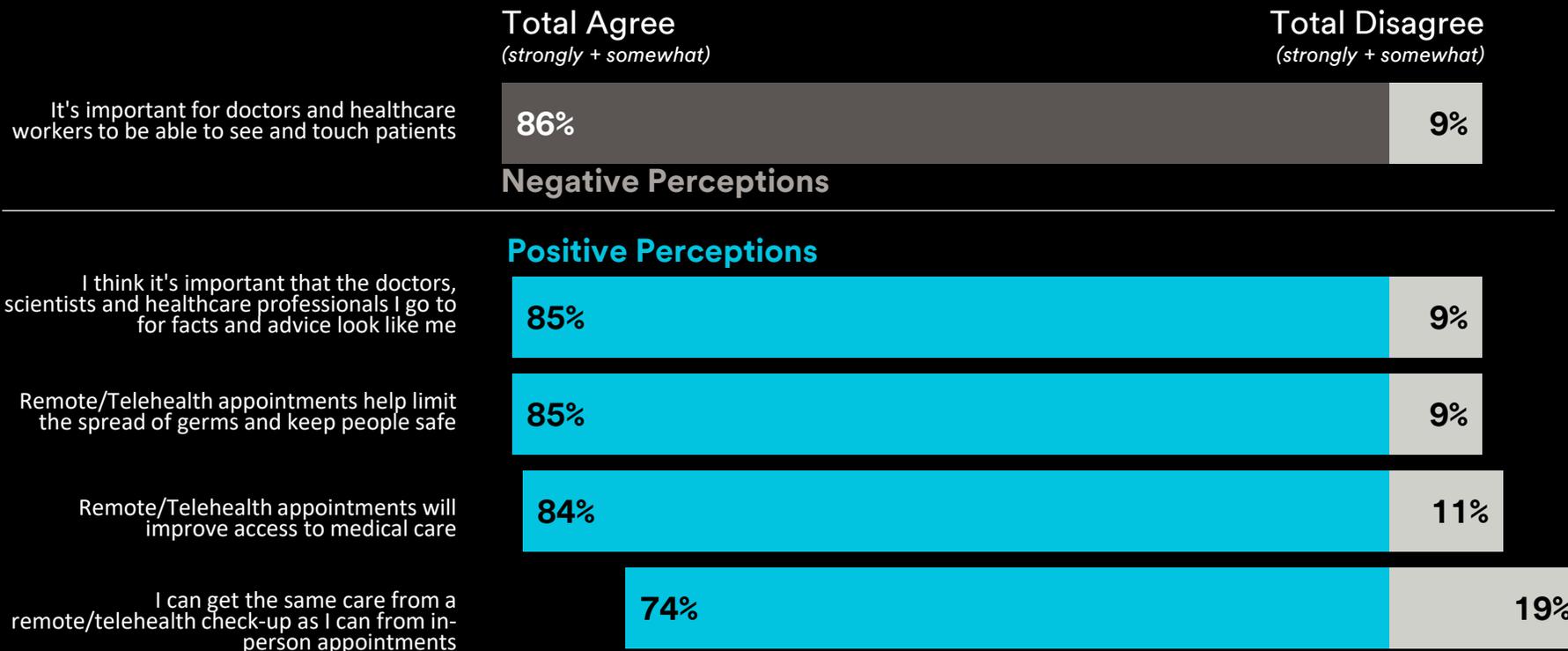
People prefer in-person socialization and hobbies to virtual or online alternatives. However, most prefer working from home, working out at home, and paying with no touch menu and payment options to alternatives.

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



Chinese adults are split on how they feel about remote/telehealth with many agreeing that telehealth improves access and can keep people safe, but most also agree that it's important for doctors to see and touch patients.

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



among those that have used telemedicine:

93% agreement "Remote/telehealth appointments help limit the spread of germs and keep people safe"
+8 vs. All Adults ▲

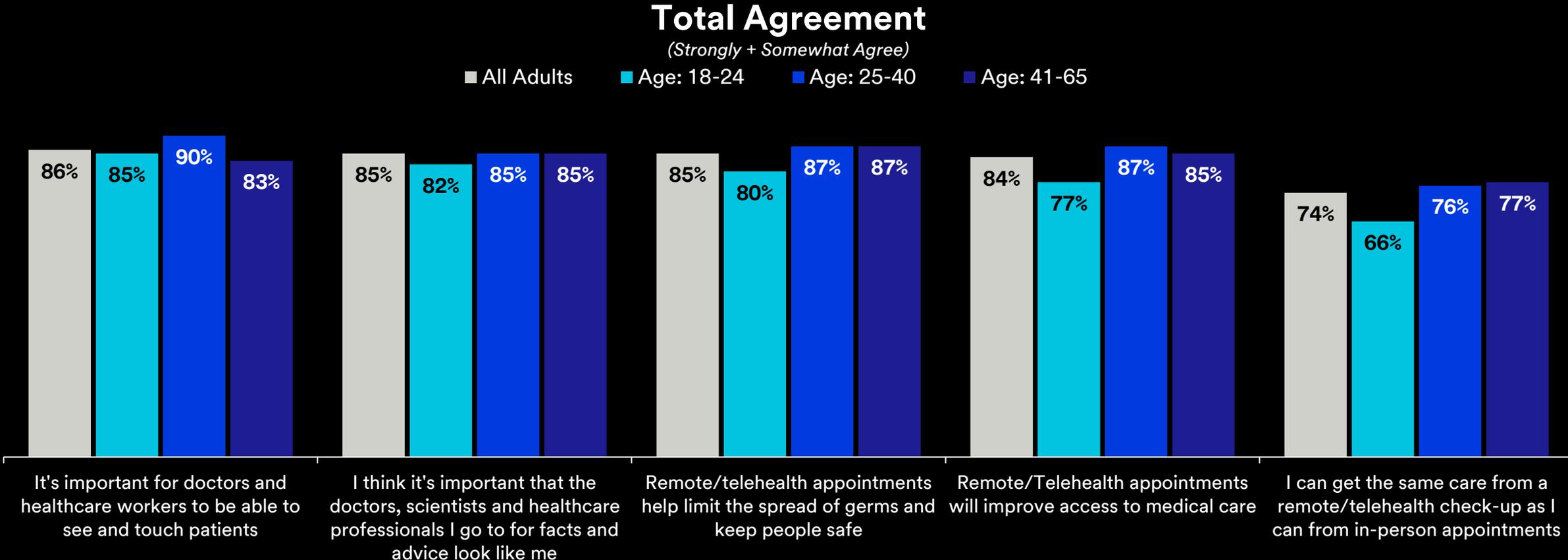
92% agreement "Remote/Telehealth appointments will improve access to medical care"
+7 vs. All Adults ▲

84% agreement "I can get the same care from a remote/telehealth check-up as I can from in-person appointments"
+10 vs. All Adults ▲

▲ Indicates positive movement outside of the MOE

Those 25+ are more likely to agree they can get the same care from a telehealth appointment as they can from an in-person appointment than other groups.

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





Thank you