

Global Citizens & Automation

DAVOS 2019

An Ipsos-World Economic Forum Project

Project Description

- Ipsos and the World Economic Forum are launching a research program to track and decode public understanding and acceptance of new technologies across the globe
- New findings are to be released every six months
- This report features the results of the first wave of research on Automation that we were unveiled at Davos 2019
- This first study was conducted in October-November 2018 among more than 18,800 adults in 26 countries

Headlines

Half of workers globally think automation has made their job completely different – mostly better

Three in ten workers say automation is putting their current employment at risk

Consumers tend to have a favorable view of the impact of automated products on people's lives

Chinese workers are three times as likely to have access to employer-provided technology training than Japanese workers

Trade and logistics workers are most under-trained relative to how much disruption they expect from automation

Key Findings (1): Automation Has Transformed the Way We Work

Workers' experience with automation is mostly positive, but many fear it puts their employment at risk

- Nearly half of workers globally (46%) say automation has made their job completely different from what it was ten years ago and tend to view the changes it brought upon in a positive way.
 - Workers are much more likely to agree than disagree that automation has made their job easier (49% vs. 18%), improved the quality of their work (46% vs. 20%), reduced the risks of injury while working (42% vs. 20%) and made their job more interesting (40% vs. 23%).
- However, many worry about their job security. Nearly as many workers agree that automation is putting their current employment at risk (30%) as disagree (35%).
 - Concern about automation jeopardizing one's job is most prevalent among agricultural workers (38%) and those in administrative support services (37%) and least so among workers in the healthcare and social services sector (23%).

Key Findings (2): Worker Preparedness and Consumer Attitudes Toward Automation Vary Widely Across Countries

Workers Around the World Are Unevenly Prepared for Automation

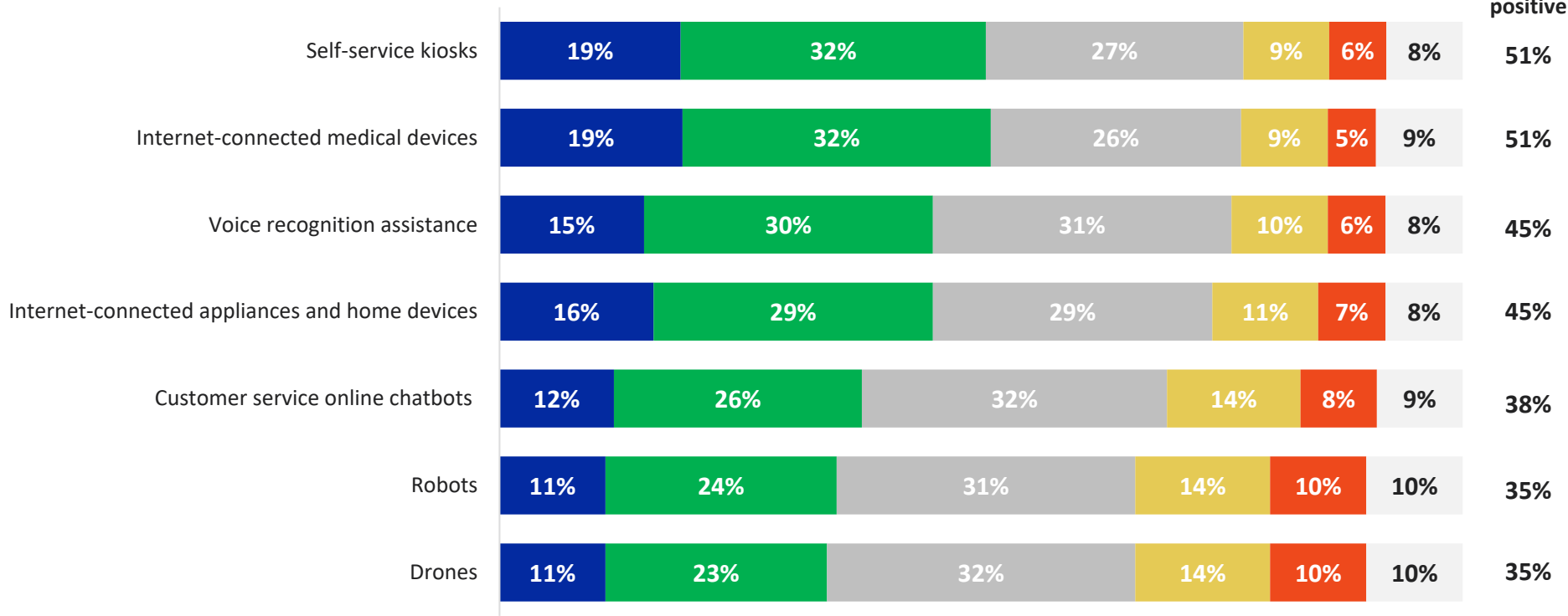
- Nearly two thirds of workers globally (64%) say their employer offers training to improve or update their own technical skills.
 - However, disparities across countries are steep. More than four in five of workers in India (91%), China (86%) and Peru (84%) report being offered training on new technology and products their organization is using vs. fewer than half in Japan (28%), Russia (42%) and France (49%).

Automated Technologies Tend to Be Viewed Favorably... But Not Everywhere

- On average, 43% of adults worldwide look at seven automated technologies as having a positive impact on people's lives vs. 30% having a neutral assessment and 19% a negative one.
 - A wide gap separates high-income countries from low-income countries when it comes to views about automation: on average, 64% in China and 62% in India rate the impact of automation technologies positively vs. just 22% in Germany and France and 23% in Belgium.

Sentiment about impact of automated products on people's lives skews positive

Very/
somewhat
positive



■ Very positive
 ■ Somewhat positive
 ■ Neither positive nor negative
 ■ Somewhat negative
 ■ Strongly negative
 ■ Don't know enough

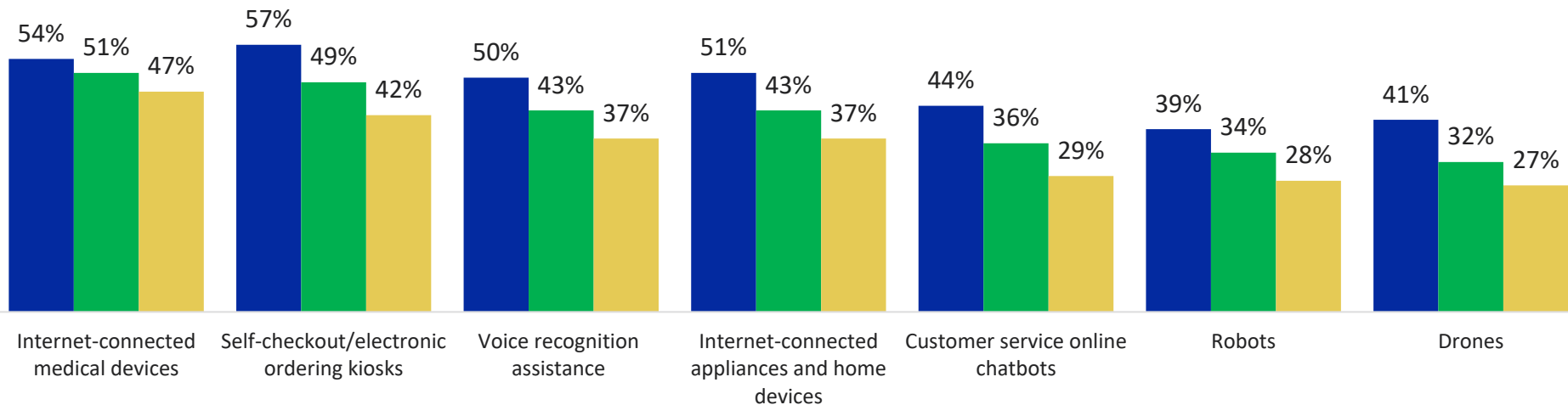
Q7. To what extent do you think that each of the following types of automated products and services has or will have a positive or a negative impact on people's lives?

Younger consumers have a generally warmer view about the impact of automated products

Q7.To what extent do you think that each of the following types of automated products and services has or will have a positive or a negative impact on people's lives?

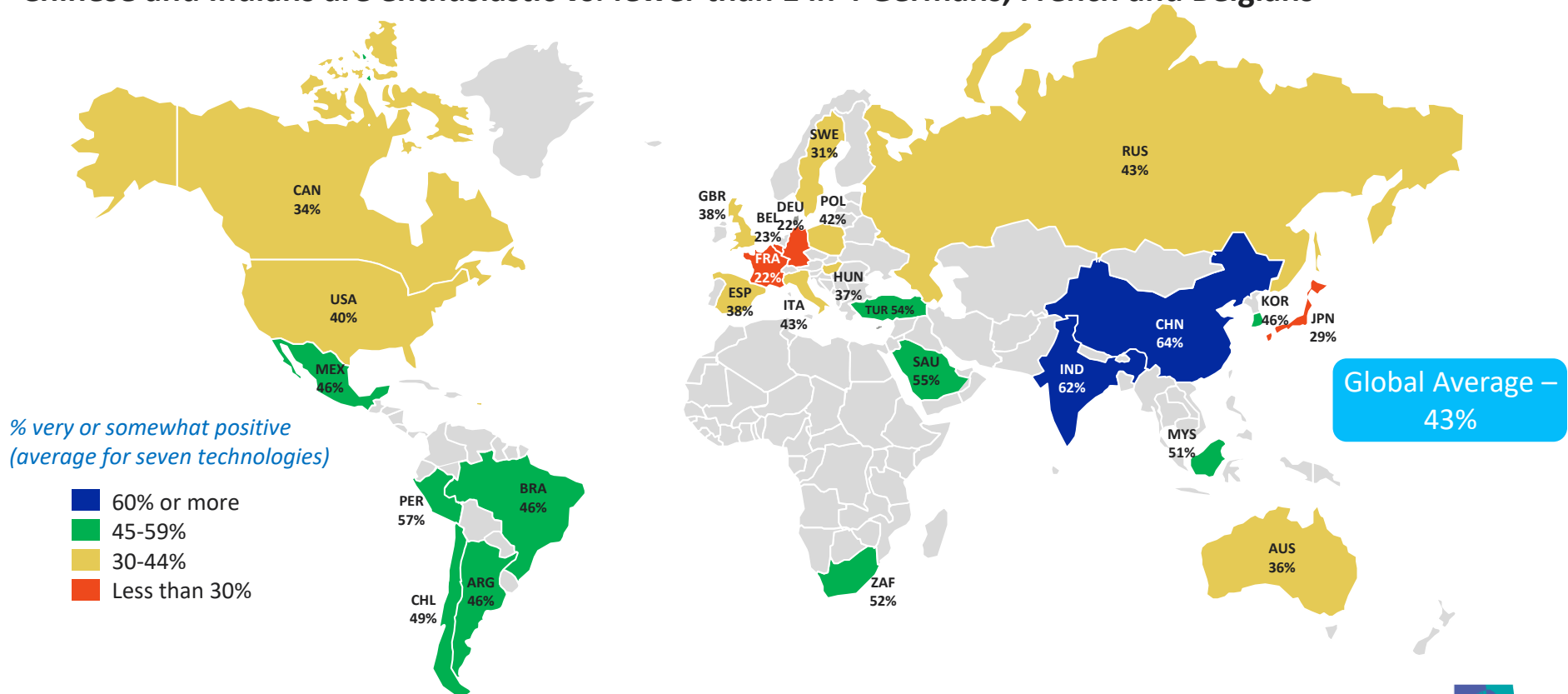
■ Under 35 ■ 35 to 49 ■ 50 to 64

(% Very or somewhat positive)



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Deep divide between high-income and low-income countries about automation: more than 3 in 5 Chinese and Indians are enthusiastic vs. fewer than 1 in 4 Germans, French and Belgians



Q7. To what extent do you think that each of the following types of automated products and services has or will have a positive or a negative

impact on people's lives?

Base: 18,813 adults aged 16-64 across Argentina, Australia, Belgium, Brazil, Canada, Chile, China, France, Germany, Great Britain, Hungary, India, Italy, Japan, Malaysia, Mexico, Peru, Poland, Russia, Saudi Arabia, South Africa, South Korea, Spain, Sweden, Turkey, United States. October-November 2018

Within each country, attitudes about various types of automated products are fairly consistent

Q7. To what extent do you think that each of the following types of automated products and services has or will have a positive or a negative impact on people's lives?

(% Very or somewhat positive)

	Total	ARG	AUS	BEL	BRA	CAN	CHL	CHN	FRA	DEU	GBR	HUN	IND	ITA	JPN	MYS	MEX	PER	POL	RUS	SAU	ZAF	KOR	ESP	SWE	TUR	USA
Internet-connected medical devices	51%	63%	48%	31%	53%	51%	65%	65%	36%	29%	50%	48%	66%	56%	33%	57%	60%	70%	40%	47%	57%	63%	52%	49%	38%	58%	49%
Self-checkout/check-in/electronic ordering kiosks at stores, airports, restaurants, etc.	51%	55%	47%	31%	46%	44%	55%	72%	23%	26%	50%	42%	69%	49%	36%	62%	49%	71%	55%	56%	63%	66%	49%	34%	44%	66%	54%
Voice recognition assistance (e.g., Siri, Alexa, Cortana, Google Assistant, etc.)	45%	50%	41%	21%	49%	39%	53%	68%	21%	25%	38%	33%	66%	42%	29%	51%	53%	62%	36%	50%	60%	60%	49%	37%	27%	61%	42%
Internet-connected appliances and home devices	45%	49%	36%	23%	54%	31%	51%	67%	24%	23%	41%	47%	67%	45%	28%	56%	46%	63%	45%	42%	58%	57%	51%	38%	30%	51%	41%
Customer service online chatbots	38%	34%	31%	21%	46%	30%	42%	61%	13%	16%	36%	34%	60%	37%	20%	46%	40%	45%	45%	38%	49%	51%	39%	45%	27%	46%	35%
Robots	35%	34%	26%	17%	37%	23%	38%	61%	21%	19%	27%	28%	52%	36%	29%	44%	36%	40%	36%	35%	50%	33%	43%	30%	31%	46%	30%
Drones	35%	40%	27%	18%	41%	23%	42%	57%	15%	15%	25%	24%	54%	38%	28%	41%	40%	50%	35%	31%	49%	35%	40%	30%	24%	48%	29%

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Half of workers globally say automation has made their job completely different from what it was 10 years ago; automation's impact on own job is more likely than not to be viewed positively; but nearly as many agree it's putting their current employment at risk (30%) as disagree (35%)

Strongly or somewhat agree

It will make my job completely different in the next 10 years



It has made my job easier



It has made my job completely different from what it was 10 years ago



It has improved the quality of my work



It has reduced the risks of injury while working



It has made my job more interesting



It is putting my current employment at risk



■ Strongly agree
 ■ Somewhat agree
 ■ Neither agree nor disagree
 ■ Somewhat disagree
 ■ Strongly disagree

Q8. To what extent do you agree or disagree with each of the following about automation?

Automation-related changes are most widely seen as positive where workers most report it as made their job completely different

Q8. To what extent do you agree or disagree with each of the following about automation?

(% strongly or somewhat agree)

	Total	ARG	AUS	BEL	BRA	CAN	CHL	CHN	FRA	DEU	GBR	HUN	IND	ITA	JPN	MYS	MEX	PER	POL	RUS	SAU	ZAF	KOR	ESP	SWE	TUR	USA
It has made my job completely different from what it was 10 years ago	46%	57%	35%	34%	50%	40%	56%	66%	36%	29%	29%	34%	72%	40%	16%	65%	56%	60%	48%	34%	65%	58%	38%	41%	24%	55%	44%
It has made my job easier	49%	56%	33%	32%	51%	42%	61%	72%	30%	29%	29%	38%	73%	35%	22%	69%	59%	67%	51%	53%	66%	60%	54%	38%	24%	65%	44%
It has improved the quality of my work	46%	51%	31%	30%	53%	40%	53%	71%	30%	24%	27%	32%	74%	36%	14%	63%	60%	69%	44%	52%	60%	58%	47%	30%	22%	60%	40%
It has reduced the risks of injury while working	42%	46%	32%	19%	48%	37%	49%	66%	31%	31%	26%	26%	65%	38%	16%	61%	45%	63%	41%	43%	63%	49%	37%	26%	17%	60%	37%
It has made my job more interesting	40%	44%	25%	23%	46%	28%	47%	70%	20%	21%	22%	28%	70%	32%	9%	59%	52%	58%	35%	45%	58%	57%	37%	24%	19%	50%	35%
It will make my job completely different in the next 10 years	49%	53%	41%	44%	50%	47%	57%	64%	41%	32%	35%	41%	72%	44%	29%	65%	56%	64%	47%	38%	63%	58%	49%	43%	29%	59%	46%
It is putting my current employment at risk	30%	30%	27%	30%	39%	26%	32%	42%	37%	18%	25%	20%	49%	28%	15%	36%	39%	31%	26%	19%	43%	31%	27%	33%	14%	29%	29%
Automation acceleration (% it will make my job different minus % it has made my job different)	+3	-4	+6	+10	-1	+6	+1	-2	+5	+2	+5	+7	0	+4	+13	0	+1	+3	+0	+5	-2	+0	+11	+3	+5	+3	+2

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Automation-related disruption is most widely experienced and expected in information and financial services industries; concern about one's job being at risk is similar across sectors, but lower in healthcare

Q8. To what extent do you agree or disagree with each of the following about automation?

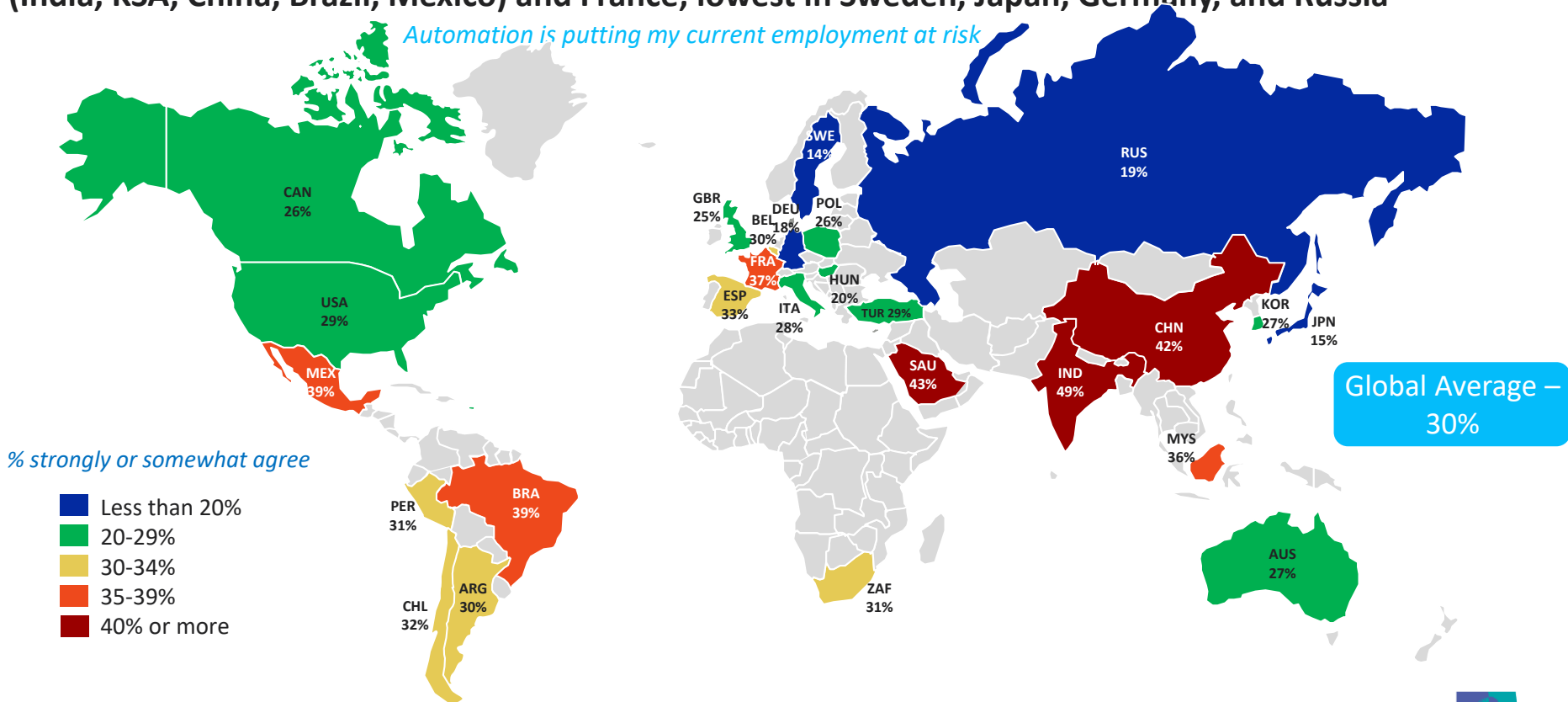
(% strongly and somewhat agree)

	Total	Farming, forestry, and fishing	Mining/ extraction, utilities, construct.	Manu- facturing	Wholesale and retail trade	Transport and logistics	Media, publish'g, telecom, data proc'g	Financial insurance and real estate services	Profess'1, scientific and technical services	Admin. and support services	Education	Healthcare and social services	Arts, sports, and recreation	Hospitality and food services	Gov't services (excl. police/military)	Military, police, emerg'cy services, security
Base (wtd)	8092	95	821	939	744	384	288	401	624	514	796	582	140	304	434	182
It has made my job completely different from what it was 10 years ago	46%	40%	50%	47%	44%	38%	55%	54%	50%	48%	49%	37%	47%	41%	44%	42%
It has made my job easier	49%	46%	52%	50%	46%	43%	58%	57%	59%	50%	54%	38%	52%	50%	43%	37%
It has improved the quality of my work	46%	55%	49%	50%	42%	36%	52%	55%	53%	45%	48%	37%	54%	45%	42%	36%
It has reduced the risks of injury while working	43%	49%	44%	48%	38%	37%	47%	49%	52%	40%	43%	34%	43%	44%	34%	38%
It has made my job more interesting	40%	49%	42%	43%	36%	30%	50%	49%	48%	40%	43%	28%	43%	38%	35%	31%
It will make my job completely different in the next 10 years	49%	50%	48%	53%	49%	43%	62%	57%	56%	54%	48%	38%	47%	45%	48%	47%
It is putting my current employment at risk	30%	38%	32%	33%	30%	28%	33%	33%	33%	37%	28%	23%	30%	28%	29%	30%
Automation acceleration (% it will make my job different minus % it has made my job different)	+3	+10	-2	+6	+5	+5	+7	+3	+6	+6	-1	+1	0	+4	+3	+5

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Concern about automation jeopardizing one's current employment is highest in large emerging markets (India, KSA, China, Brazil, Mexico) and France; lowest in Sweden, Japan, Germany, and Russia

Automation is putting my current employment at risk



% strongly or somewhat agree

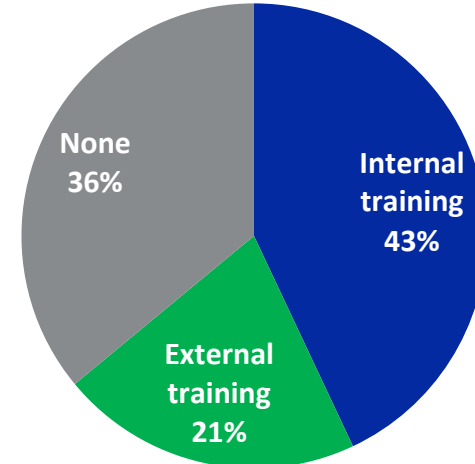
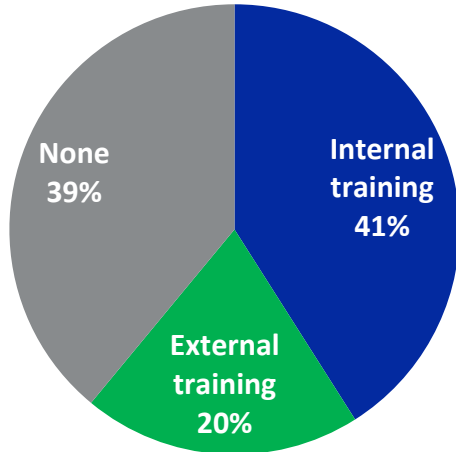
- Less than 20%
- 20-29%
- 30-34%
- 35-39%
- 40% or more

Globally, 61% of workers report that their employers offers training on new technology or products their organization is using and 64% training to improve or update their technical skills; in both cases, internal training is offered twice as often as external training

% of workers saying their employer offers training or education for...

New technology or products your organization is using

Helping employees improve/update technical skills



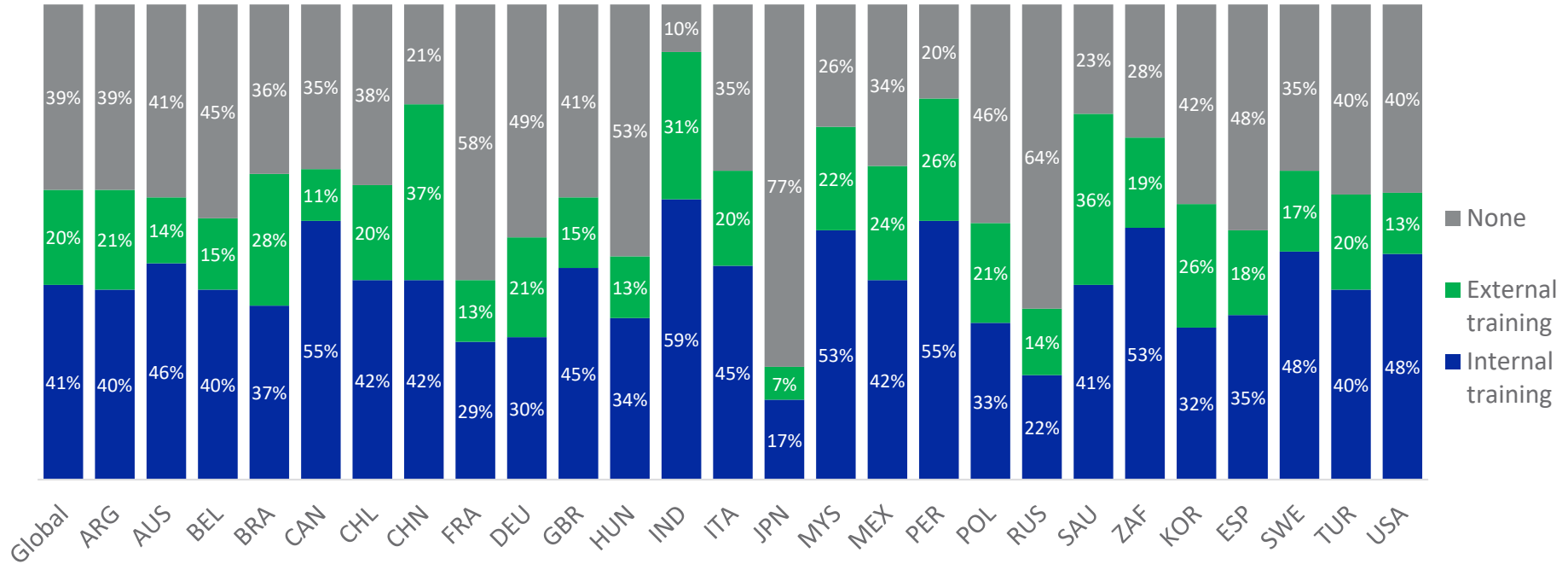
Q9. What kind of training or education does your employer offer for each of the following?

Base: 12,502 employed adults aged 16-64 across Argentina, Australia, Belgium, Brazil, Canada, Chile, China, France, Germany, Great Britain, Hungary, India, Italy, Japan, Malaysia, Mexico, Peru, Poland, Russia, Saudi Arabia, South Africa, South Korea, Spain, Sweden, Turkey, United States. October-December 2018

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Where workers are least likely to report that their employer offers training on new technology and products their organization is using are Japan, Russia, France and Hungary; access to internal training is most widely reported in India, Peru, and Canada; access to external training in China, Saudi Arabia, India, and Brazil

*% of workers saying their employer offers training or education for...
New technology or products your organization is using*

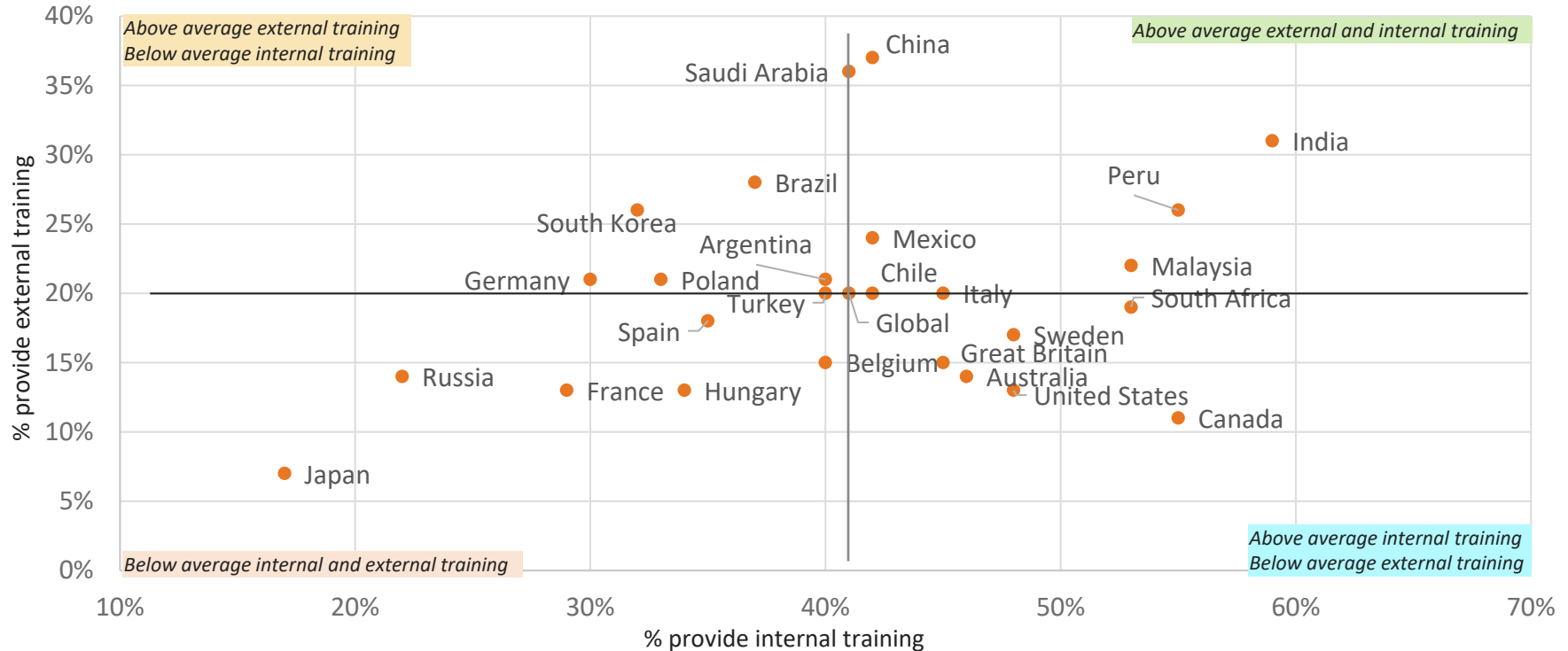


Q9. What kind of training or education does your employer offer for each of the following?

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Employer-Sponsored External vs. Internal Training on Organization's New Technology/Products

New technology or products your organization is using



Q9. What kind of training or education does your employer offer for each of the following?

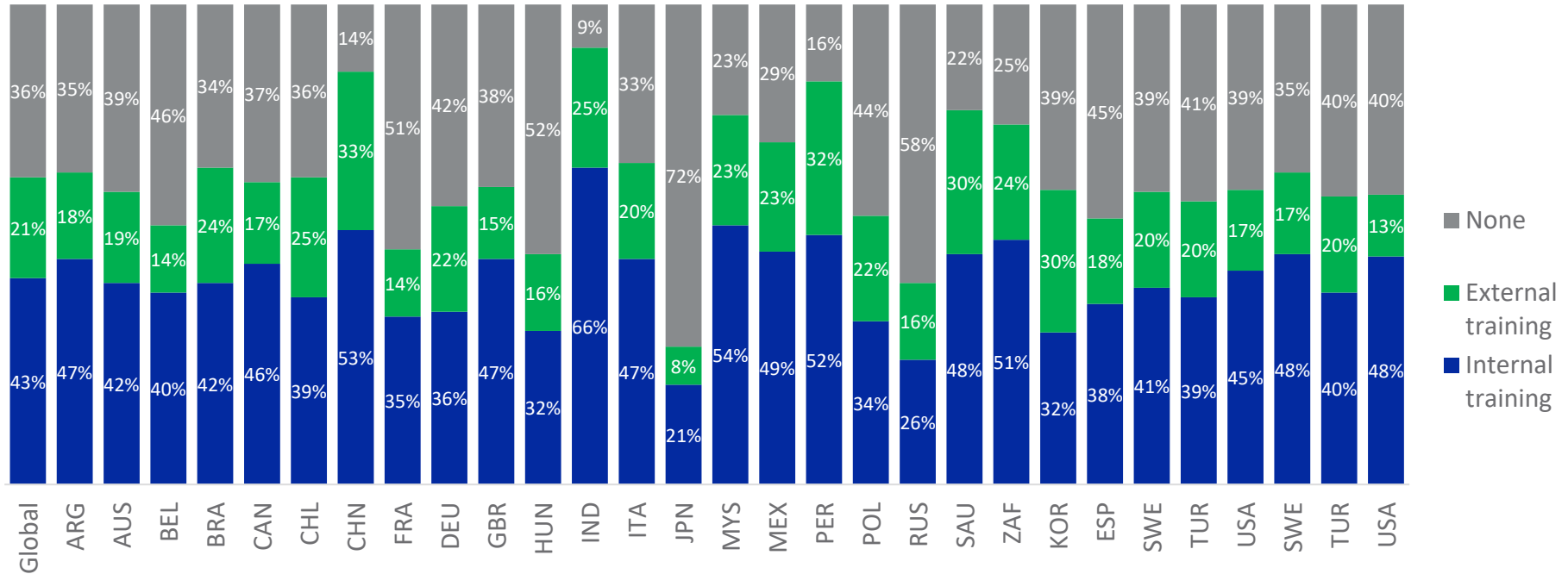
Base: 12,502 employed adults aged 16-64 across Argentina, Australia, Belgium, Brazil, Canada, Chile, China, France, Germany, Great Britain, Hungary, India, Italy, Japan, Malaysia, Mexico, Peru, Poland, Russia, Saudi Arabia, South Africa, South Korea, Spain, Sweden, Turkey, United States. October-December 2018

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Workers are least likely to report their employer offers training on their technical skills are Japan, Russia, Hungary, and France; access to internal training is most widely reported in India, China, and Peru; access to external training in China, Peru, and Saudi Arabia

% of workers saying their employer offers training or education for...

Helping employees improve/update technical skills

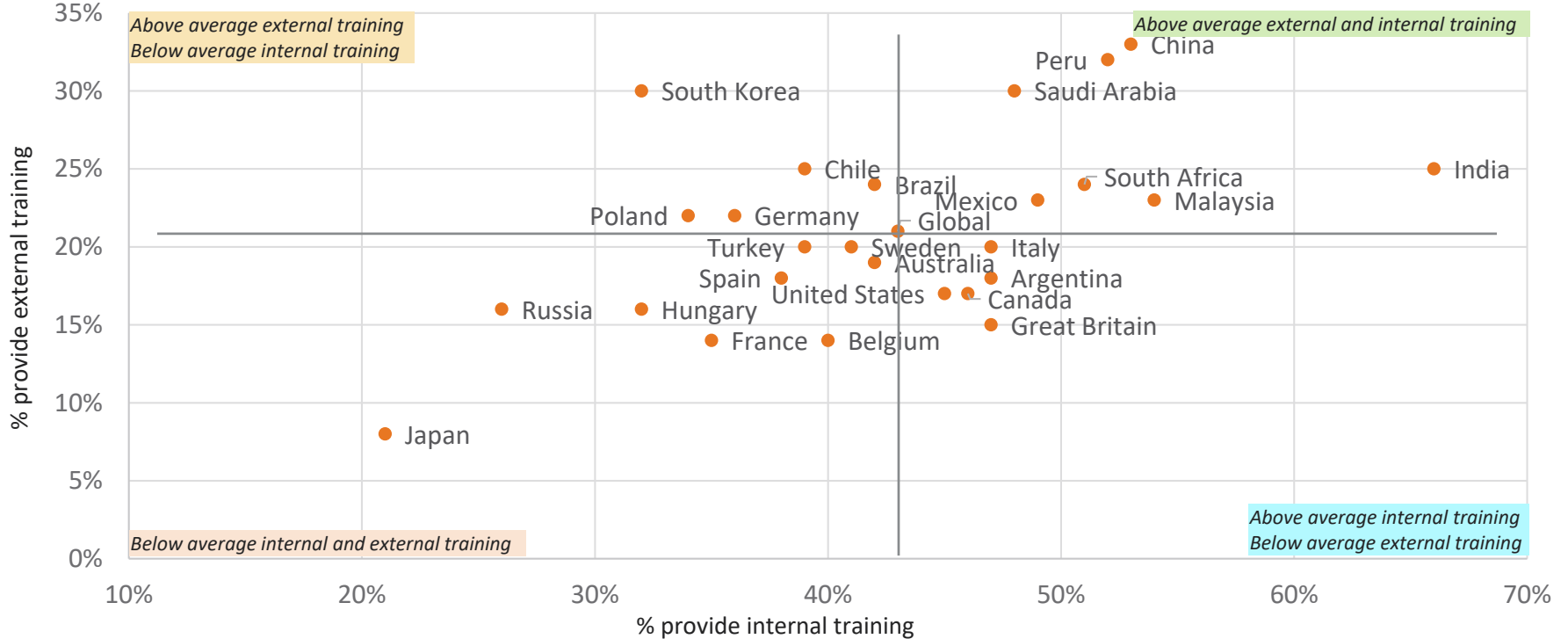


Q9. What kind of training or education does your employer offer for each of the following?

Base: 12,502 employed adults aged 16-64 across Argentina, Australia, Belgium, Brazil, Canada, Chile, China, France, Germany, Great Britain, Hungary, India, Italy, Japan, Malaysia, Mexico, Peru, Poland, Russia, Saudi Arabia, South Africa, South Korea, Spain, Sweden, Turkey, United States. October-December 2018

Employer –Sponsored External vs. Internal Training of Employees on Technical Skills

Helping employees improve/update technical skills

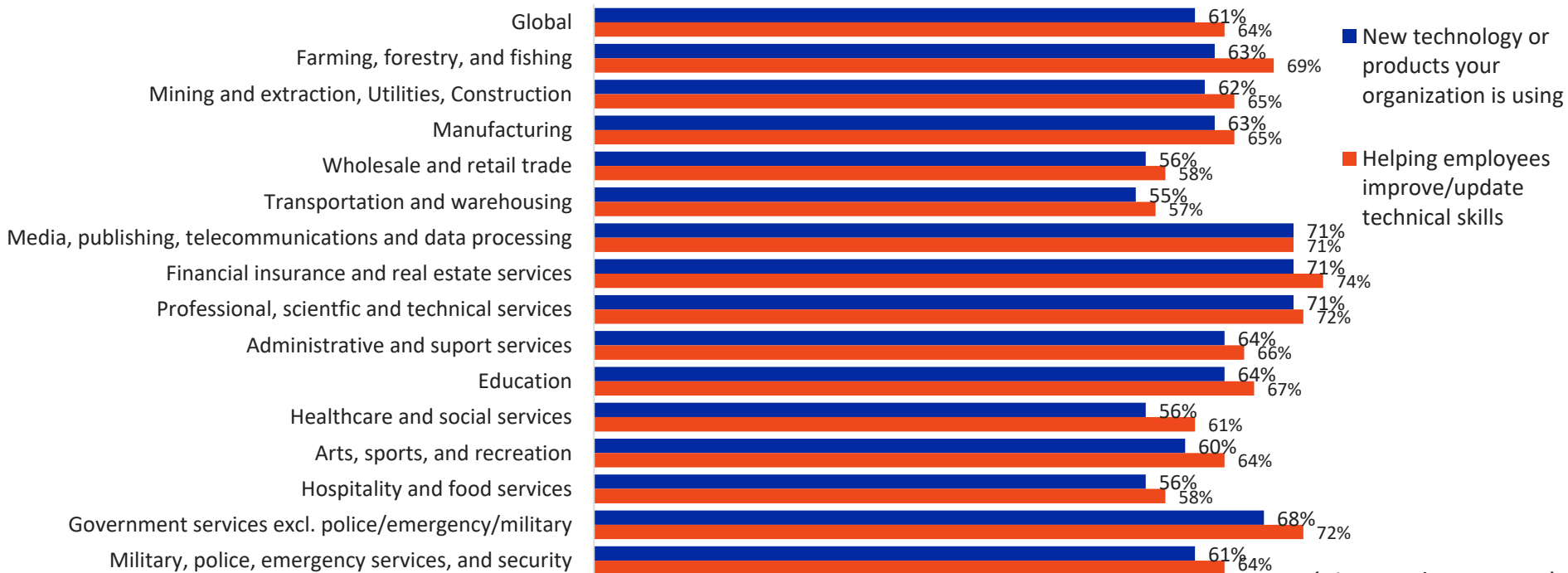


Q9. What kind of training or education does your employer offer for each of the following?

Base: 12,502 employed adults aged 16-64 across Argentina, Australia, Belgium, Brazil, Canada, Chile, China, France, Germany, Great Britain, Hungary, India, Italy, Japan, Malaysia, Mexico, Peru, Poland, Russia, Saudi Arabia, South Africa, South Korea, Spain, Sweden, Turkey, United States. October-December 2018

Employer-sponsored training is most widely provided in financial, professional/scientific/ technical, and information services; least so in transportation/logistics and wholesale/retail trade

% of workers saying their employer offers training or education for...



(% provide training)

Q9. What kind of training or education does your employer offer for each of the following?

Base: 12,502 employed adults aged 16-64 across Argentina, Australia, Belgium, Brazil, Canada, Chile, China, France, Germany, Great Britain, Hungary, India, Italy, Japan, Malaysia, Mexico, Peru, Poland, Russia, Saudi Arabia, South Africa, South Korea, Spain, Sweden, Turkey, United States. October-December 2018

Methodology

- These are the findings of an Ipsos Global Advisor survey on attitudes toward data privacy in partnership with the World Economic Forum. In total, 18,813 interviews were conducted October 26 – November 9, 2018 among adults aged 18-64 in the US and Canada, and adults aged 16-64 in all 24 other countries.
- The survey was conducted in 26 countries around the world via the Ipsos Online Panel system. The countries reporting herein are Argentina, Australia, Belgium, Brazil, Canada, Chile, China, France, Germany, Great Britain, Hungary, India, Italy, Japan, Malaysia, Mexico, Peru, Poland, Saudi Arabia, South Africa, South Korea, Russia, Spain, Sweden, Turkey and the United States of America. Note that some of the questions were not asked in all 26 countries.
- Between 500 and 1000+ individuals participated on a country by country basis via the Ipsos Online Panel. The sample size is 1000+ in Australia, Brazil, Canada, France, Germany, Great Britain, Italy, Japan, Spain and the United States of America. In all other countries the sample size is 500+. The precision of Ipsos online polls is calculated using a credibility interval with a poll of 1,000 accurate to +/- 3.5 percentage points and of 500 accurate to +/- 5.0 percentage points. For more information on Ipsos' use of credibility intervals, please visit the Ipsos website.
- In countries where internet penetration is approximately 60% or higher the data output generally reflects the overall population. Of the 26 countries surveyed online, 15 yield results that are balanced to reflect the general population: Argentina, Australia, Belgium, Canada, France, Germany, Hungary, Italy, Japan, Poland, South Korea, Spain, Sweden, Great Britain and the United States. The 11 remaining countries surveyed – Brazil, Chile, China, India, Malaysia, Mexico, Peru, Russia, Saudi Arabia, South Africa and Turkey – have lower levels of internet connectivity and reflect online populations that tend to be more urban and have higher education/income than the general population.
- Where results do not sum to 100, this may be due to computer rounding, multiple responses or the exclusion of don't knows or not stated responses.
- Data are weighted to match the profile of the population.

ABOUT IPSOS

Ipsos ranks third in the global research industry. With a strong presence in 87 countries, Ipsos employs more than 16,000 people and has the ability to conduct research programs in more than 100 countries. Founded in France in 1975, Ipsos is controlled and managed by research professionals. They have built a solid Group around a multi-specialist positioning – Media and advertising research; Marketing research; Client and employee relationship management; Opinion & social research; Mobile, Online, Offline data collection and delivery.

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GAME CHANGERS

At Ipsos we are passionately curious about people, markets, brands and society. We deliver information and analysis that makes our complex world easier and faster to navigate and inspires our clients to make smarter decisions.

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Through specialisation, we offer our clients a unique depth of knowledge and expertise. Learning from different experiences gives us perspective and inspires us to boldly call things into question, to be creative.

By nurturing a culture of collaboration and curiosity, we attract the highest calibre of people who have the ability and desire to influence and shape the future.

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