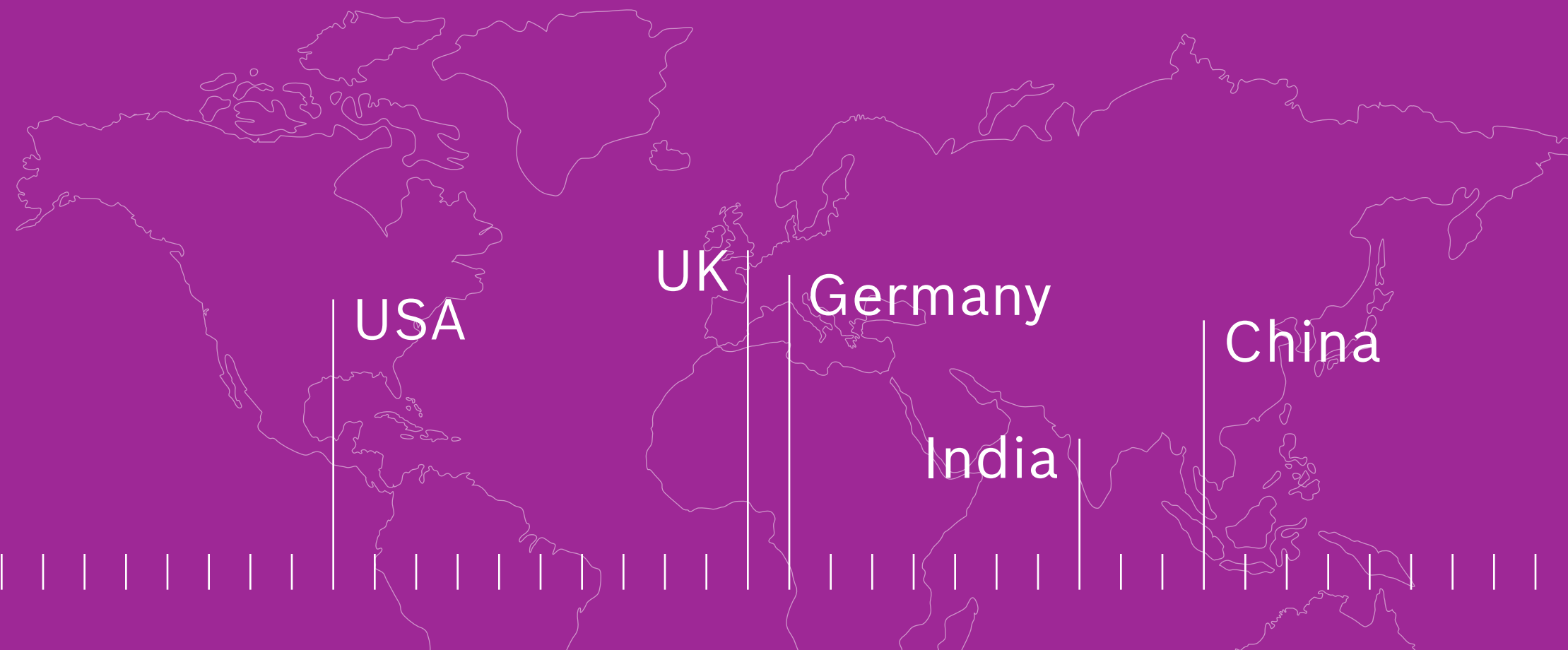


What do people
around the world
think and feel about
technology?

WE ASKED THE WORLD



TECH
COMPASS
2022

WHAT'S INSIDE?

FOREWORD

PAGE 03

SUMMARY

PAGE 05

ATTITUDES

PAGE 06

HOPES/FEARS

PAGE 09

FUTURE

PAGE 14

SUSTAINABILITY

PAGE 16

TRUST

PAGE 20

COMPETITION

PAGE 23

WHAT IF...?

PAGE 25

STUDY DESIGN

PAGE 30

THE IDEA

Technology is the engine of human advancement. Modern life would be inconceivable without it: for generations, technology has been the driving force behind steadily increasing longevity, prosperity, and quality of life for societies around the world. While inventions such as the printing press, the light bulb, and the car took decades to become part of everyday life, more recent technological achievements such as the internet, computers, and smartphones have taken significantly less time to become ubiquitous in many parts of the world. With progress in key technologies accelerating, it's very likely that our current decade, the twenties, will produce technological breakthroughs that have a similarly far-reaching impact.

But will this impact be primarily positive or negative? How is technology currently affecting the lives of people around the world?

What hopes and fears do they have in relation to technological advancement? And how do perceptions vary between countries? At a time of such technological change, we felt that answers to these questions were urgently needed. The result is the 2022 Bosch Tech Compass, a representative survey of the general population in China, Germany, India, the United Kingdom, and the United States that solicited opinions on a wide variety of technology-related topics. It is having its global debut at CES 2022, the world's largest technology trade show.

The Bosch Tech Compass respondents agree on many things: the vast majority, for example, believe that while technological progress makes the world a better place, it should be more focused on tackling the major challenges of our time rather than serving individual needs.

Despite all the opportunities technology offers, there are reservations about it as well – the Bosch Tech Compass shows that, too. One example: people around the world have concerns about humanoid robots, cyber attacks and insufficient data security. These must be taken seriously by those who create technology, as well as those who provide the legislative framework for its use.

Despite the variety of perspectives revealed by our study, one thing is clear: technology is driving rapid and profound changes in many spheres of life. With this in mind, our aim with the Bosch Tech Compass is to encourage people to take a closer look at the impact of technological progress on our globalized world. In setting the course for our joint technological future, we hope it will contribute to selecting our path forward in the same way a compass does on any important journey: by providing orientation.

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





72%

OF PEOPLE
WORLDWIDE:
TECHNOLOGY
MAKES
THE WORLD
**A BETTER
PLACE**

76% AROUND
THE GLOBE

believe technological progress will play
the key role in combating climate change

83%

of global respondents
think that technological
progress should be
more focused on the

PROBLEMS
OF **SOCIETY**

Two out of
three people
worldwide see
**CYBER ATTACKS
AS BIGGEST
DIGITAL RISK**

WORLDWIDE,
PEOPLE SEE
AI AND 5G
AS THE MOST
INFLUENTIAL
TECHNOLOGIES
IN 10 YEARS



GLOBALLY
37%

of respondents
would leave earth
to live permanently
on another planet



ATTITUDES TOWARDS TECH

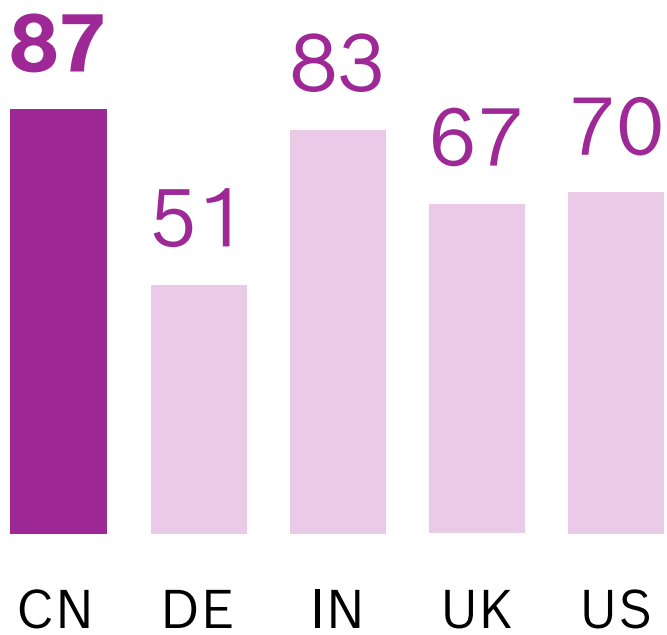


THE POSITIVES OF TECH

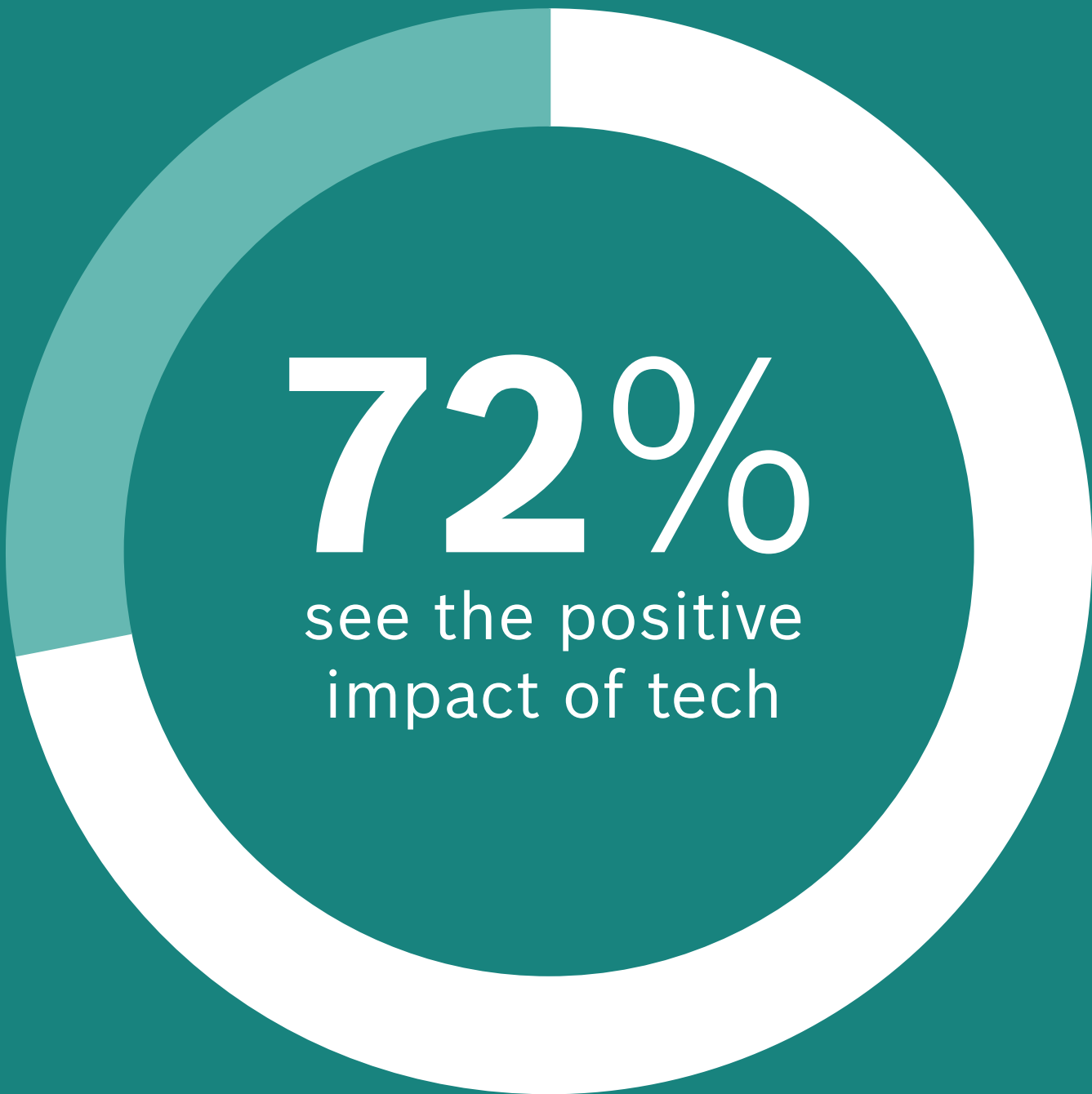
② To what extent do you personally agree with the statement ‘Technological progress makes the world a better place.’?

REGIONAL

The positive attitude towards technological progress is most pronounced among Chinese (87%) and least pronounced among Germans (51%).



CN N = 2010, DE N = 1024, IN N = 2019, UK N = 1012, US N = 2011. Answers in %.



GLOBAL INDEX

The vast majority worldwide (72%) believe that technology makes the world a better place.

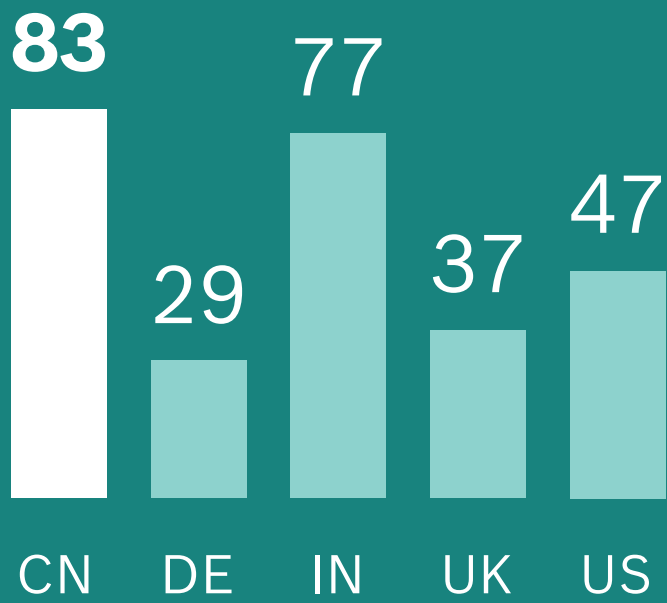
N = 8076. Answers in %.

THE PROBLEM SOLVER

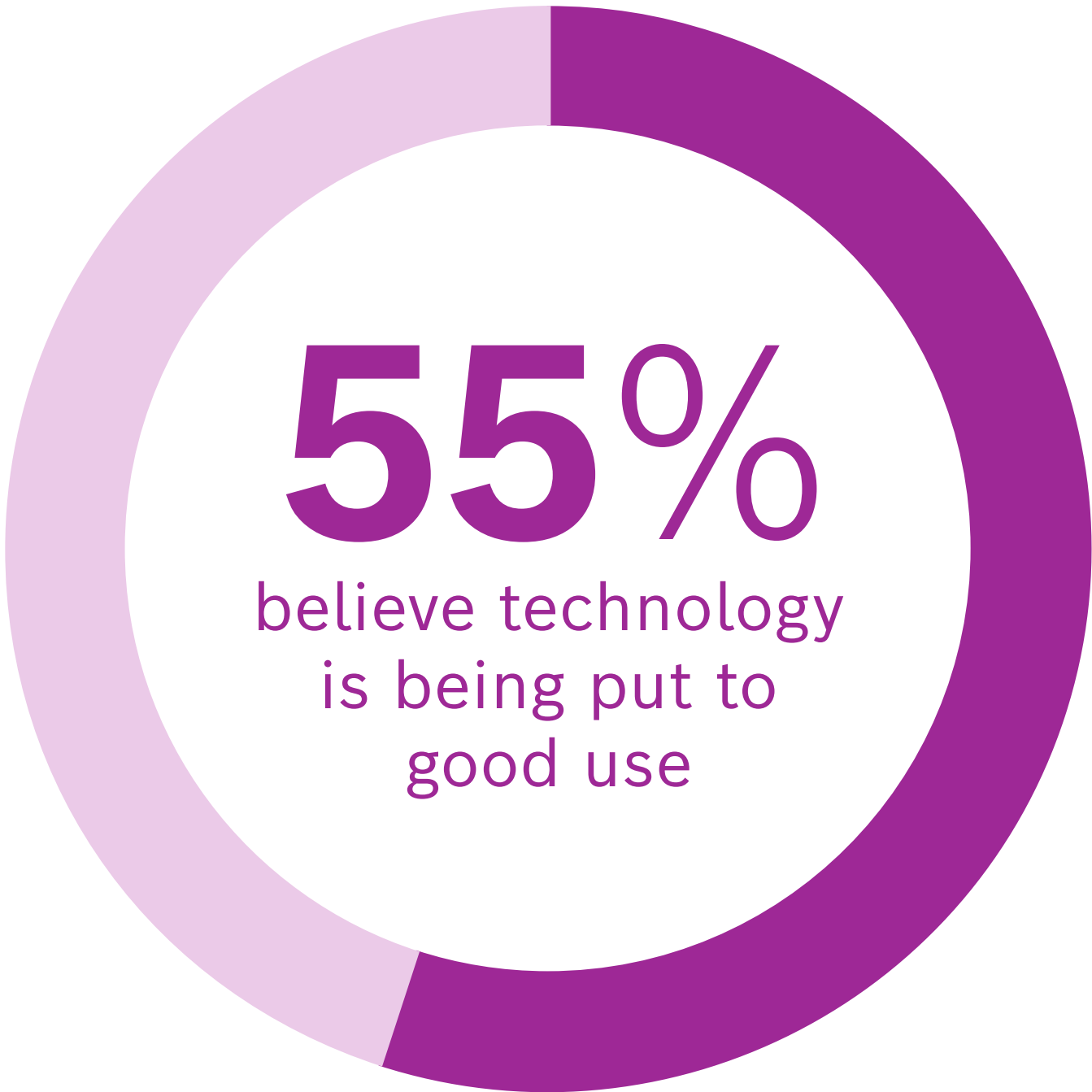
② To what extent do you personally agree with the statement ‘Global technological progress is being used sufficiently to tackle the major problems of our time.’?

REGIONAL

While the vast majority in China (83%) and India (77%) believe technology is being used sufficiently to tackle the major problems of our time, the US is divided (47%) while the UK (37%) and Germany (29%) are skeptical.



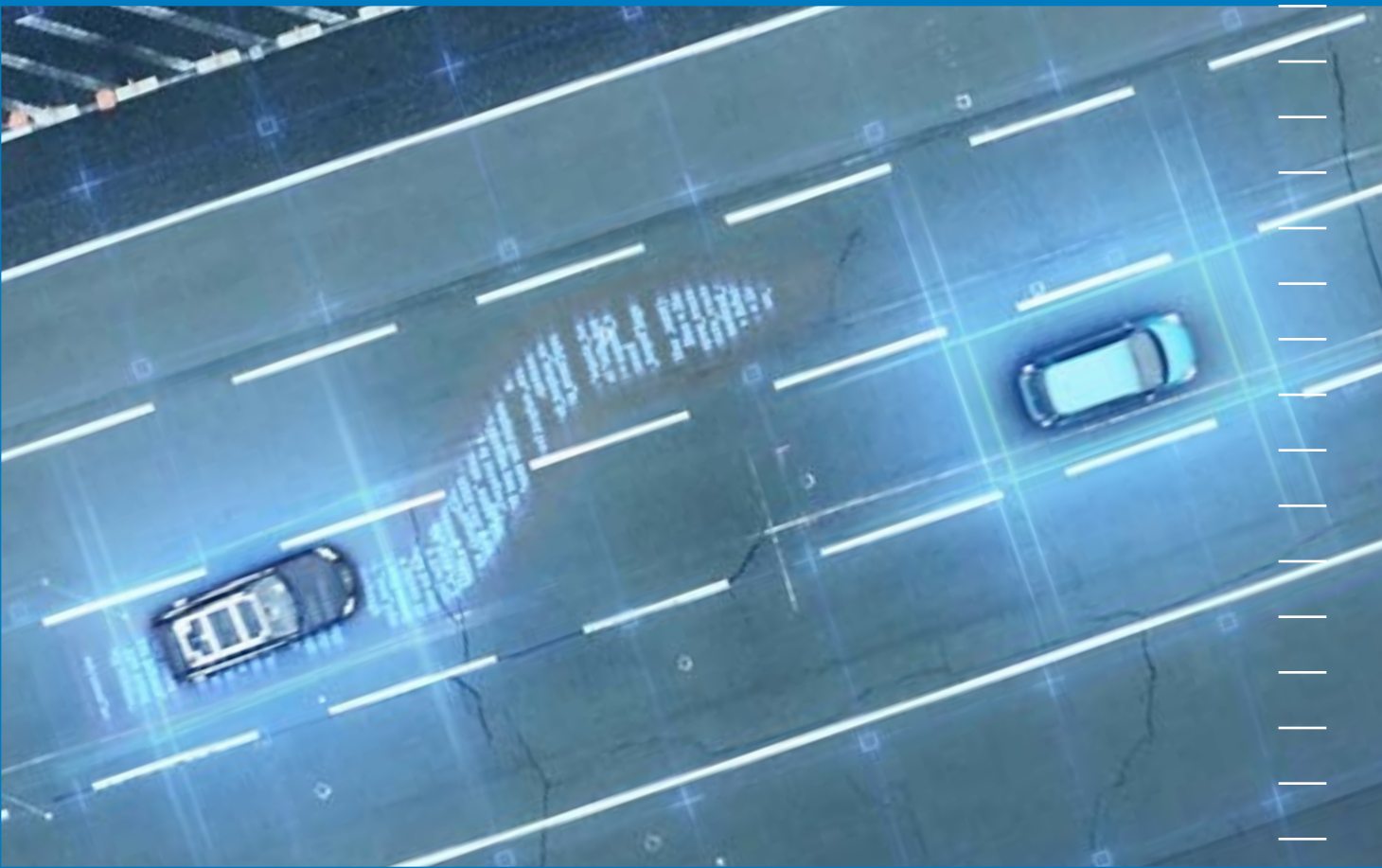
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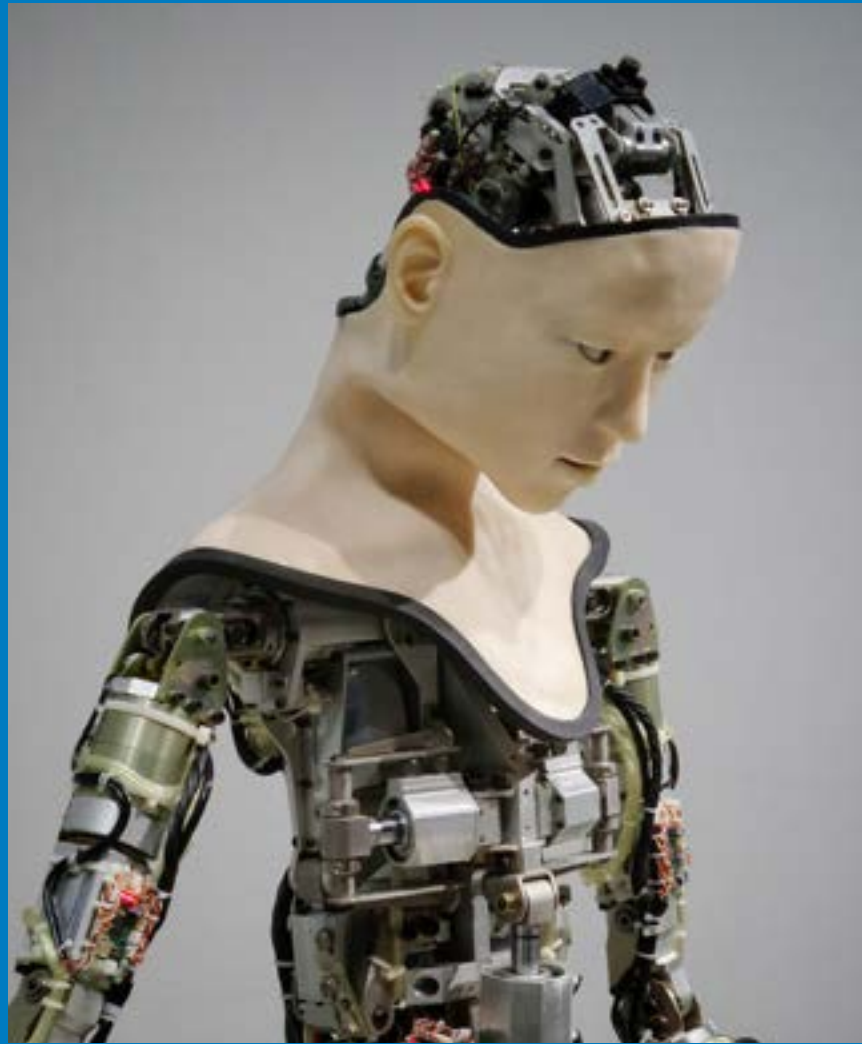
GLOBAL INDEX

The world is divided on whether technological progress is being used sufficiently to tackle the major problems of our time – 55% agree, 45% disagree.

N = 8076. Answers in %.



HOPES AND FEARS



THE BENEFITS OF TECH

② What benefits do you hope technology and technological progress will bring?

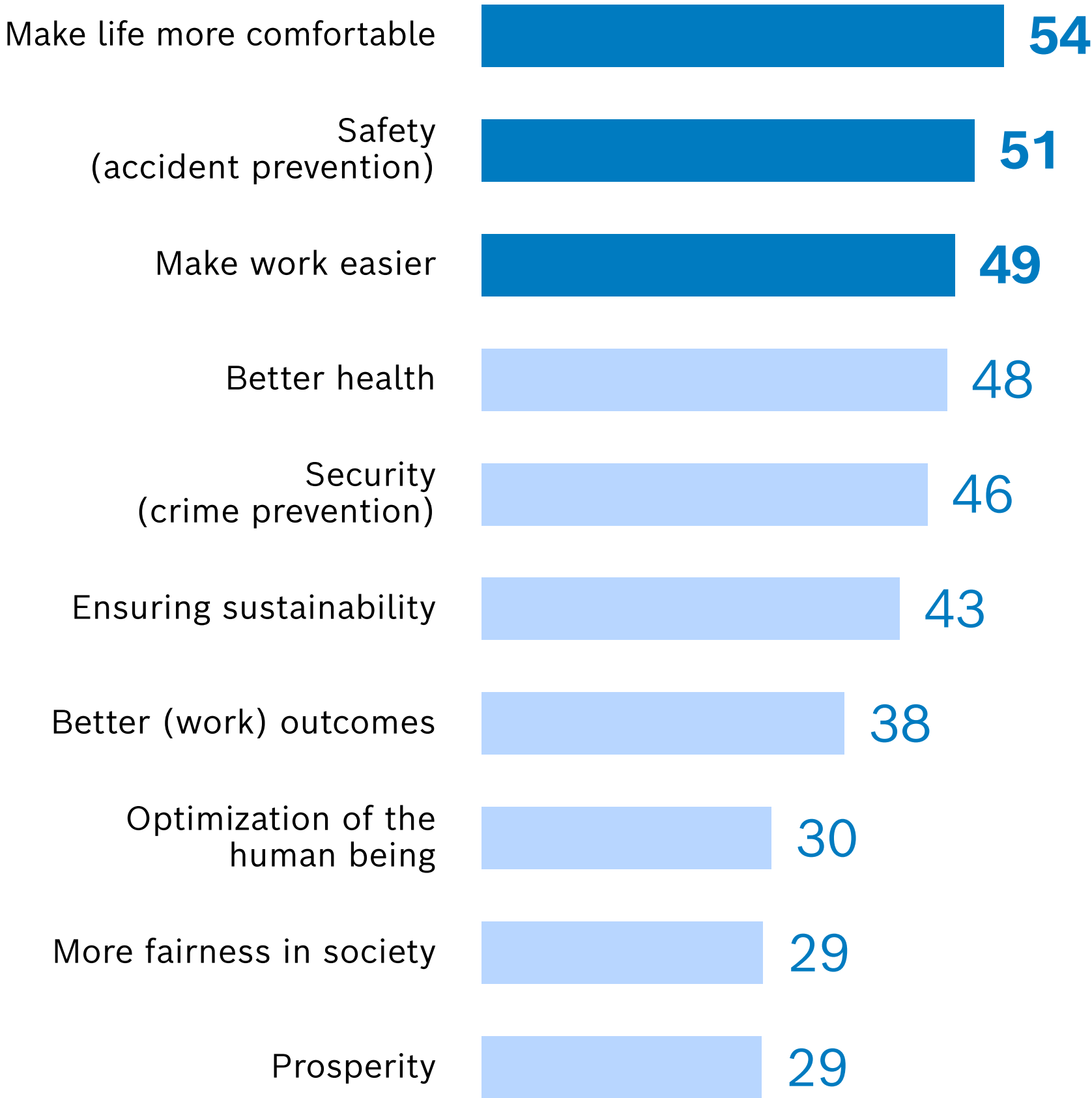
GLOBAL INDEX

A consistent picture emerges worldwide: a more comfortable life (54%), safety (51%) and easier work (49%) are the most pronounced hopes resulting from technology.

REGIONAL

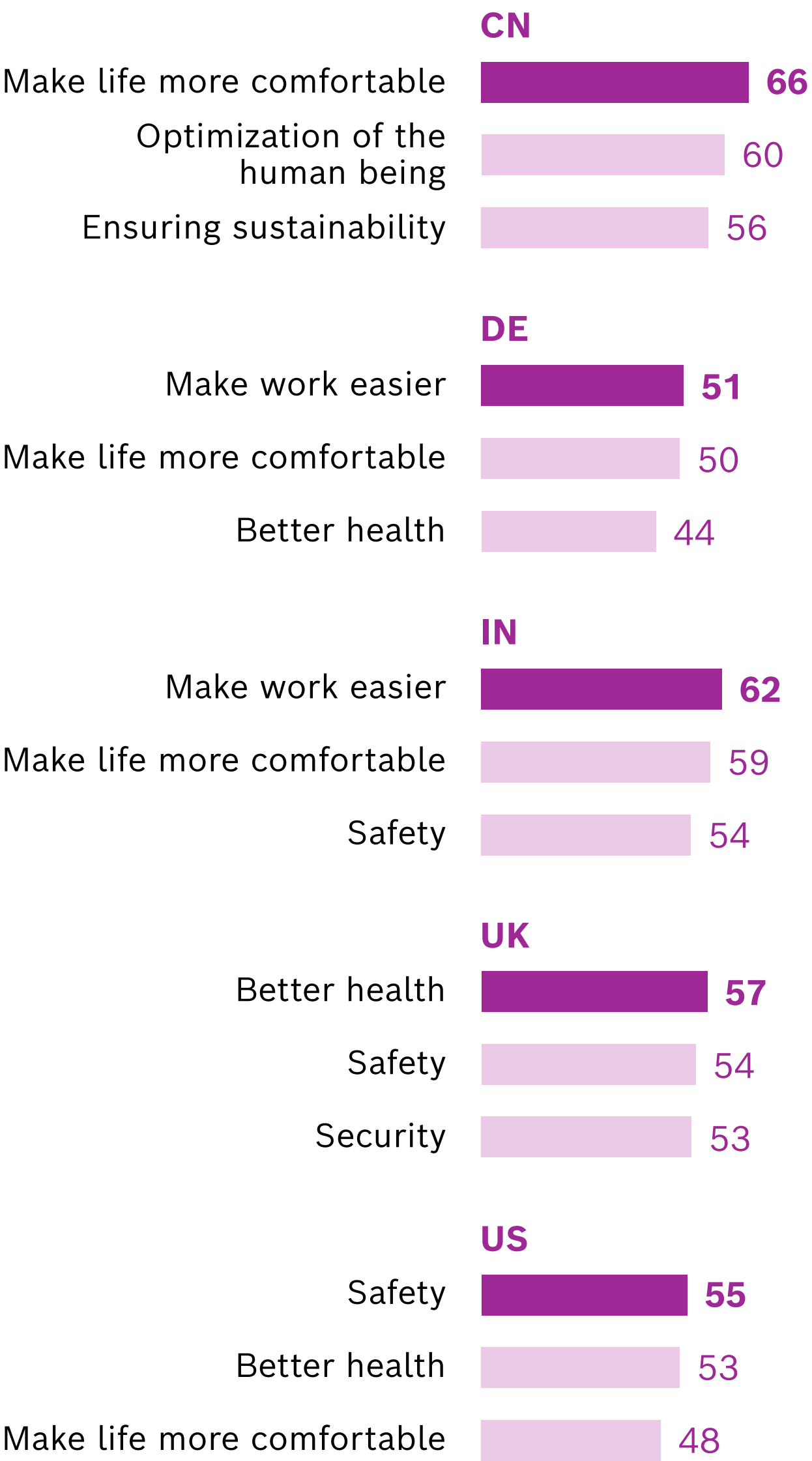
While a majority of Chinese (60%) hope technology will help optimize human beings, this hope is considerably less pronounced in India (37%), the US (22%), the UK (19%) and Germany (13%).

GLOBAL INDEX



N = 8076. Answers in %.

REGIONAL TOP 3



CN N = 2010, DE N = 1024, IN N = 2019, UK N = 1012, US N = 2011. Answers in %.

CONCERNS ABOUT TECH

❓ And what concerns do you feel when you think of technological progress?

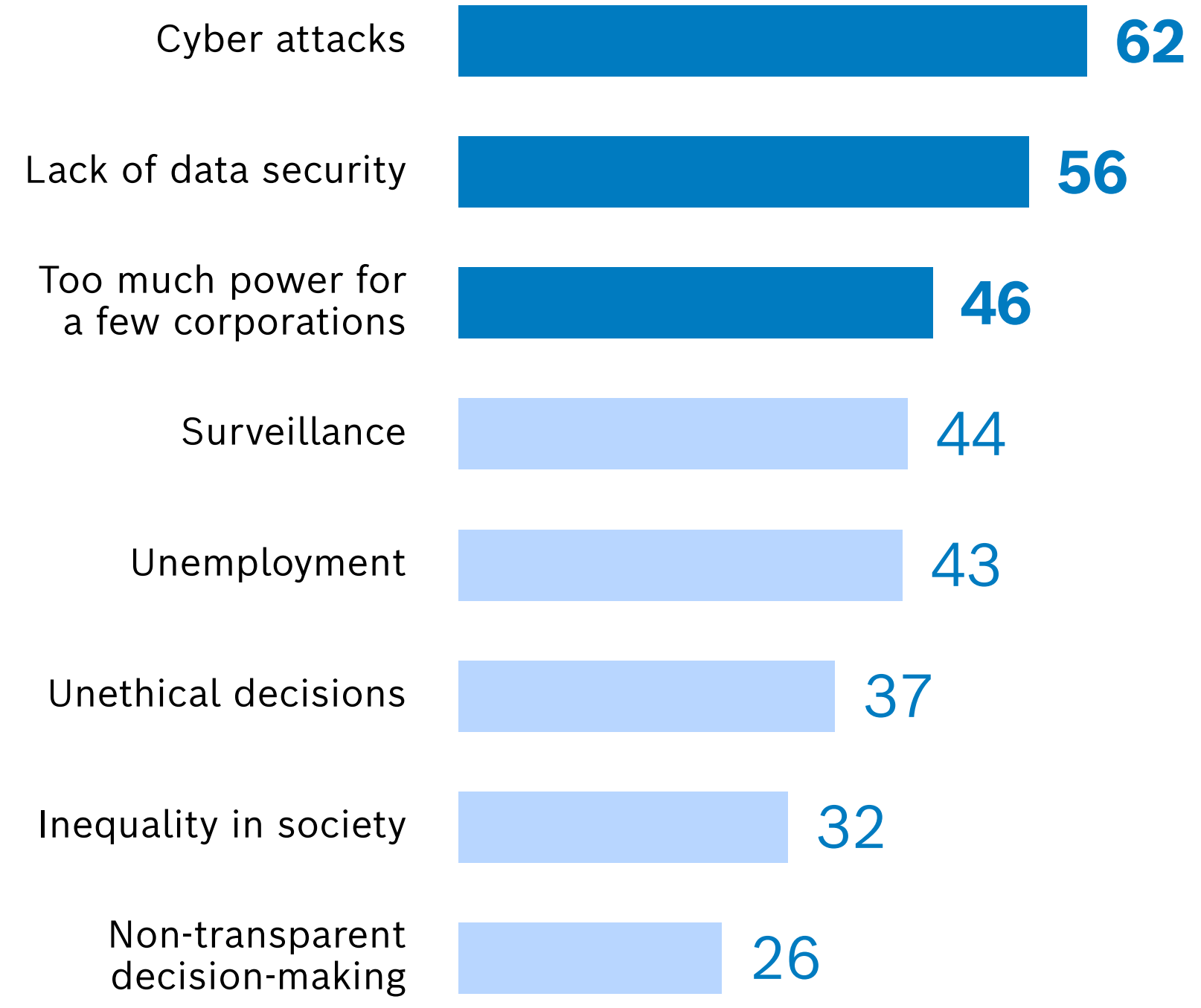
GLOBAL INDEX

The most pronounced fears that people around the world associate with technological progress are cyber attacks (62%), lack of data security (56%) and too much power for a few corporations (46%).

REGIONAL

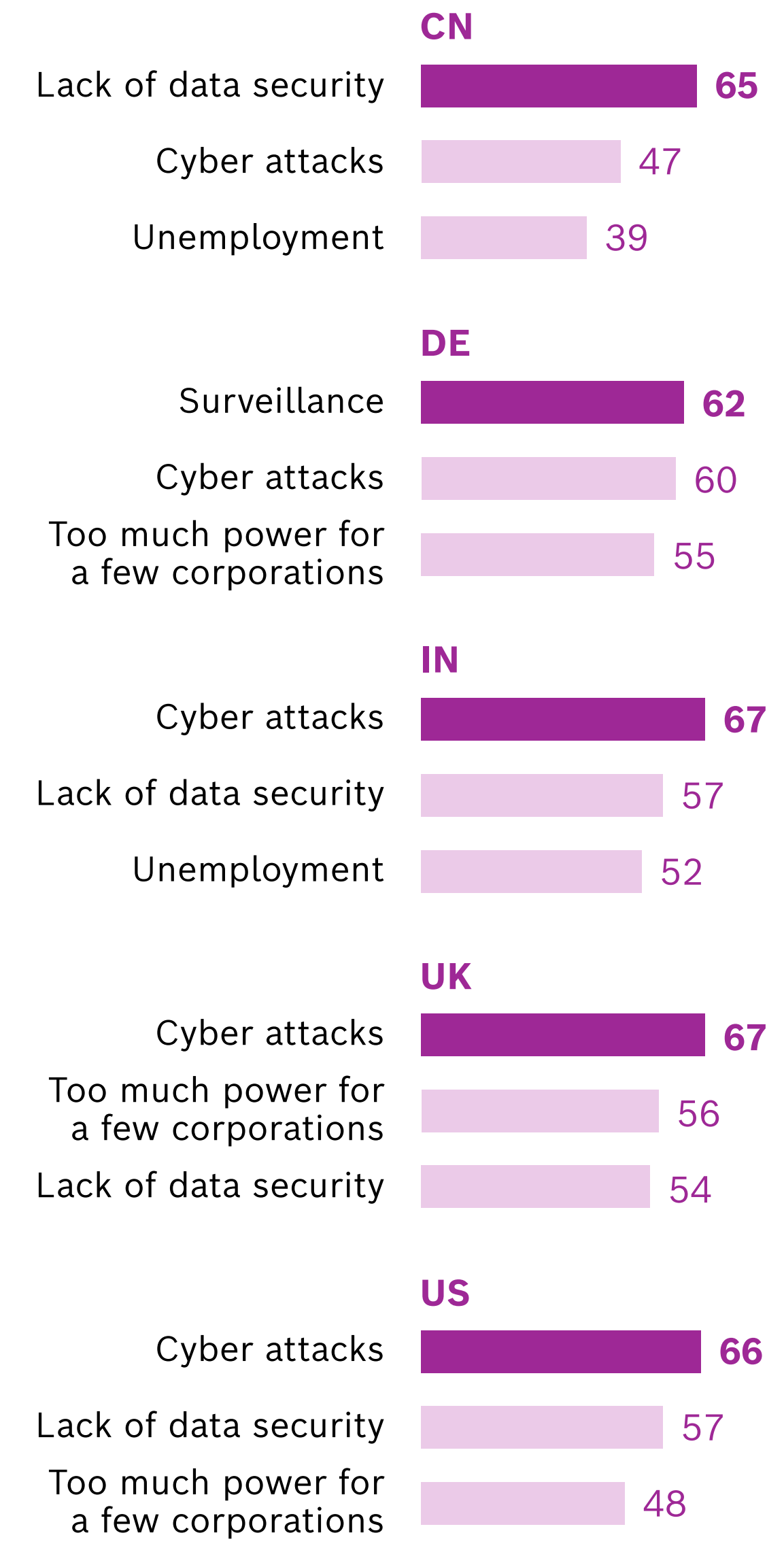
There tends to be more concern in the UK (56%), Germany (55%) and the US (48%) about too much power for a few corporations than in China (34%) and India (39%). The Germans' pronounced fears of surveillance (62%) are also noticeable.

GLOBAL INDEX



N = 8076. Answers in %.

REGIONAL TOP 3



CN N = 2010, DE N = 1024, IN N = 2019, UK N = 1012, US N = 2011. Answers in %.

POSITIVE IMPACT ON SOCIETY

② Which of these technologies do you think will make a particularly positive contribution to society?

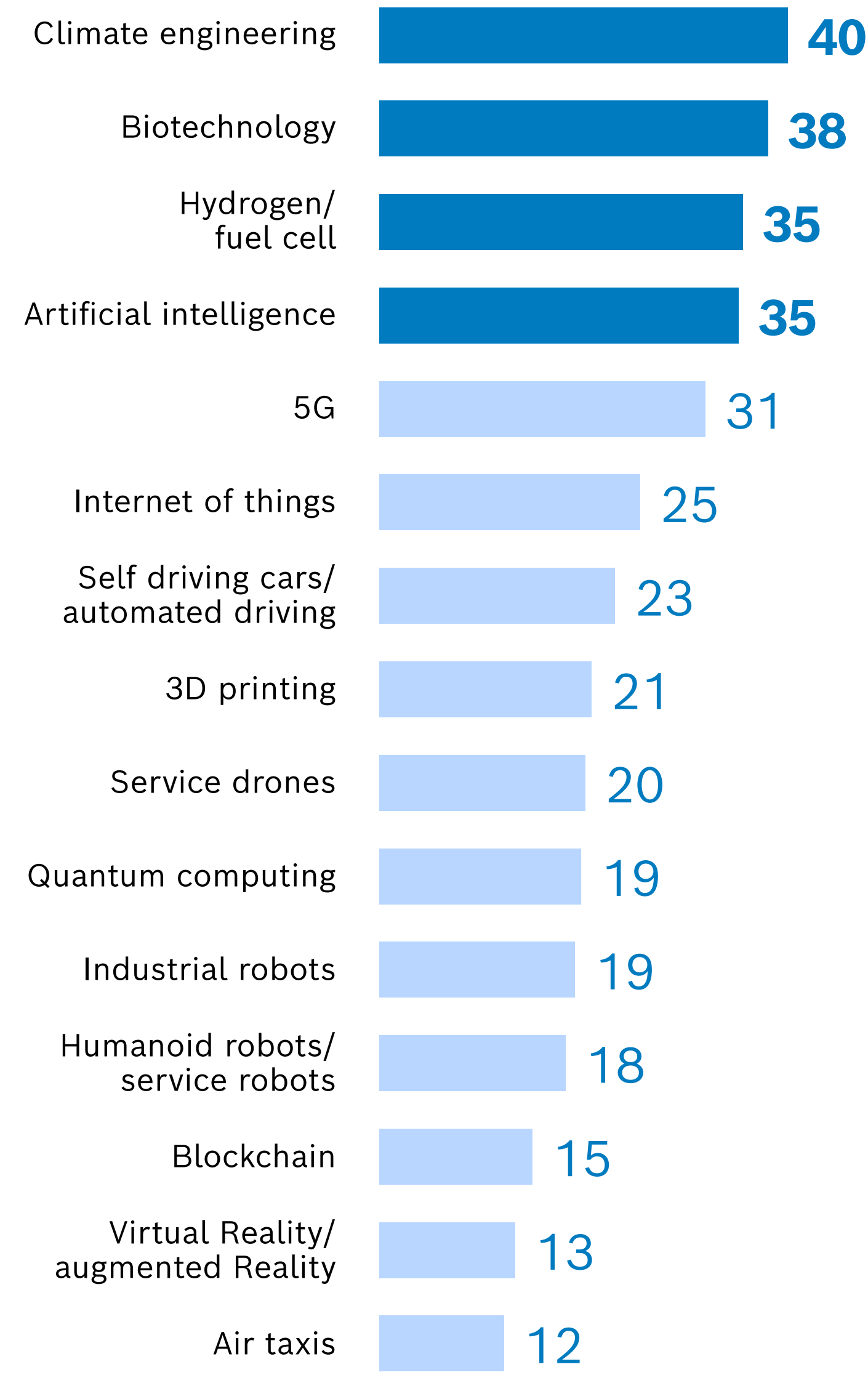
GLOBAL INDEX

Globally, the highest proportion of respondents think that climate engineering (40%) will make a positive contribution to society, in addition to biotechnology (38%) and hydrogen as well as AI (both 35%).

REGIONAL

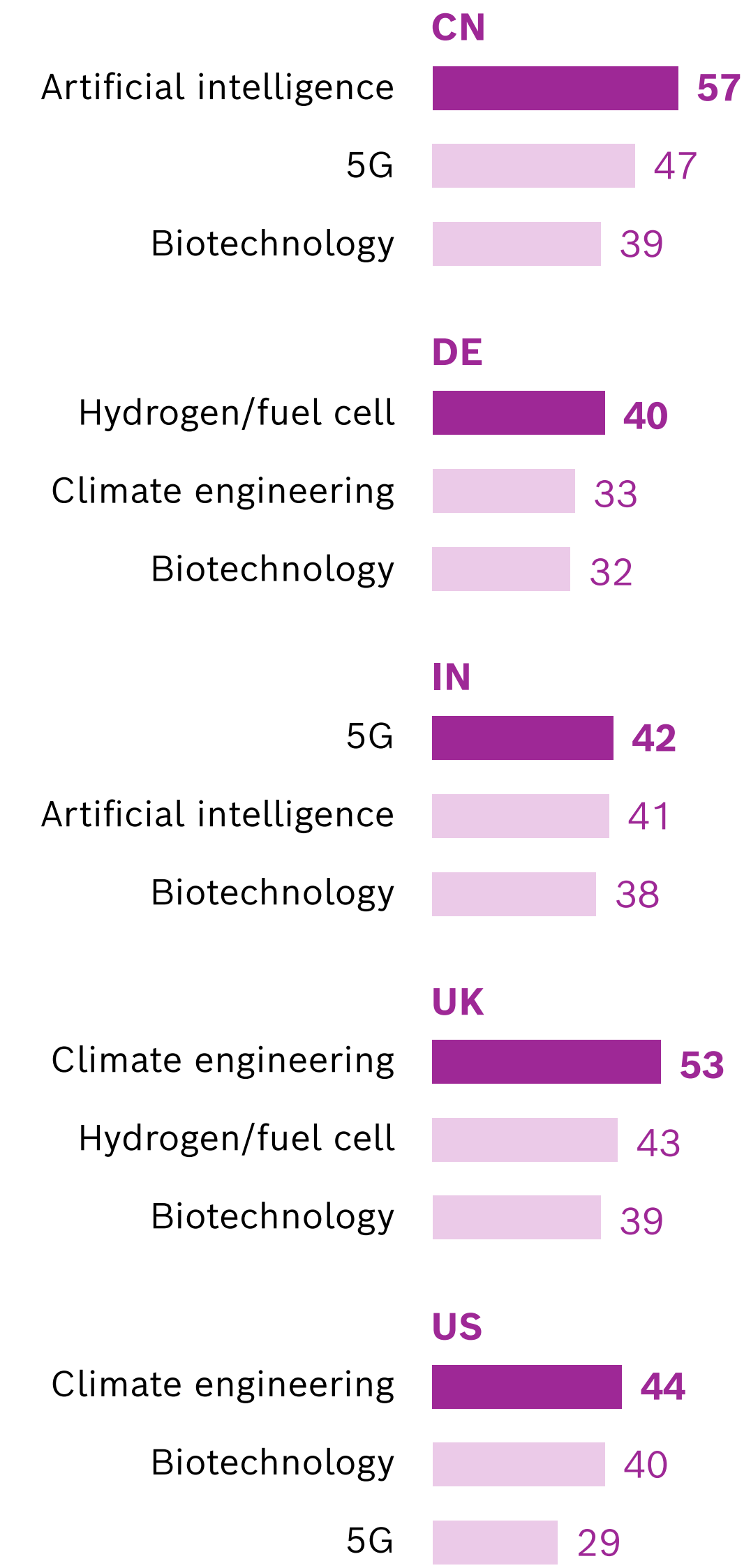
The western countries overwhelmingly see climate engineering, biotechnology and hydrogen as the most promising technologies, while in China and India the top two spots are dominated by AI and 5G.

GLOBAL INDEX



The reported values are based on respondents that know the respective technology. N = 8076. Answers in %.

REGIONAL TOP 3



The reported values are based on respondents that know the respective technology. CN N = 2010, DE N = 1024, IN N = 2019, UK N = 1012, US N = 2011. Answers in %.

NEGATIVE IMPACT ON SOCIETY

❓ And which of these technologies do you think are the biggest threat to society?

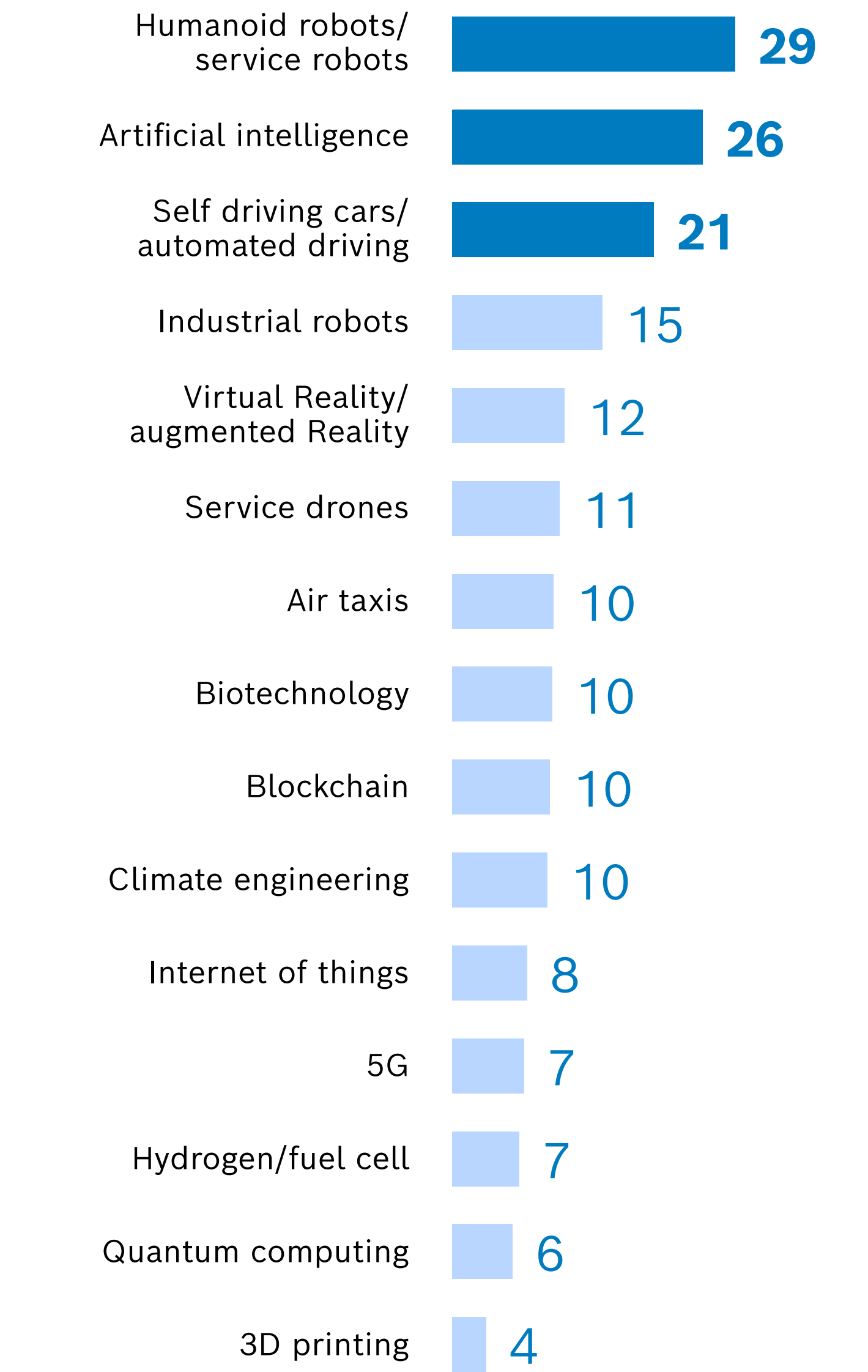
GLOBAL INDEX

On a global level, the respondents agree: humanoid robots (29%) are perceived as the biggest threat to society.

REGIONAL

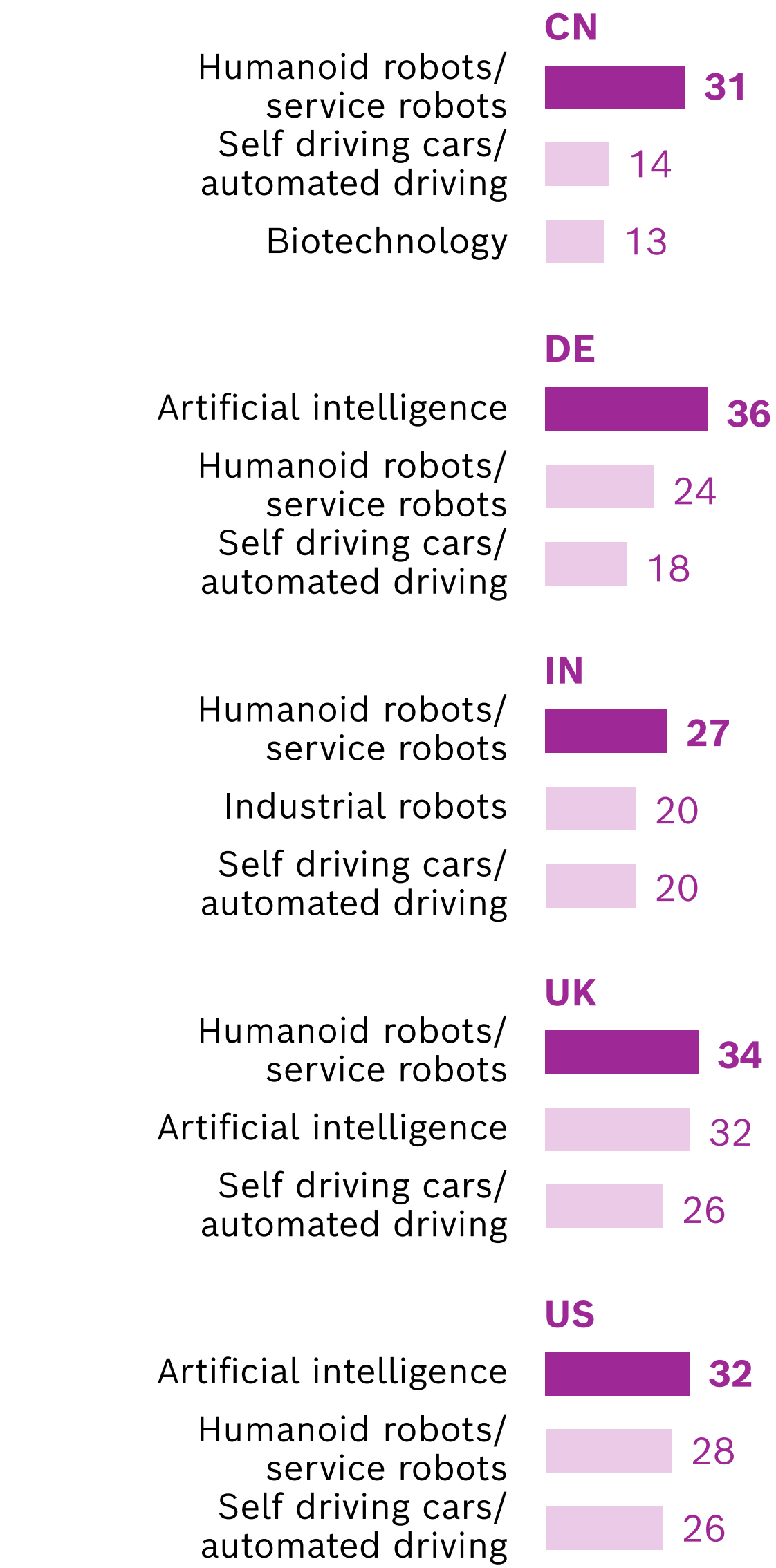
At the regional level, significant differences emerge with regard to technological threats for society: while around a third of all respondents in each of the western countries show reservations about AI, the Chinese (12%) and Indians (17%) view the technology much less critically.

GLOBAL INDEX



The reported values are based on respondents that know the respective technology. N = 8076. Answers in %.

REGIONAL TOP 3



The reported values are based on respondents that know the respective technology. CN N = 2010, DE N = 1024, IN N = 2019, UK N = 1012, US N = 2011. Answers in %.



FUTURE RELEVANCE



TECH OF THE FUTURE

② Which of these technologies will be the most influential in your country in 10 years?

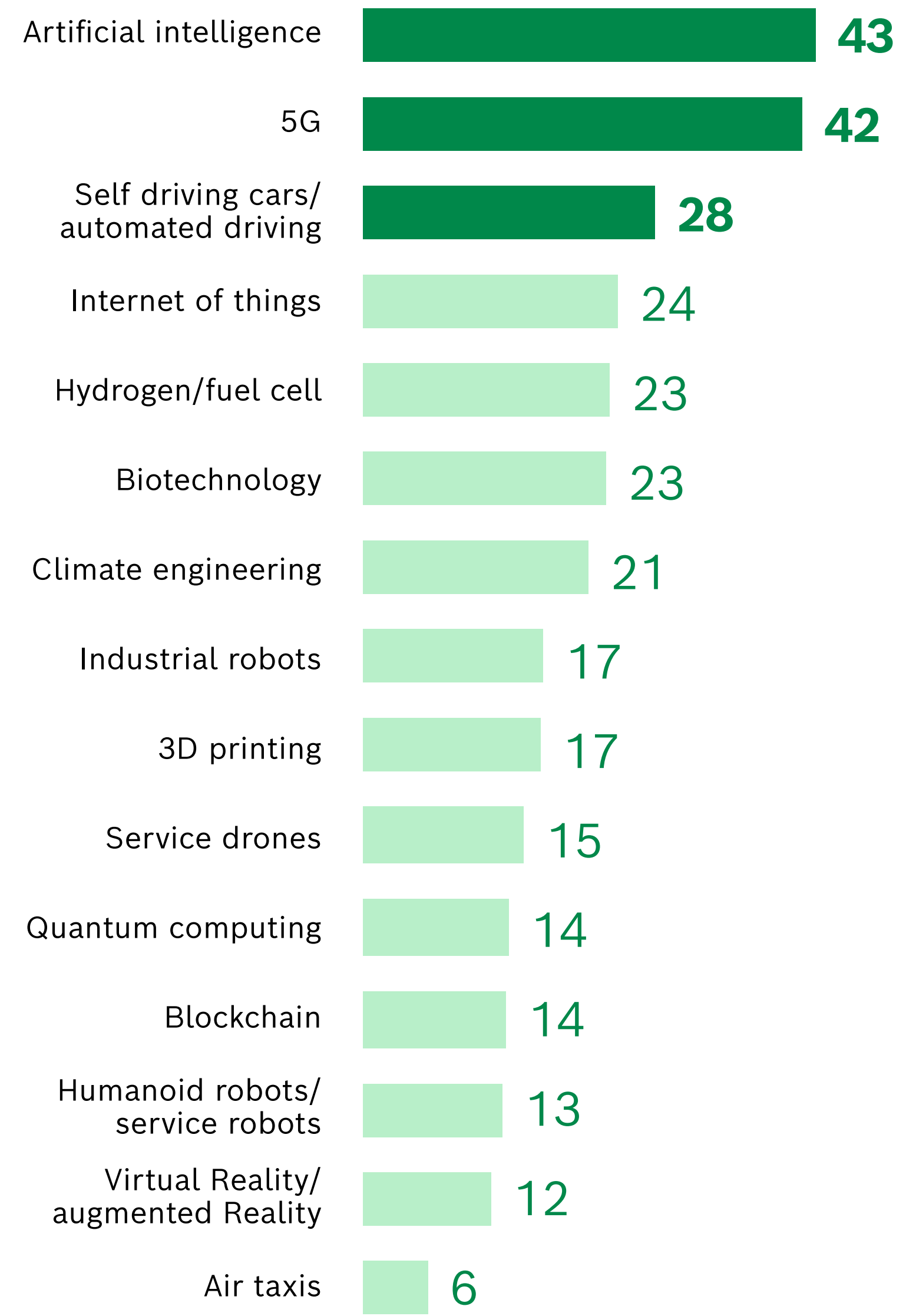
GLOBAL INDEX

The future relevance of specific technologies is clearly dominated by AI (43%) and 5G (42%) worldwide.

REGIONAL

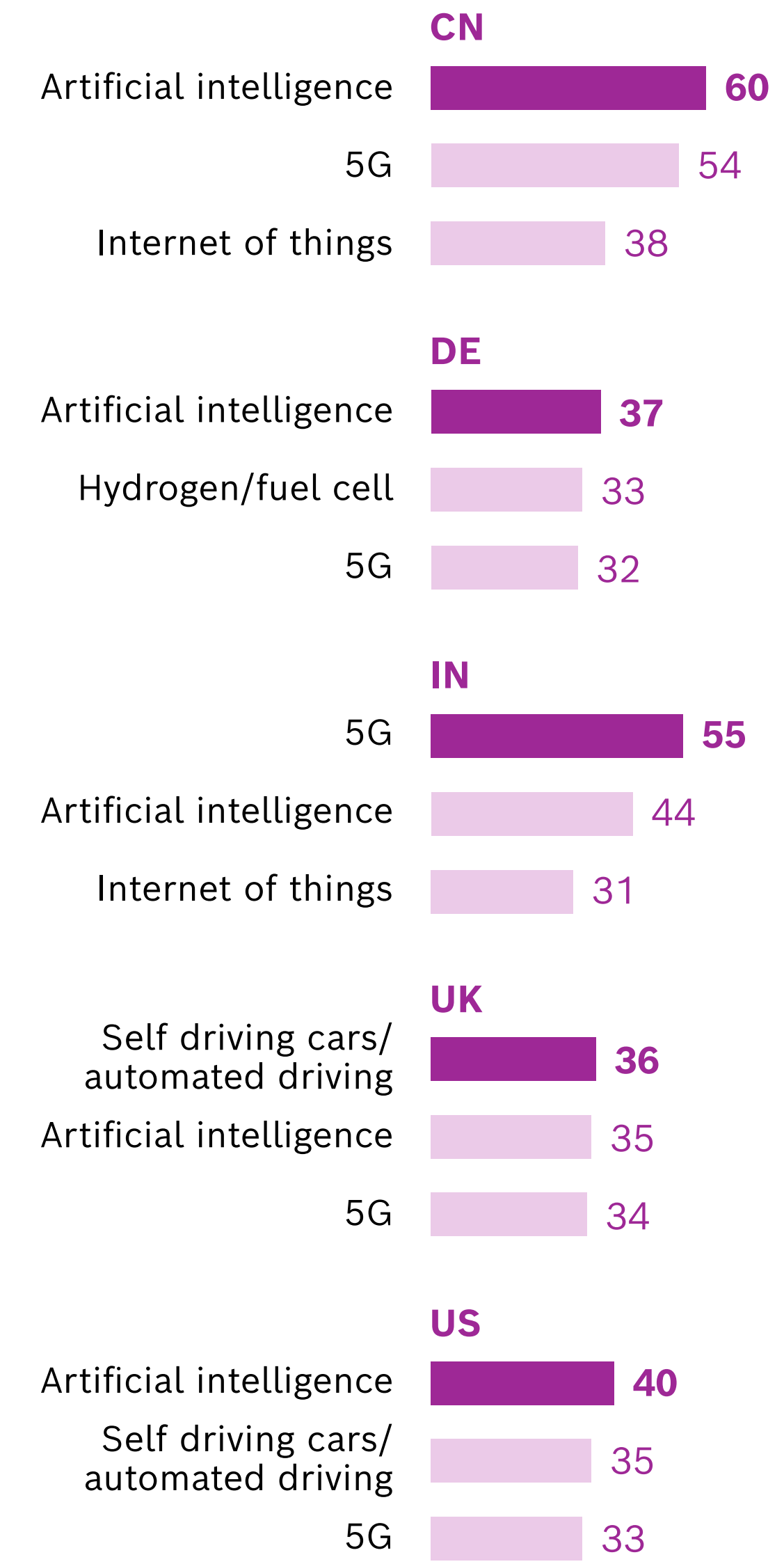
Particular relevance is attributed to AI and 5G in China and India, while – in contrast to Asia – more relevance is attributed to self driving cars in western countries. Interestingly, Germany is the only country in which hydrogen makes it into the top three.

GLOBAL INDEX



The reported values are based on respondents that know the respective technology. N = 8076. Answers in %.

REGIONAL TOP 3



The reported values are based on respondents that know the respective technology. CN N = 2010, DE N = 1024, IN N = 2019, UK N = 1012, US N = 2011. Answers in %.



DRIVING SUSTAINABILITY

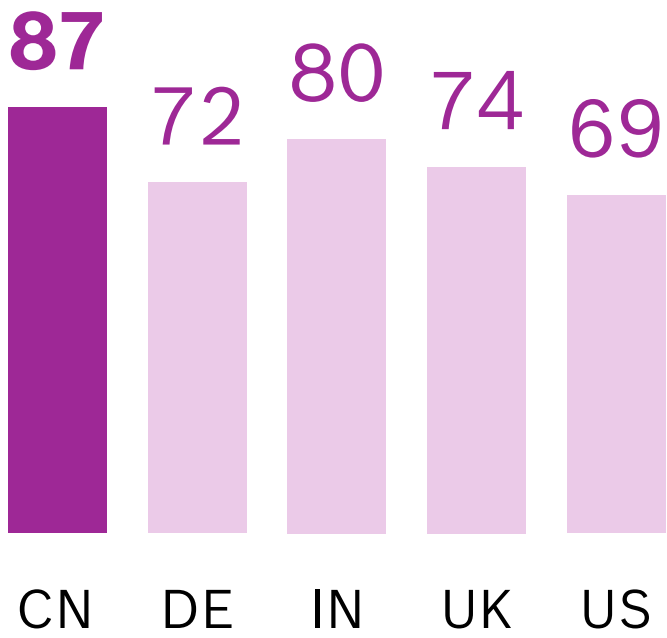


COMBATING CLIMATE CHANGE

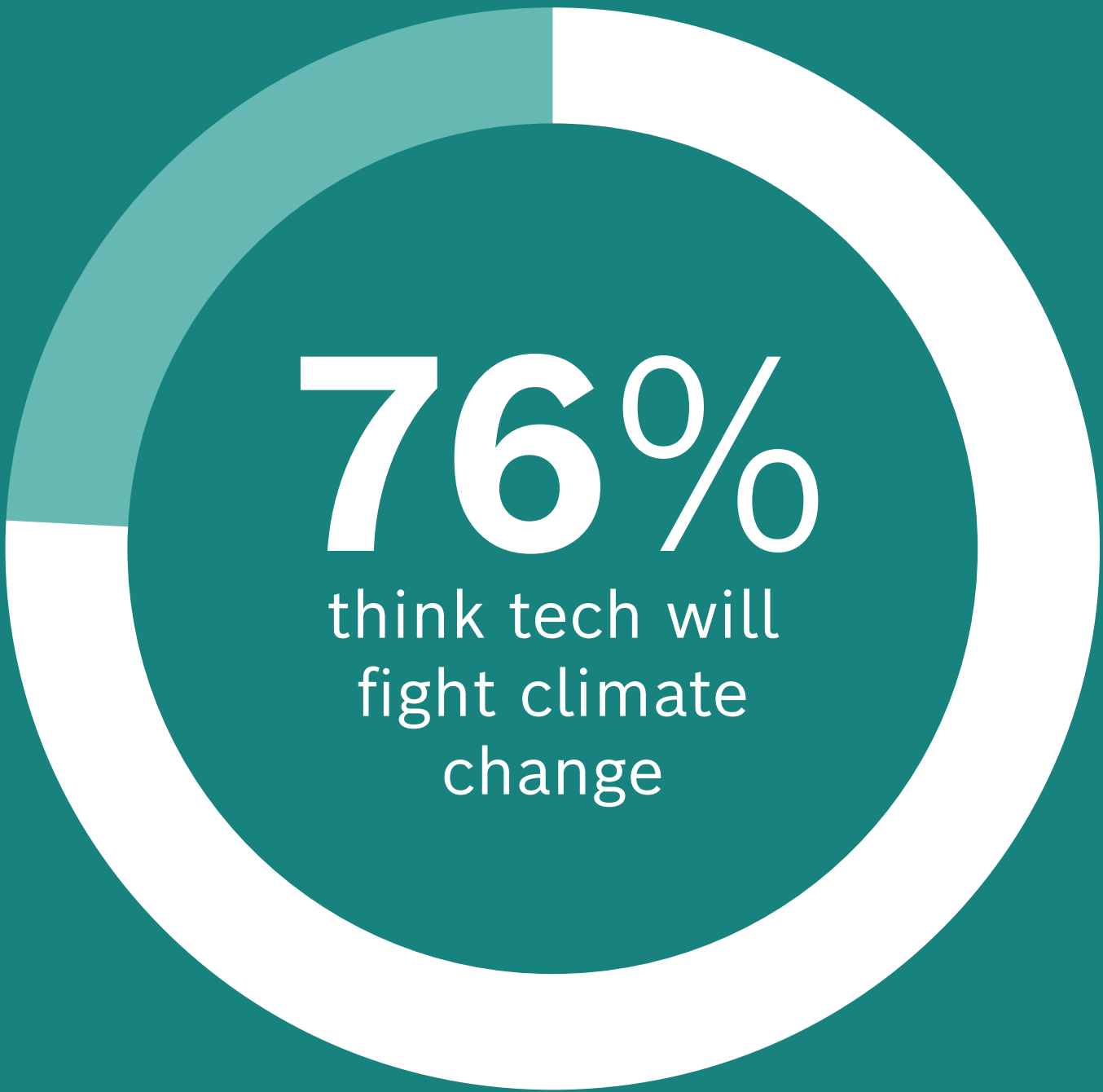
② To what extent do you personally agree with the statement ‘Future technological progress will play the key role in combating climate change.’?

REGIONAL

In all countries surveyed, technological progress is seen as playing the key role in the fight against climate change. This belief is most pronounced in China (87%) and least pronounced in the US (69%), although even there it is held by a strong majority.



CN N = 2010, DE N = 1024, IN N = 2019, UK N = 1012, US N = 2011. Answers in %.



GLOBAL INDEX

More than three out of four respondents worldwide believe that the future technological progress will play the key role in combating climate change.

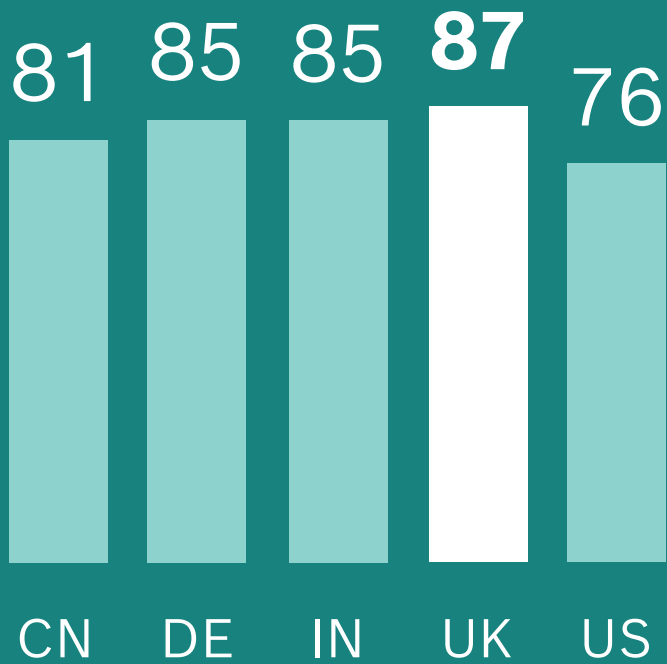
N = 8076. Answers in %.

INDIVIDUAL OR SOCIETY

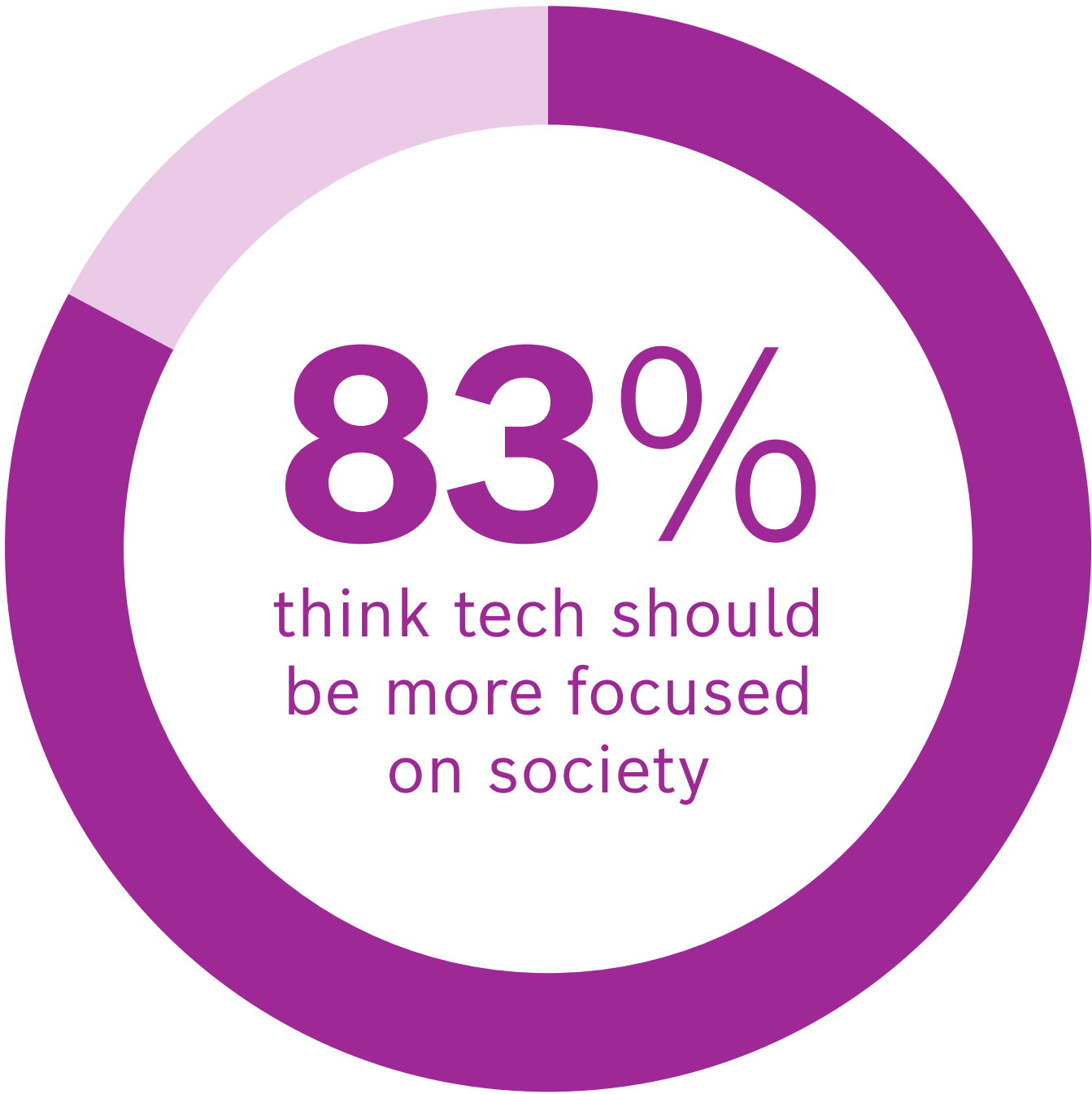
② To what extent do you personally agree with the statement ‘Technological progress should be more focused on the problems of society (e.g. climate change, pandemics, food supply) rather than serve individual needs (e.g. e-commerce, social media, space tourism).’?

REGIONAL

While nearly 9 out of 10 people in the UK want tech to focus on society’s problems, even in the least pronounced result in the US, three out of four respondents are of this opinion.



CN N = 2010, DE N = 1024, IN N = 2019, UK N = 1012, US N = 2011. Answers in %.



GLOBAL INDEX

Technological progress should be more focused on the problems of society rather than on serving individual needs – the vast majority (83%) worldwide takes this stand.

N = 8076. Answers in %.

DRIVERS OF SUSTAINABILITY

② Which of these technologies do you think have the greatest potential to drive sustainability in the future?

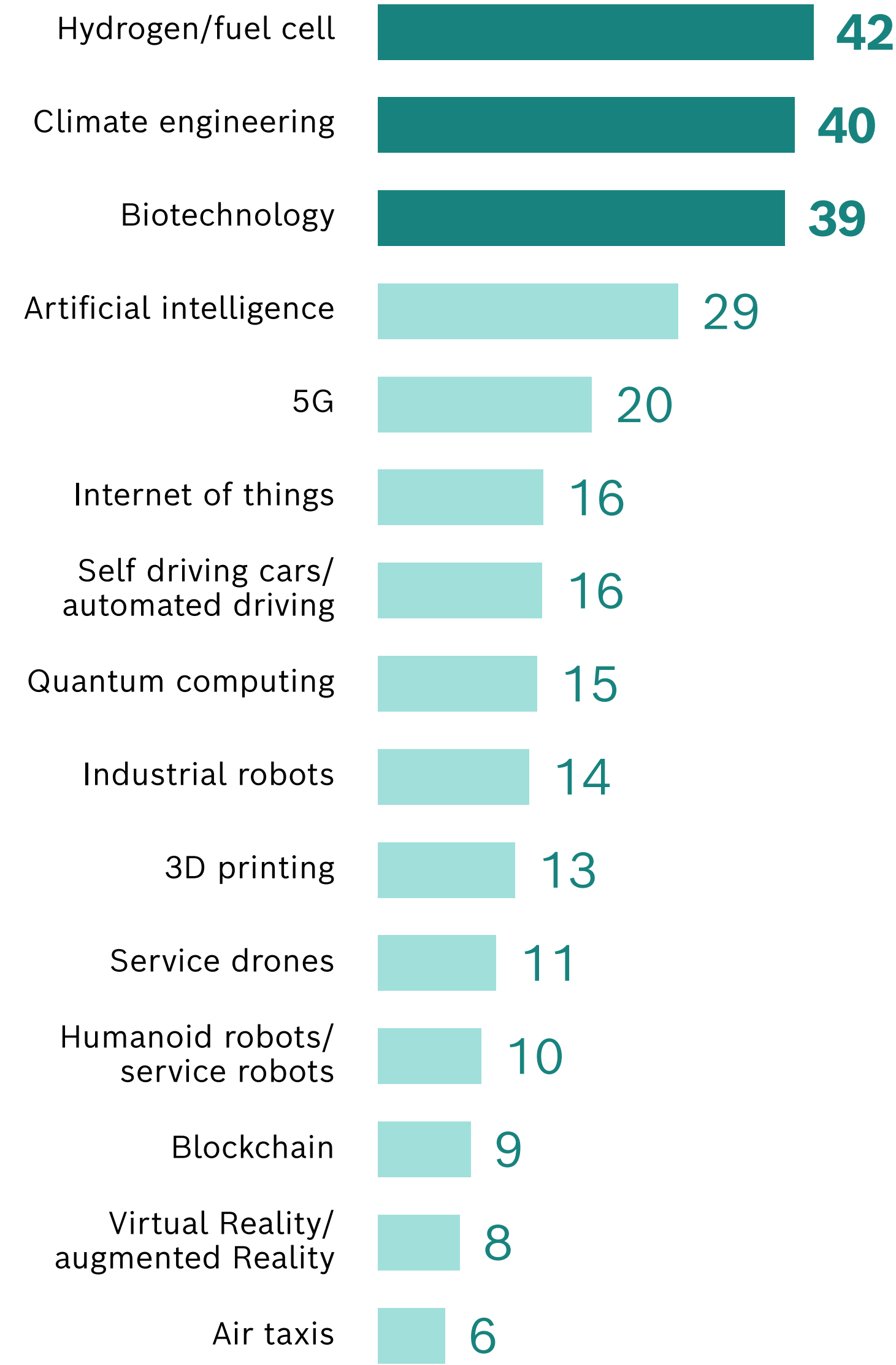
GLOBAL INDEX

On a global basis, hydrogen (42%), climate engineering (40%) and biotechnology (39%) are the technologies that are seen as having the greatest potential to drive sustainability in the future.

REGIONAL

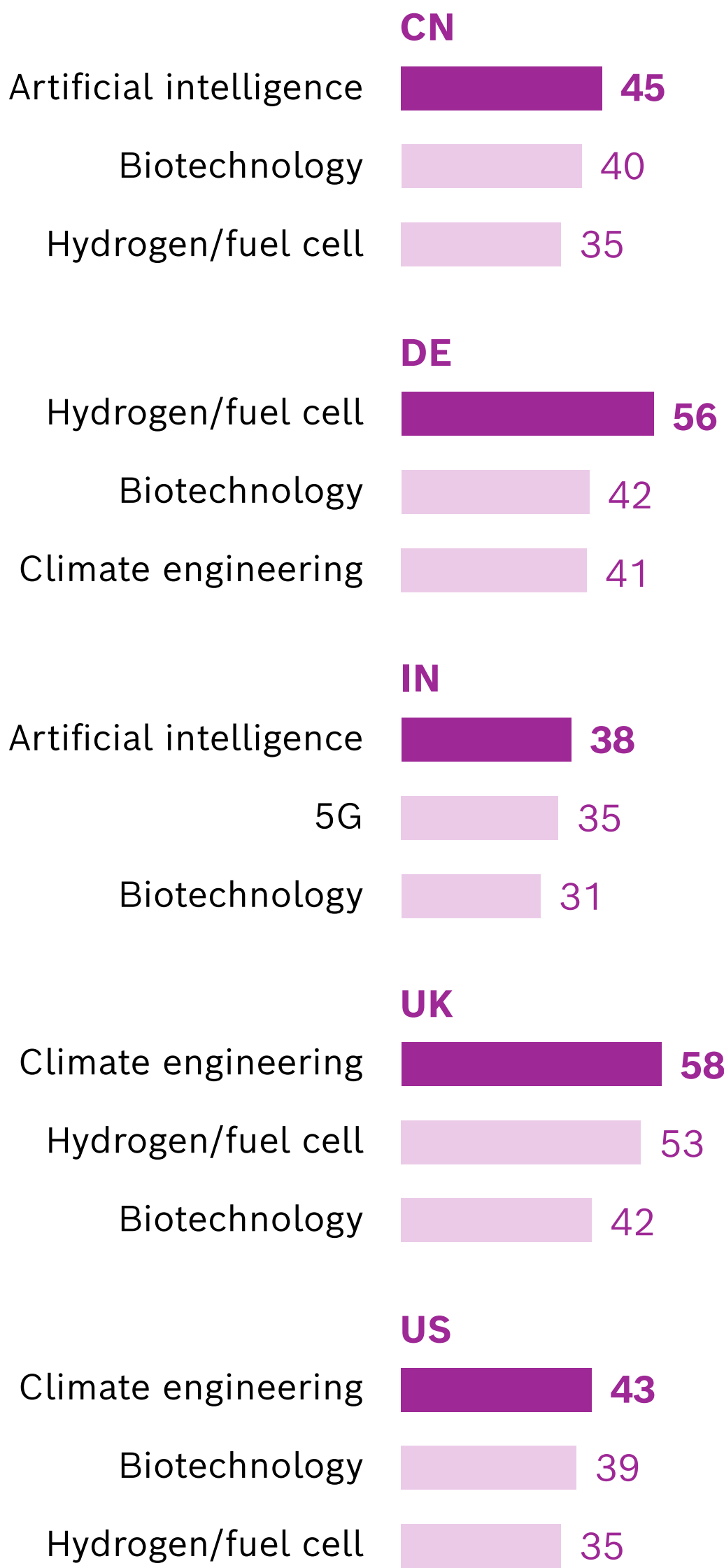
While western countries put their sustainability hopes on green tech, China and India believe AI has the most promise. Also noteworthy is that hydrogen is perceived especially positively in Germany and the UK.

GLOBAL INDEX

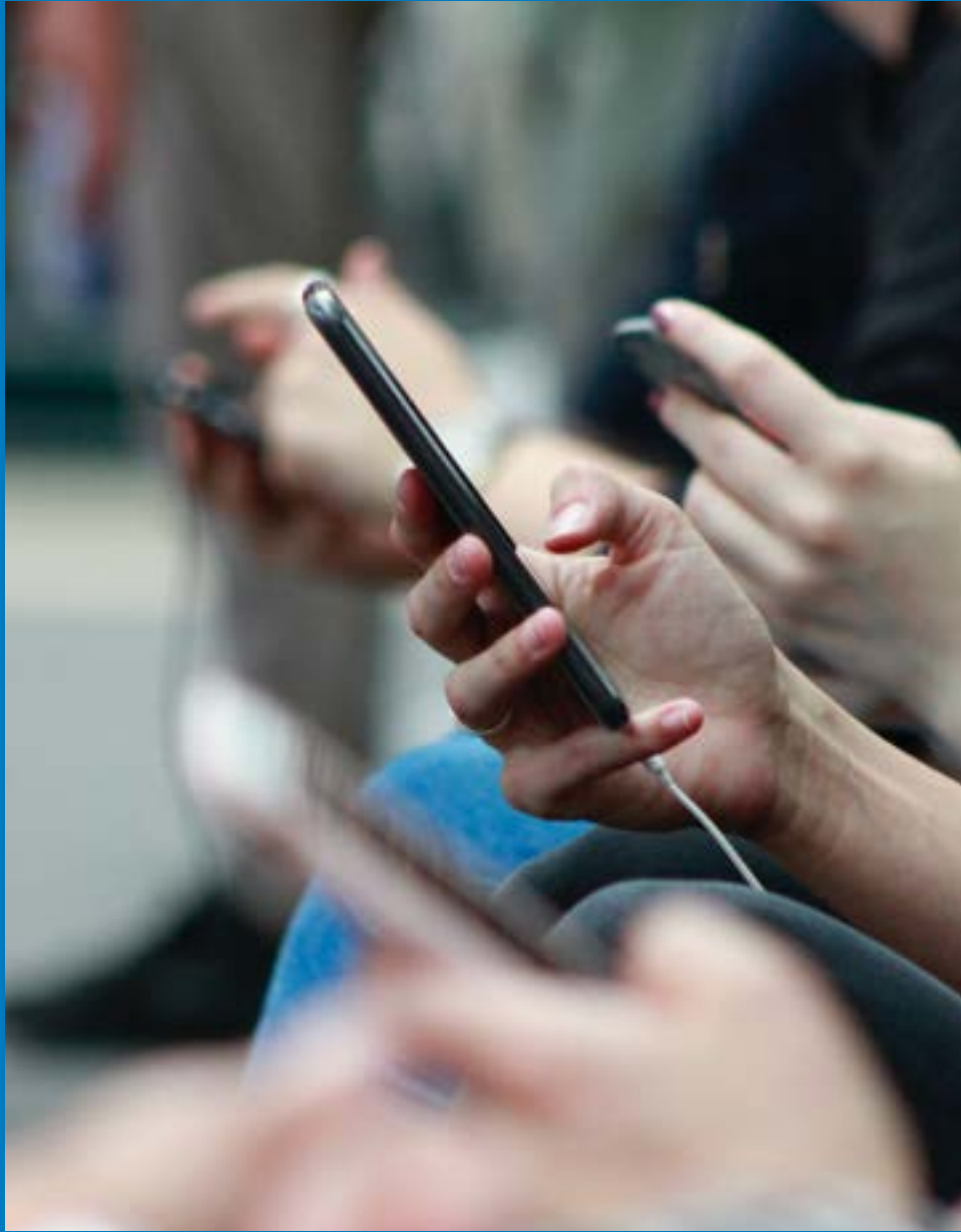


The reported values are based on respondents that know the respective technology. N = 8076. Answers in %.

REGIONAL TOP 3



The reported values are based on respondents that know the respective technology. CN N = 2010, DE N = 1024, IN N = 2019, UK N = 1012, US N = 2011. Answers in %.



DIGITAL TRUST

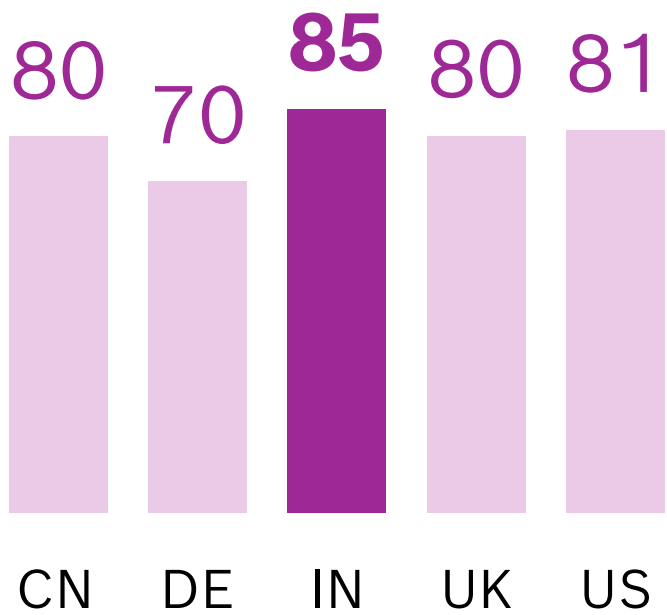


DIGITAL TRUST = SUCCESS

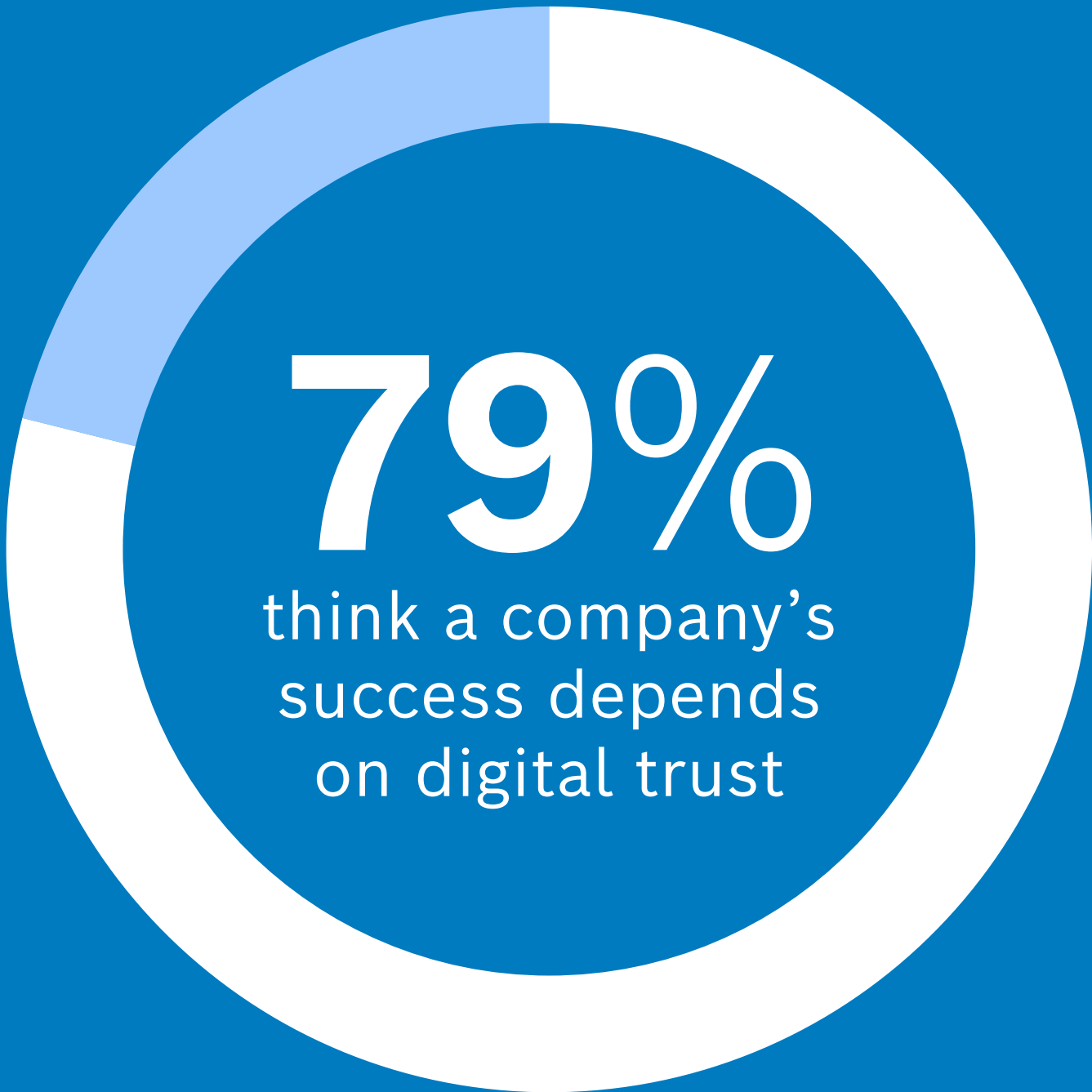
② To what extent do you personally agree with the statement ‘In the future, a company’s success will depend on building digital trust with its customers.’?

REGIONAL

In India (85%), the relevance of digital trust in the customer-company relationship is particularly strong.



CN N = 2010, DE N = 1024, IN N = 2019, UK N = 1012, US N = 2011. Answers in %.



GLOBAL INDEX

Four out of five people worldwide believe that a company’s success will depend on building digital trust with its customers in the future.

N = 8076. Answers in %.

TRUST IN ANALOG VS. DIGITAL

❓ When you think about using products and services provided to you by companies: Where does trust play a greater role for you?

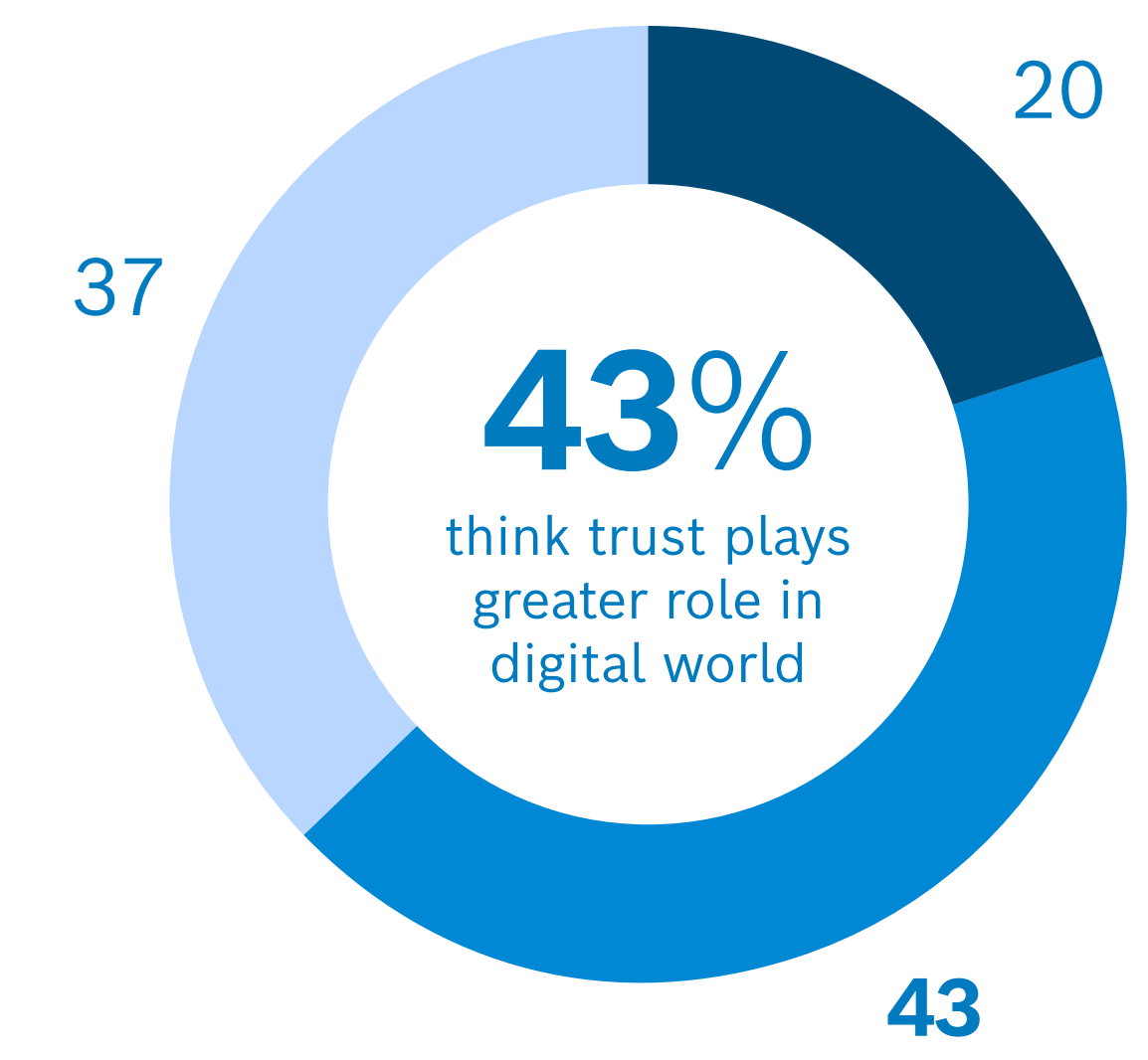
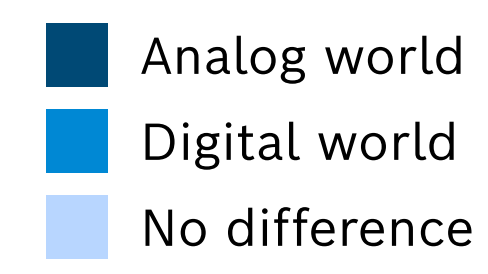
GLOBAL INDEX

For 43% of people worldwide, trust plays a greater role in the digital world than in the analog world. For only 20% of respondents is trust in the analog world more important than in the digital. 37% of respondents make no distinction between trust in the digital and analog worlds.

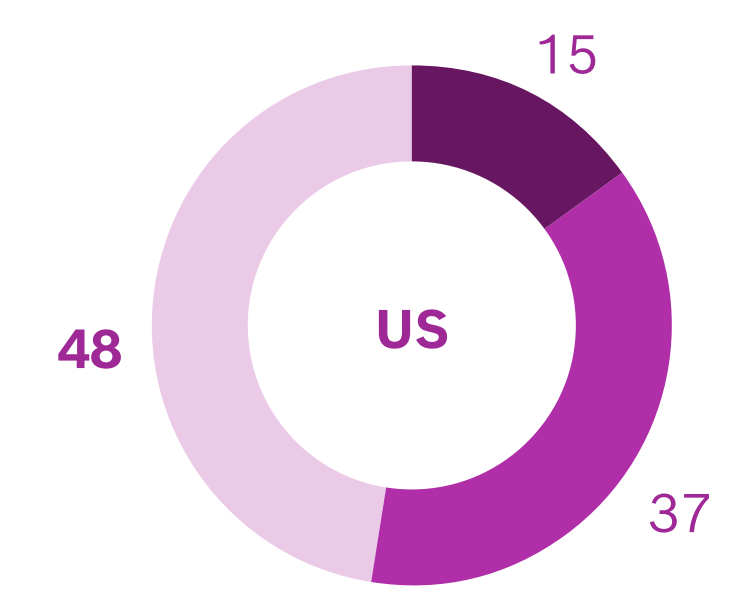
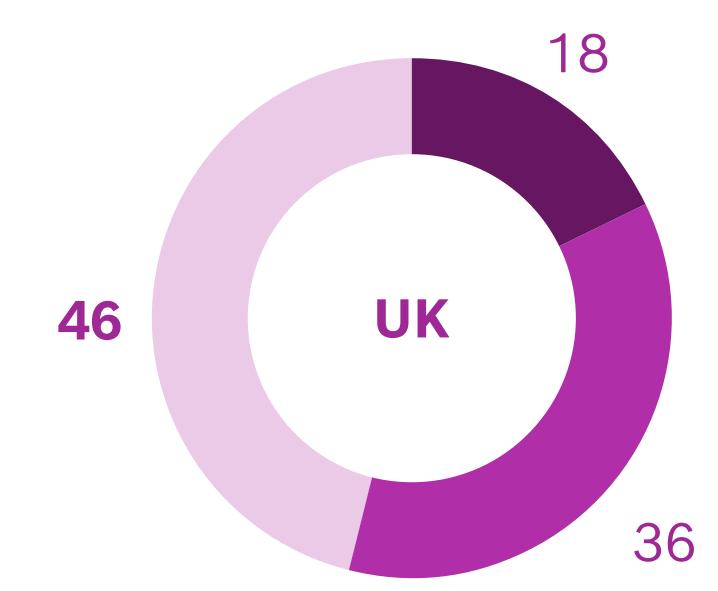
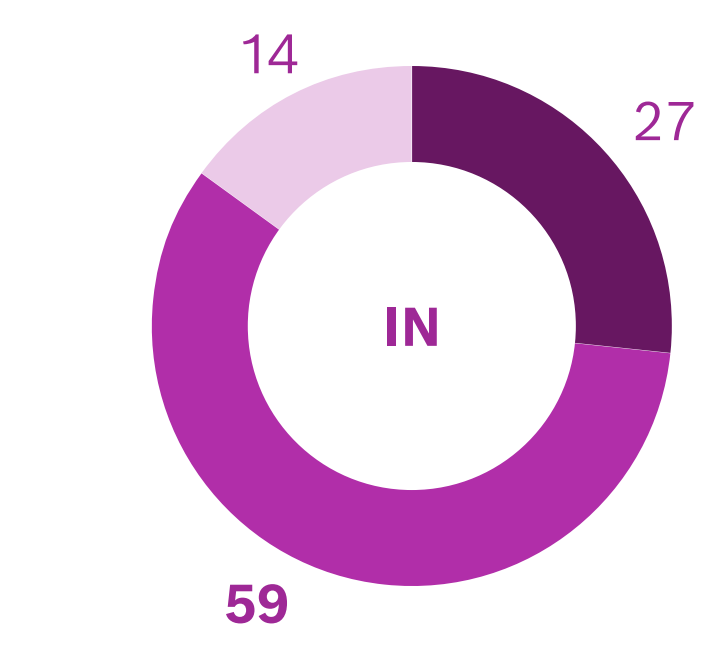
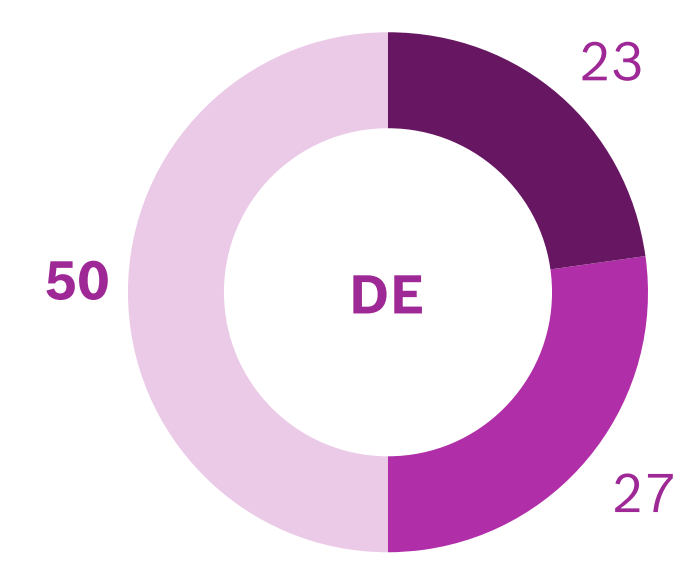
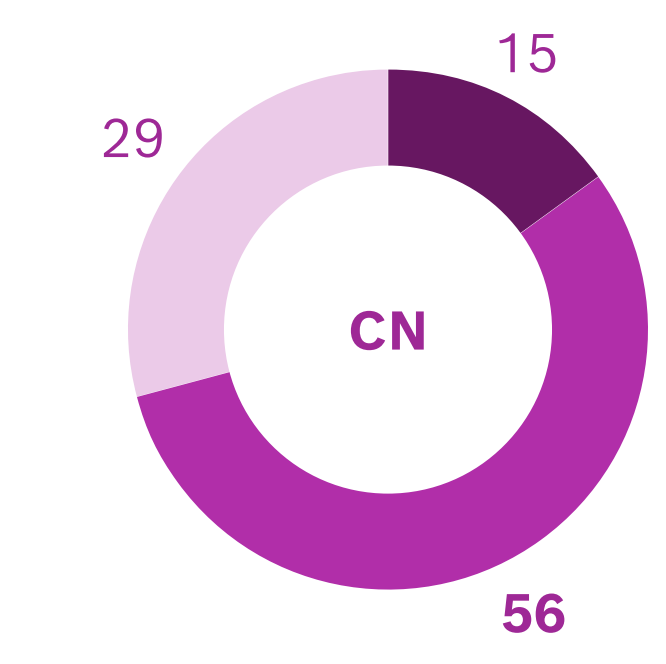
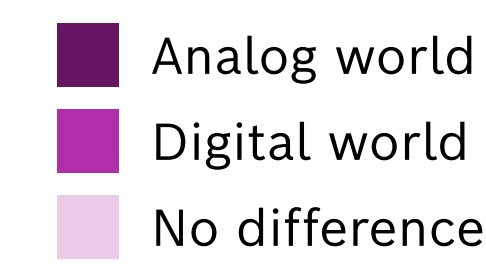
REGIONAL

In India (59%) and China (56%), trust plays a greater role for the majority of people in the digital world than in the analog world. A different picture emerges in the West: In Germany (50%), the US (48%) and the UK (46%), the majority of respondents make no distinction between trust in the digital and analog world.

GLOBAL INDEX



REGIONAL



Global N = 8076, CN N = 2010, DE N = 1024, IN N = 2019, UK N = 1012, US N = 2011. Answers in %.



COMPETITION IN TECHNOLOGY



PREPARED FOR PROGRESS

🤔 In a global comparison, how well is your country prepared for the advancing technological progress?

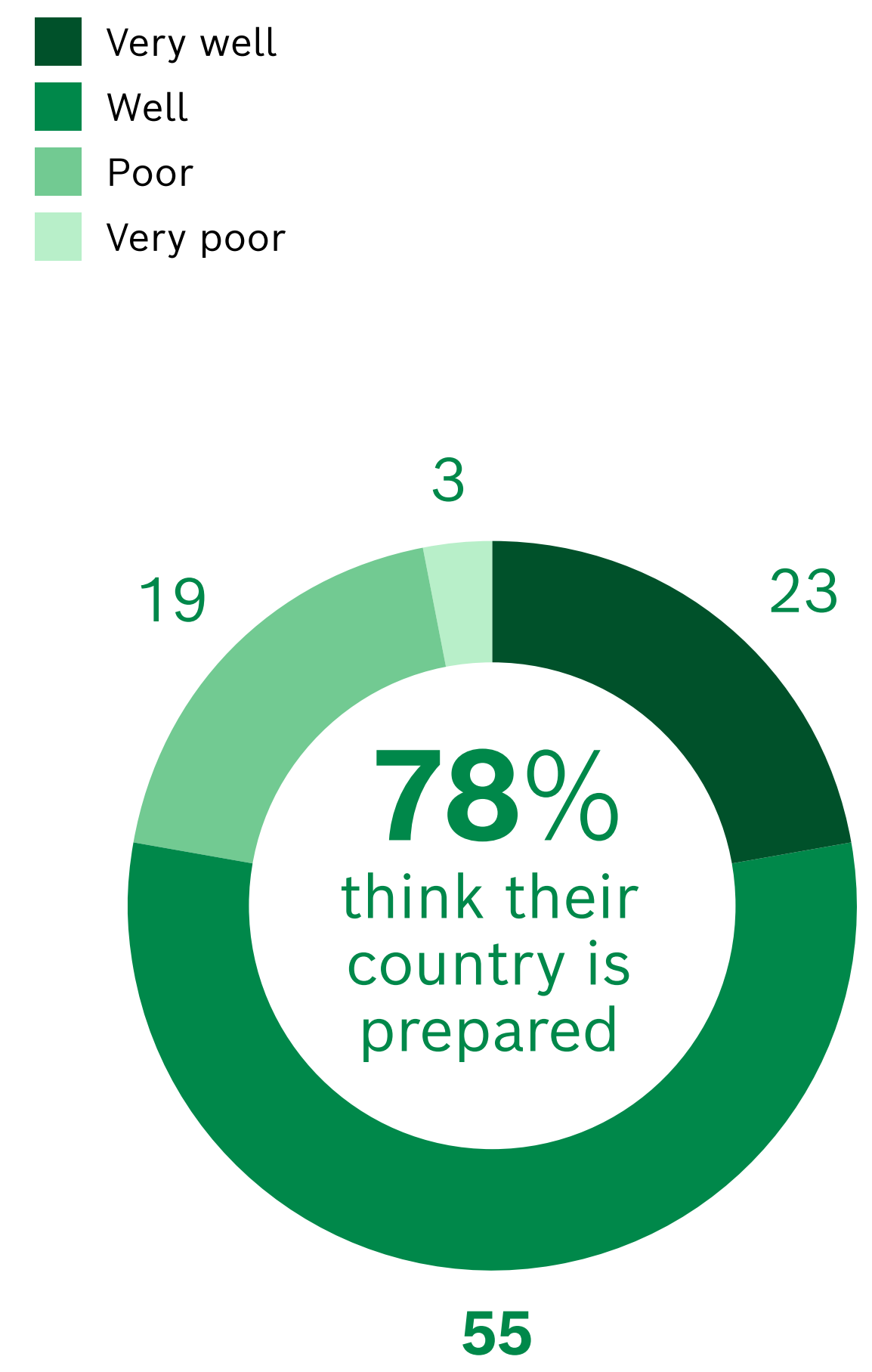
GLOBAL INDEX

On average, three out of four respondents worldwide see their countries very well or well prepared for the advancing technological progress.

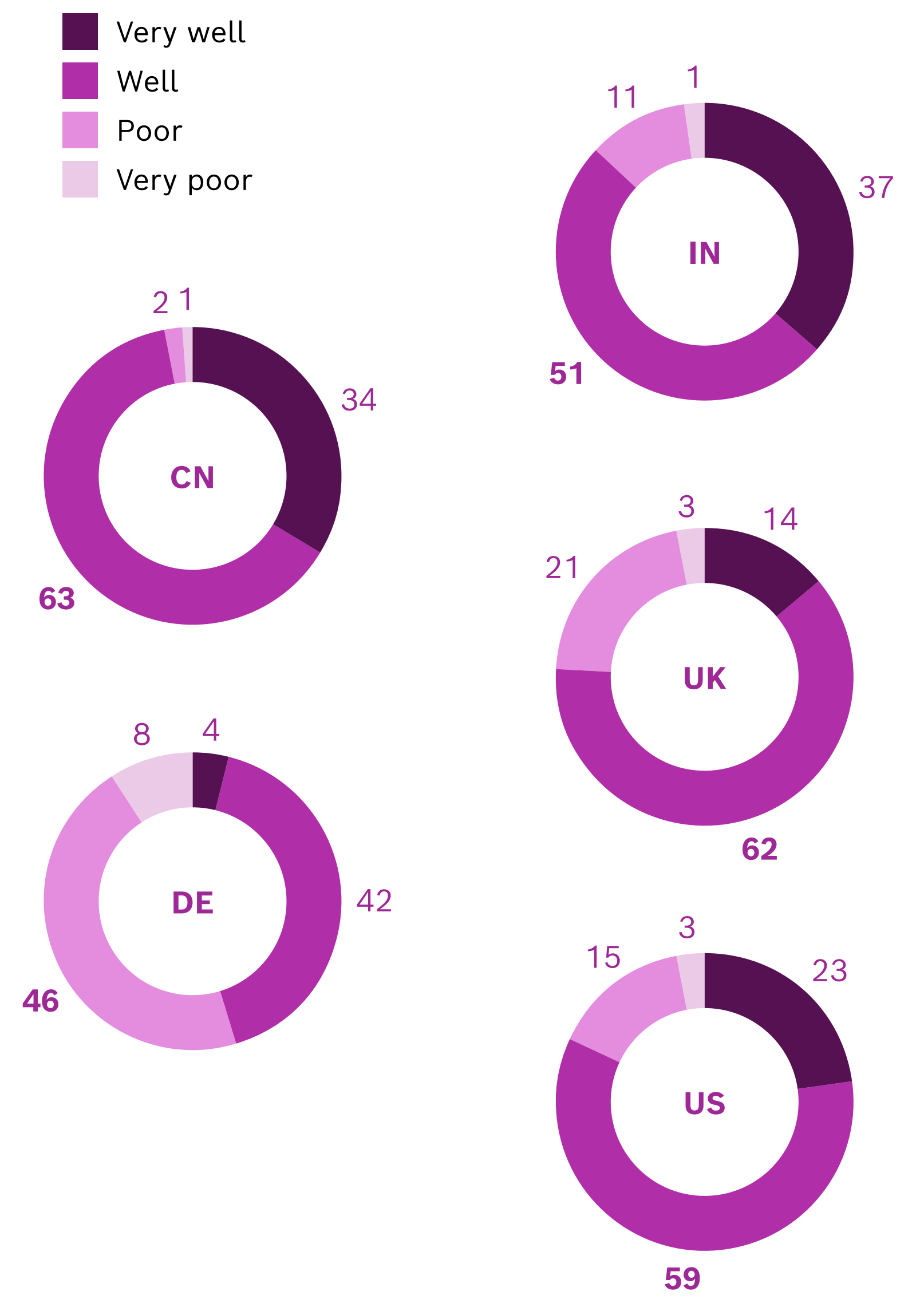
REGIONAL

While China (97%) is extremely confident, the majority in India (88%), the US (82%) and UK (76%) are optimistic as well. More than half of Germans, however, believe that their country is poorly or very poorly prepared for the advancing technological progress.

GLOBAL INDEX



REGIONAL



Global N = 8076, CN N = 2010, DE N = 1024, IN N = 2019, UK N = 1012, US N = 2011. Answers in %.



WHAT IF...?



MIND-READING MACHINES

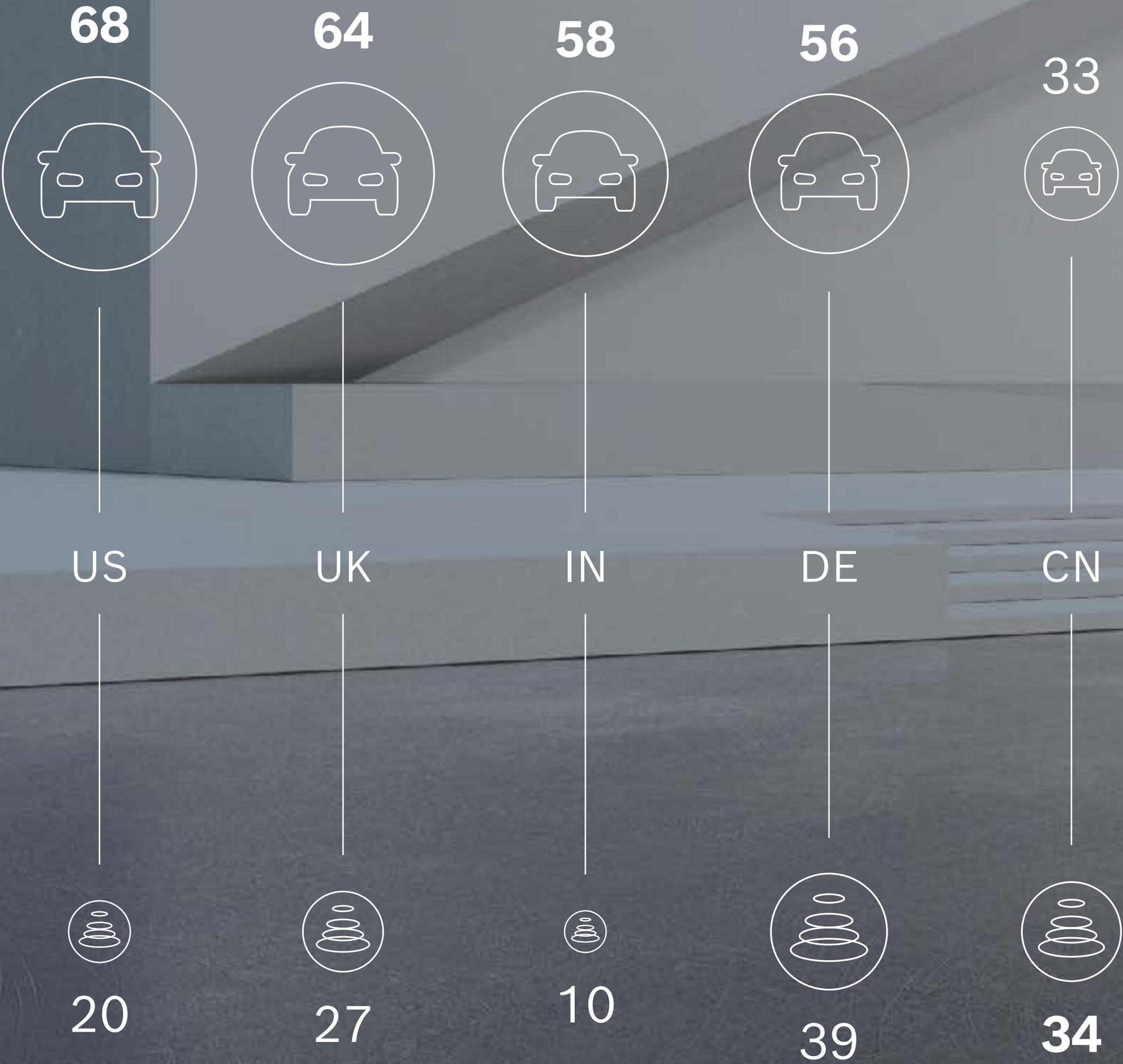
② To what extent do you personally agree with the statement ‘I wish machines could read my mind to better fulfill my wishes.’?

Answers in %



YES, I WISH THEY COULD

I WOULD PICK DRIVING A HUMAN-CONTROLLED CAR AS A WAY TO TRAVEL



I WOULD PICK BEAMING AS A WAY TO TRAVEL



DRIVING OR BEAMING

① Regardless of technical feasibility, how would you prefer to move around in the future? Please select as many modes of travel as you want.

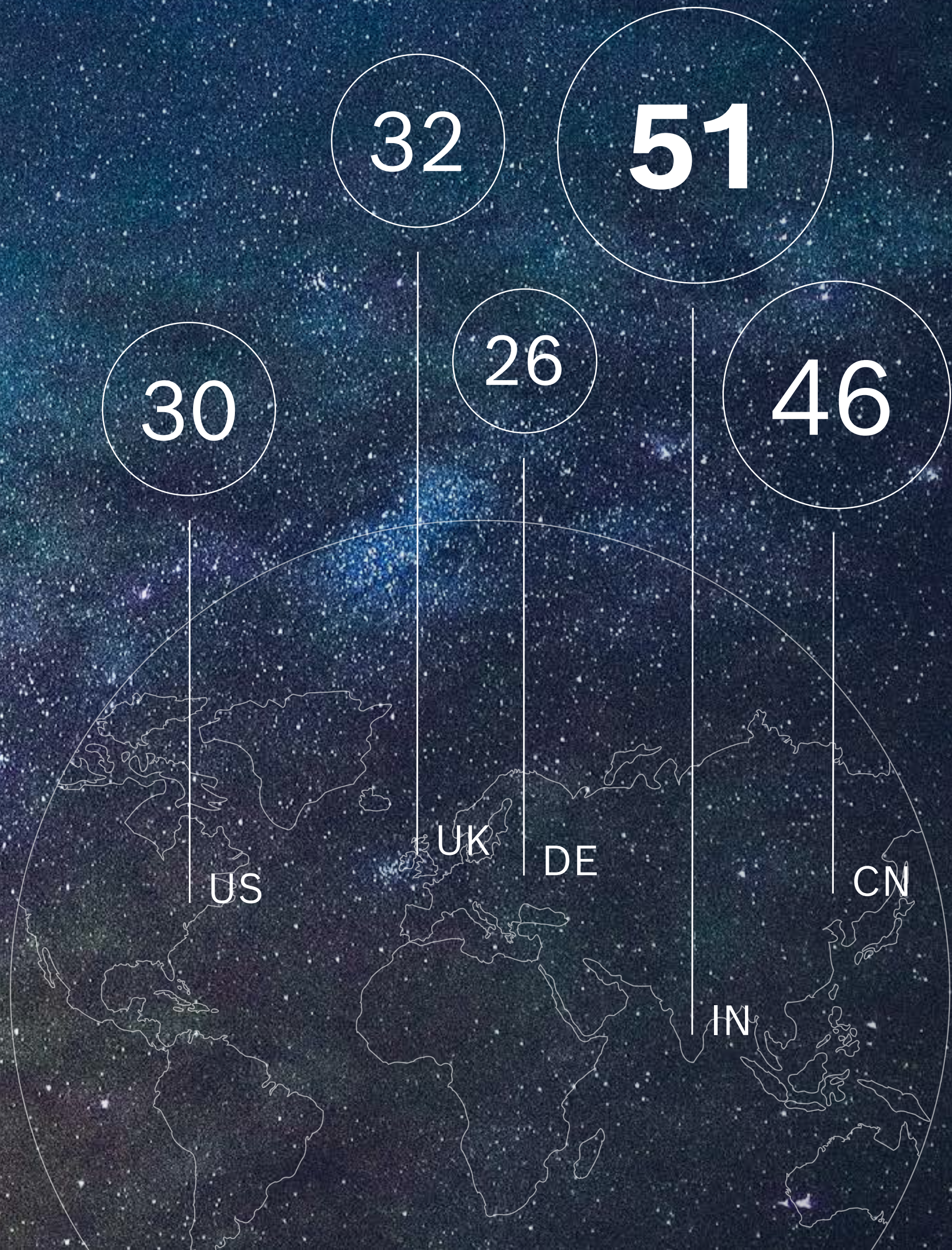
Answers in %

PERMANENTLY LEAVE THE PLANET

② To what extent do you personally agree with the statement ‘If it were technologically possible, I would leave earth to live permanently on another planet.’?

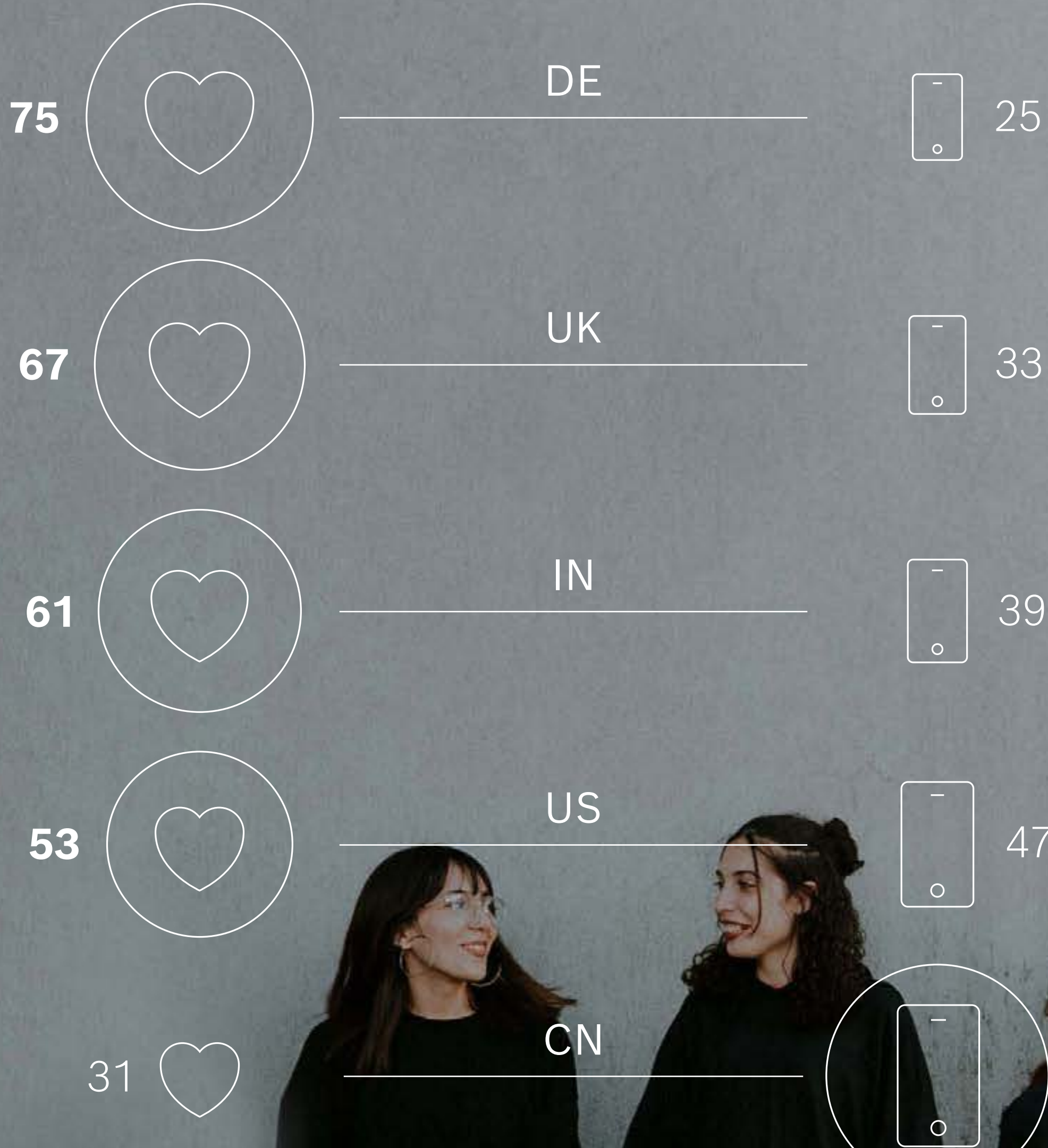
Answers in %

WOULD LIKE TO LIVE ON
ANOTHER PLANET



“I’D RATHER HAND OVER
MY SMARTPHONE”

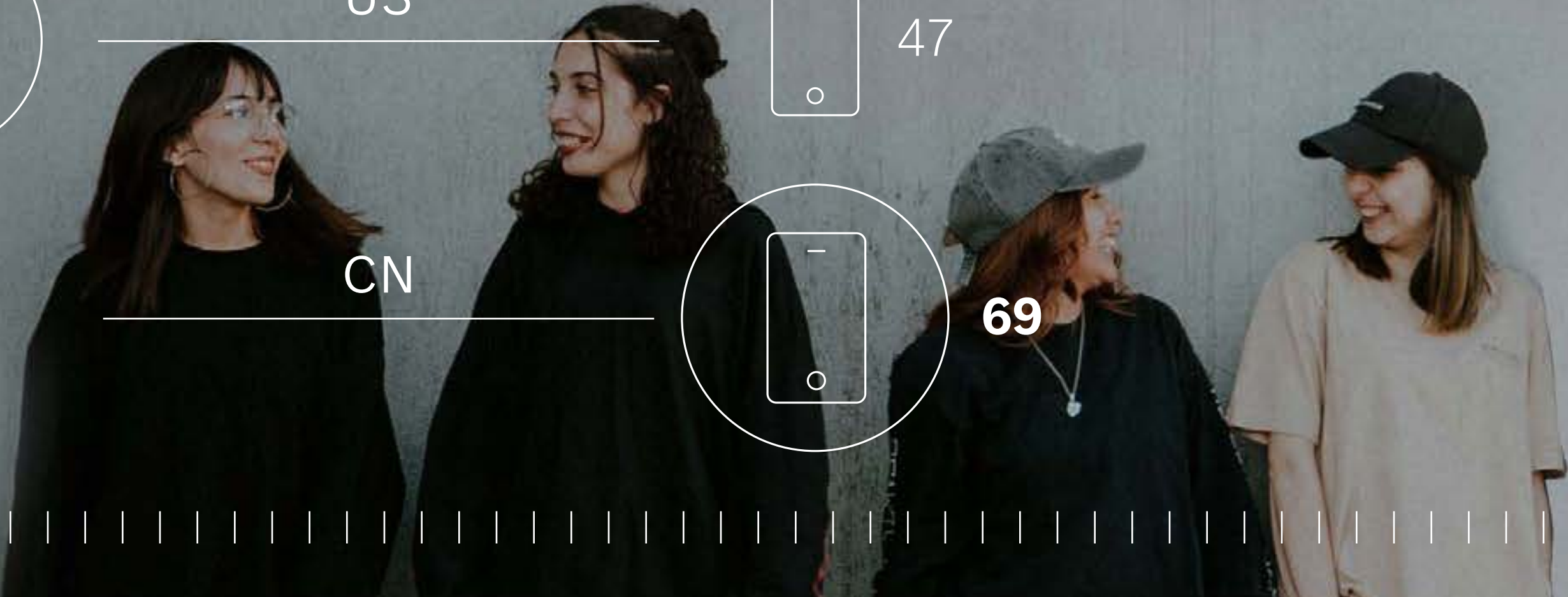
“I’D RATHER NOT SEE
MY BEST FRIEND”



WHAT’S MORE IMPORTANT: FRIEND OR PHONE?

❓ If you were forced, which would you rather choose: ‘Hand over my smartphone for one year’ or ‘not see my best friend for a year’?

Answers in %



STUDY DESIGN

METHODS

For this study people aged 18 and over were surveyed online in five countries (China, Germany, India, UK and USA) in August 2021 by Gesellschaft für Innovative Marktforschung mbH (GIM) on behalf of Robert Bosch GmbH. In Germany and the United Kingdom, 1,000 people were surveyed, in China, India, and the United States, 2,000 people were surveyed. The samples are representative for the respective country in terms of region, gender, and age (DE, UK, USA: 18–69 years/CN, IN: 18–59 years). For global results (“Global Index”), an average was taken across the five countries, regardless of population size. Unless otherwise stated: values based on Top 2 Box.

COUNTRY	SAMPLE SIZE	SPECIFICS
China	2,010	Age distribution: 18–59 years Data collection in Tier 1 + New Tier 1
Germany	1,024	Age distribution: 18–69 years
India	2,019	Age distribution: 18–59 years
UK	1,012	Age distribution: 18–69 years
USA	2,011	Age distribution: 18–69 years Regional distribution among 7 main regions

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



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



China, Germany, India, UK, USA



August 17 – August 30, 2021



AND WHAT DO YOU THINK ABOUT TECH?



PUBLISHING DETAILS

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As per January 2022

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