Trust in Technology





20th ANNUAL EDELMAN TRUST BAROMETER

Methodology

Online survey in 28 markets

34,000+ respondents total

All fieldwork was conducted between October 19 and November 18, 2019

28-market global data margin of error: General population +/- 0.6% (N=32,200), informed public +/- 1.2% (N=6,200), mass population +/- 0.6% (26,000+), half-sample global general online population +/- 0.8% (N=16,100).

Market-specific data margin of error: General population +/- 2.9% (N=1,150), informed public +/- 6.9% (N = min 200, varies by market), China and U.S. +/- 4.4% (N=500), mass population +/- 3.0% to 3.6% (N =min 736, varies by market).

Gen Z MOE: 28-market=+/- 1.5% (N=4,310) Market-specific = +/- 5.3 to 10.5% (N=min 88, varies by market).

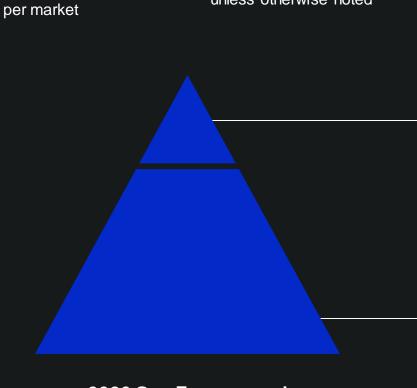
General Online Population

Ages

18+

1,150 respondents

All slides show general online population data unless otherwise noted



2020 Gen Z oversample

250 respondents age 18-24 per market



500 respondents in U.S. and China; **200** in all other markets

Represents 17% of total global population

Must meet 4 criteria

- ► Ages **25-64**
- College-educated
- In top 25% of household income per age group in each market
- Report significant media consumption and engagement in public policy and business news

Mass Population

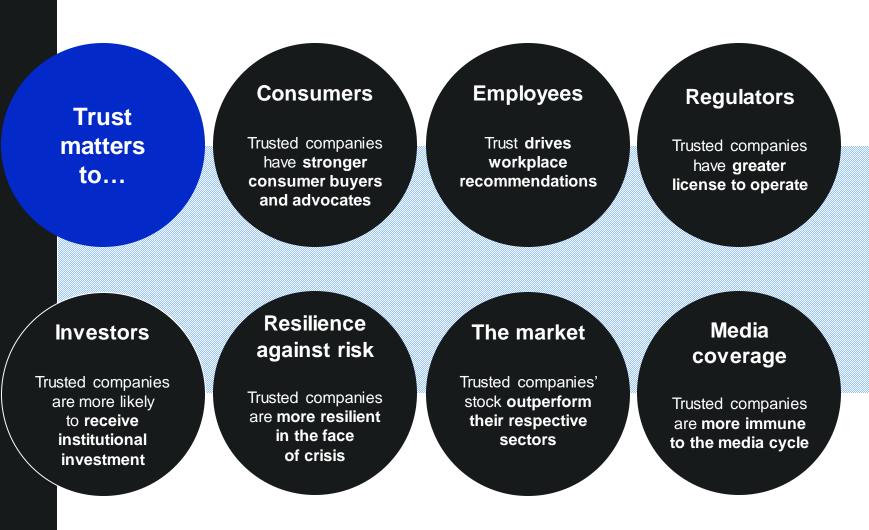
All population not including informed public

Represents **83%** of total global population

TRUST ESSENTIAL FOR FUTURE SUCCESS

20 years of Edelman research on trust

- 2M+ respondents
- 400+ companies
- 80k employee reviews
- Interviews with 50+ business leaders
- 23M measures of trust
- Review of 150+ academic articles and 80+ models of trust
- Trust and stock price analysis for 80 companies



20 YEARS OF TRUST

| 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|--|------------------------------|--|---|---|--|--|---|----------------------------------|---|
| Rising Influence of NGOs | Fall of the Celebrity CEO | Earned Media More Credible Than Advertising | U.S. Companies in Europe Suffer Trust Discount | Trust Shifts from "Authorities" to Peers | A "Person Like Me" Emerges as Credible Spokesperson | Business More Trusted Than Government and Media | Young People Have More Trust in Business | Trust in Business Plummets | Performance and Transparency Essential to Trust |
| 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| Business Must Partner With Government to Regain Trust | Fall of Government | Crisis of Leadership | Business to Lead the Debate for Change | Trust is Essential to Innovation | Growing Inequality of Trust | Trust in Crisis | The Battle for Truth | Trust at Work | Trust: Competence and Ethics |

CONTINUED DISTRUST

Trust Index

Global Trust Index increases 1 pt., with increases in 16 of 26 markets measured

12 of 26 markets are distrusters, down 2 from 2019

2020 Edelman Trust Barometer. The Trust Index is the average percenttrust in NGOs, business, government and media. TRU_INS. Below is a list of institutions. For each one, please indicate how much you trust that institution to do what is right. 9-point scale; top 4 box, trust. General population, 26-mkt avg.

| | 2019 General population |
|----|----------------------------|
| 53 | Global 26 |
| 79 | China |
| 73 | Indonesia |
| 72 | India |
| 71 | UAE |
| 70 | Saudi Arabia |
| 62 | Singapore |
| 59 | Malaysia |
| 58 | Mexico |
| 56 | Canada |
| 55 | Hong Kong |
| 54 | The Netherlands |
| 52 | Colombia |
| 49 | U.S. |
| 48 | Australia |
| 46 | Argentina |
| 46 | Brazil |
| 46 | Italy |
| 46 | S. Korea |
| 45 | S. Africa |
| 44 | France |
| 44 | Germany |
| 43 | U.K. |
| 42 | Ireland |
| 40 | Spain |
| 39 | Japan |
| 29 | Russia |

| | General population |
|----|--------------------|
| | |
| 54 | Global 26 |
| 82 | China |
| 79 | India |
| 73 | Indonesia |
| 65 | UAE |
| 62 | Mexico |
| 62 | Singapore |
| 61 | Saudi Arabia |
| 60 | Malaysia |
| 57 | The Netherlands |
| 53 | Canada |
| 53 | Colombia |
| 51 | Brazil |
| 50 | Hong Kong |
| 50 | S. Korea |
| 49 | Argentina |
| 49 | Italy |
| 47 | Australia |
| 47 | U.S. |
| 46 | Germany |
| 45 | France |
| 45 | Ireland |
| 45 | Spain |
| 44 | S. Africa |
| 42 | Japan |
| 42 | U.K. |
| 30 | Russia |

2020

▲

| | - | |
|------------------------|------------------------|--------------------------|
| Distrust (1-49) | Neutral (50-59) | Trust (60-100) |
| 0 | 0 | (+) |

Change, 2019 to 2020

| Declines in | |
|--------------|----|
| Saudi Arabia | -9 |
| UAE | -6 |
| Hong Kong | -5 |
| Canada | -3 |
| U.S. | -2 |
| Australia | -1 |
| S. Africa | -1 |
| U.K. | -1 |
| | |

| NO INSTITUTION SEEN AS | | | | |
|---|--------------------|----------|----------|--|
| BOTH COMPETENT | ETHI | | | |
| AND ETHICAL | 34 | 5 | | |
| (Competence score, net ethical score) | | | | |
| | NGOs | | | |
| LESS COMPETENT - 50 | (-4, 12) | | 50 ► CON | |
| | | Business | 50 / 601 | |
| | Media (-17, -7) | (14, -2) | | |
| Government (-40, -19) | | | | |
| | | | | |
| | -3 | 5 | | |
| | UNETH | HCAL | | |
| 2020 Edelman Trust Barometer. The ethical scores are averages of nets based on [INS | | | | |

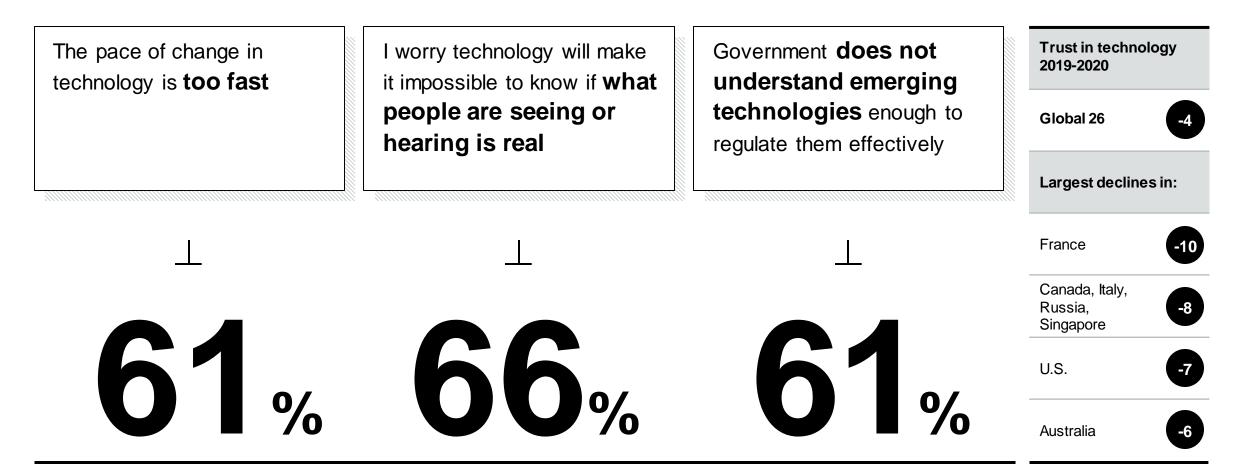
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on TRU_3D_[INSTITUTION] r1. Depending on the question it was either asked of the full of half the sample. General population, 25-mkt avg. D For full details regarding how this data was calculated and plotted, please see the Technical Appendix.

UNPREPARED FOR THE FUTURE

WORRY TECHNOLOGY IS OUT OF CONTROL

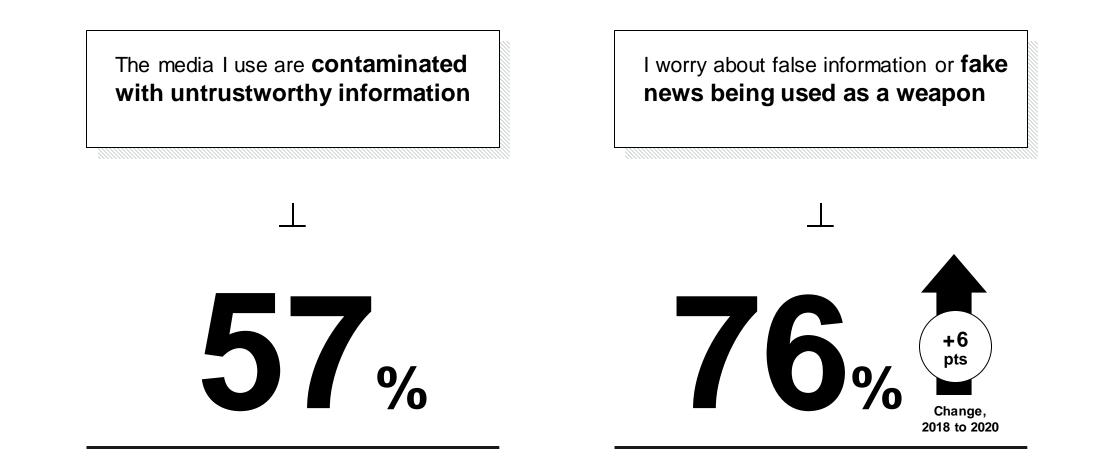
Percent who agree



2020 Edelman Trust Barometer. CNG_POC. For the statements below, please think about the pace of development and change in society today and select the response that most accurately represents your opinion. 9-point scale; top 4 box, fast. 28-mkt avg. ATT_MED_AGR. Below is a list of statements. For each one, please rate how much you agree or disagree with that statement. 9-point scale; top 4 box, agree. 28-mkt avg. PER_GOV. How well do you feel the government is currently doing each of the following? 5-point scale; bottom 3 box, not doing well (data excludes DK responses). 25-mkt avg. (data not collected in China, Russia, and Thailand). TRU_IND. Please indicate how much you trust businesses in each of the following industries to do what is right. 9-point scale; top 4 box, trust. 26-mkt avg. All questions asked of half of the sample among the general population.

WORRY ABOUT QUALITY INFORMATION

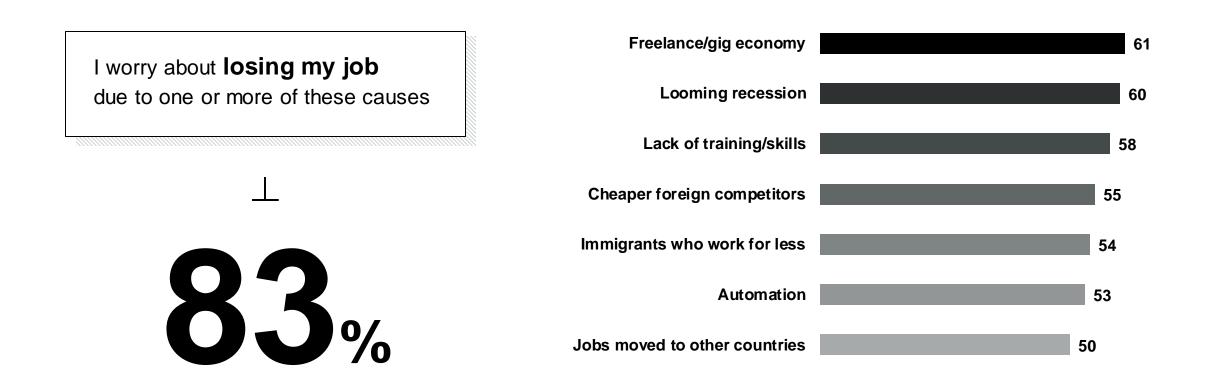
Percent who agree



2020 Edelman Trust Barometer. ATT_MED_AGR. Below is a list of statements. For each one, please rate how much you agree or disagree with that statement. 9-point scale; top 4 box, agree. Question asked of half of the sample. General population, 25-mkt avg. Data on the left not collected in China, Russia and Thailand. Data on the right excludes Kenya, Thailand, and Saudi Arabia.

WORRY ABOUT THE FUTURE OF WORK

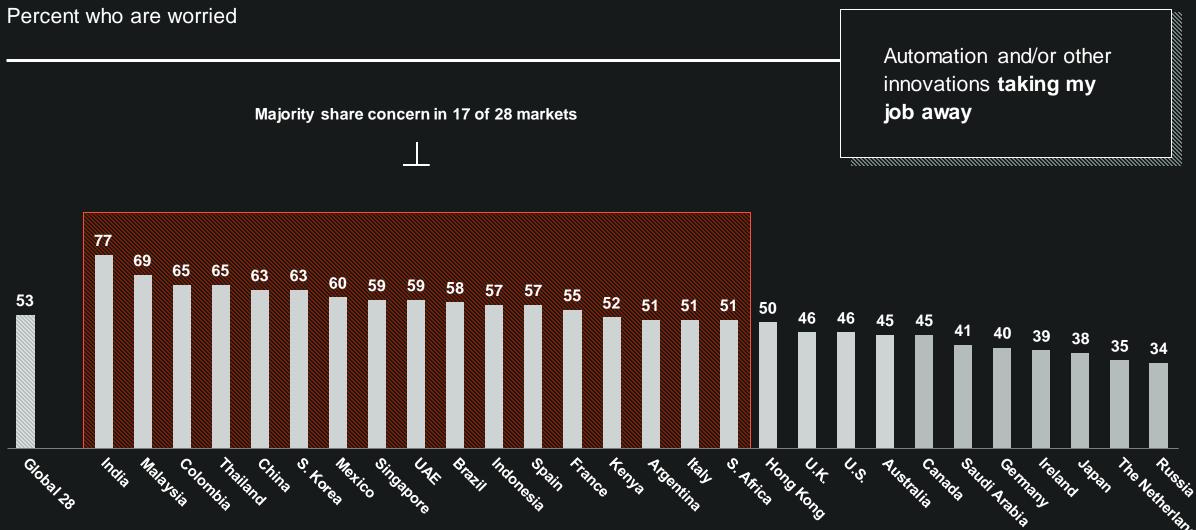
Percent of employees who worry about job loss due to each issue



2020 Edelman Trust Barometer. POP_EMO. Some people say they worry about many things while others say they have few concerns. We are interested in what youworry about. Specifically, how much do you worry about each of the following? 9-point scale; top 4 box, worried. Job loss net = codes 1,2,3,4,5,23,24. General population, 28-mkt avg, among those who are employed (Q43/1).

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OVER 1 IN 2 WORRY ABOUT JOB LOSS DUE TO AUTOMATION



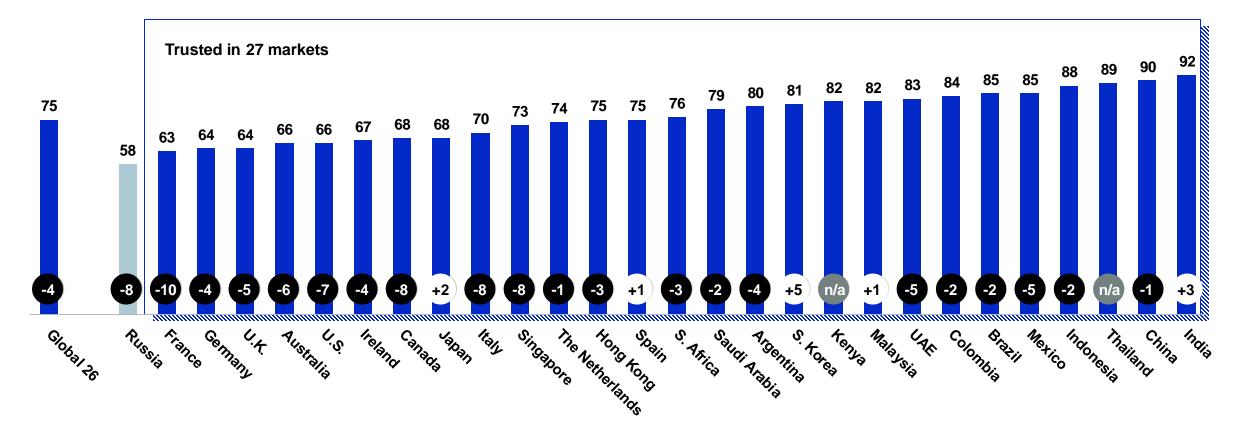
2020 Edelman Trust Barometer. POP_EMO. Some people say they worry about many things while others say they have few concerns. We are interested in what you worry about. Specifically, how much do you worry about each of the following? 9-point scale; top 4 box, worried. General population, 28-mkt avg, among those who are employed (Q43/1).

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TECHNOLOGY-LOSING ITS TRUST ADVANTAGE

TRUST IN TECHNOLOGY DECLINES IN 21 OF 26 MARKETS

Percent trust in technology



13

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Distrust Neutral Trust

Change, 2019 to 2020

TECHNOLOGY NO LONGER MOST TRUSTED SECTOR IN RECORD NUMBER OF MARKETS

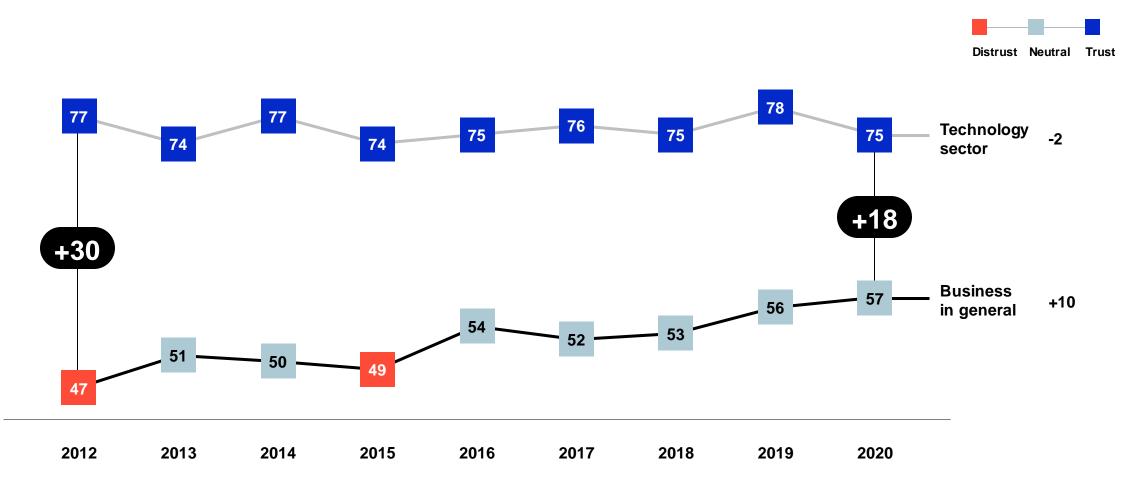
Markets in which technology is the most trusted sector measured

Technology sector most trusted
 Technology sector not the most trusted

| | | | | | APACMEA | | | | | | | | | | | Λ | ŀ | No. Americ | а | | I | Europ | е | | | |
|------|---|---|---------|--------|------------|----------------|--------|----------------|-----------|----------|-------|------|----------------|--------------|---------|---------|--------|---------------|----------|-------------|-----------|-------|--------|------------------------|-----------|--|
| | # of markets which tech is the most trusted sect | | ina Hor | Non In | 9 dia m | donesia Jar | 2an Me | alaysia Sir | ngapores. | atrica . | tores | AL A | soentine Br | a atil co | olombi? | AICO CO | 5. Cat | ada Fr | ance Ger | rmany re | jand trai | a 44 | e Neth | erlands Jssia SP | pain U.t. | |
| 2016 | 18 | | | | | | | | | | | | | | | | | ▼ | | | | | | | | |
| 2017 | 18 | - | | | | | | | | | | | | | | | | ▼ | - | | | | | | | |
| 2018 | 14 | - | ▼ | | | | ▼ | ▼ | | | | | | | | | - | | | ▼ | | ▼ | | | | |
| 2019 | 19 | - | | | | | | | | | | | | | | | | | | | | | | | - | |
| 2020 | 13 | | | | | | | | | | | | | | | | | | | | | | | | | |

TECHNOLOGY SECTOR TRUST NOT KEEPING PACE

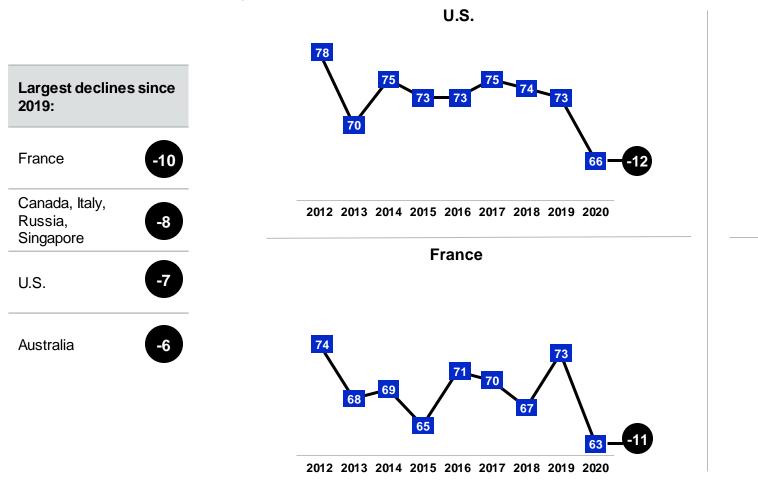
Percent trust in technology and business, change from 2012 to 2020

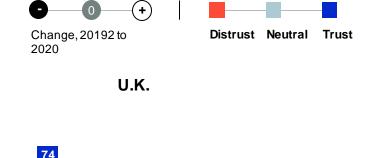


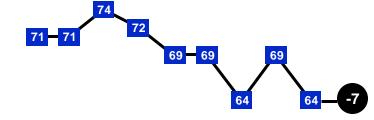
2020 Edelman Trust Barometer. TRU_INS. Below is a list of institutions. For each one, please indicate how much you trust that institution to do what is right. 9 -point scale; top 4 box, trust. TRU_IND. Please indicate how much you trust businesses in each of the following industries to do what is right. 9 -point scale; top 4 box, trust. Industries shown to half of the sample. General population, 23-mkt avg.

SHARP DECLINES IN KEY MARKETS FOLLOWING YEARS OF ERODING TRUST

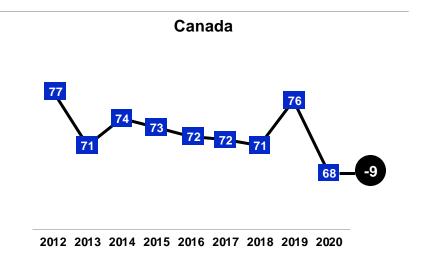
Percent trust in technology, 2012 to 2020







2012 2013 2014 2015 2016 2017 2018 2019 2020



TECH NO LONGER MOST TRUSTED SECTOR IN EUROPE AND CANADA

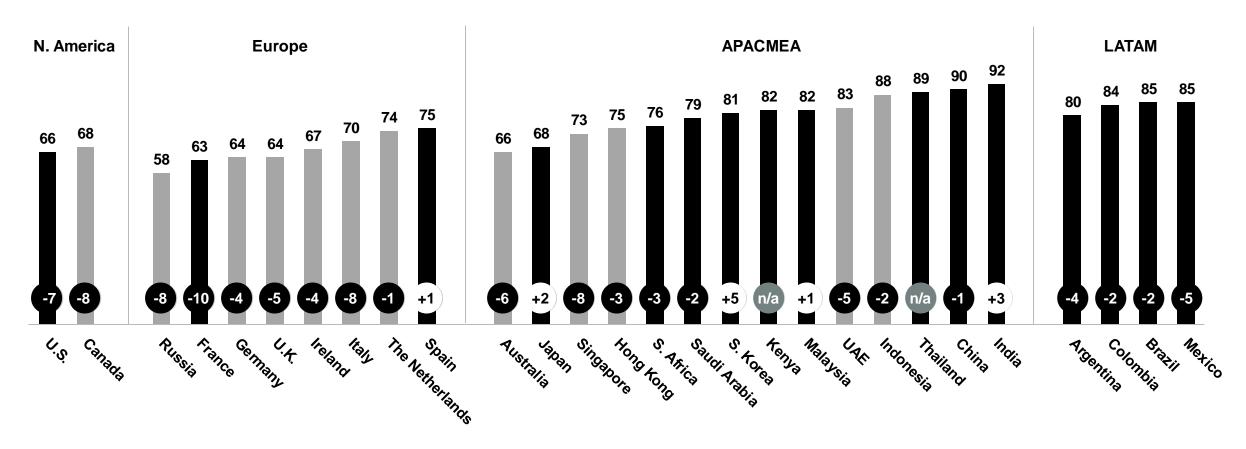
Percent trust in technology

Technology sector not most trusted

Technology sector most trusted

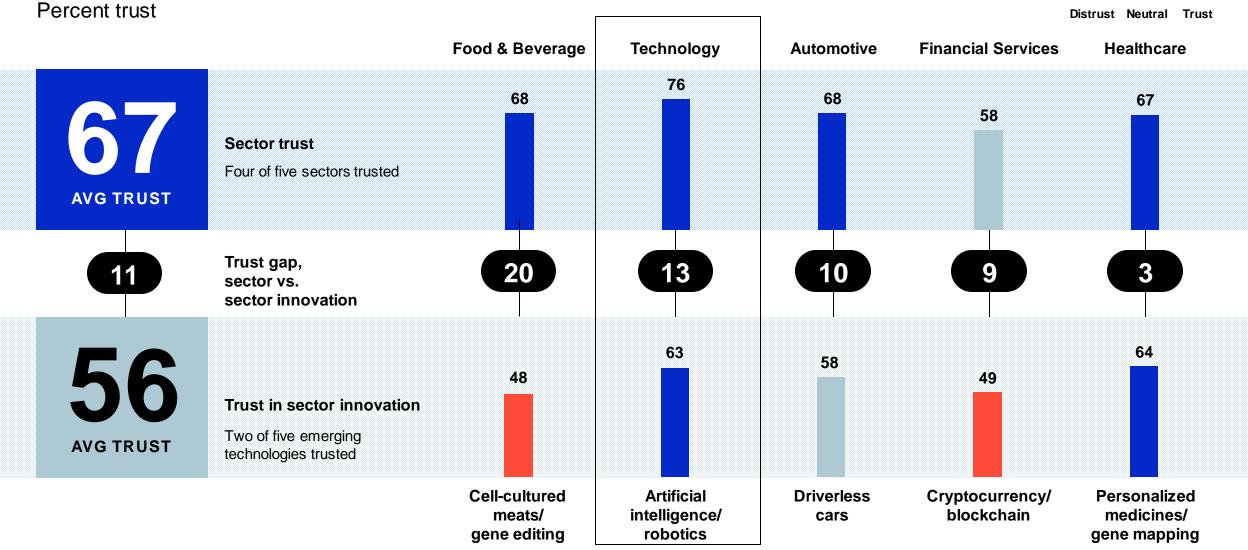
Change, 2019 to 2020

´+`





TRUST IN INNOVATIONS LAGS TRUST IN SECTORS



2020 Edelman Trust Barometer. SEC_TEC. Now thinking about the specific subsectors below, please indicate how much you trust businesses in each of the following to do what is right. 9-point scale; top 4 box, trust. TRU_IND. Please indicate how much you trust businesses in each of the following industries to do what is right. 9-point scale; top 4 box, trust. Industries shown to half of the sample. General population, 28-mkt avg.

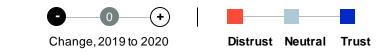
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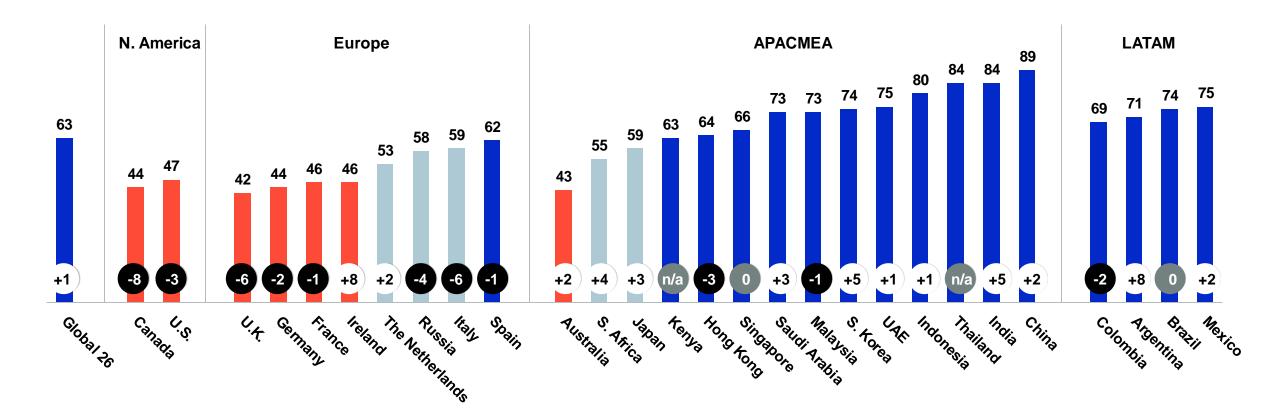
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AI DISTRUSTED IN KEY MARKETS

Percent trust in artificial intelligence/robotics

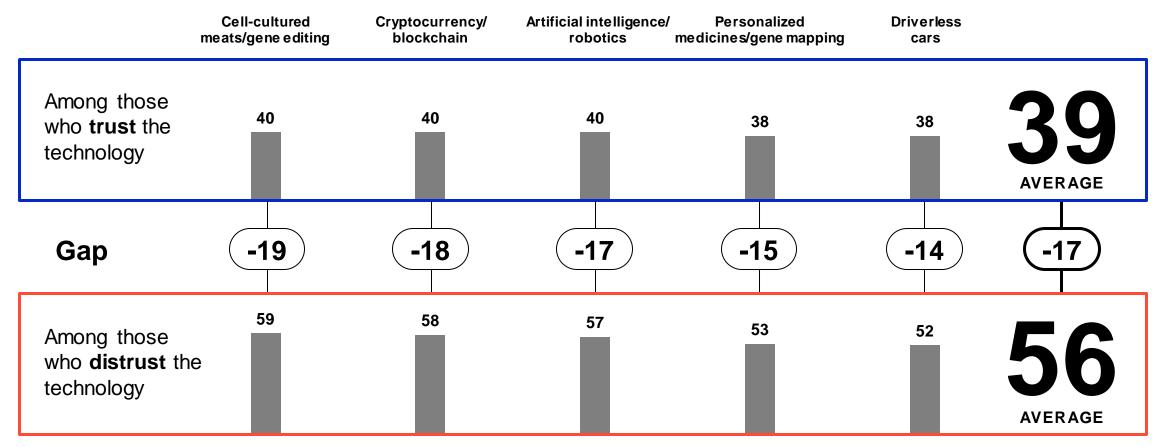




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HIGHER CALL FOR REGULATION WHEN INNOVATIONS ARE DISTRUSTED

Percent who think the emerging technologies are not regulated enough



2020 Edelman Trust Barometer. ET_XXX_REG. When it comes to regulation of these new AI technologies, do you think they are regulated too much, not enough orthe right amount? (Please select one response.) SEC_TEC. Now thinking about the specific subsectors below, please indicate how much you trust businesses in each of the following to do what is right. 9-point scale; top 4 box, trust, bottom 4 box, distrust. Questions asked to two-fifths of the sample. General population, 28-market average.

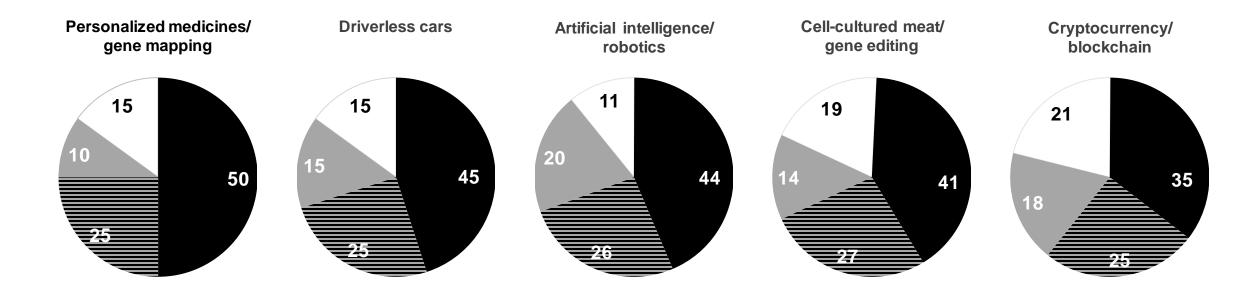
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BUILDING TRUST IN EMERGING TECHNOLOGIES

MAJORITY UNCONVINCED OF POSITIVE IMPACT

Percent who feel emerging technologies will have a positive or negative impact

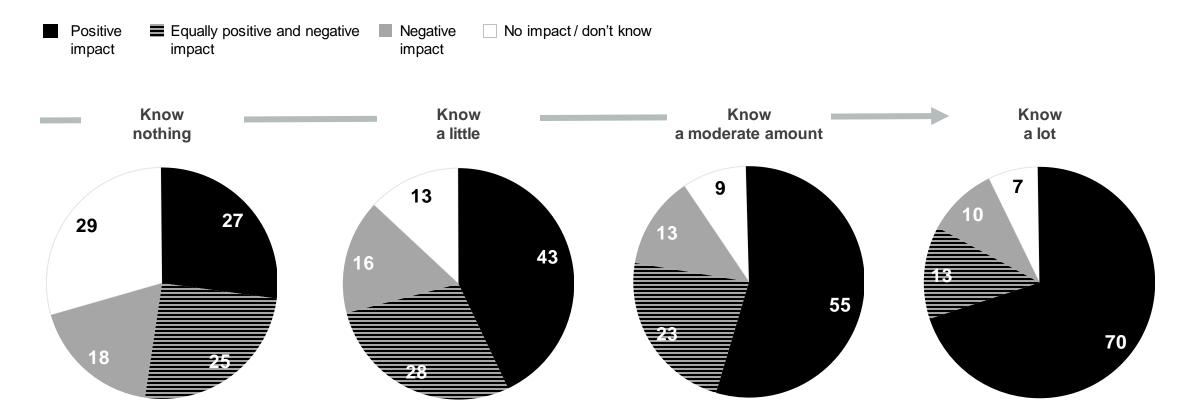
Positive Equally positive and negative Negative No impact / don't know



2020 Edelman Trust Barometer. ET_XX_IMP. For each of the following areas please indicate what you think the impact of [insert technology] will be using thefollowing scale. 5-point scale; codes 88 and 99, no impact/don't know. Question asked to two-fifths of the sample. General population, 28-mkt avg. Scores are averages of all 5 attributes.

THE MORE INFORMED, THE MORE CONVINCED OF POSITIVE IMPACT

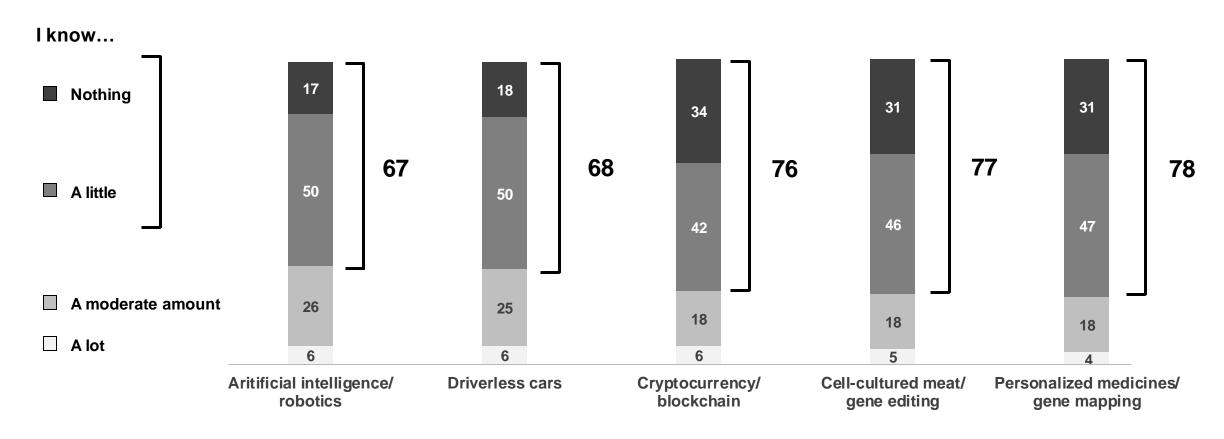
Percent who feel emerging technologies will have a positive or negative impact, among respondents with varying degrees of knowledge



2020 Edelman Trust Barometer. ET_[TEC]_INF. How well informed are you about [insert technologies]? Question asked of two-fifths of the sample. ET_[TEC]_IMP. For each of the following areas please indicate what you think the impact of [insert technologies] will be using the following scale. 5 -point scale; top 2 box, positive; bottom 2 box, negative; code 3 equally positive and negative; codes 88 and 99, no impact/don't know. Question asked of two-fifths of the sample. Data is the average impact for all attributes across all five emerging technologies by degree of knowledge. General population, 28-mkt avg.

SIGNIFICANT KNOWLEDGE GAP ACROSS INNOVATIONS

Percent who say they know nothing, a little bit, a moderate amount, or a lot about the emerging technologies



ADDRESS THE KNOWLEDGE GAP TO IMPROVE TRUST IN INNOVATIONS

Percent who say the following actions may act to increase trust in emerging technologies

| emerging technologies | | Artificial Intellige robotics | Driverle | Crypto- currency blockch | Cell-cult meats/ g editing | Persona medicine gene ma |
|---|----|-------------------------------------|----------|--------------------------------|----------------------------------|--------------------------------|
| Communicate their downsides | 54 | 57 | 57 | 47 | 55 | 55 |
| Communicate their benefits | 50 | 52 | 49 | 46 | 51 | 54 |
| Develop code of ethics | 49 | 53 | 47 | 43 | 50 | 51 |
| Education and retraining | 45 | 51 | 46 | 41 | 43 | 46 |
| Set up expert commission to monitor | 43 | 43 | 43 | 37 | 44 | 46 |
| Partner with government on regulations | 39 | 38 | 41 | 35 | 40 | 42 |
| CEOs pledge safe and ethical use | 36 | 38 | 38 | 34 | 36 | 36 |
| Set up fund to help those negatively affected | 31 | 33 | 30 | 28 | 30 | 34 |

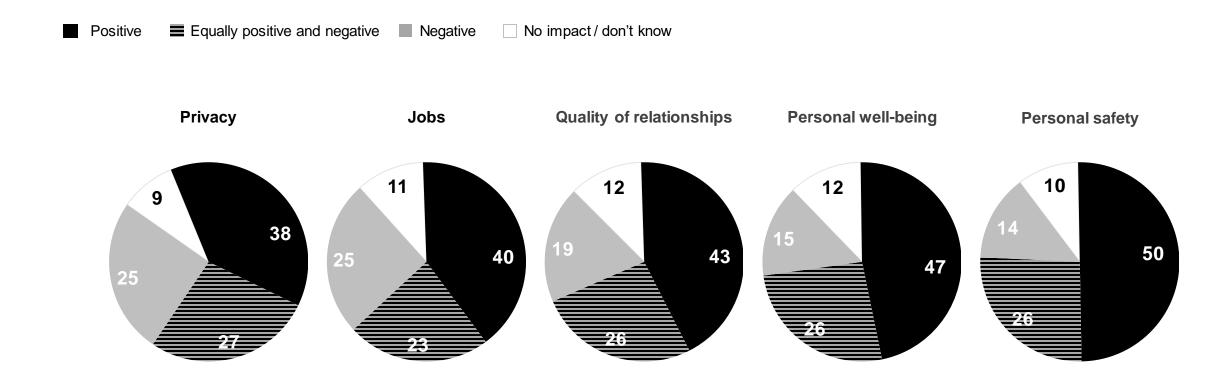
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ADDRESS CONCERNS ABOUT IMPACT OF AI ON JOBS AND PRIVACY

Percent who feel artificial intelligence/robotics will have a positive or negative impact



2020 Edelman Trust Barometer. ET_AI_IMP. For each of the following areas please indicate what you think the impact of AI will be using the following scale.5-point scale; top 2 box, positive; bottom 2 box, negative; code 3 equally positive and negative; codes 88 and 99, no impact/don't know. Question asked of two -fifths of the sample. General population, 28-mkt avg.

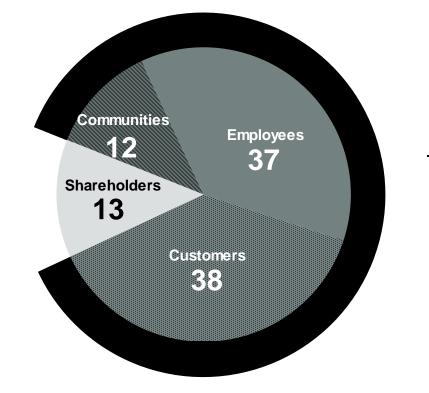
The world's carbon problem

TECHNOLOGY: CATALYST FOR POSITIVE CHANGE

SERVE THE INTERESTS OF ALL STAKEHOLDERS

Percent who ranked each group as most important

Percent who agree





Stakeholders, not shareholders, are most important to long-term company success 73%

a company can take actions that both increase profits and improve conditions in communities where it operates

2020 Edelman Trust Barometer. PPL_RNK. Please rank the following four groups of people in terms of their importance to a companyachieving long-term success. Give the most important group a rank of 1 and the least important a rank of 4. Stakeholders is a net of "Communities," "Customers," and "Employees". TMA_SIE_SHV. Please indicate how much you agree or disagree with the following statements. 9-point scale; top 4 box, agree. Question asked of half of the sample. General population, 28-mkt avg.

CEOS MUST LEAD

Percent of tech employees who agree

It is important that **my employer's CEO speak out** on one or more of these issues



| | Tech emp | All emp |
|---------------------------------|----------|---------|
| Training for jobs of the future | 86 | 84 |
| Automation's impact on jobs | 87 | 81 |
| Ethical use of tech | 85 | 81 |
| Income inequality | 83 | 78 |
| Diversity | 80 | 77 |
| Climate change | 78 | 73 |
| Immigration | 70 | 62 |

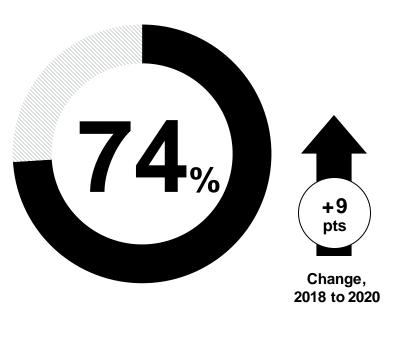
Percent who agree

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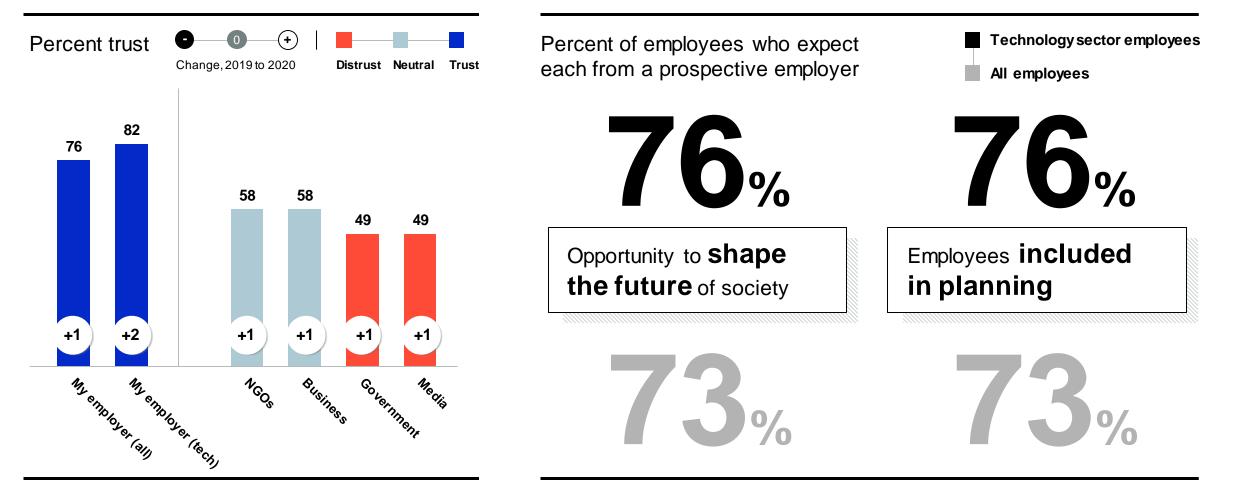
CEOs should take the lead

on change rather than waiting for government to impose it



2020 Edelman Trust Barometer. CEO_ISS. How important is it to you that the CEO or head of the organization you work for speaks outpublicly about each of the following issues? 9-point scale; top 4 box, important. Question asked of those who are an employee (Q43/1). Issues is a net of codes 1-7. General population employees and employees in the technology industry, 28-mkt avg. CEO_AGR. Thinking about CEOs, how strongly do you agree or disagree with the following statement? 9-point scale; top 4 box, agree. Question asked of half of the sample. General population, 25-mkt avg.

TRUST IS LOCAL: EMPLOYEES EXPECT TO BE HEARD

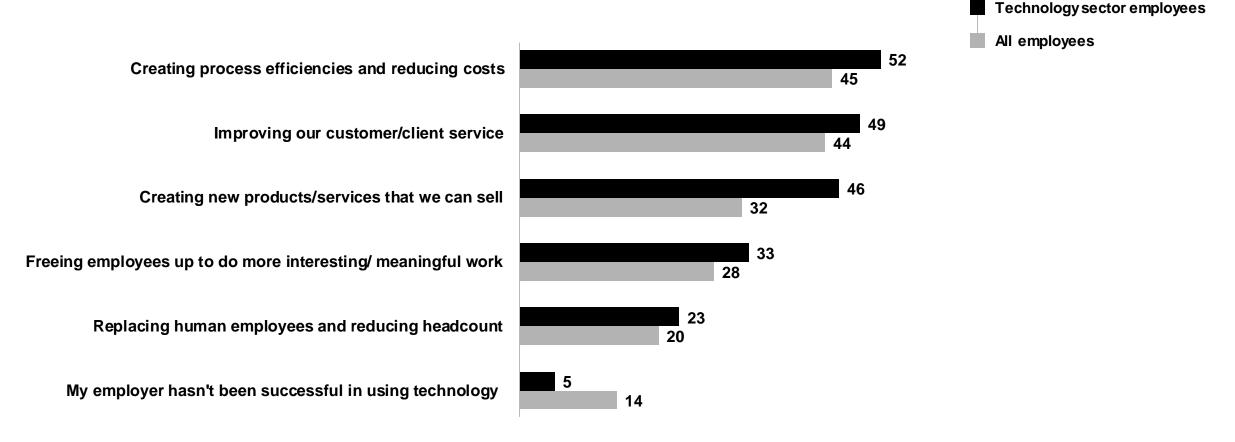


2020 Edelman Trust Barometer. EMP_IMP. When considering an organization as a potential place of employment, how important is each of the following to you in deciding whether or not you would accept a job offer there? 3-point scale; sum of codes 1 and 2, important. Question asked of those who are an employee (Q43/1). TRU_INS. Below is a list of institutions. For each one, please indicate how much you trust that institution to do what is. 9-point scale; top 4 box, trust. "Your employer" asked of those who are an employee (Q43/1). General population, 26-mkt avg.

an | 30

POSITION TECH TO ADD VALUE, NOT JUST CUT COST

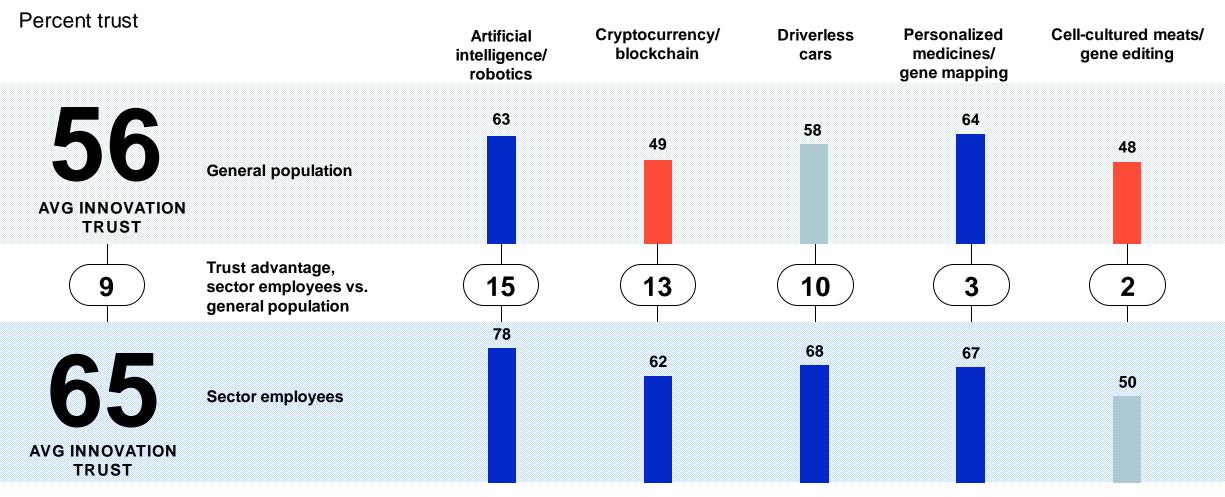
Percent who agree their employer has been successful in its use of technology





LEVERAGE HIGHER TRUST AMONG EMPLOYEES TO BUILD TRUST IN INNOVATION

Distrust Neutral Trust

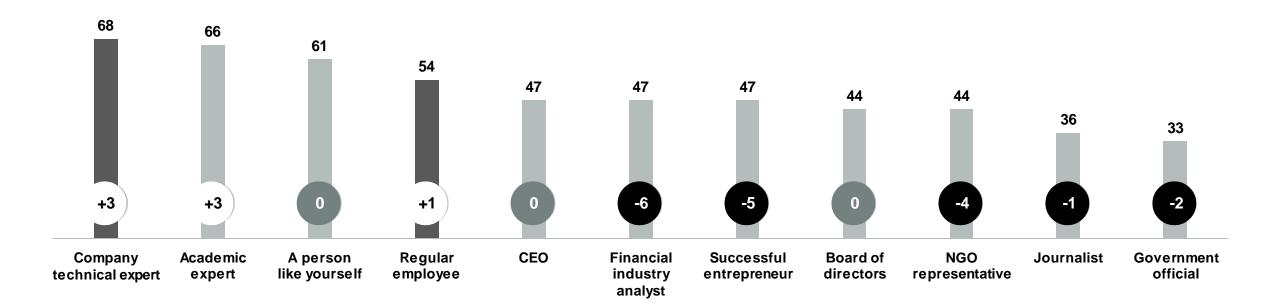


2020 Edelman Trust Barometer. SEC_TEC. Now thinking about the specific subsectors below, please indicate how much you trust businesses in each of the following to do what is right. 9-point scale; top 4 box, trust. Q420. Which of the following industries best describes the company or organization you work for or the type of work you do? (*Please select one response.*) General population and Sector Employees, 28-market average.

USE CREDIBLE EMPLOYEE VOICES AS SPOKESPEOPLE

Percent who rate each source as very/extremely credible





2020 Edelman Trust Barometer. CRE_PPL. Below is a list of people. In general, when forming an opinion of a company, if you heard information about a company from each person, how credible would the information be—extremely credible, very credible, somewhat credible, or not credible at all. 4-point scale; top 2 box, credible. Spokespeople asked of half of the sample. General population, 26-mkt avg.

TAKE ACTION TO ADDRESS IMPACT OF AUTOMATION

Percent who agree

 Business has a duty to do this
 I trust business will do this

 Retrain employees
 30

 affected by automation
 30

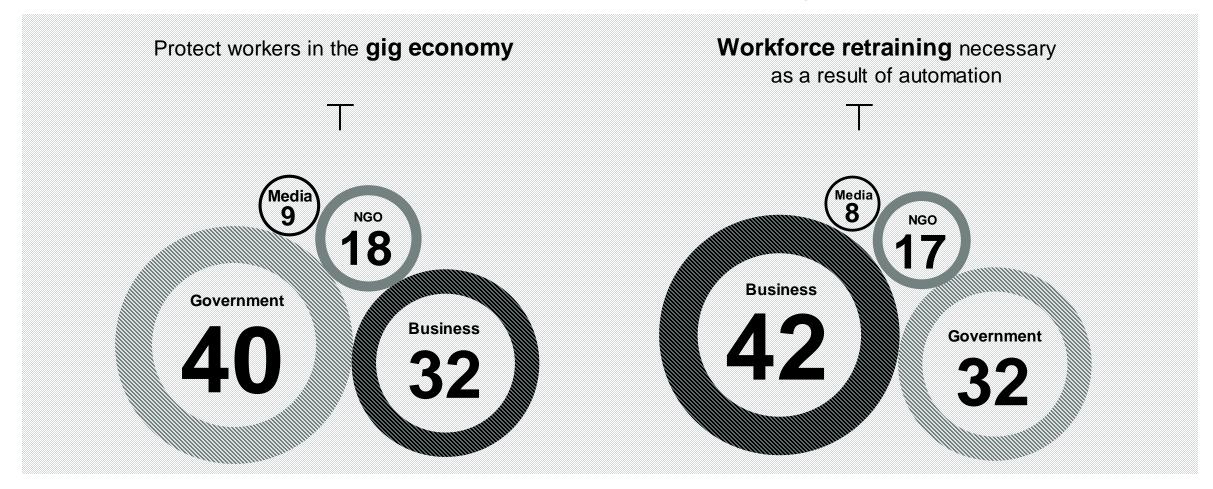
 or innovation
 79





PARTNERSHIP BETWEEN BUSINESS AND GOVERNMENT ESSENTIAL ON JOBS AND RETRAINING

Percent who say each institution is the one they trust most to address each challenge



2020 Edelman Trust Barometer. INS_ADD. For each of the challenges described below, please indicate whether you trust business, government, media or NGOs the most to address that challenge and develop workable solutions. Question asked of half of the sample. General population, 28 - mkt avg.

BUILDING TRUST IN TECHNOLOGY FOR THE FUTURE

Address benefits *and* risks of innovation (\mathbf{Z})

Embrace all stakeholders model Form partnerships to ensure tech benefits everyone 4

Activate employees as ambassadors CEOs to lead from the front and commit to positive change

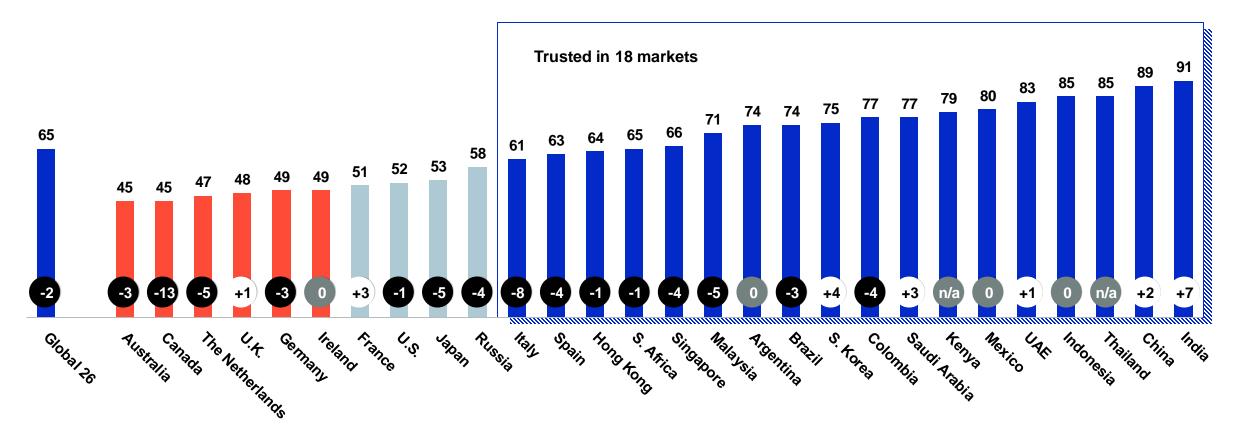
APPENDIX

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TRUST IN INTERNET OF THINGS DECREASED IN 15 OF 26 MARKETS



Percent trust in internet of things

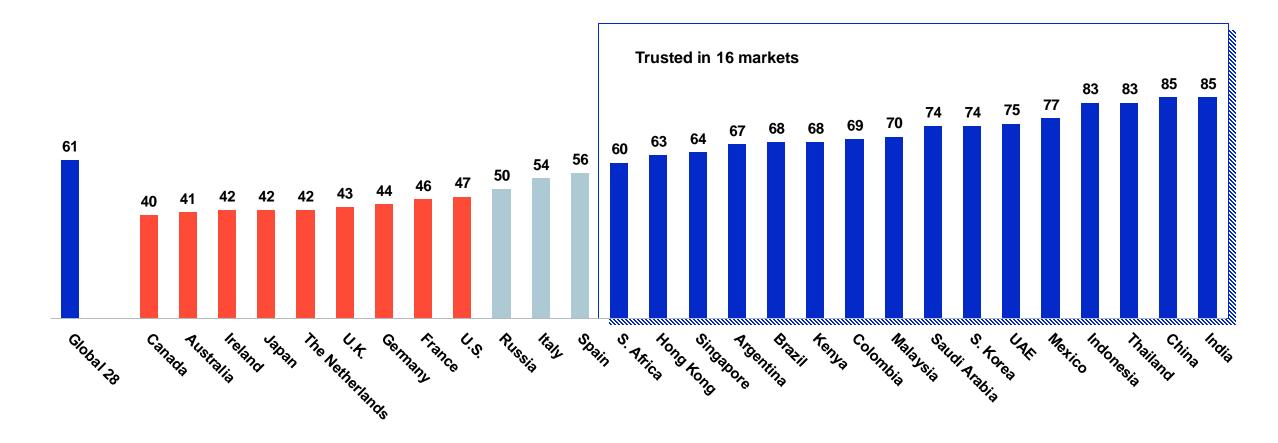




VIRTUAL REALITY TRUSTED IN 16 MARKETS

Percent trust in virtual reality



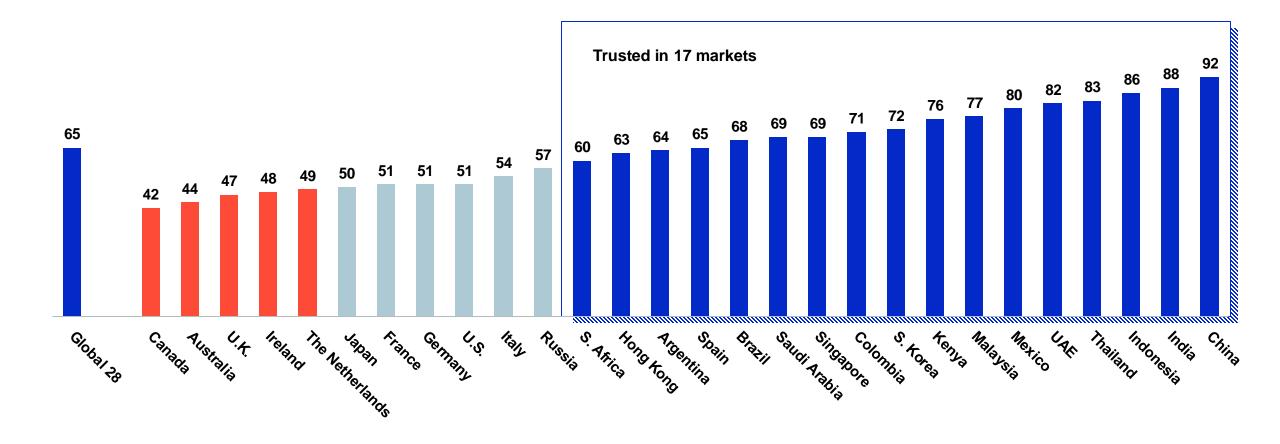


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5G CELLULAR TECHNOLOGY TRUSTED IN 17 MARKETS

Percent trust in 5G cellular technology

Distrust Neutral Trust



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MAJORITY UNCONVINCED OF POSITIVE IMPACT OF AI

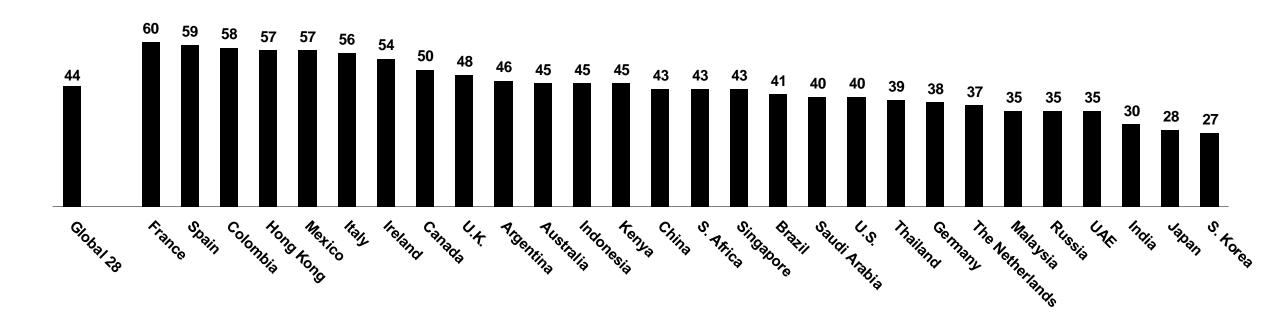
Percent who say the impact of artificial intelligence/robotics will be positive or negative

Negative Equally positive and negative Positive 13 markets below global average in their belief that the impact of AI will be positive 14 Canada nany Arance stralia The Netherlands Hong tong Singapore Indonesia Salidi Arabia Russia S. Africa tenya S. Aorea Malaysia GIOD31 28 Ireland Colombia Metico Thailand U.4. It aly Argentina URF Japan Spain S_{ratil} China India

2020 Edelman Trust Barometer. ET_Al_IMP. For each of the following areas please indicate what you think the impact of Al will be using the following scale.5-point scale; codes 88 and 99, no impact/don't know. Question asked to two-fifths of the sample. General population, 28-market average. Scores are averages of all 5 attributes.

4 IN 10 BELIEVE AI NEEDS MORE REGULATION

Percent who think artificial intelligence/robotics is not regulated enough



Edelman

2020 Edelman Trust Barometer. ET_AI_REG. When it comes to regulation of these new AI technologies, do you think they are regulated too much, not enough orthe right amount? Not enough. General population, 28-market average.