

Brazil
China
France
Germany
India
UK
USA

WE ASKED THE WORLD

WHAT DO PEOPLE AROUND THE WORLD
THINK AND FEEL ABOUT TECHNOLOGY?

FOCUS: ARTIFICIAL INTELLIGENCE

TECH
COMPASS
2024

WHAT'S INSIDE?

FOREWORD

PAGE 03

SUMMARY

PAGE 05

ARTIFICIAL INTELLIGENCE

PAGE 06

ATTITUDES

PAGE 20

HOPES/FEARS

PAGE 24

FUTURE

PAGE 27

WHAT IF...?

PAGE 29

STUDY DESIGN

PAGE 34

THE IDEA

This is an exciting time, as we find ourselves amidst a technological renaissance. We're witnessing rapid changes that permeate every aspect of our lives and extend into uncharted territories.

That's why I'm excited to unveil the insights from our 3rd annual Tech Compass Survey – a comprehensive exploration into the profound impact of technology on our daily lives. At Bosch, we understand the pivotal importance of comprehending how technology shapes our experiences and emotions, serving as the cornerstone of our commitment to delivering solutions and products that are genuinely “Invented for life.”

For Bosch, “Invented for life” is not just a slogan but a global ethos, meant to be interpreted by all cultures and belief systems. Which is why we premiered the Tech Compass findings at Bosch ConnectedWorld (BCW) 2024. Our survey features voices from seven countries – Brazil, China, Germany, France, India, the United Kingdom, and the United States. As we delved

into the biggest driver of our current renaissance, AI, we found a prevailing theme in this year's results that revolves around change and growth. A common thread resonates across countries and cultures, underlining the significance of this moment – 73% of the world views generative AI as transformative as the rise of the internet.

At Bosch, we see this as an exciting opportunity to elevate the innovation and robustness of our products and services. But for any of us to fully leverage the power of this technological change, it is crucial that the world collaborates on how we seamlessly integrate these transformative solutions into our lives. As a result, Bosch is calling for mandatory labeling on any AI-generated content to transparently state its machine origin. This call for mandatory labeling fosters transparency, reinforces accuracy, and empowers users to scrutinize and cite the source of AI-generated information. This initiative resonates globally, with an impressive 82% of respondents agreeing that AI-generated content should be mandated to label itself.

This consensus holds strong across borders, with more than 75% agreement in each represented country.

Bosch firmly believes that new usage of this rapid technological progress can and should coexist with a commitment to ensuring AI is safe, robust, and explainable. Our dedication to being a beacon of technological advancement remains steadfast, as is prioritizing the well-being of the communities where we live and work.

Without trust, ethical application, and creation, no technology can authentically embody our maxim of being “Invented for Life.” Collaboration is paramount; together, we will focus on shared points of connection to navigate change and uncertainty while embracing the capabilities of these new technological advancements.



Dr. Stefan Hartung
Chairman of the board of management
of Robert Bosch GmbH



64% WORLDWIDE BELIEVE AI IS THE MOST RELEVANT TECHNOLOGY OF THE FUTURE

(2023: 41%)

82% GLOBALLY SUPPORT MANDATORY LABELING FOR AI-GENERATED CONTENT

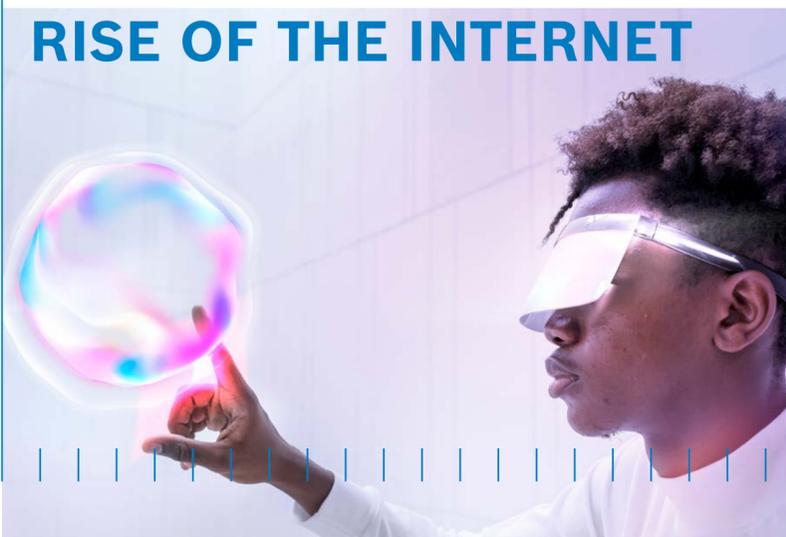
70% OF PEOPLE WORLDWIDE BELIEVE: TECH MAKES THE WORLD A BETTER PLACE

(2023: 75%)

73% GLOBALLY AGREE: GENERATIVE AI IS AS RELEVANT AS THE RISE OF THE INTERNET

49% OF PEOPLE

GLOBALLY FEEL PREPARED FOR THE UPCOMING ERA OF AI





ARTIFICIAL INTELLIGENCE

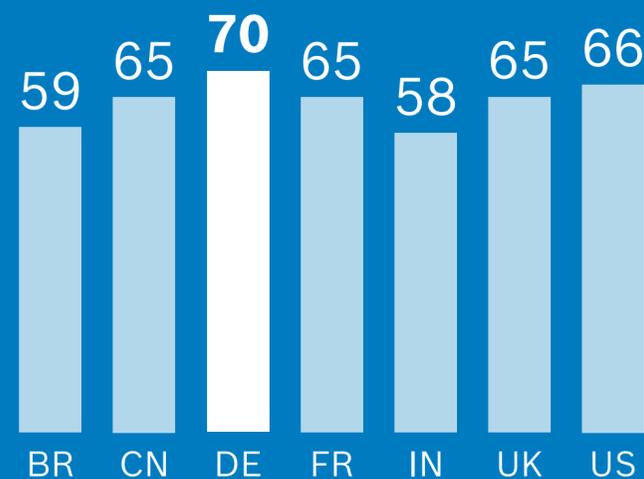
RELEVANCE OF AI

Which of these technologies will be the most influential in your country in 10 years?*

*This page only shows the results for AI. The results for other technologies can be found on page 28.

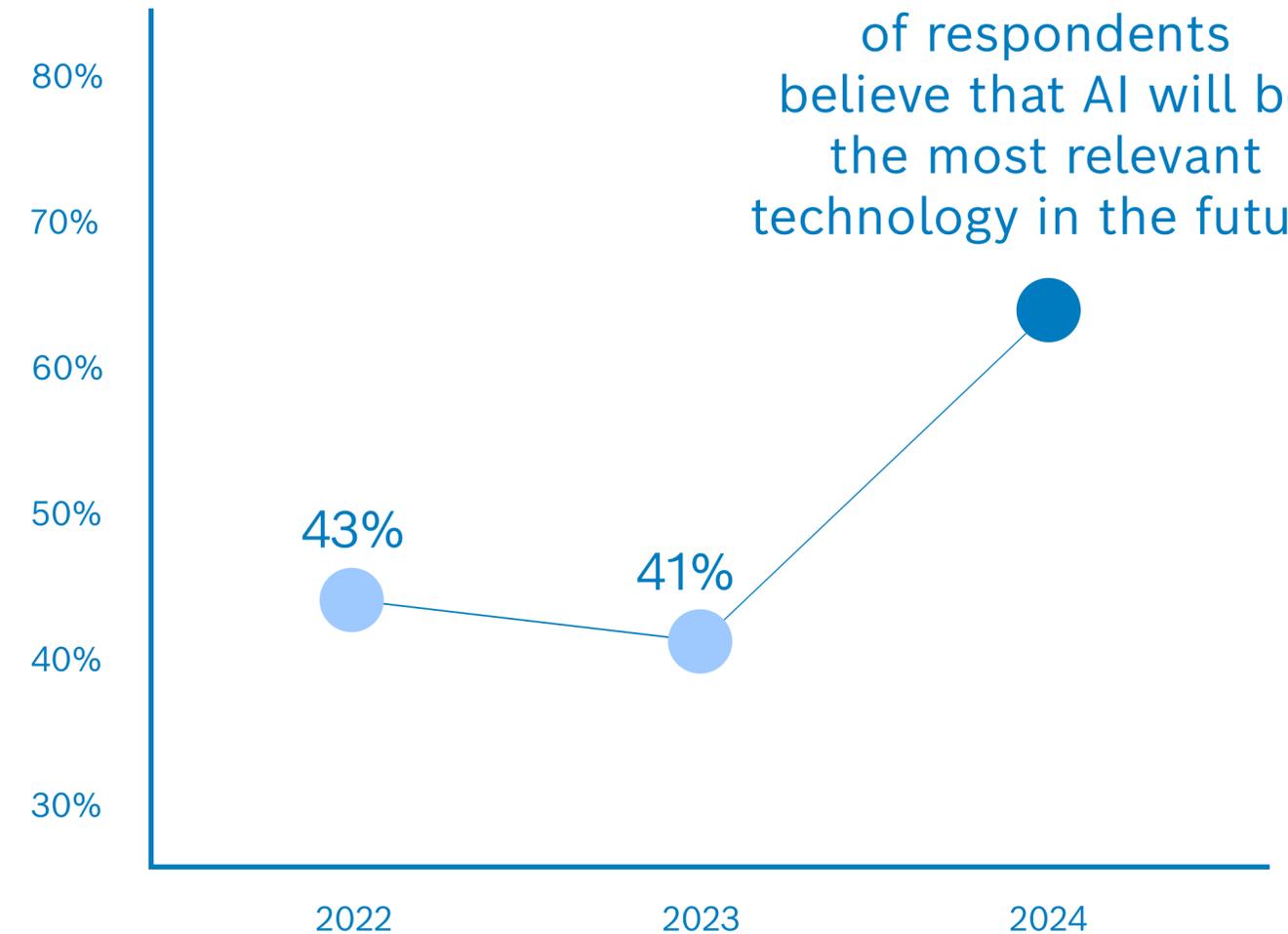
REGIONAL

In a global comparison, AI is considered the most relevant in Germany. With an increase of 28 percentage points, the country recorded the biggest year-on-year difference. However, the relevance attributed to AI also increased in all other countries. In China, the increase is quite low at just 9 percentage points, albeit after AI was categorised as very important in the country early on.



The reported values are based on respondents that know the respective technology. BRA N=1953, China N=1993, DE N=989, FR N=964, India N=2030, UK N=956, US N=1879. Answers in %.

64%
of respondents believe that AI will be the most relevant technology in the future



GLOBAL INDEX

64% of respondents worldwide believe that AI will be the most relevant technology in the future. This marks a huge increase of 23 percentage points compared to 2023 and 21 percentage points compared to 2022.

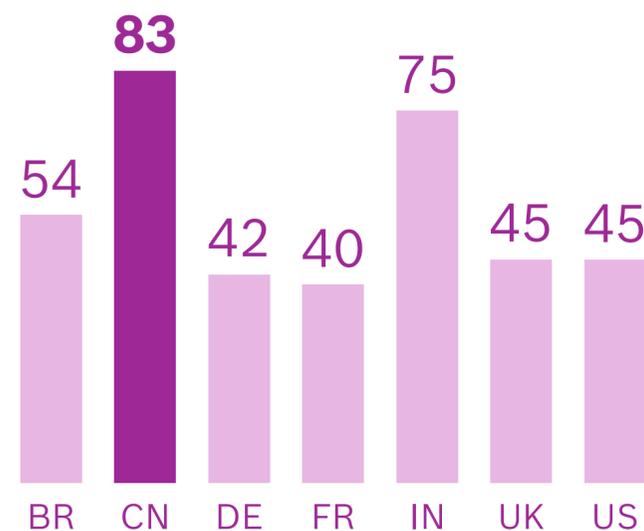
2024: N=10763, 2023: N=10451, 2022: N=7604. Answers in %.

HOW WILL AI CHANGE THE WORLD?

To what extent do you personally agree with the statement 'AI technologies will change the world for the better.'?

REGIONAL

While the belief that AI will change the world for a better is very pronounced in Asian countries (China: 83%, India: 75%), the West and Brazil are much more skeptical.



BRA N=2077, China N=2007, DE N=1010, FR N=1006, India N=2163, UK N=1001, USA N=2000. Answers in %.

55%

of the countries surveyed believe that AI will change the world for the better

GLOBAL INDEX

The slight majority (55%) of the countries surveyed believe that AI will change the world for the better.

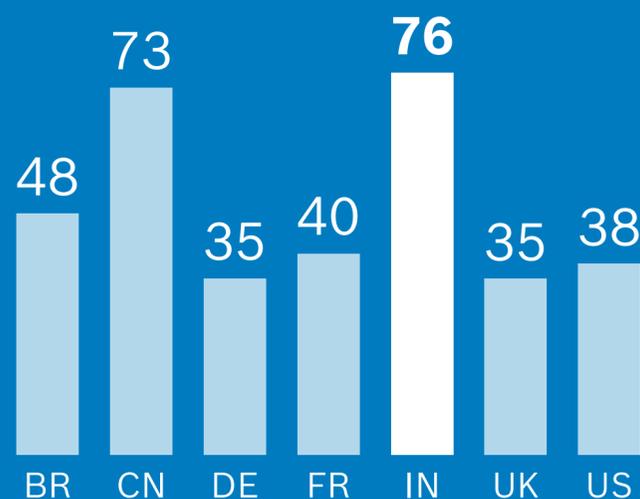
Answers were scaled from 1 to 4. Top-2-Box Results. N=11264. Answers in %.

PREPARED FOR AI?

To what extent do you personally agree with the statement 'I personally feel prepared for the upcoming era of AI.'?

REGIONAL

While most respondents in Asia (India: 76%, China: 73%) feel prepared for the coming AI era, countries in the West (UK: 35%, Germany: 35%, USA: 38%, France: 40%) are much more pessimistic.



BRA N=2077, China N=2007, DE N=1010, FR N=1006, India N=2163, UK N=1001, USA N=2000. Answers in %.

49%
of those surveyed
feel prepared for the
upcoming era of AI

GLOBAL INDEX

Around half (49%) of those surveyed feel prepared for the upcoming era of AI.

Answers were scaled from 1 to 4. Top-2-Box Results. N=11264. Answers in %.

HOW TO PREPARE FOR AI?

What are the most important steps a person can take to prepare for the AI era?

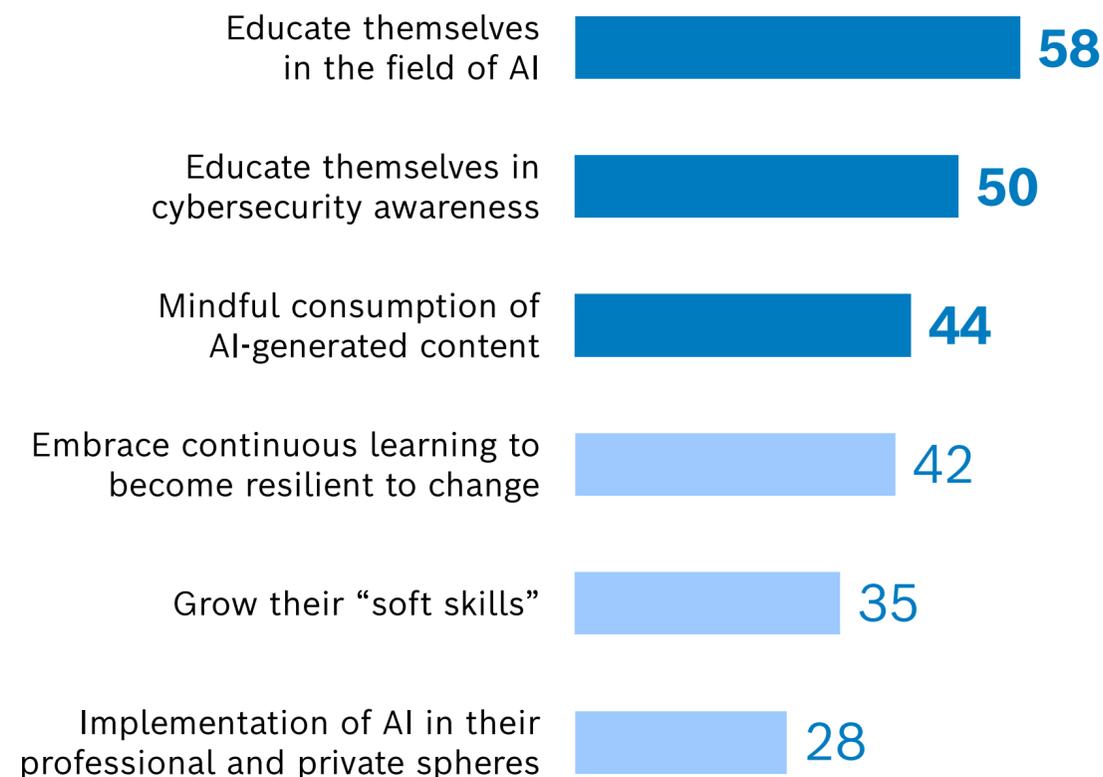
GLOBAL INDEX

The respondents worldwide see personal preparation for the AI era primarily in education – generally in AI (58%), but also in the area of cybersecurity awareness (50%).

REGIONAL

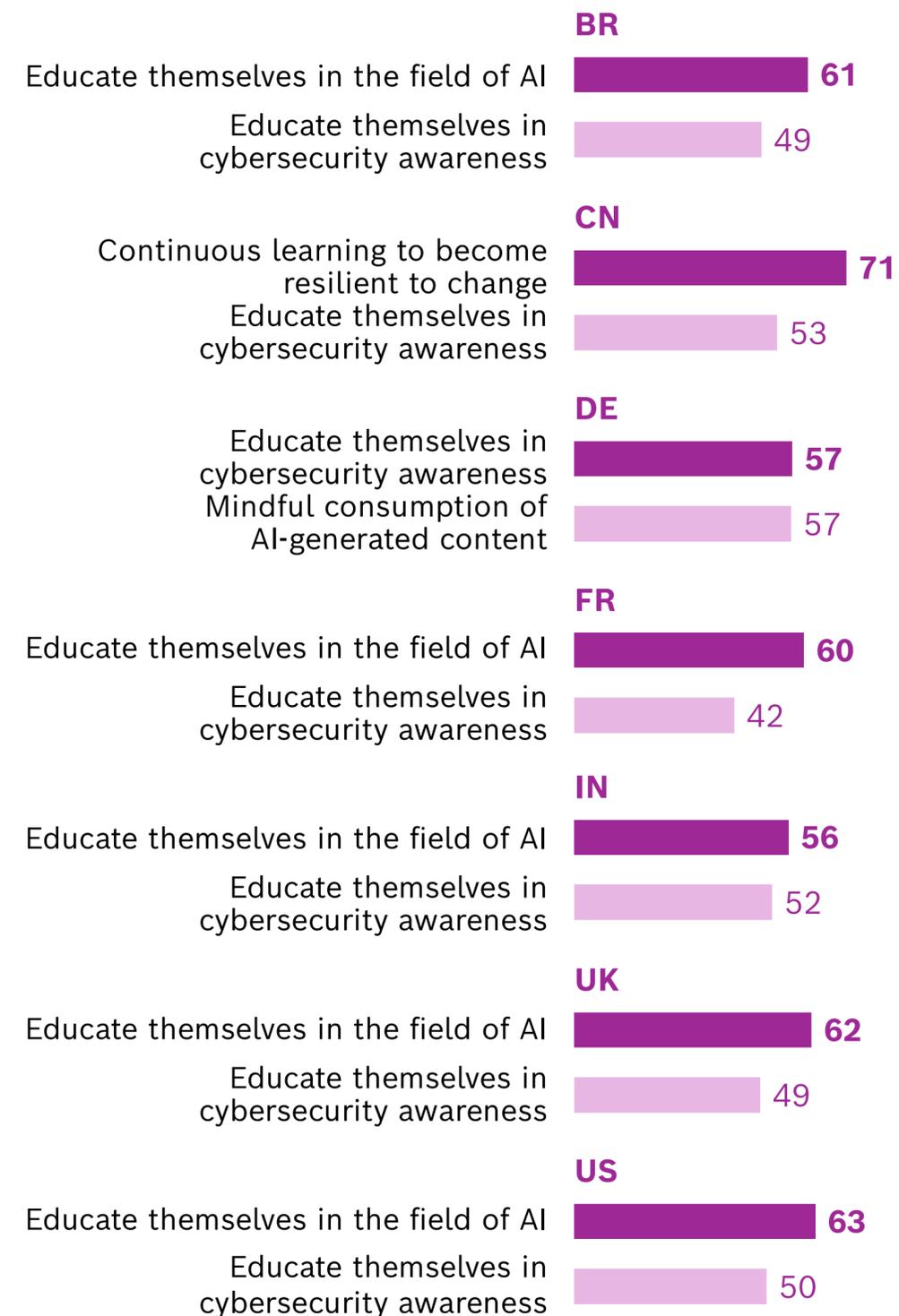
Overall, a relatively homogeneous picture emerges across all countries. Striking is the strong belief of the Chinese (71%) in continuous learning to become resilient to change. Germany (48%) also places greater emphasis on continuous learning compared to the other countries, even if it does not take a leading position in their survey results.

GLOBAL INDEX



N=11264. Answers in %.

REGIONAL TOP 2



BRA N=2077, China N=2007, DE N=1010, FR N=1006, India N=2163, UK N=1001, USA N=2000. Answers in %.

BENEFITS OF AI

Which advantages do you personally hope to gain from AI?

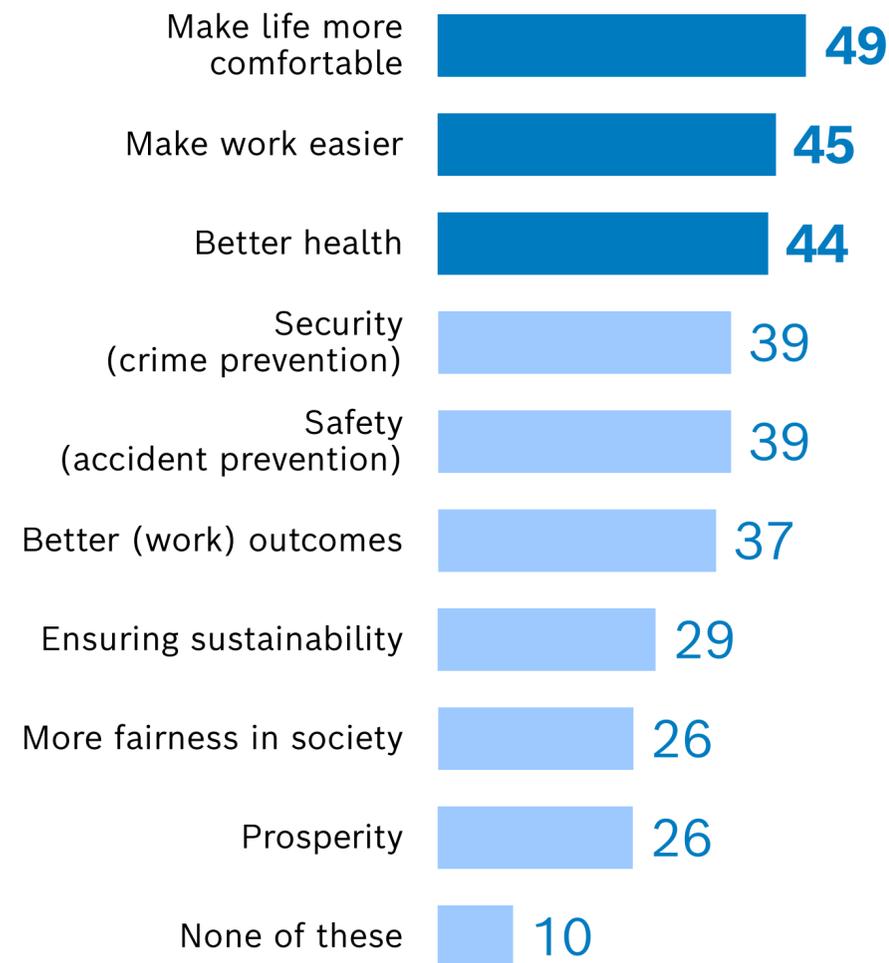
GLOBAL INDEX

When it comes to the personal benefits of AI, respondents globally cite making their lives easier (49%), making their work easier (45%) and improving their health (44%).

REGIONAL

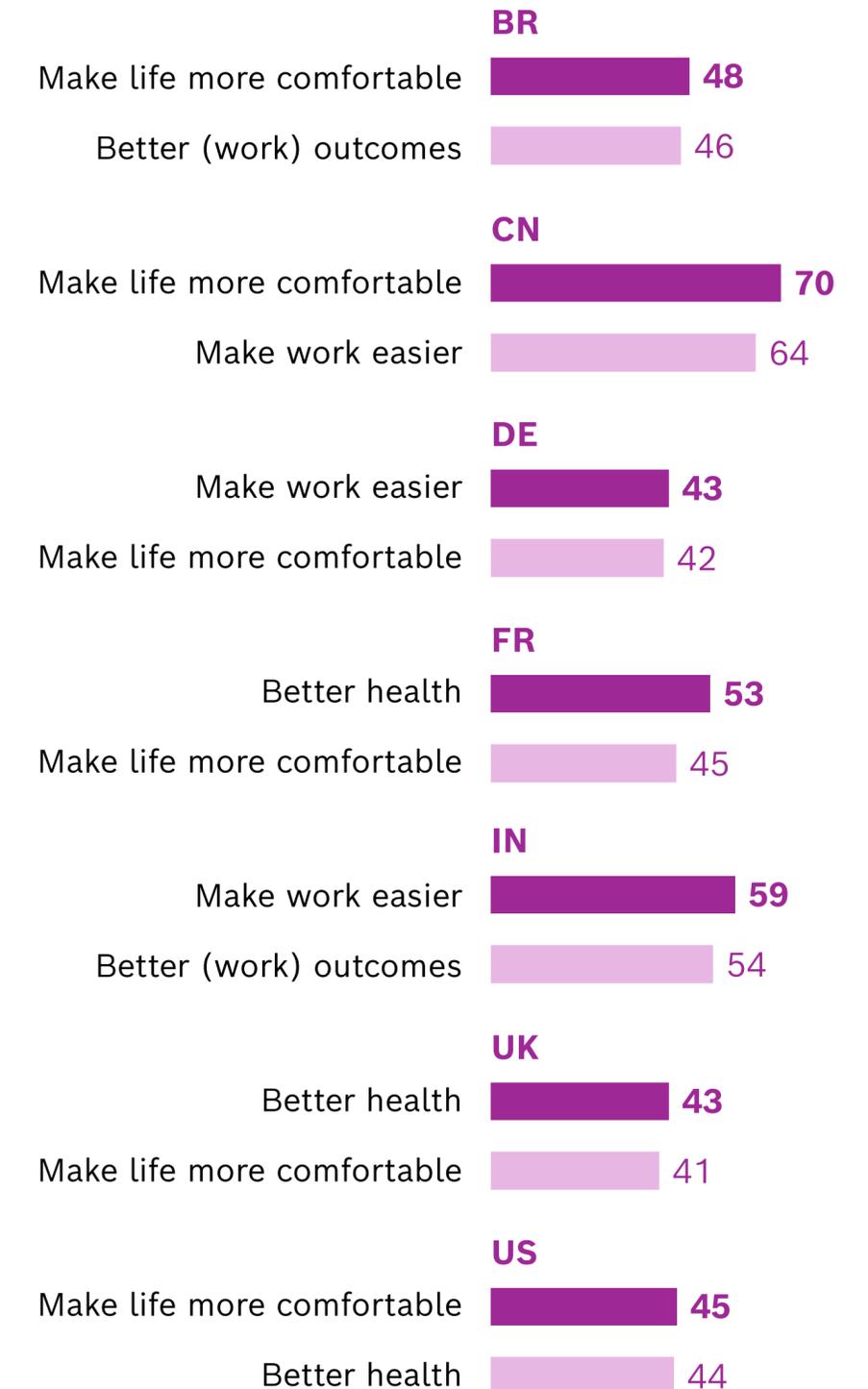
In addition to the themes that dominate at a global level, it is particularly striking that India (54%), China (51%) and Brazil (46%) rank 'better (work) outcomes' from AI higher than Western countries (between 18% and 34%).

GLOBAL INDEX



N = 11264. Answers in %.

REGIONAL TOP 2



BRA N=2077, China N=2007, DE N=1010, FR N=1006, India N=2163, UK N=1001, USA N=2000. Answers in %.

NEGATIVE EFFECTS OF AI

What negative effects do you think AI could cause?

GLOBAL INDEX

Respondents around the world expect AI to have negative effects particularly in the areas of job losses due to automation (53%), privacy violations and the manipulation of human behavior (both 52%).

REGIONAL

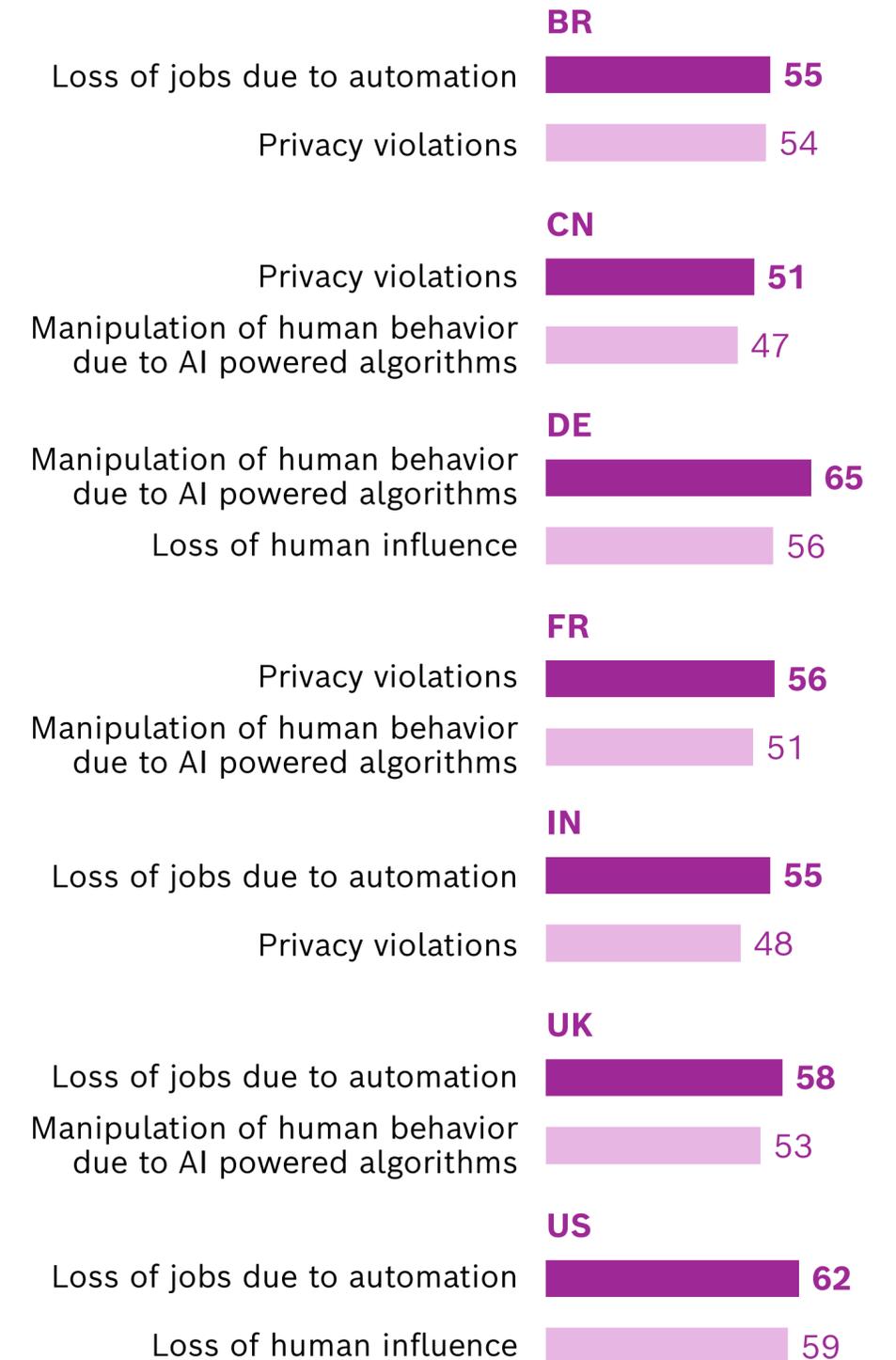
A comparison of the country results reveals a comparatively homogeneous picture.

GLOBAL INDEX



N = 11264. Answers in %.

REGIONAL TOP 2



BRA N=2077, China N=2007, DE N=1010, FR N=1006, India N=2163, UK N=1001, USA N=2000. Answers in %.

MOBILITY BENEFITS OF AI

When it comes to mobility, especially passenger cars, where would you like to see the greatest benefits from the use of AI in the future?

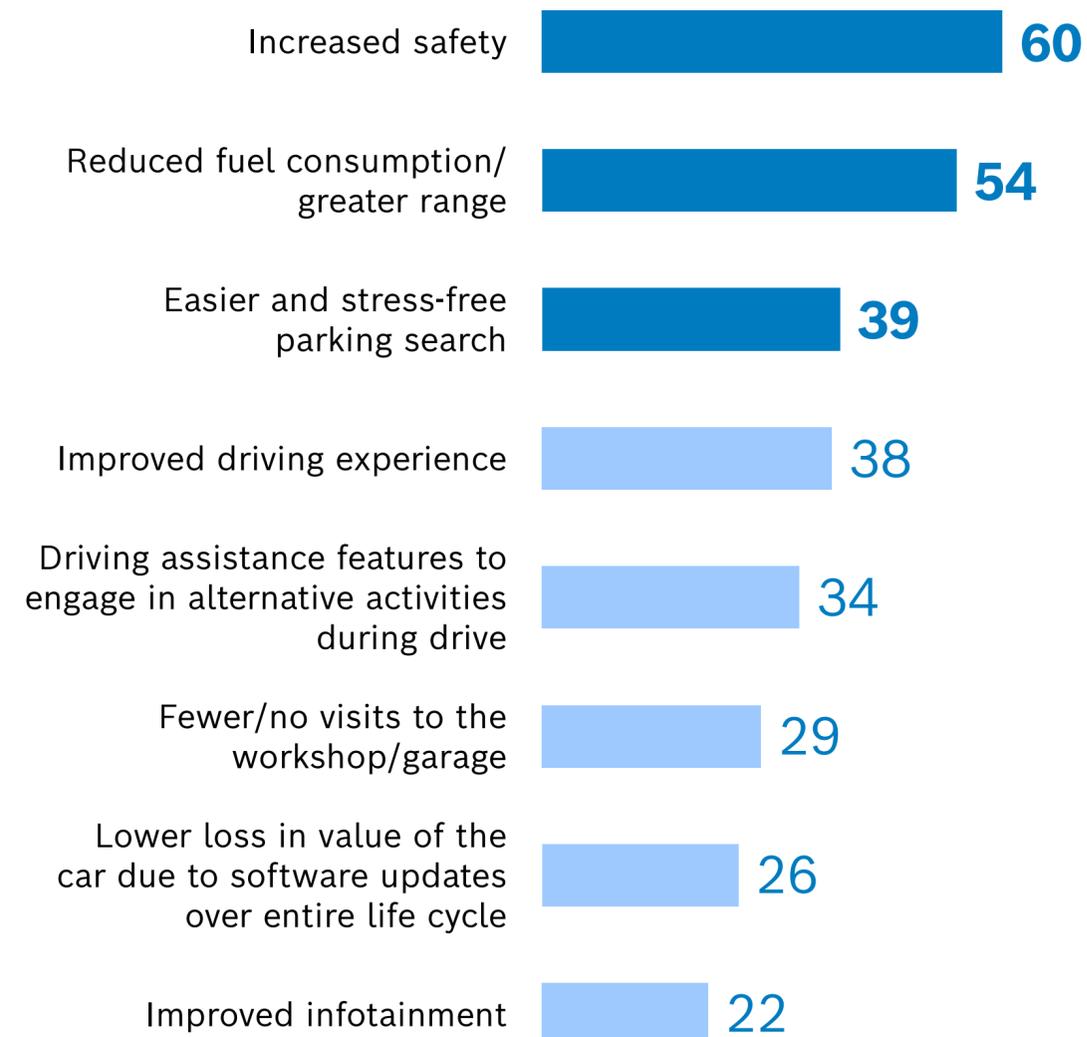
GLOBAL INDEX

When it comes to mobility, people worldwide would like to see the greatest benefits from AI in increased safety (60%), reduced fuel consumption/greater range (54%) and easier and stress-free parking (39%).

REGIONAL

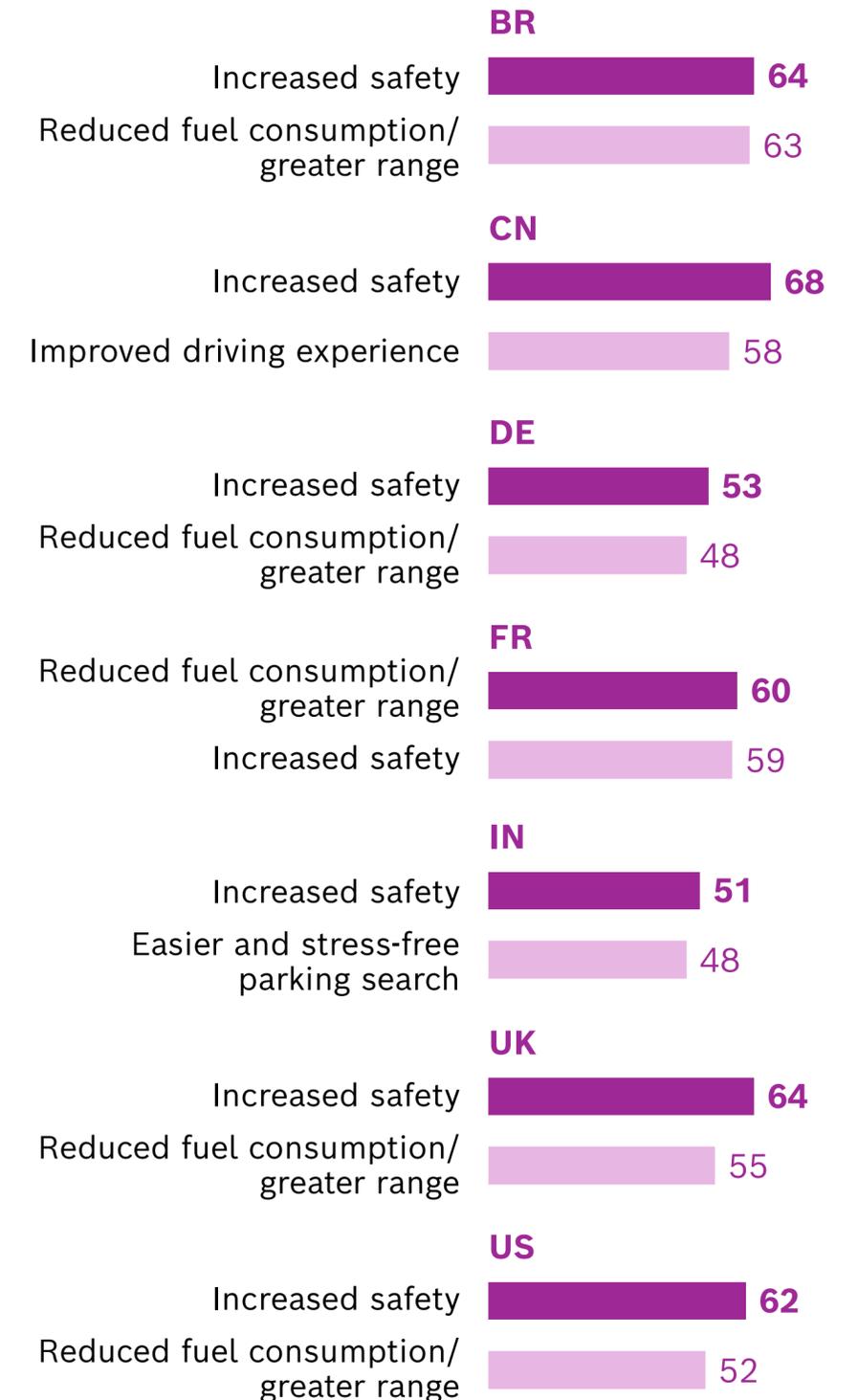
While the desire for greater safety in the car through AI comes first in all countries, with the exception of France, there are regional differences in the rankings. Particularly striking is the comparatively high desire among Asians (China: 50%, India: 46%) for driving assistance features to enable alternative activities while driving and to improve the driving experience (China: 58%, India: 45%), which is less pronounced in Western countries and Brazil.

GLOBAL INDEX



N = 11264. Answers in %.

REGIONAL TOP 2



BRA N=2077, China N=2007, DE N=1010, FR N=1006, India N=2163, UK N=1001, USA N=2000. Answers in %.

**“UNLEASHING THE TRUE POWER OF AI
GOES FAR BEYOND MACHINES
WRITING BIRTHDAY SPEECHES OR CVs.
IT’S A REVOLUTION THAT RESHAPES
OUR CONNECTION WITH THE
PHYSICAL WORLD.”**

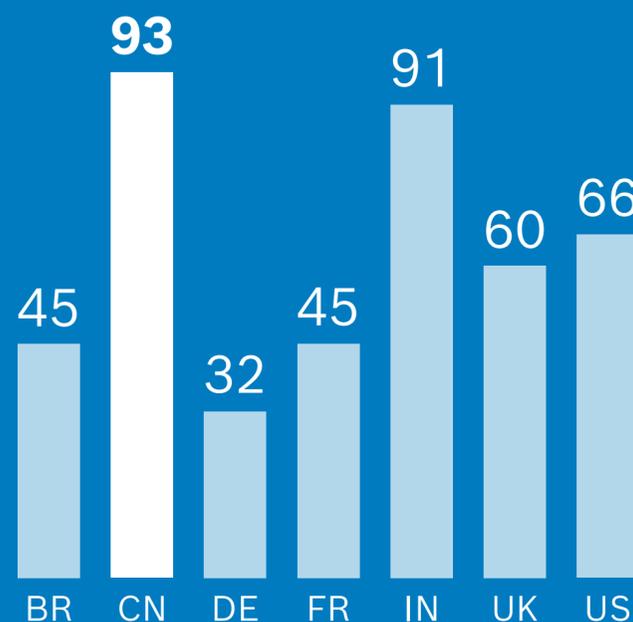
**DR. STEFAN HARTUNG,
CHAIRMAN OF THE BOARD OF MANAGEMENT**

ARE COUNTRIES PREPARED FOR AI?

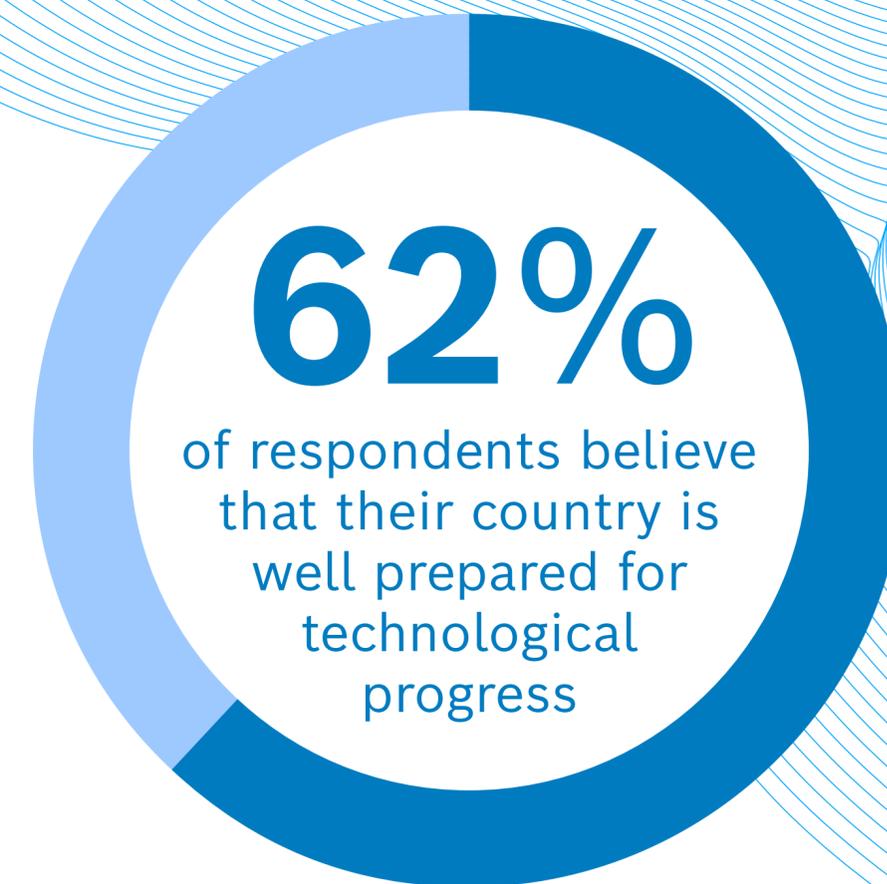
In a global comparison, how well is your country prepared for the advancing technological progress in the field of AI?

REGIONAL

While China (93%) and India (91%) believe their country is prepared for the future AI era, only a minority in Germany (32%) and France (45%) agree. After the Asian countries, respondents in the US (64%) are the most confident about their country's AI capabilities.



BRA N=2077, China N=2007, DE N=1010, FR N=1006, India N=2163, UK N=1001, USA N=2000. Answers in %.



GLOBAL INDEX

On a global level, the clear majority (62%) of respondents believe that their respective country is well or very well prepared for the technological progress in the field of AI.

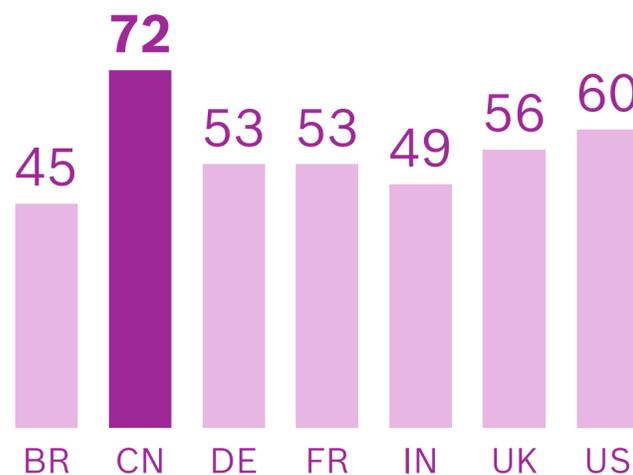
Answers were scaled from 1 to 4. Top-2-Box Results. N=11264. Answers in %.

DEBATES ABOUT AI

How do you perceive the public debates about the opportunities and threats of AI?

REGIONAL

While in China (72%) most people observe a balanced debate on AI in their country, only a minority in Brazil (45%) shares the same perspective.



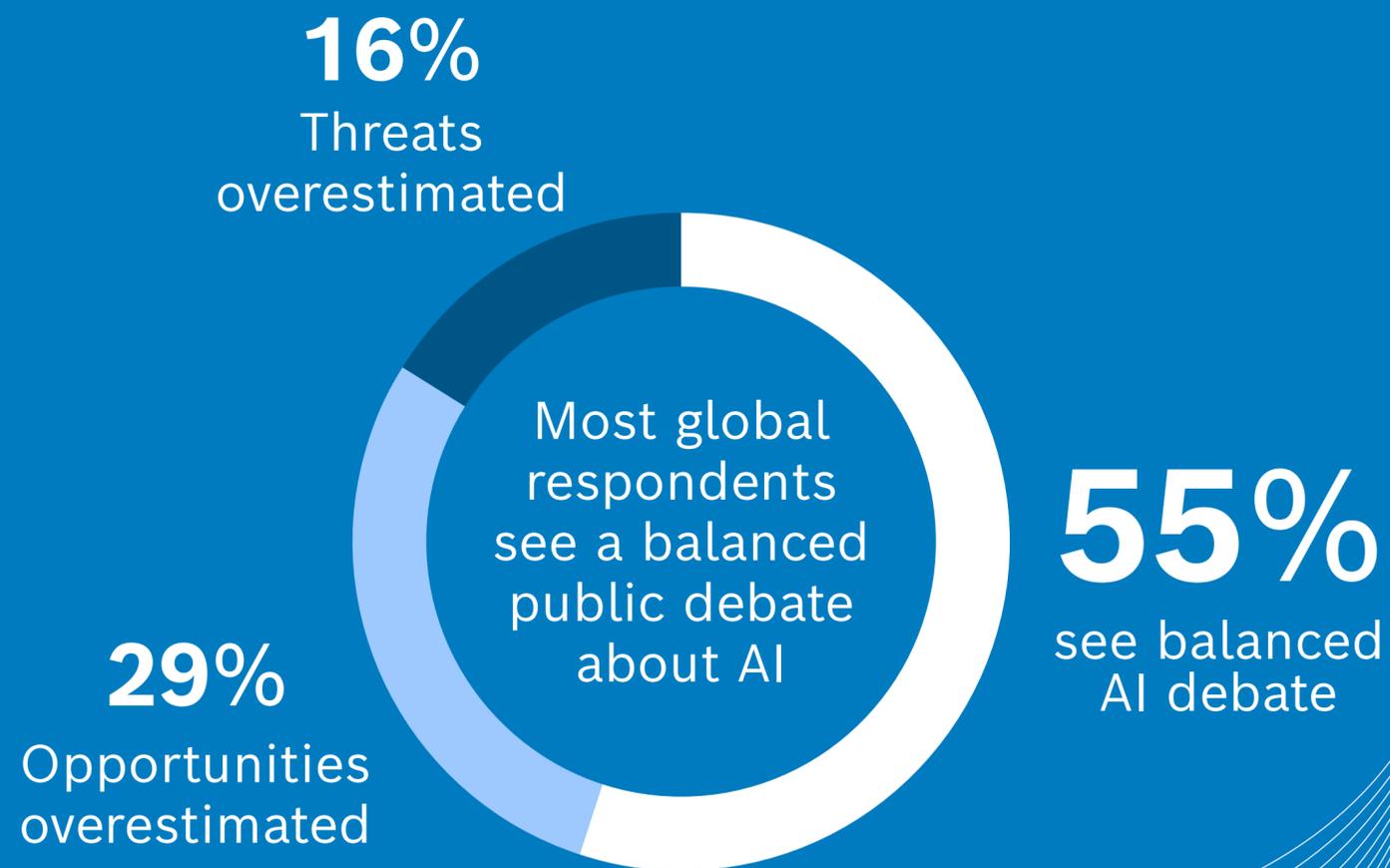
These results show the answer “balanced”.

BRA N=2077, China N=2007, DE N=1010, FR N=1006, India N=2163, UK N=1001, USA N=2000. Answers in %.

GLOBAL INDEX

Most global respondents (55%) see a balanced public debate in their country about the opportunities and risks of AI. However, almost a third (29%) believe that the opportunities are overestimated.

N=11264. Answers in %.

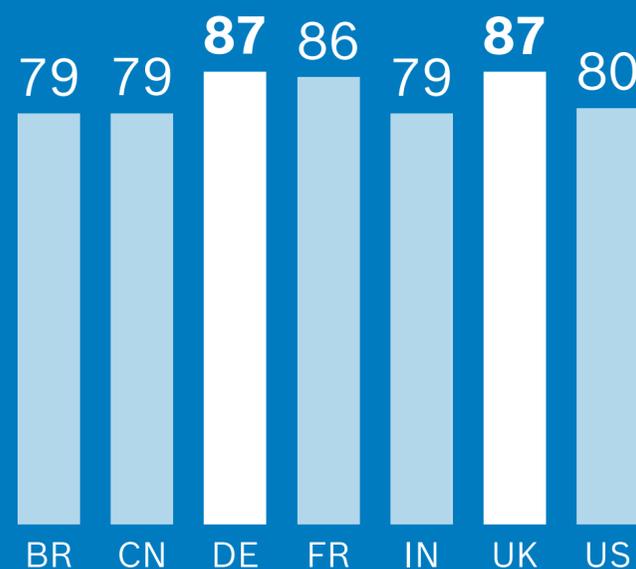


MANDATORY AI LABEL?

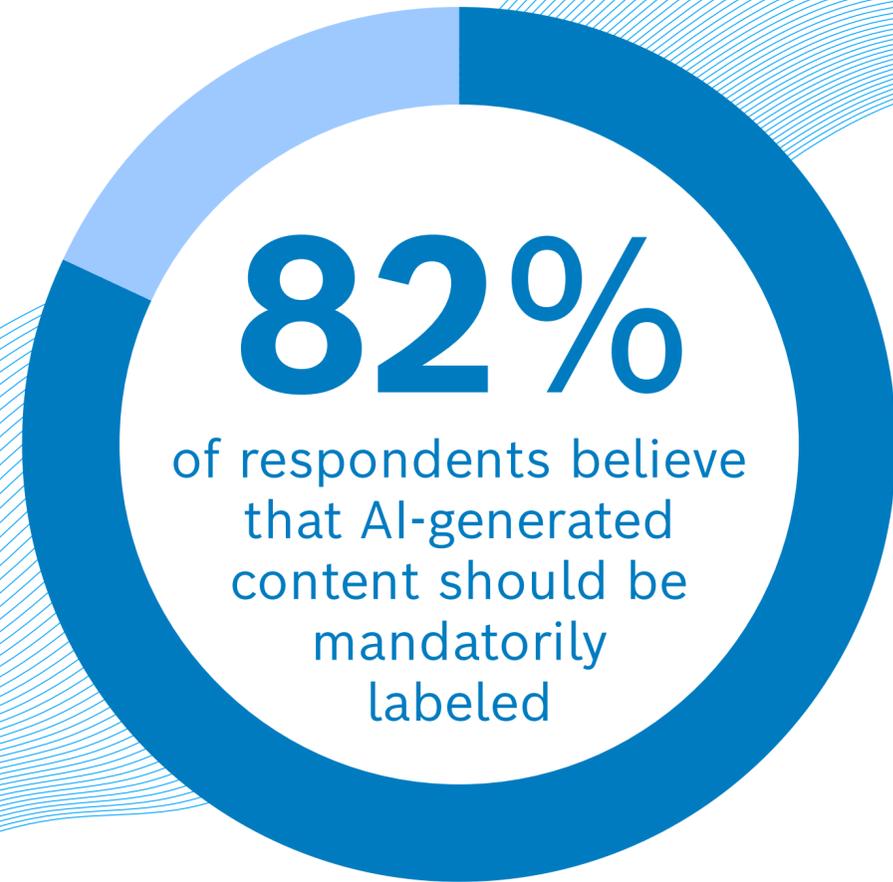
To what extent do you personally agree with the statement 'It should be mandatory for AI-generated content to state that it was created by a machine.'?

REGIONAL

The demand for mandatory labeling of AI content extends across all countries surveyed and is particularly pronounced in Germany and the UK (both 87%).



BRA N=2077, China N=2007, DE N=1010, FR N=1006, India N=2163, UK N=1001, USA N=2000. Answers in %.



GLOBAL INDEX

Four out of five respondents worldwide are of the opinion that AI-generated content should have to be labeled as such.

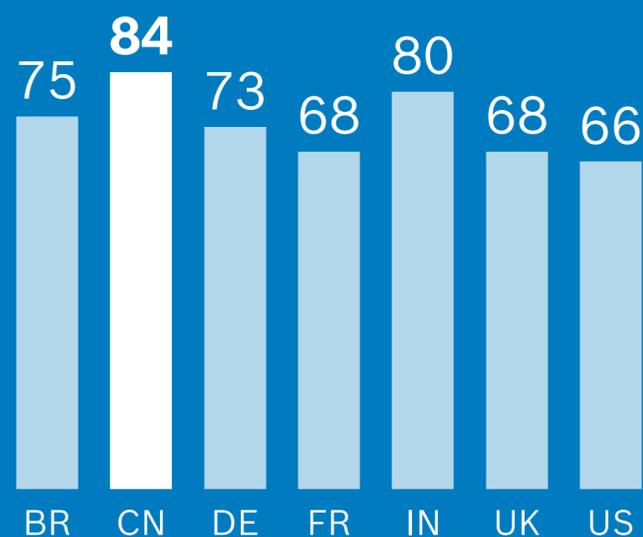
Answers were scaled from 1 to 4. Top-2-Box Results. 2024 N=11264. Answers in %.

AI AS RELEVANT AS THE INTERNET?

To what extent do you personally agree with the statement 'Generative AI will change our world to a degree comparable to what the rise of the internet did.'?

REGIONAL

While the Chinese (84%) see the transformative potential of generative AI and the rise of the Internet at comparable levels, this view is less strongly held in the US (66%).



BRA N=2077, China N=2007, DE N=1010, FR N=1006, India N=2163, UK N=1001, USA N=2000. Answers in %.

73%

globally agree:
generative AI is as
relevant as the rise
of the internet

GLOBAL INDEX

The relevance of generative AI is comparable with the rise of the internet: three out of four respondents (73%) worldwide agree.

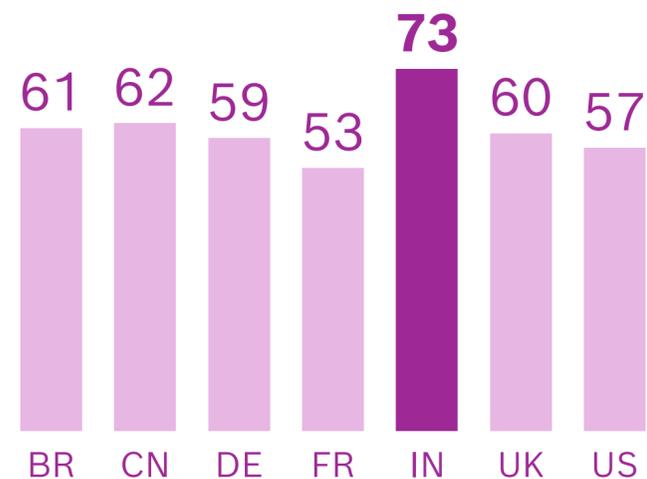
Answers were scaled from 1 to 4. Top-2-Box Results. 2024 N=11264. Answers in %.

AI SMARTER THAN HUMANS?

To what extent do you personally agree with the statement 'In the future, AI will reach a level of intelligence on the same level as humans.'?

REGIONAL

In all countries surveyed, most people believe that AI will reach human levels of intelligence. This conviction is particularly pronounced in India (73%) and least pronounced in France (53%).



BRA N=2077, China N=2007, DE N=1010, FR N=1006, India N=2163, UK N=1001, USA N=2000. Answers in %.

61%

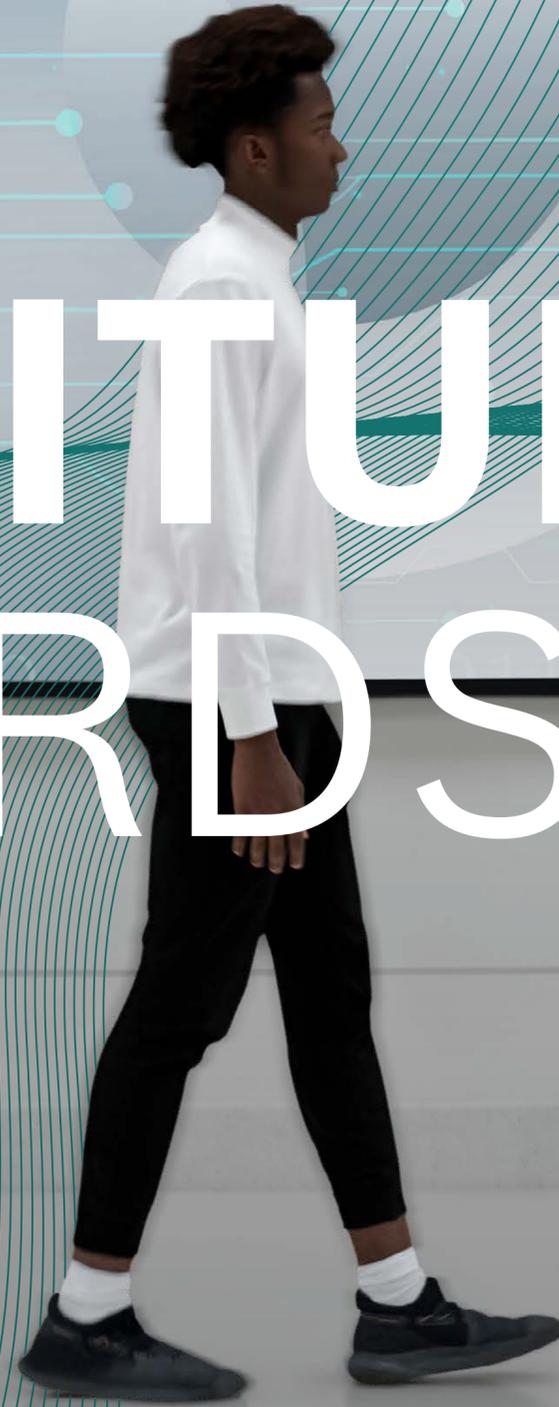
of respondents expect AI to reach human levels of intelligence

GLOBAL INDEX

Globally, a clear majority (61%) of respondents expect AI to reach human levels of intelligence.

Answers were scaled from 1 to 4. Top-2-Box Results. 2024 N=11264. Answers in %.

ATTITUDES TOWARDS TECH

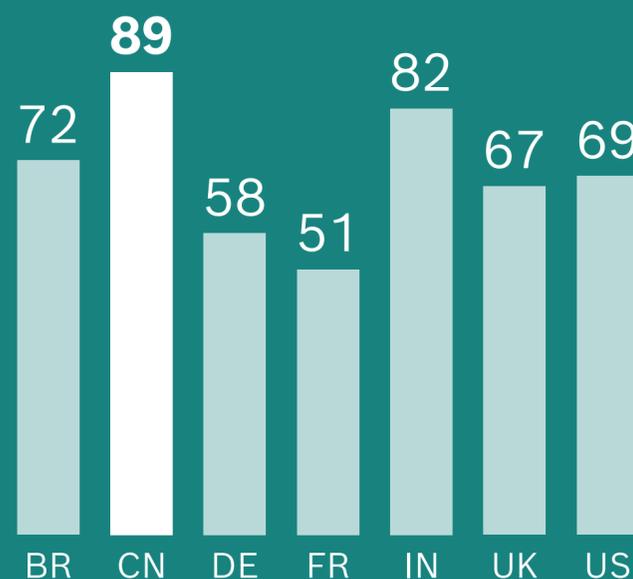


THE POSITIVES OF TECH

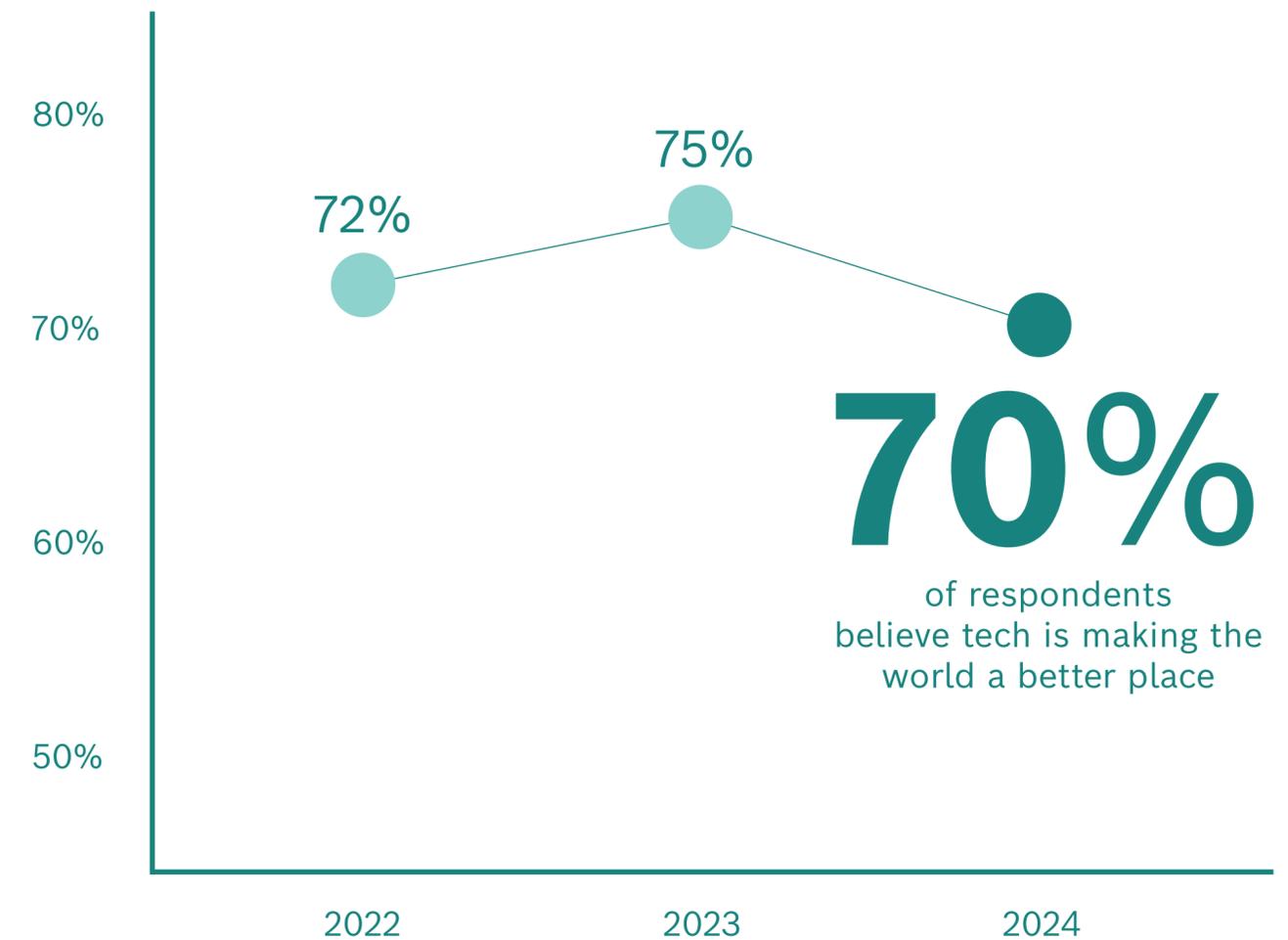
To what extent do you personally agree with the statement ‘Technological progress makes the world a better place.’?

REGIONAL

The Chinese continue to have a very positive attitude towards advances in technology (89%), while the French (51%) are still divided.



BRA N=2077, China N=2007, DE N=1010, FR N=1006, India N=2163, UK N=1001, USA N=2000. Answers in %.



GLOBAL INDEX

This year, most respondents worldwide (70%) once again believe that technology is making the world a better place. Nevertheless, trust in technology has fallen by 5 percentage points compared to the previous year and by 2 percentage points compared to 2022.

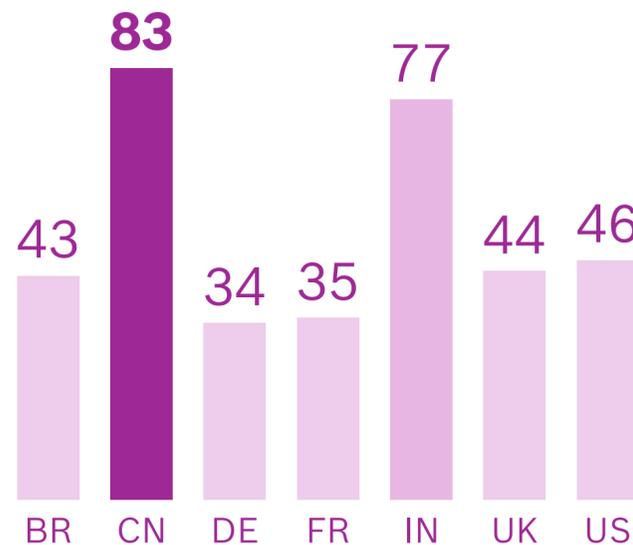
Answers were scaled from 1 to 4. Top-2-Box Results. 2024 N=11264, 2023 N=11179, 2022 N=8076. Answers in %.

SOLVING PROBLEMS WITH TECHNOLOGY

To what extent do you personally agree with the statement ‘Global technological progress is being used sufficiently to tackle the major problems of our time.’?

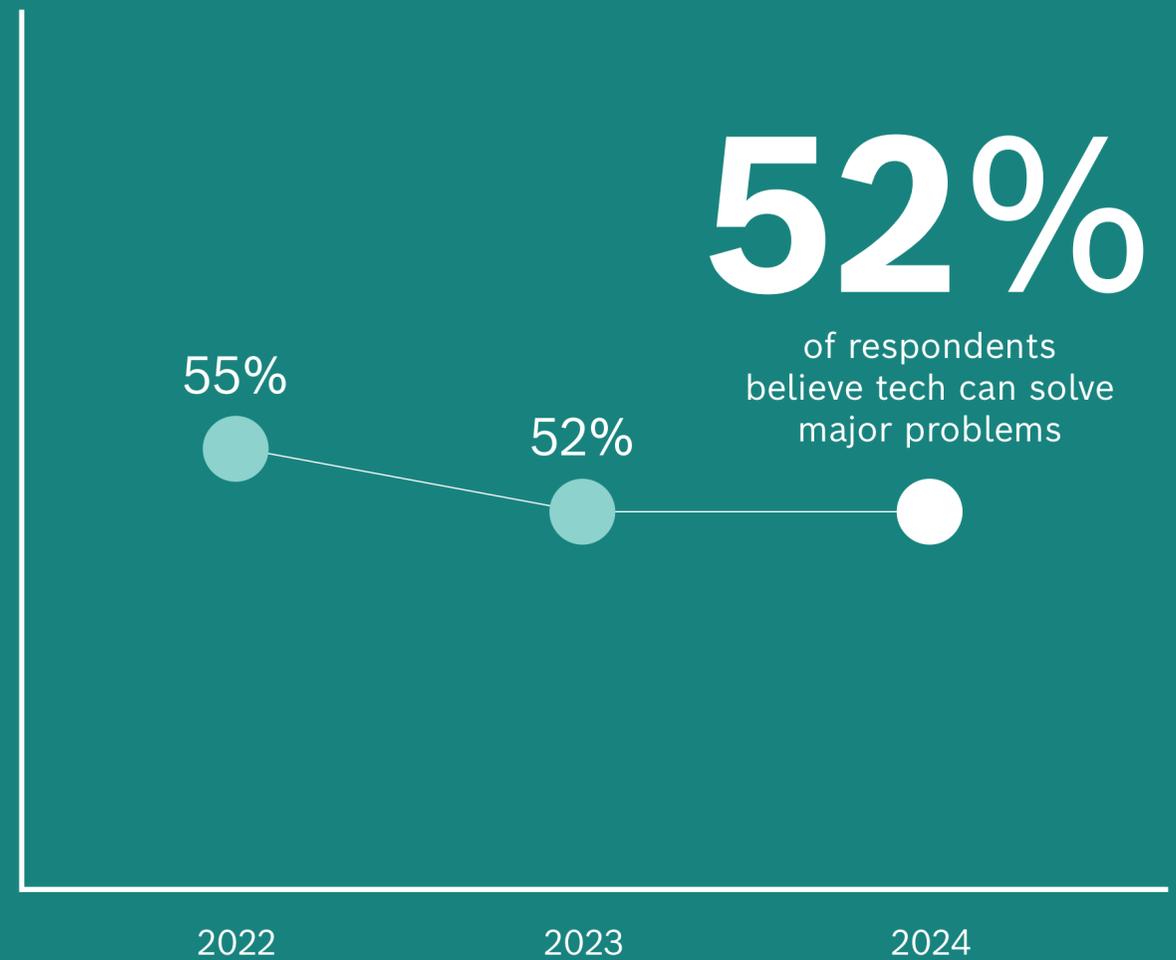
REGIONAL

While the vast majority of people in China (83%) and India (77%) still believe technology is being used sufficiently to tackle the major problems of our time, the US (46%), the UK (44%), and Brazil (43%) are divided, and France (35%) and Germany (34%) are still skeptical.



BRA N=2077, China N=2007, DE N=1010, FR N=1006, India N=2163, UK N=1001, USA N=2000. Answers in %.

70%
60%
50%
40%



GLOBAL INDEX

The world is just as divided on whether technology is being used sufficiently to tackle the major problems of our time as it was the last two years. This year, 52% of global respondents agree, whereas 48% disagree.

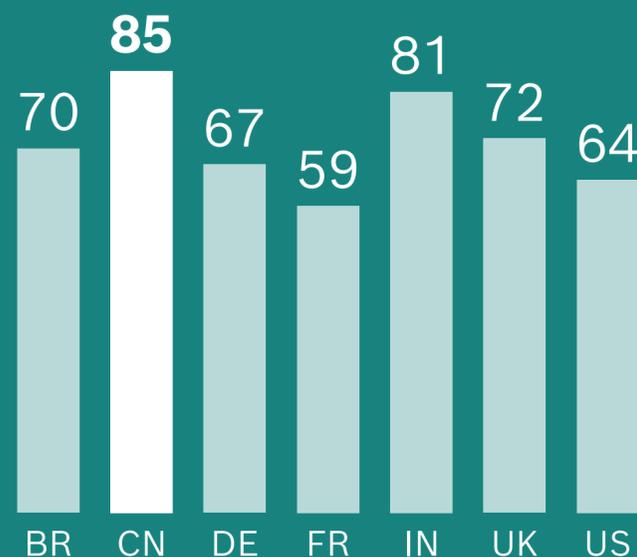
Answers were scaled from 1 to 4. Top-2-Box Results. 2024 N=11264, 2023 N=11179, 2022 N=8076. Answers in %.

COMBATING CLIMATE CHANGE?

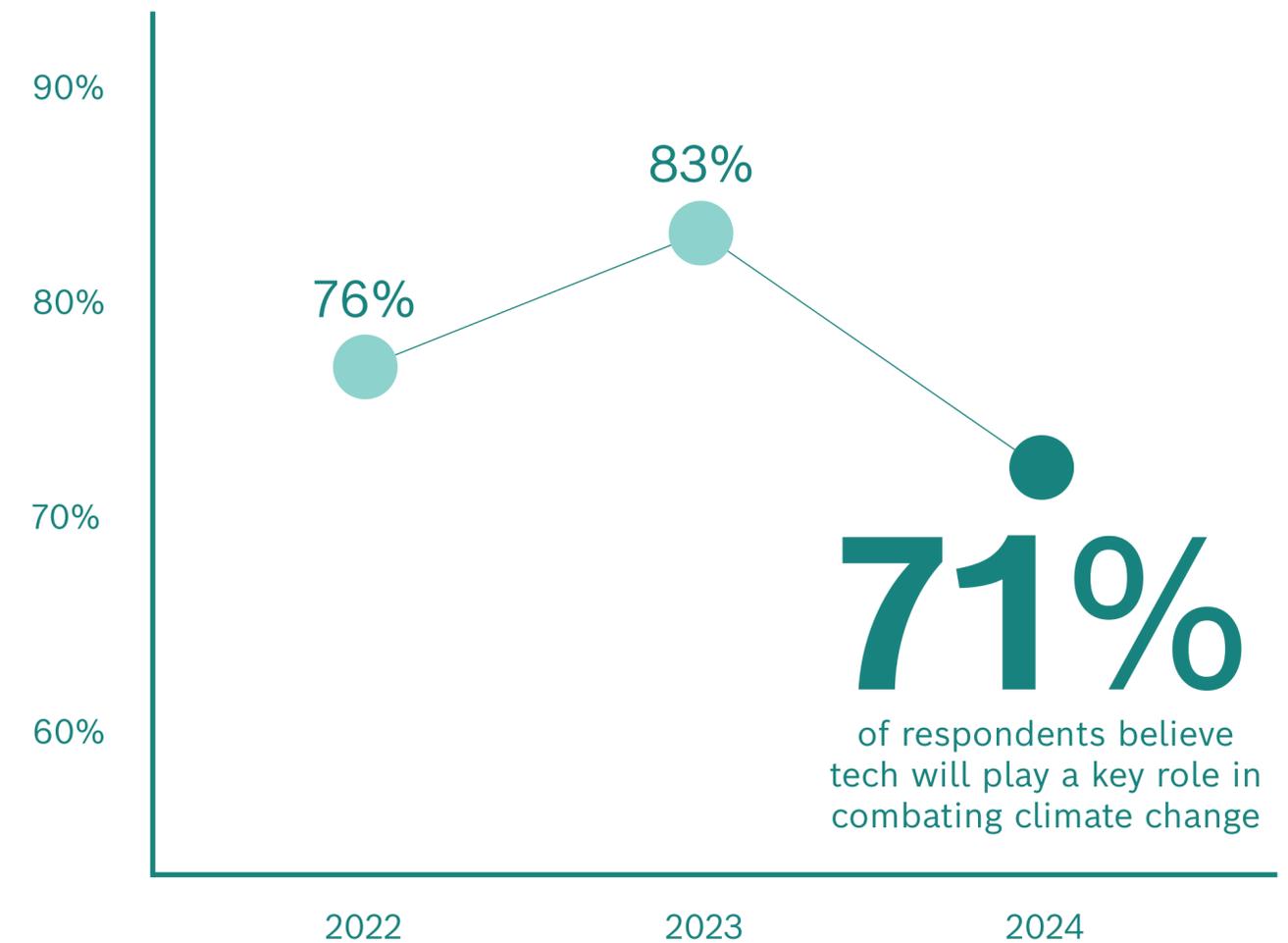
To what extent do you personally agree with the statement 'Future technological progress will play the key role in combating climate change.'?

REGIONAL

In China (85%) and India (81%), most people believe that technology is the key to combating climate change. Most people in the other countries surveyed also share this opinion.



BRA N=2077, China N=2007, DE N=1010, FR N=1006, India N=2163, UK N=1001, USA N=2000. Answers in %.



GLOBAL INDEX

At 71%, confidence in technology to combat climate change remains at a very high level this year. Nevertheless, this is a decline of 12 percentage points compared to 2023 and a drop of 5 percentage points compared to 2022.

Answers were scaled from 1 to 4. Top-2-Box Results. 2024 N=11264, 2023 N=11179, 2022 N=8076. Answers in %.

HOPES AND FEARS

POSITIVE IMPACT ON SOCIETY

Which of these technologies do you think will make a particularly positive contribution to society?

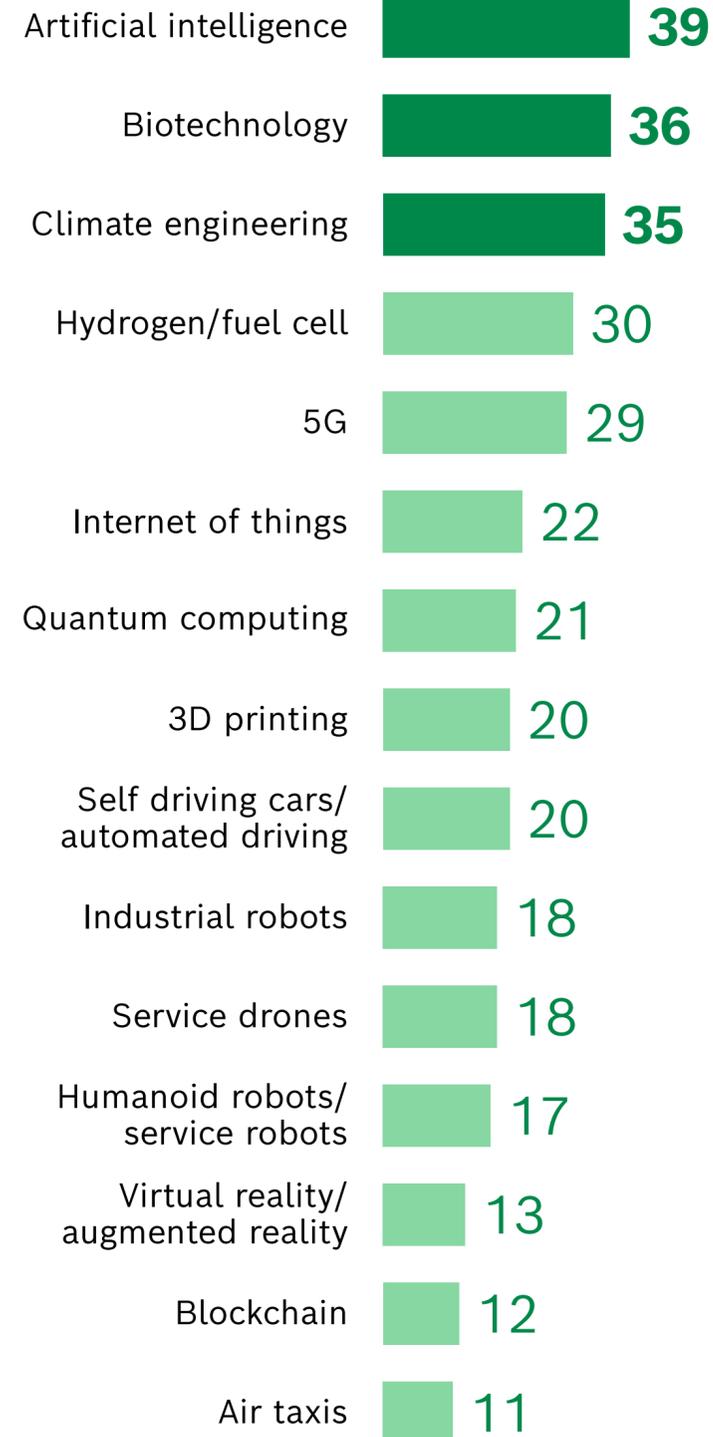
GLOBAL INDEX

Globally, the highest proportion of respondents think that AI (39%) will make a particularly positive contribution to society, which means that the technology replaces last year's leader, biotechnology, with a gain of 6 percentage points compared to 2023. This year, biotechnology (36%) follows in second place and climate engineering (35%) in third place.

REGIONAL

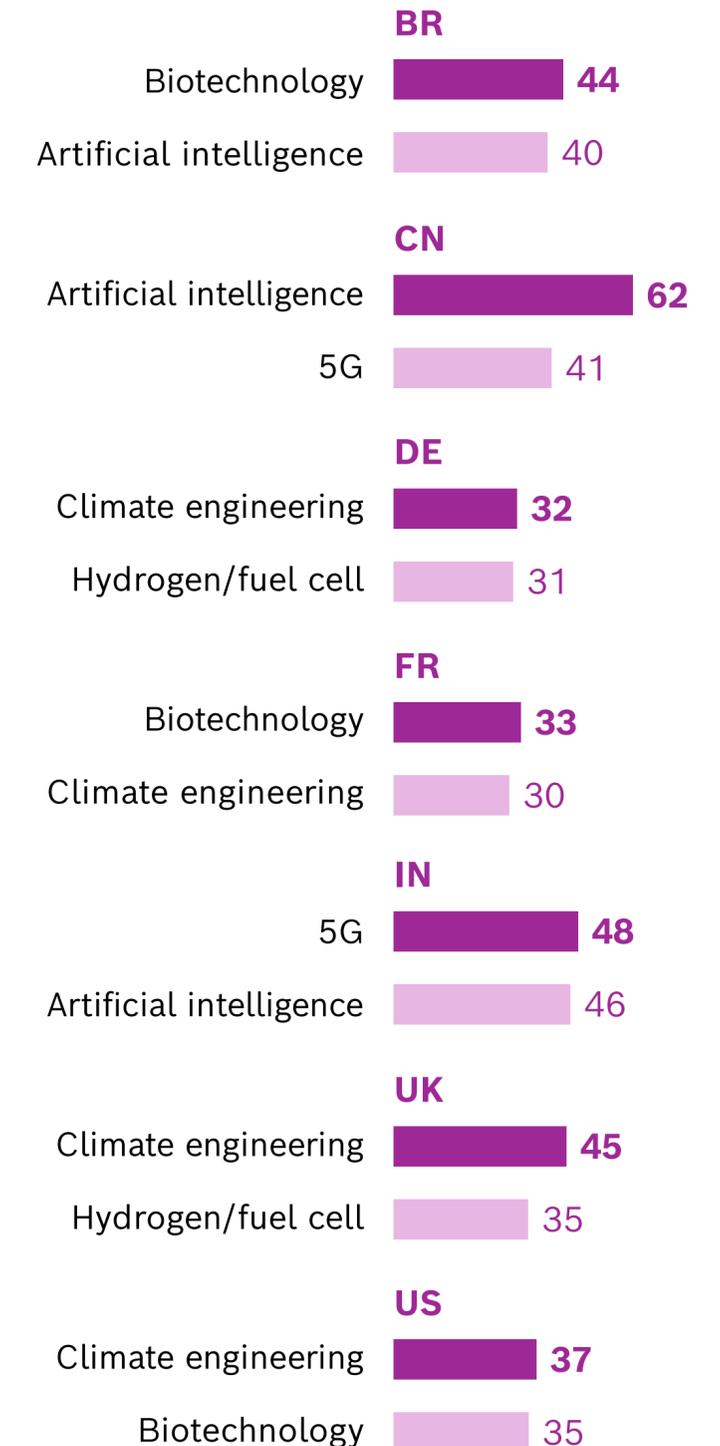
In all countries surveyed, AI is increasingly seen as making a positive contribution to society, especially in China (62%). With the exception of Brazil, hydrogen/fuel cells are seen as making less of a positive contribution to society than in the previous year. The decline is most pronounced in Germany (-14 percentage points) and the United Kingdom (-9 percentage points).

GLOBAL INDEX



The reported values are based on respondents that know the respective technology. N=5395-10958. Answers in %.

REGIONAL TOP 2



NEGATIVE IMPACT ON SOCIETY

Which of these technologies do you think are the biggest threat to society?

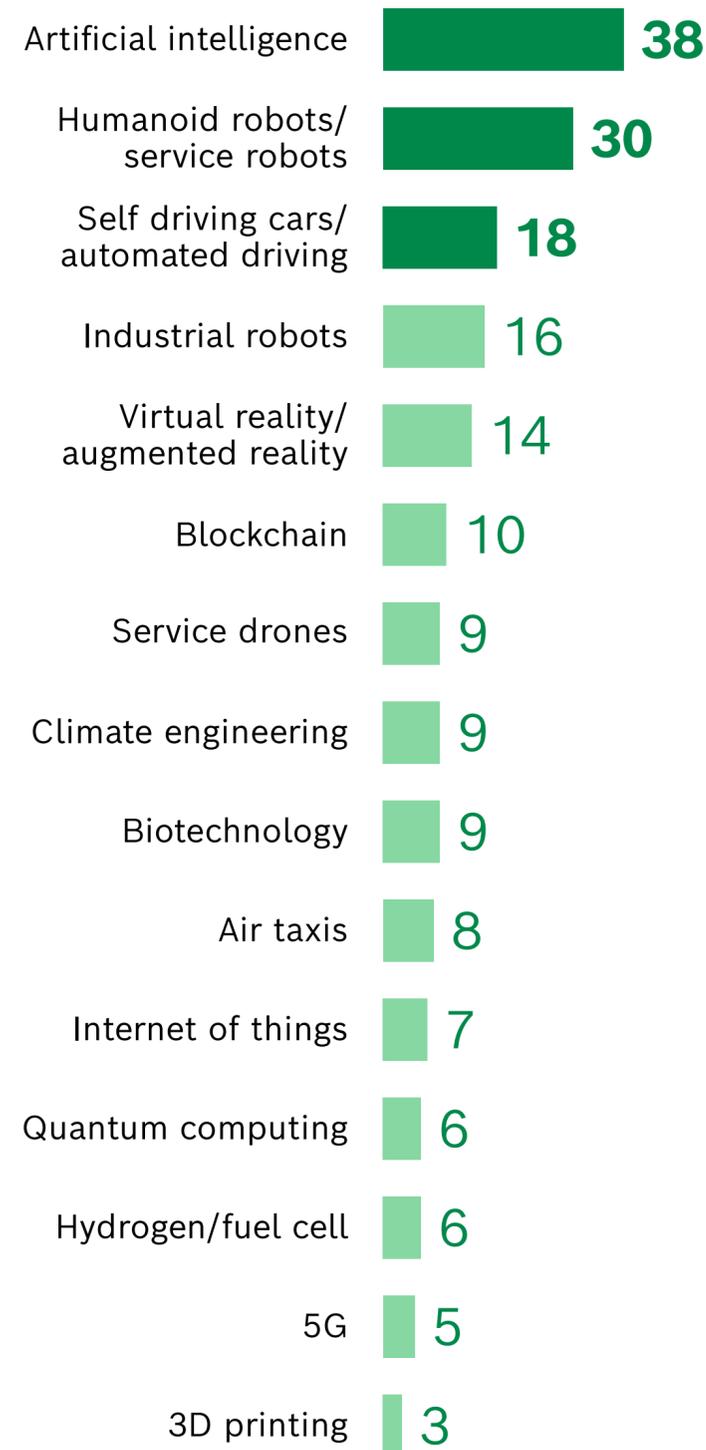
GLOBAL INDEX

AI is not only seen as having the potential to make a particularly positive contribution to society (see previous page), but also a particularly negative one: 38% of global respondents stated this. This is an increase of 11 percentage points compared to the previous year.

REGIONAL

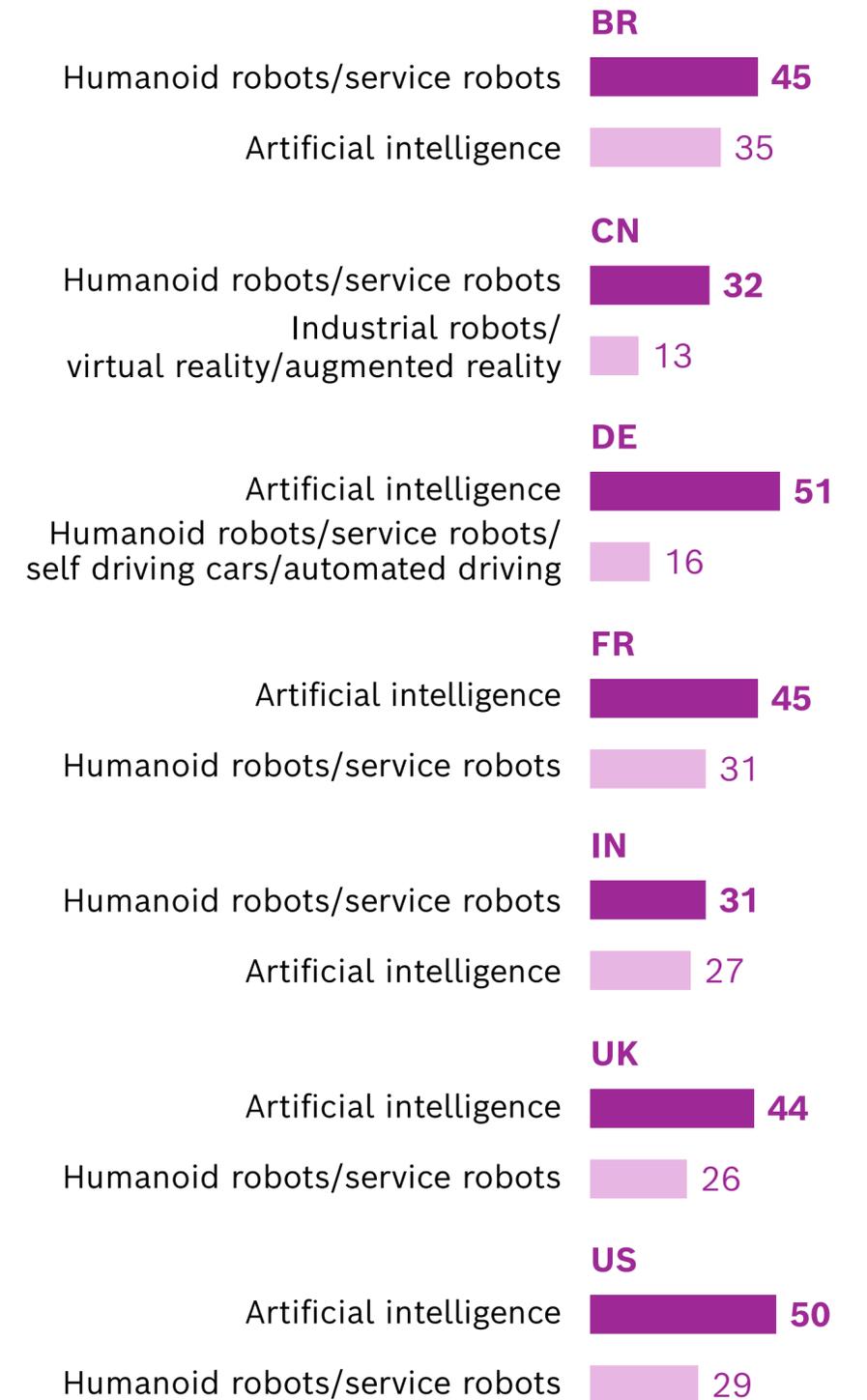
In Western countries, almost half of respondents see AI as a threat to their society, while in Brazil (45%), China (32%) and India (31%), humanoid robots/service robots are viewed with concern.

GLOBAL INDEX



The reported values are based on respondents that know the respective technology. N=5395-10958. Answers in %.

REGIONAL TOP 2



THE FUTURE OF TECH



TECH OF THE FUTURE

Which of these technologies will be the most influential in your country in 10 years?

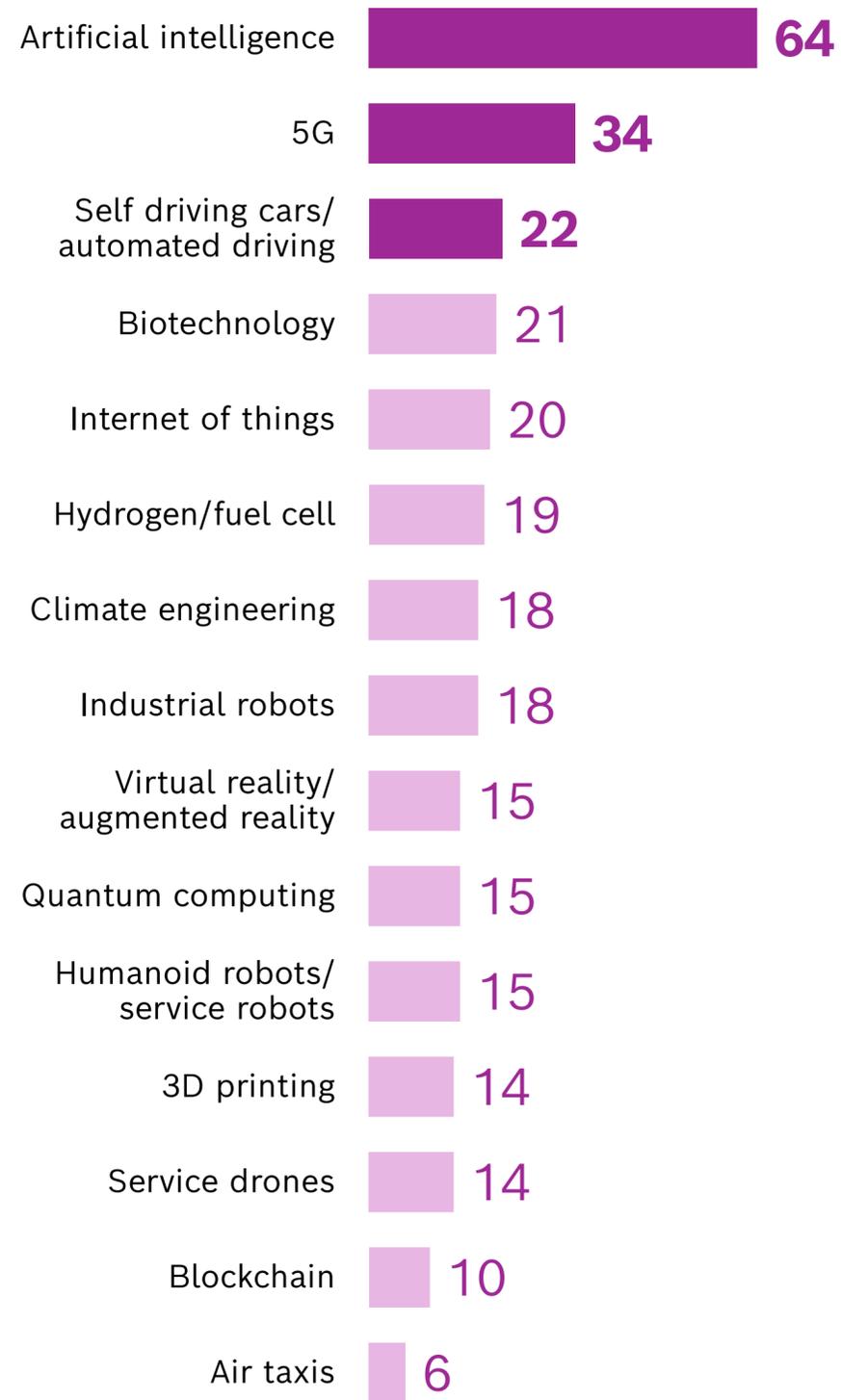
GLOBAL INDEX

All countries are in agreement that these technology areas will be the most important in the future: AI (64%) is the global leader by a wide margin. 5G (34%) and self-driving cars/automated driving (22%) follow in second and third place, respectively, by a wide margin.

REGIONAL

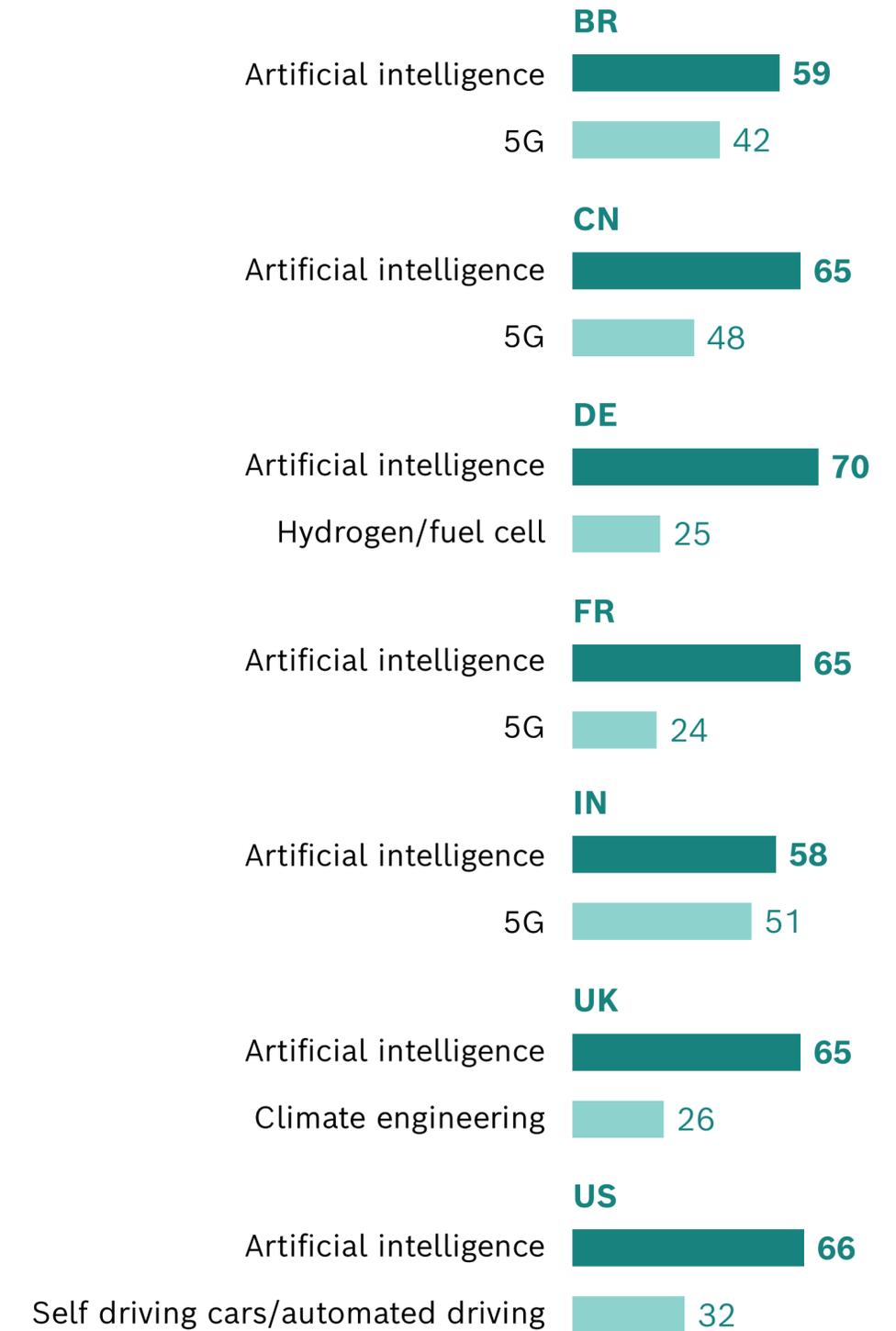
In addition to the consensus regarding the great relevance of AI in all countries, 5G stands out in India (51%), China (48%) and Brazil (42%), while in the US (32%) self-driving cars/automated driving is attributed a comparatively high relevance in the future.

GLOBAL INDEX



The reported values are based on respondents that know the respective technology. N=5395-10958. Answers in %.

REGIONAL TOP 2

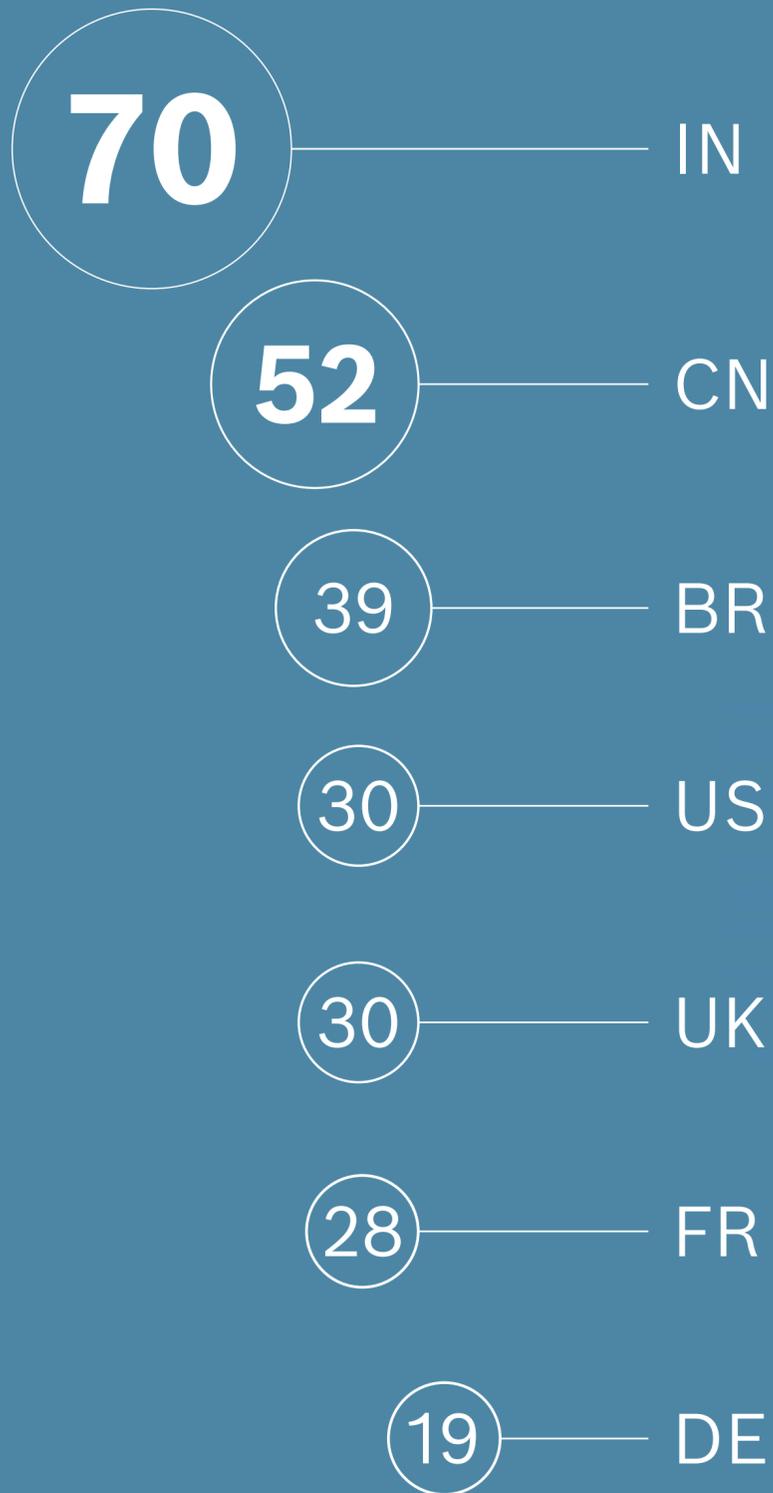


WHAT IF...?



I TRUST THE ANSWERS OF AI CHAT BOTS MORE THAN THOSE OF MY ACQUAINTANCES

Answers in %



Answers were scaled from 1 to 4. Top-2-Box Results. BRA N=2077, China N=2007, DE N=1010, FR N=1006, India N=2163, UK N=1001, USA N=2000. Answers in %.

AI AS A STAND-UP COMEDIAN?

If there would be AI-powered robots becoming stand-up comedians, I would attend such a comedy show.

Answers in %

AI-generated image

Answers were scaled from 1 to 4. Top-2-Box Results. BRA N=2077, China N=2007, DE N=1010, FR N=1006, India N=2163, UK N=1001, USA N=2000. Answers in %.



62

IN

62

CN

37

BR

29

US

27

UK

25

FR

20

DE

AI PREDICTING YOUR CAREER PATH?

I would follow the recommendation of an AI for my ideal personal career path that promises me the most happiness and success.

Answers in %

AI-generated image

Answers were scaled from 1 to 4. Top-2-Box Results.
BRA N=2077, China N=2007, DE N=1010, FR N=1006,
India N=2163, UK N=1001, USA N=2000. Answers in %.

IN 73

CN 73

BR 51

UK 40

US 39

FR 34

DE 24

IN 59

CN 58

BR 35

FR 27

US 24

UK 23

DE 16

AI WRITING LOVE LETTERS?

I would use AI to write personalised love letters to express my emotions.

Answers in %



AI-generated image

Answers were scaled from 1 to 4. Top-2-Box Results. BRA N=2077, China N=2007, DE N=1010, FR N=1006, India N=2163, UK N=1001, USA N=2000. Answers in %.

Computer-assisted web interviews (CAWI) via online access panels



General public
(Representative sample in terms of age, gender, and region)



BR, CN, DE, FR, IN,
UK, US



December 13–
December 20, 2023



15 minutes



STUDY DESIGN

METHODS

For this study people aged 18 and over were surveyed online in seven countries (Brazil, China, France, Germany, India, UK and USA) in December 2023 by Gesellschaft für Innovative Marktforschung mbH (GIM) on behalf of Robert Bosch GmbH. In France, Germany and the United Kingdom, a minimum of 1,000 people each were surveyed, in Brazil, China, India, and the United States, a minimum of 2,000 people each were surveyed.

The samples are representative for the respective country in terms of region, gender, and age (BR, DE, FR, UK, USA: 18–69 years/CN, IN: 18–59 years). For global results (“Global Index”), an average was taken across the seven countries, regardless of population size. Unless otherwise stated: values based on Top 2 Box. For ease of reading and interpretation, the global index for 2023/2024, in each case based on 7 countries, is occasionally compared with the index of 2022 based on 5 countries. Calculating a global index for 2023/2024 based on the 5 previous countries provided equivalent results.

COUNTRY	SAMPLE SIZE	SPECIFICS
BR	2,077	Age distribution: 18–69 years, regional distribution among 5 main regions
CN	2,007	Age distribution: 18–59 years, data collection in Tier 1 + New Tier 1
DE	1,010	Age distribution: 18–69 years, regional distribution among 4 main regions
FR	1,006	Age distribution: 18–69 years
IN	2,163	Age distribution: 18–59 years
UK	1,001	Age distribution: 18–69 years
US	2,000	Age distribution: 18–69 years, regional distribution among 7 main regions

AND WHAT DO YOU THINK ABOUT TECH?

PUBLISHING DETAILS

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