



Vodafone Institute
for Society and
Communications

THE TECH DIVIDE

CONTRASTING ATTITUDES TOWARDS DIGITISATION IN EUROPE, ASIA AND THE USA

POLICY

A representative study in nine countries,
February 2019



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Executive Summary

The breath-taking speed and impact of digitisation poses enormous challenges for political decision-makers. The search for balance between a dynamic economy, regulation and citizen participation is challenging, especially given current political instruments in Europe.

In the third and final report of the “The Tech Divide” studies, the Vodafone Institute examines the role governments play in the age of digitisation. What do people expect from government? Where should it interfere? Where not? Are there areas of conflict or trade-offs? How are the perspectives of people in Europe or the USA different from those in India or China?

To answer these questions, the research institute Ipsos conducted an online survey of 9,000 people in nine countries. Selected experts were interviewed anonymously to qualify the results. Unfortunately, as result of the political situation, some questions could not be asked of survey participants in China.

Few Europeans trust their respective governments to advance digitisation. In European states, only 40% of those surveyed see their respective governments as willing to advance digitisation; and only 34% believe that they have the adequate skills and capacity to do so. These numbers are considerably higher in the US (57% and 50%, respectively) and in India (82% and 75%, respectively). People in Sweden (14%) and Bulgaria (24%) view their governments' skills and capacities for digitisation as particularly lacking. The experts interviewed associate Europe's low confidence in their governments' roles in digitisation with the following factors: it is difficult to recruit IT specialists for work in political institutions; top-down digitisation initiatives from the state have had no effect; legislative processes and many bureaucratic structures are no longer compatible with the speed of technological change.

According to respondents and experts, states could gain greater trust from their citizens by **defining clear goals and making a credible commitment to digitisation**. Public private partnerships could be one solution for the expansion of state-level digital competence. Through such partnerships, external experts' know-how could significantly contribute to effective implementation and deployment of government projects. More than half of respondents are in favour of this solution; in China (68%) and

India (66%), a particularly high number of respondents support public private partnerships.

As far as direct state activities, interventions and investments are concerned, many citizens (39%) also support the **promotion of small and medium-sized enterprises**. Investments in digitisation and education seem almost as important, which is primarily supported by German respondents (44%). In Europe, citizens also show fairly strong support for state investment in digitisation infrastructure (36%). However, in China citizens' preferences concerning state action are clearly different: 46% support concepts which secure livelihoods, and 45% support wide-ranging state control of companies.

More than half of respondents state that digitisation has led to the **concentration of power among a few global IT companies**, and increasing distrust against them over the last several years. Subsequently, respondents and experts consider it policymakers' responsibility to ensure the implementation of ethical values via control mechanisms.

Despite concerns about the ability of governments to act, people across the countries surveyed still see **governments as the most important** authority for securing and controlling ethical behaviour: even in the digital age, most citizens see government as most responsible for sanctioning unethical behaviour. This is favoured by 57% of all respondents in all surveyed states. Only a minority (17%) consider tech companies most responsible in this respect.

Almost three quarters of those surveyed also see an increased need for security. In China, 59% of respondents had already experienced a breach of their personal data, while “only” 21% and 29%, respectively, of Italian and German respondents had similar experiences. From this it follows that the advent of digitisation is associated with an increased need for **data security** and privacy; over three quarters of respondents agree. Respondents' agreement is particularly high in China (83%), Great Britain (78%) and Sweden (77%). Remarkably, only one fourth of all European respondents believe their governments are protecting their data.

Further qualitative and quantitative results of the study as well as the first reports “People and Society” and “Industry and Employment” can be found at **www.vodafone-institut.de**.

Governments' competencies

“The central

government is dragging processes through, but the transformation process is really hard to achieve on the ground because they do not know what it means. (...) On the city council level, they really do not have a clue how they are going to use the data or the processes that might come out of some of the tested projects.”

SOCIETY EXPERT, PROFESSOR FOR DIGITAL CULTURE, UK

Change almost always needs leadership. Unfortunately, most feel that governments are not delivering that leadership in the case of digital transformation. Respondents of the survey tend to perceive government as lacking the political will and competencies to progress digitisation, and only 42% state that the government in their country has the necessary skills to further develop digitisation. Particularly in Europe, current political frameworks are considered incompatible with the dynamics of digital society.

Low confidence in government's ambition and skills

Respondents' assessment of their governments' determination to promote digitisation differs between countries in Europe, the US and India (Fig. 1).

Europeans are sceptical about their governments' ambition to advance digitisation and the use of new technologies. Less than half of the European respondents agree that their government has the political will to advance digitisation.

Within Europe, attitudes vary. People in the UK (47%) see their government as motivated to progress digitisation,

while 44% of German respondents and 42% of Spanish respondents believe the same. Bulgarians (32%) are least positive about their government. Surprisingly, Europe's digital front-runner, Sweden, is ranked by only 37% of Swedish respondents as willing to embrace and implement technological change.¹

Most European respondents believe that their respective governments also lack the necessary skills to manage digitisation. Given that capacity is a prerequisite for implementation, this suggests that respondents distrust their governments' effective ability to drive change. In some countries, the juxtaposition of the perception of the government's desire for technological change and the existing skills among public sector employees is particularly striking. In Sweden, for instance, 37% of the population believe that the government is willing to embrace digitisation, but only 14% trust it has the skills to deliver.

In contrast to the European countries, a majority of respondents in India (82%) and the US (57%) are convinced that their government has the will to push forward digital development, and the skills to do so (India 75%, US 59%).

¹ 80% of Swedes see themselves as digitally advanced. Refer to our publication 'The Tech Divide: Contrasting Attitudes Towards Digitisation in Europe, Asia and the USA', https://www.vodafone-institut.de/wp-content/uploads/2018/10/The_Tech_Divide_People_and_Society.pdf, p.23.

“The government

symbolises the opposite of what digitalisation stands for. It symbolises safety and continuation, while digitalisation stands for transformation and change.”

INDUSTRY EXPERT, CEO START-UP HUB, SWEDEN

A digital society requires a radically new political framework.

Several factors explain European disillusionment with political decision-makers.

According to the experts interviewed in the course of the study, governments should formulate clearly defined policy initiatives supporting technological change; this includes developing adequate regulatory frameworks and encouraging digitisation, specifically through direct investment and fiscal stimulus packages.

Often, top-down initiatives do not have the desired impact because local governments lack the necessary resources to implement policies, and of some public private partnerships the public is simply not aware.

In sum, most of the experts interviewed believe that there are neither sufficiently visible indicators that governments are motivated to advance digitisation, nor that technological change in general is successfully under way.

The creation of the UK's 'Government Digital Services' (GDS) in 2011 highlights the dilemma well: According to a policy advisor, the GDS was a promising sign that the UK government was pushing a progressive digital agenda. However, the GDS had less impact than was hoped for. GDS manages the website 'GOV.UK', a key digital service

of the government. One of its most important applications is a tool called 'Verify', which assures a single log-in identity for persons who wish to use any of the online services provided by the UK government. The application has struggled to find users. According to one expert, the failure of GDS can be attributed to a lack of government resources. In other words, the best digital policy is worthless without adequate capacity to carry out implementation.

This challenge, to align public policy with capacity and resources, has become a key issue across Europe.

Though governments might recognize they lack internal capacity, they find it difficult to recruit staff, which accentuates the problem. Strong demand for ICT specialists has driven up salary expectations that local governments are often unable to meet.²

Additionally, broader issues may be associated with governments' struggle to drive digitisation. Some observers suggest that institutional structures are not compatible with contemporary technological change.

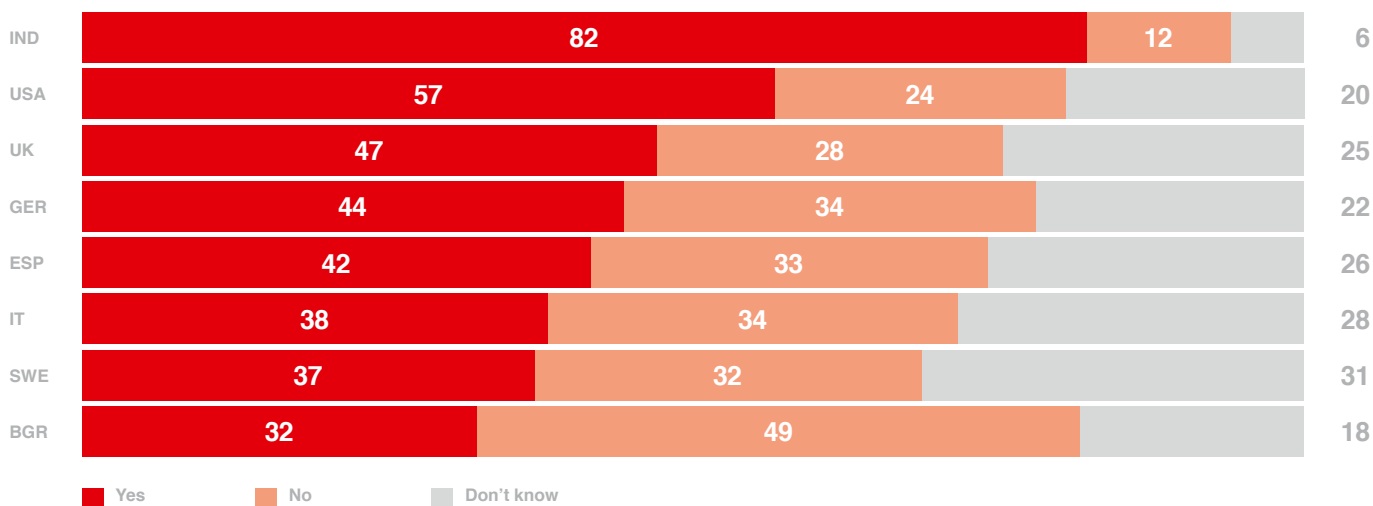
For instance, in Sweden, a country frequently lauded for its effective welfare state, respondents are most critical about their government's capacity to promote digitisation. Only 14% of Swedes believe the government has what it

² Example: Germany. PWC study on skills shortages in the public sector. November 2018: <https://www.pwc.de/de/offentliche-unternehmen/pwc-fachkraefteman-gel-im-oeffentlichen-dienst.pdf>

Little confidence in the competencies of European governments

Do you believe that your government has the will and the necessary skills to advance the progress of digitisation and the use of new technologies?

The government in my country has the will to do this.



The government in my country has the necessary skills to do this.

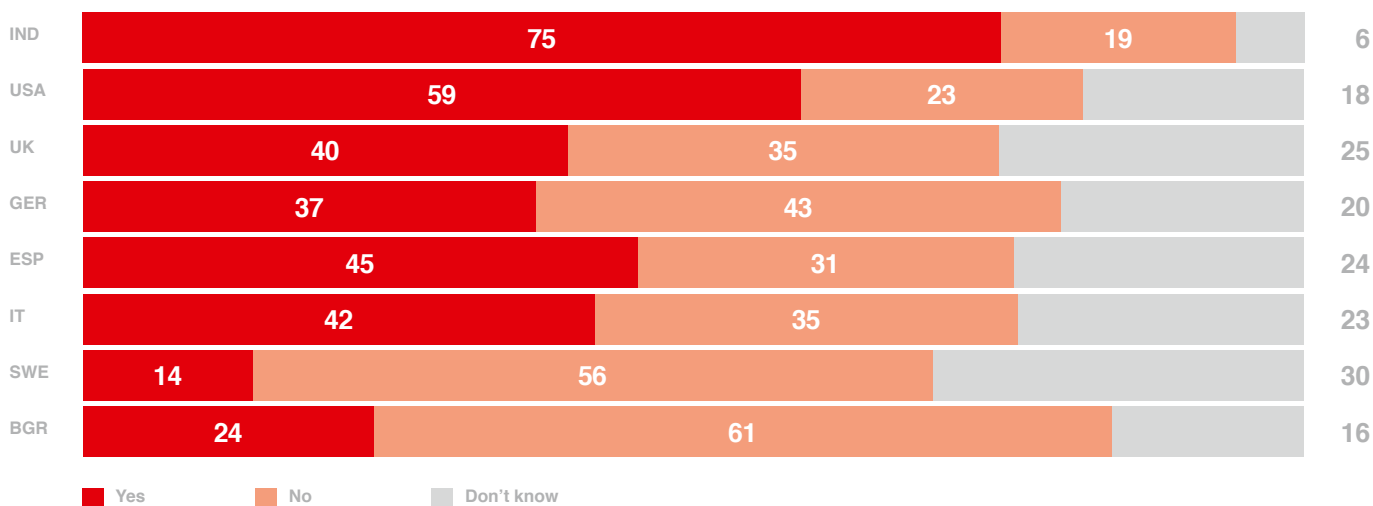


Fig. 1: Question was not asked in China. Figures may contain rounding differences. Figures in percentage.

“[There is the]... will to get out of the way and let the companies innovate, and the government’s skill is providing the things that those companies need in order to do that.”

ACADEMIC EXPERT, ASSISTANT PROFESSOR, US



takes. According to some observers, the Swedish state symbolises stability and continuity. At a time when flexibility and ongoing change are becoming ever more important, these values may inhibit innovative progress. A digital society requires a radically new institutional framework and mind-set.

The US government is traditionally more market-oriented and less interventionist. According to experts, US citizens have greater trust in the skills of the government to successfully push digitisation, precisely as a result of its hands-off approach. Americans tend to believe that innovation comes from the market and not the government.

Perhaps the way forward in Europe lies in more cooperation between state and companies. Such cooperation can bring in external experts with the right skills to help shape and implement policy (Fig. 3, page 13).

Despite regional differences, respondents in all countries agree that governments have an important role to play in developing a digital society. However, there might be limited political value in digital policies. According to some observers, it is predominantly the younger and highly edu-

cated electorate that is interested in digitisation. In ageing societies with more polarising concerns such as migration, there could be too little political capital in digitisation to run a successful election campaign on it.

India, with its youthful population and positive outlook on technology, exemplifies the other side of the coin. The Indian government does not tire of demonstrating the importance of digitisation. Unlike Europe and the US, India has put highly publicised policies in place that give priority to digitisation. A good example is the flagship programme 'Digital India – Power to Empower'. The programme's vision is 'to transform India into a digitally empowered society and knowledge economy.'³ India's policy of embracing a digital society explains the positive attitudes of its population towards technological change. Among all surveyed countries, India has the highest level of trust in their government's digital ambition and skills.⁴

³ Refer to <http://www.digitalindia.gov.in/>. Date accessed: 09.11.2018.

⁴ For more information on Indians' attitude towards digitisation refer to the publication "The Tech Divide" (Oct.2018), https://www.vodafone-institut.de/wp-content/uploads/2018/10/The_Tech_Divide_People_and_Society.pdf. Date accessed: 09.11.2018.

🎯 Key Takeaways

Governments' competencies

Trust in governments' ambitions and capacities to drive digitisation is low in Europe. Most respondents believe that their countries are still at the beginning of the digital transformation.

Indians have the highest confidence in their government's competence, whereas people in Bulgaria and Sweden are more sceptical.

In order to remain competitive in the digital age, governments should:

Define clear and actionable policies;

Build capacity and provide resources not only to cope, but also to become a driver of digitisation;

Consider new institutional frameworks and public private partnerships.

Digitisation: Expectations towards government

“I think more

than [the existing] 48% should agree that we need more international cooperation. We are a small country, albeit economically strong. To continue that way, our business needs to stay international.”

INDUSTRY EXPERT, CEO START-UP HUB, SWEDEN

Despite their lack of trust in governments' capacity to foster technological progress, respondents would like to see their governments become role models for digitisation. Governments are expected to act now, invest in infrastructure and education, seek strategic partnerships with the private sector and formulate clear-cut policies to move forward into a technology-oriented future.

Open and dynamic institutions are needed.

Most citizens expect governments to show leadership in the development of digitisation. Across all countries except Sweden, respondents agree that the most important measure a government can take to develop and ensure its own digital capacity is to create a strategy for the use of new technologies and update it annually (Fig. 2).

The Swedish case is the only exception. Respondents in Sweden emphasise cooperation and partnerships and see great potential in regular exchange between the public and the private sector, as well as civil society.

Having a heterogeneous workforce with a diverse and versatile skillset is also regarded as an important factor for meeting the demands of a digital society in many countries. The establishment of an independent expert commission to advise government on digital issues is among the top three answers.

Citizens view government as having an important role in driving digitisation forward. However, public opinion also underlines the importance of external impulses, e.g. partnerships or expert commissions, as sources of guidance

for policymakers. To remain competitive in the digital economy, private and public sector, as well as open and dynamic institutions are all required.

Partnerships and cooperation aid progress.

To meet the demands of digitisation, new expertise, particularly technical expertise, is needed. More than half of all respondents agree that digital services in the public sector cannot be provided by the government alone (Fig. 3). Governments are dependent on cooperation with businesses specialised in IT. IT infrastructure and solutions should come from external sources instead of the public sector itself. Respondents in China (68%) and India (66%) are more likely to advocate cooperation between the government and IT specialists and companies than people from Europe or the US. Attitudes also vary widely among Europeans: Bulgarians (60%) show the highest level of agreement, followed by Germans (57%) and people from the UK (55%). Italians (45%) and the Spanish (40%) are least likely to agree.

Importance of international cooperation?

International cooperation is regarded as a less effective policy tool than public private partnerships. Across all countries, only four out of ten respondents agree that more international cooperation and collaboration are needed for their country to achieve digital transformation (Fig. 4). There are large differences between countries. Agreement is

How the state can develop its digital competencies

In order to remain competitive in the digital age, a government should be skilled in the field of digitisation and new technologies. Which three of the following measures should be taken by the government to develop or ensure its own capacity in this area?

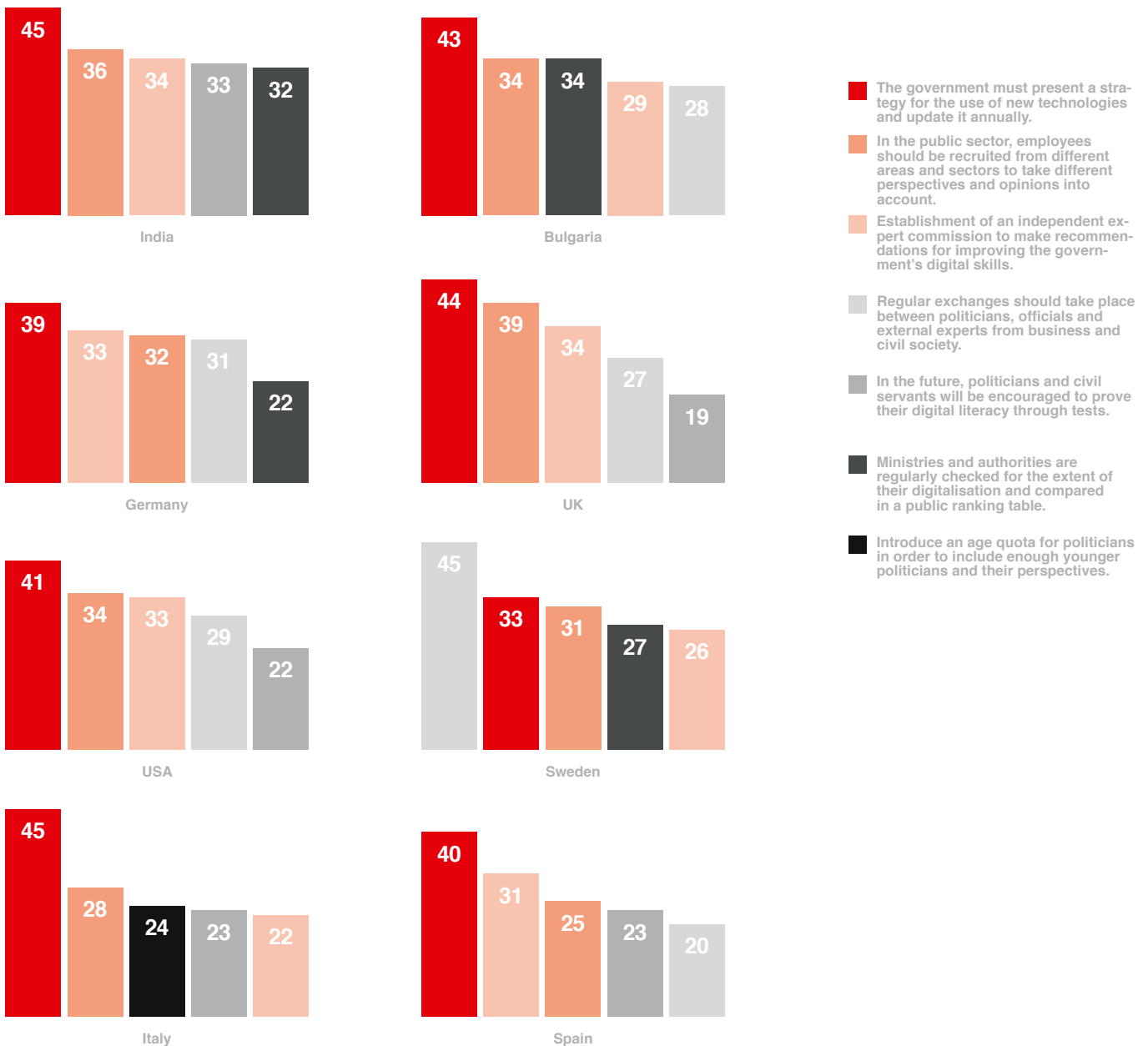


Fig 2: Top5 answers. Figures in percentage. Multiple answers were possible. Question was not asked in China.

State and economy should cooperate

Digital services in the public sector cannot be provided by the government alone. It is dependent on cooperation with IT specialists and companies. IT infrastructure and solutions should come from outside instead of from the public sector. To what extent do you agree with the statement?

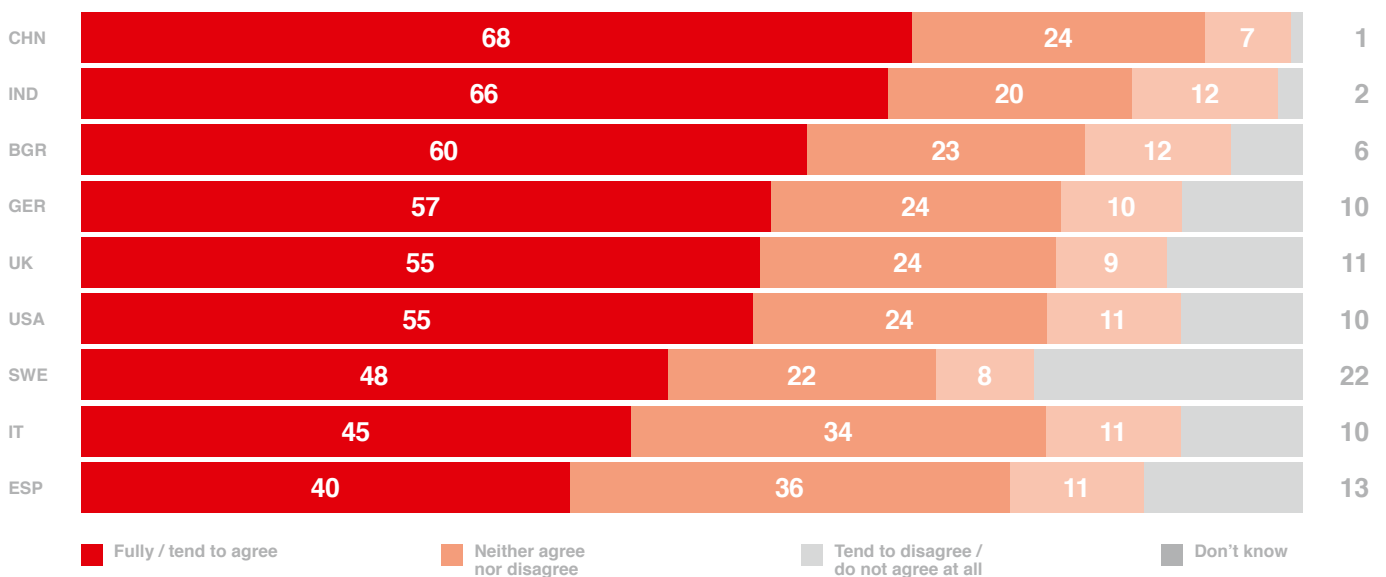


Fig. 3: Scale from 1 'fully agree' to 5 'do not agree at all'. Figures may contain rounding differences. Figures in percentage.

highest in Bulgaria (52%), followed by India and Germany (each 45%). American respondents are least likely (40%) to agree that the international cooperation is necessary for achieving a digital transformation in the US.

The data reflects global imbalances with regards to market share of the digital economy. The US has been leading digital innovation for decades. American tech giants are highly successful and hold the biggest share of the global digital economy. Currently, there appears to be little need for the US to import external expertise. The digital economy is less developed in Europe and the continent lacks major global technology players. Europeans therefore see more strategic value in international cooperation than people in the US.

Broader cultural explanations may underpin public opinion about international cooperation. Germany's economic success, for instance, is predominantly based on exports. International cooperation is built into the German business

habitus. It may be for this reason that Germans are more open to reaching out to external partners.

Governments as role models for digitisation

Most respondents believe that governments need to be role models for digitisation and pioneers in motivating businesses and citizens to use digital services.

Again, there are considerable variations in the data (Fig. 5). Respondents from China (76%), India (75%) and Bulgaria (71%) are most likely to agree, that governments should be role models, and people in the UK (52%) and Sweden (47%) are least likely to agree. Swedes in particular do not see their government as an effective role model for citizens and businesses.

My country is not capable of achieving digital transformation on its own. More international cooperation and collaboration is needed

To what extent do you agree with this statement?

- Fully / tend to agree
- Neither agree nor disagree
- Tend to disagree / do not agree at all
- Don't know

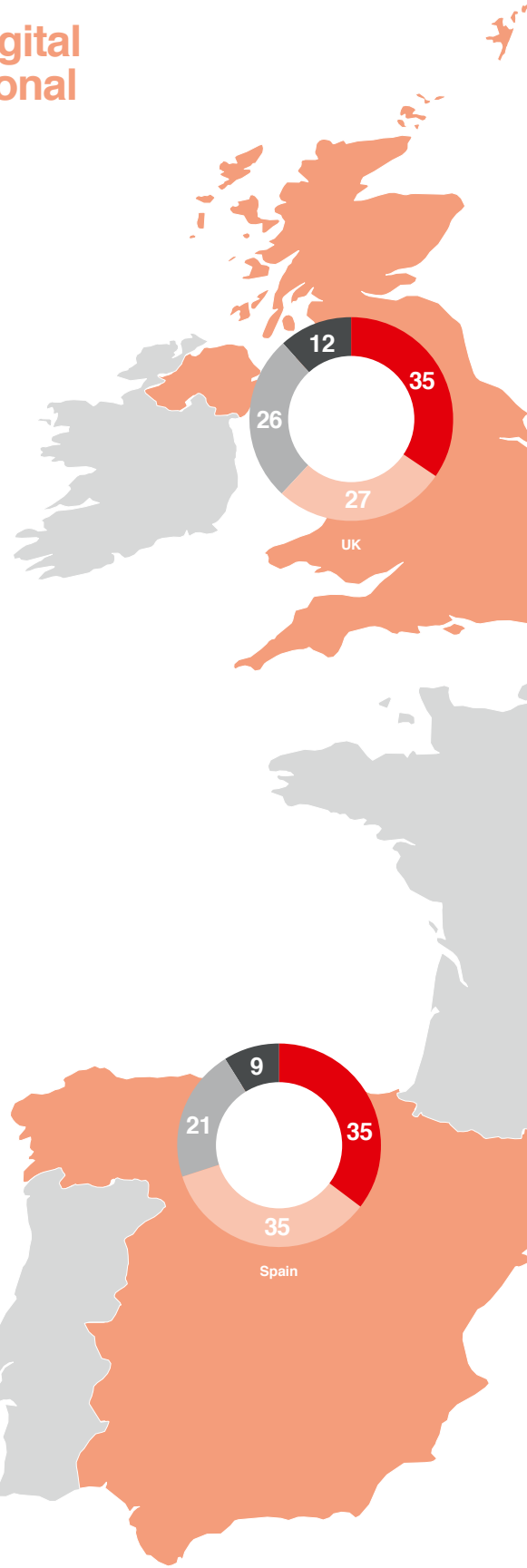
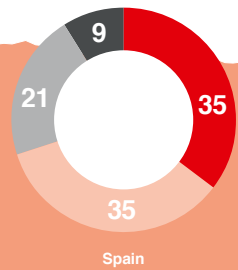
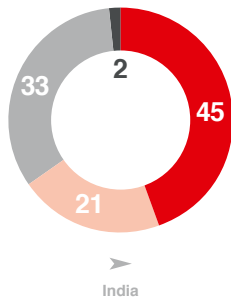
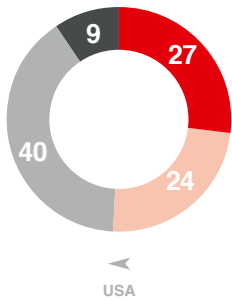
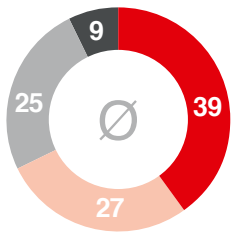
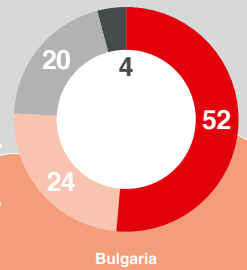
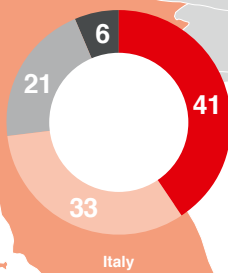
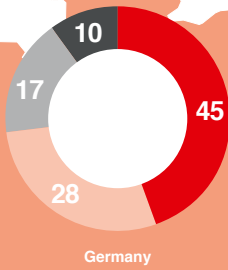
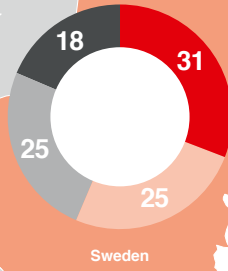


Fig. 4: Scale from 1 'fully agree' to 5 'do not agree at all'. Not asked in China. Figures may contain rounding differences. Figures in percentage.



Different expectations may arise from varying degrees of development in these countries. Respondents from Asia and Bulgaria have a very positive attitude towards digitisation. In these cases, economic success, social mobility and empowerment are associated with technology. Perhaps because of this positive perception of the digital economy, respondents feel strongly that governments should do more to proactively foster progress.

Investment in the future

To advance digital transformation, most respondents believe that governments should invest more in digitisation, education, infrastructure and small and medium-sized enterprises (SMEs). Support for more government subsidies is greatest among Bulgarians (58%), followed by Italians (54%), Germans and the Spanish (each 53%) (Fig. 6). However, in the UK (37%), the US (32%) and Sweden (22%) support for further government spending is less pronounced.

Helping business to catch up

Governments play a vital role in helping businesses to keep up in the digital age, for example, either through financial investments, social capital investment, fiscal stimulus, regulatory measures or education. Across all countries, four out of ten respondents believe that the government should support small and medium-sized enterprises, but also sectors that have so far failed to catch up with technological development (Fig. 7). Spanish (48%) and Bulgarian respondents (46%) are most likely to welcome such initiatives.

Respondents also suggest focusing investments on education and infrastructure to give their countries a competitive advantage in the future. In particular, respondents from Germany take a long-term view and rate education as the most important measure to improve digitisation (44%).

The state as a role model

The government should be a better role model for digitisation and a pioneer in motivating businesses and citizens to use digital services. To what extent do you agree with this statement?

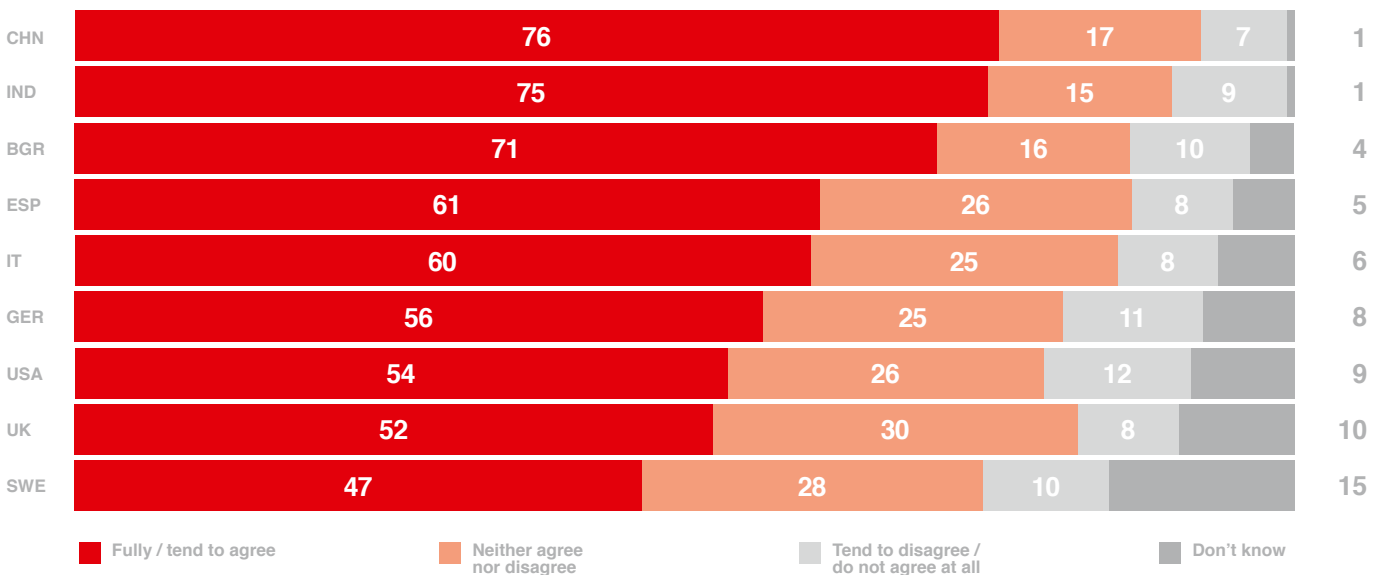



Fig. 5: Scale from 1 'fully agree' to 5 'do not agree at all'. Figures may contain rounding differences. Figures in percentage

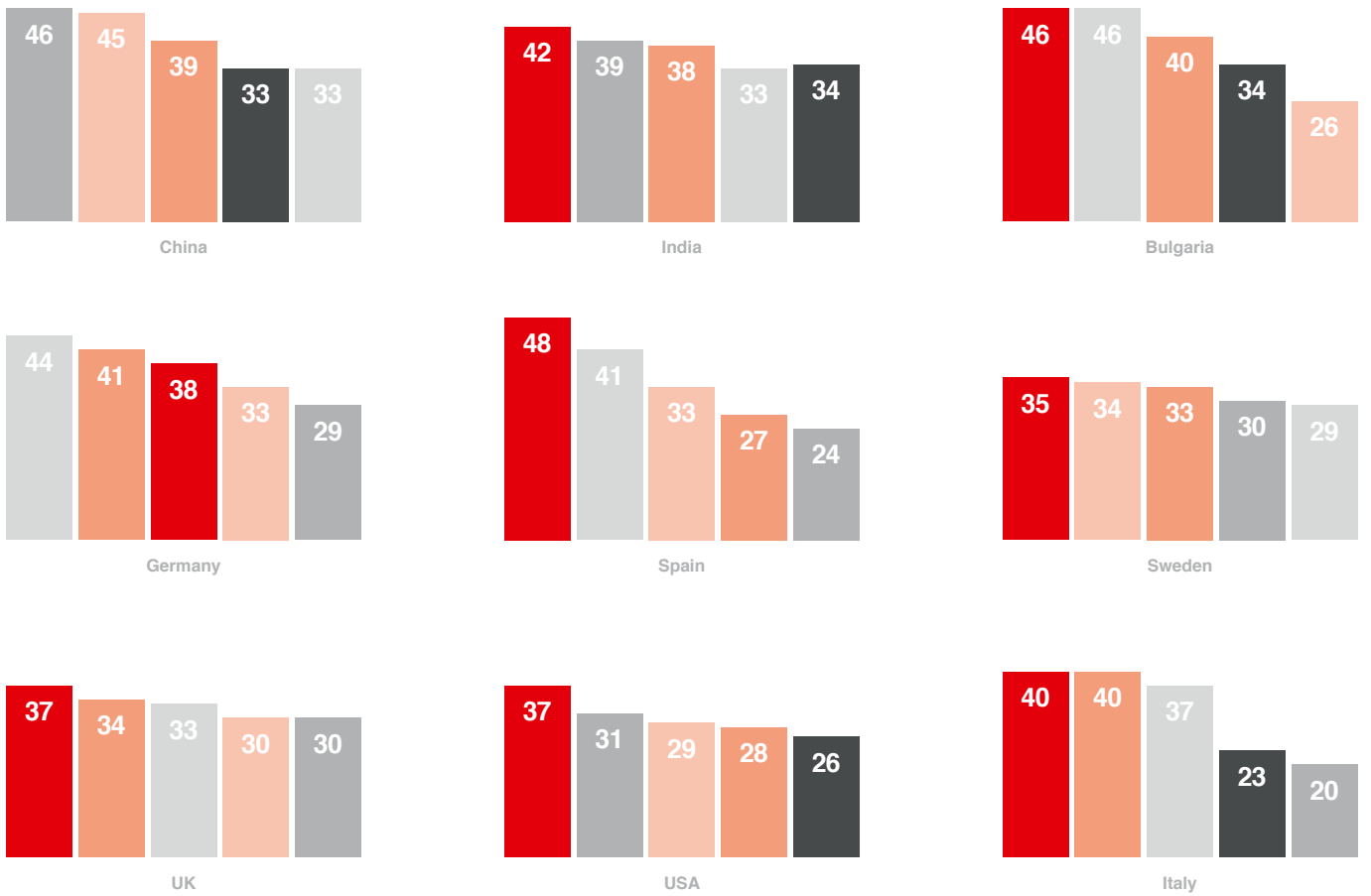
A man in a white jacket and glasses is seen from the back, speaking to a large audience in a dark room. Stage lights are visible in the background.

“Online personal information is vulnerable. Once the information is disclosed, family safety and personal assets are at risk and this is why we are paying attention to it. There are a lot of news about personal information or password theft.”

SOCIETY EXPERT, SOCIAL SCIENTIST, CHINA

State support to companies and citizens in the field of digitisation

To what extent do you agree with each of the following statements concerning how the government should best support digitisation?



Support for small and medium-sized enterprises or sectors that are lagging behind in terms of technological change.

Comprehensive control of companies and their compliance with laws on responsible handling of personal data.

Development of concepts for guaranteeing individual livelihoods (e.g. universal basic income or introduction of a social tax on new technologies for financing welfare state benefits).

Major investments in digitisation and infrastructure.

Extensive investment in digitisation and education.

Regulation of continuing education in the digital field (e.g. right to time off for the purpose of continuing vocational education and training).

Fig. 7: Top5 answers. Scale from 1 'fully agree' to 5 'do not agree at all'. Question was not asked in China. Figures in percentage.

My country does not subsidise enough projects and doesn't make enough money available for digitisation

To what extent do you agree with this statement?

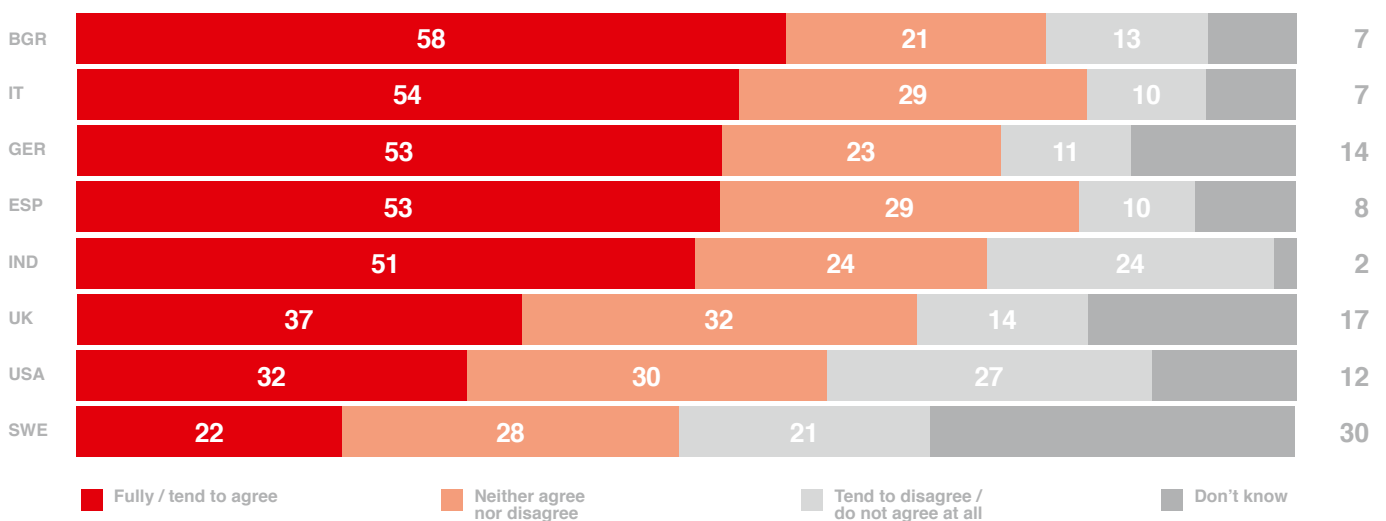


Fig. 6: Scale from 1 'fully agree' to 5 'do not agree at all'. Question was not asked in China. Figures may contain rounding differences. Figures in percentage.

Key Takeaways

Digitisation – Expectations towards government

According to citizens, government should be having a leading role in advancing and driving technological development.

Governments are dependent on cooperation with businesses specialised in IT. IT infrastructure and solutions should come from external sources instead of the public sector itself.

Governments must define a clear strategy for the development and use of new technologies and update it annually.

Governments should act as role models for digitisation and motivate businesses and citizens to use digital services. In particular, citizens from emerging market countries, such as those in Asia and Bulgaria, hope for strong leadership from their governments in terms of digital transformation.

Government should do more to support SMEs in embracing technology.

Citizens desire more investment in digital education and infrastructure.

Concentration of power – who is responsible?

“In the past

ten years a lot of mistrust has developed against tech companies and the government. I think that people think that too much data or information or power in the hands of either of those is an issue. It is not like there is a winning solution.”

GOVERNMENT EXPERT, DIGITAL STRATEGY AND INNOVATION, USA

People believe that government should play an important role in controlling technology corporations. These companies are seen as having accumulated so much market power that their influence could pose a risk to individual freedom. Data protection and privacy are major concerns. Both governments and private business are considered to have a shared responsibility for handling private data with care.

Big Tech leading to big concerns?

A limited number of global technology companies have been able to accumulate great market power and influence in recent years. The top six companies by market value are technology companies. Ten years ago, in 2008, the list of top companies was dominated by the oil and gas industry (Fig. 8).

Citizens are increasingly aware of this concentration of power and the associated risks, such as the growing influence of technology giants over political processes or consumer lock-in.¹

¹ A consumer lock-in makes a customer dependent on a vendor for products and services, unable to use another vendor without substantial switching costs.

Across all countries, six out of ten respondents are of the opinion that digitisation has led to power being concentrated among a few global IT and technology companies (Fig. 9). This appears to be a particular concern in India where 69% of respondents agree with the statement, closely followed by Bulgaria (66%) and Germany (65%).

The high market share of a small number of large companies limits competition and innovation. In particular, SMEs will find it difficult to develop successful business models. As a result, there are certain expectations towards the state.

Governments should regulate tech companies and social media.

Because of their disruptive nature, digital technologies raise the question how and by whom responsibilities of regulation and governance are allocated. Our respondents believe that governments should have the main responsibility when it comes to ‘sanctioning unethical behaviour’ (Fig. 10) rather than the private sector. Except for the US and India, across all countries, more than half of respondents agree with the statement. Recent data breaches, forms of online abuse and political manipulation fuel respondents’

Top 10 companies

Top 10 companies in the world by market value 2018 and 2008

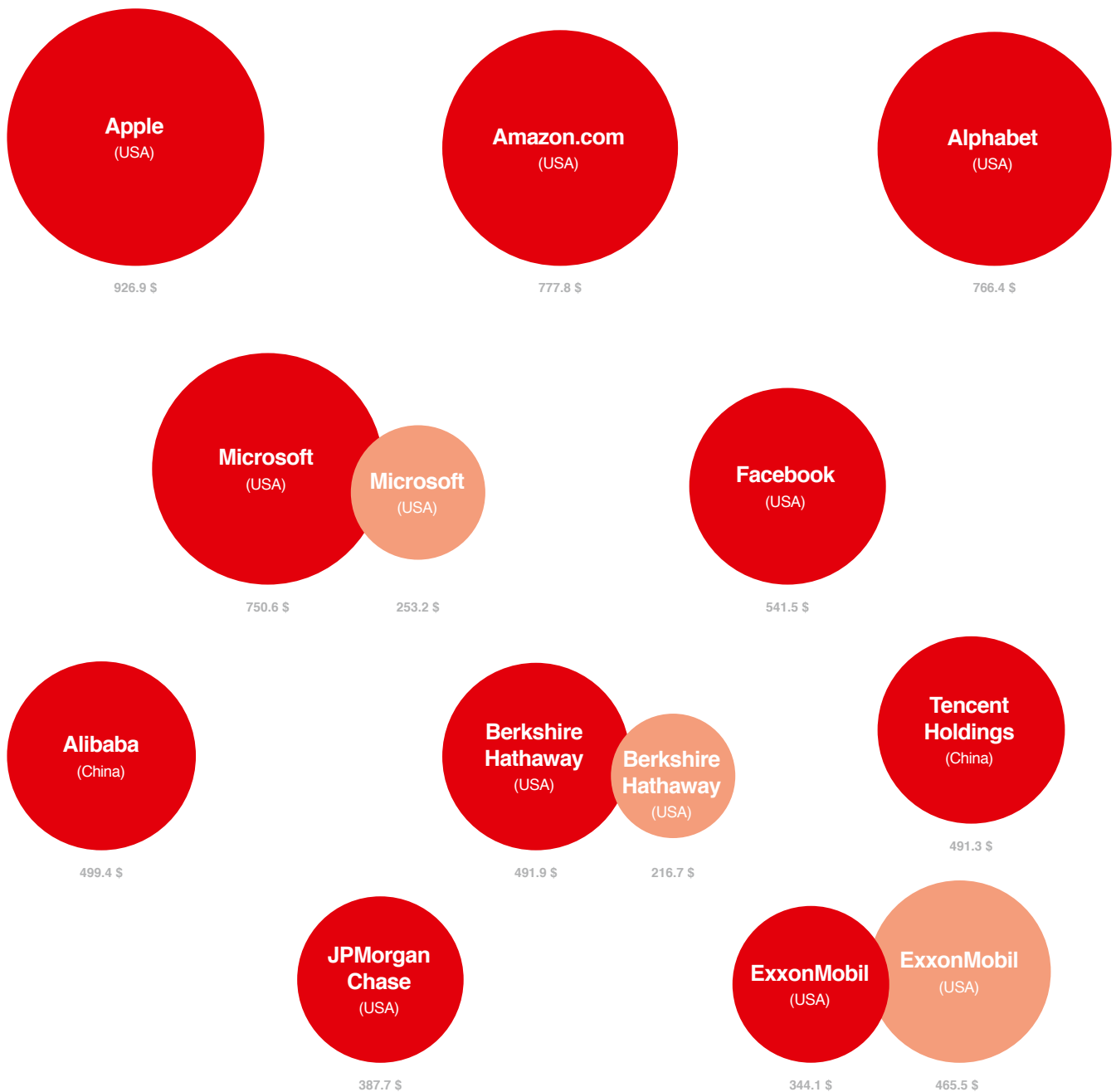
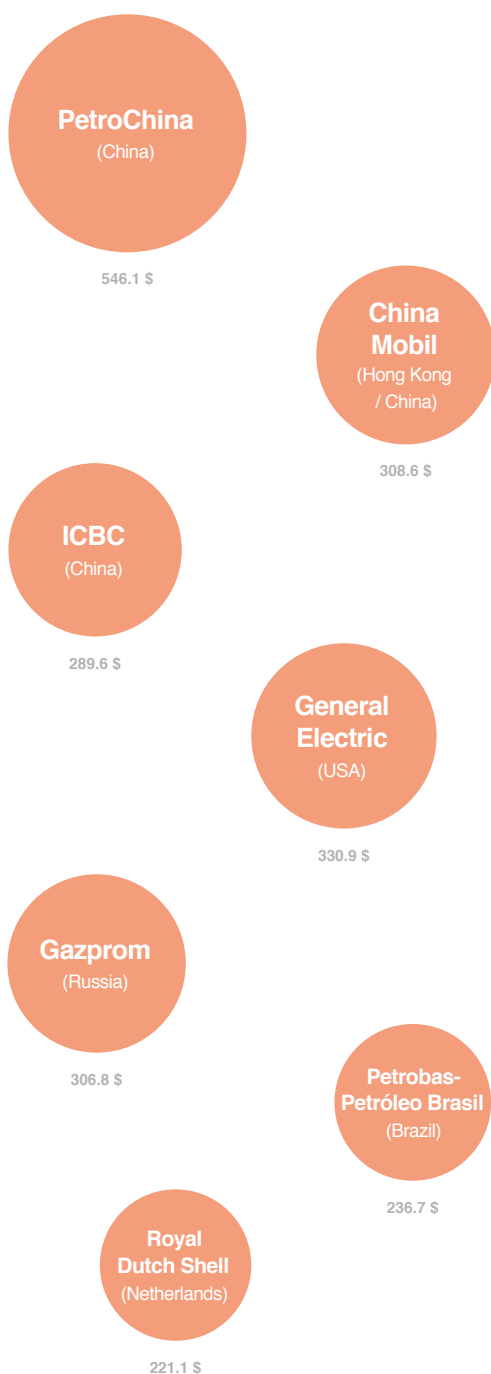


Fig. 8: Source: https://www.forbes.com/global2000/list/#header:marketValue_sortreverse:true

■ 2018 ■ 2008



anxiety. The call for lawmakers to have greater power to regulate social media has become louder in many countries in the last 12 months.

Respondents have little confidence in the self-regulation of markets. Governments are the most trusted source of regulation. This is particularly the case for respondents in Sweden and Germany. To root out hate speech and the circulation of fake news, robust monitoring mechanisms are expected. In some countries, steps have already been taken. For example, Germany, recently introduced the 'Netzwerkdurchsetzungsgesetz' (Network Enforcement Act, a regulatory framework), which obliges tech companies to remove inappropriate content in their respective social media networks.

While government regulation is still seen as a means of protecting the public, it is not a one size fits all solution. Some experts point out that the enforcement of rules has to be embedded in national contexts, because norms and values differ across cultures. Moreover, in some countries the opinion about the role of either private companies or lawmakers in regulating the technology industry is more ambivalent than in others.

Data protection – a shared responsibility

When it comes to data and privacy protection, governments and companies are seen as equally responsible (Fig. 10). However, the more technical a measure is, the more likely it is that respondents allocate responsibility for it to the technology companies.

Respondents from the US and Asia clearly allocate the responsibility for transparency in data processing to tech companies: in the US, 10% more respondents think transparency is the responsibility of tech companies, followed by 8% more in India and 6% more in China.

The Chinese case is unique, because the private sector remains highly government-controlled. Access to private/personal data lies within the power of the government. For example, the government has access to Chinese citizens' iCloud data that is managed by the government-controlled internet firm 'Guizhou Cloud Big Data'.

**“I think people are worried.
With the presence of
monopolistic enterprises,
SMEs may lack motivation
to innovate.”**

ACADEMIA, RESEARCH FELLOW, CHINA



Too much concentration of power in a few tech companies

Digitisation and future technologies lead to power being concentrated among a few global IT and technology companies. To what extent do you agree with the statement?

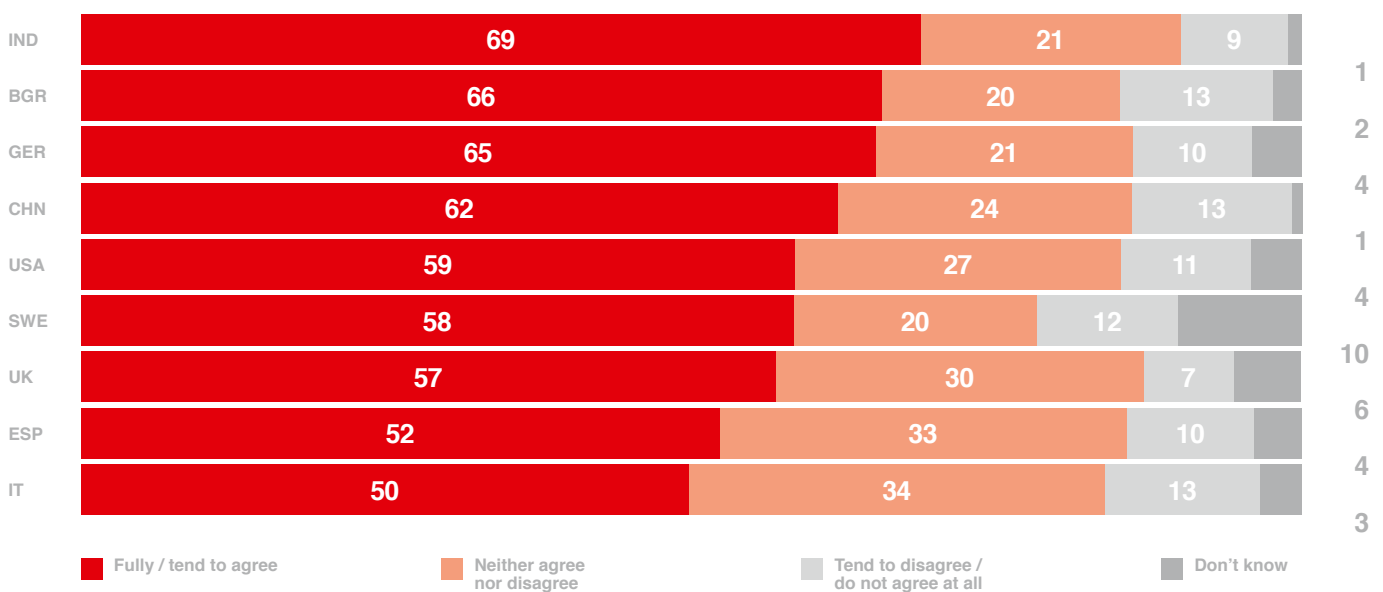


Fig. 9: Scale from 1 'fully agree' to 5 'do not agree at all'. Figures may contain rounding differences. Figures in percentage.

Key Takeaways

Concentration of power - who is responsible?

People are concerned about the increasing concentration of power among a small number of global technology companies.

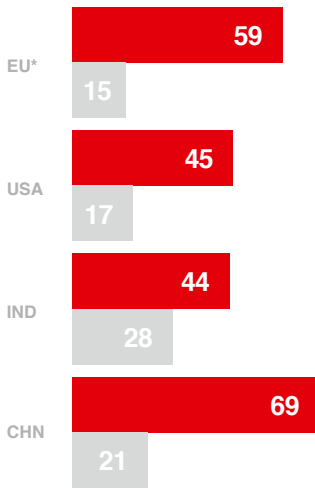
Data protection is a shared obligation of governments and private companies.

Governments are most trusted and are expected to play a central role in regulating tech and social media.

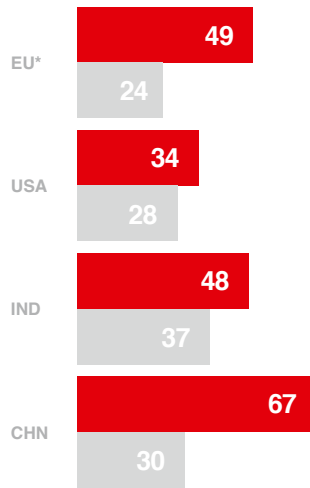
Distribution of responsibility in terms of ethical values

To protect ethical values in times of increasing digitisation, various measures are necessary. Some of these measures are listed below.

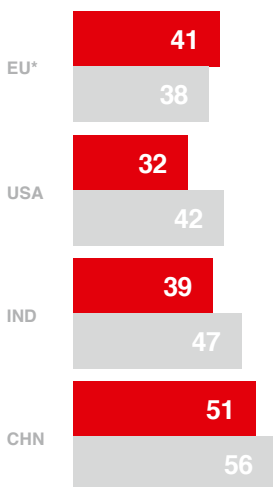
Sanctioning unethical behavior.



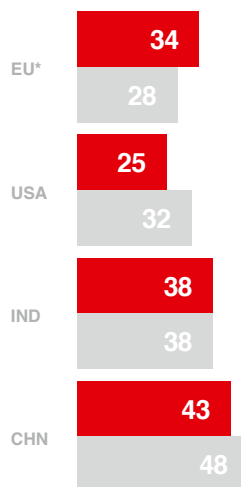
Establishment of control mechanisms.



Transparency with regard to the functioning and data processing of new technologies.



Adherence to ethical values in new technologies.

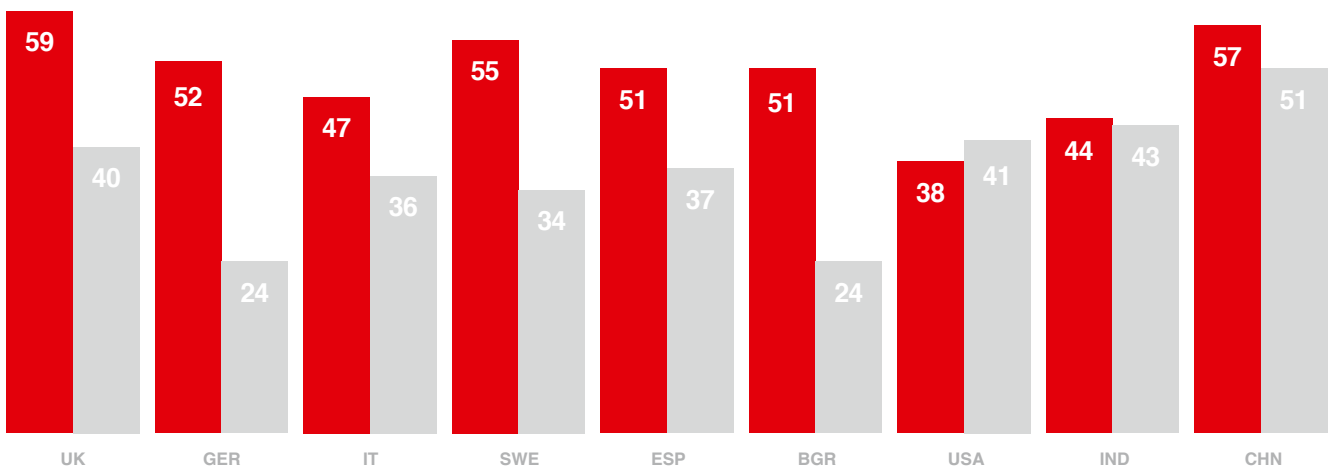


■ The government (e.g. through laws and sanctions)
 ■ Technology and social media companies (e.g. through transparency and data protection)

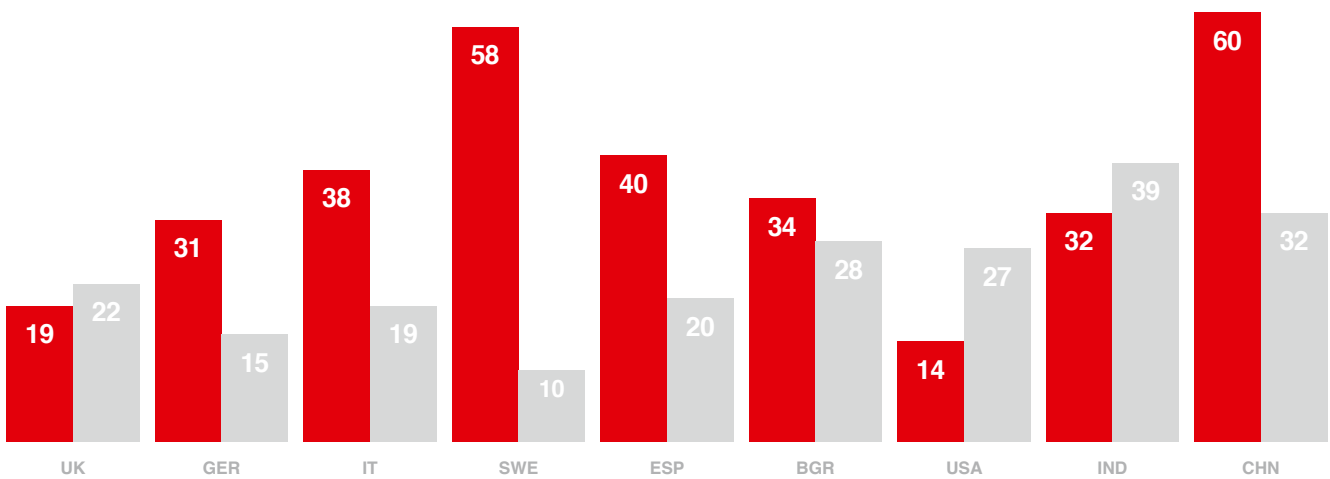
* The values in the EU states were very similar on average.

Figure 10: Survey question: Please specify a maximum of 2 main actors per measure, who you think should be mainly responsible for implementation of that measure. Figures in percentage. Potential Survey Responses: The citizens themselves (e.g. through non-use, knowledge of data protection), independent ethics committees (e.g. through audits and controls), NGOs (e.g. by educating the population and providing political advice), governments and companies. The latter two were the most frequently cited.

Data and privacy protection.



Ensuring social togetherness.



Data protection as a key factor

“Indians think

the government is for our welfare – we have selected the government. They will work for us if they want our votes. The private sector we have not elected.” PROFESSOR OF ECONOMICS, INDIA

Respondents are concerned about data breaches and a considerable number were affected in this regard. Governments have to find a balance between citizens' expectations of stringent regulation and control, and ensuring the political environment fosters innovation.

Increased need for protection and privacy based on personal experiences.

Nearly one in three respondents across all countries have experienced a data breach. Experiences vary widely by region (Fig. 11). In China this is the case for 59% of respondents, while in Sweden only 15% were affected.

New technologies are increasing the perceived need to protect personal data and privacy (Fig. 12). Respondents from China (83%) are most likely to agree. Within Europe, perceptions regarding data security also differ. Although Europeans generally agree that there is a need for greater security, respondents in the UK (78%) and Sweden (77%) are most convinced of the need for data protection. In these countries, fear of cyber-attacks is also highest.

Is the government protecting my data?

While respondents across all markets agree that there is an increasing need for data protection, trust in government to protect personal data is limited (Fig. 13). Opinions vary across countries, however.

Only around one in three respondents from the US and Europe agree that their governments are protecting per-

sonal data. Trust in governments to protect personal data is particularly low in Bulgaria, the US and Germany (60%, 51% and 48%, respectively, do not agree that the government protects their data).

Most Indian respondents believe that their government is protecting their data (57%) and have a high degree of trust in their government – which is notable in contrast to other countries like Germany (27%), the USA (26%) and Bulgaria (21%). Especially remarkable is that Indians already share personal biometric data with their government. Iris scans and finger prints are obligatory to access government services. Experts suggest that because there is no alternative, respondents trust government almost by default. Experts also point out that a lack of digital literacy may contribute to these beliefs. Conversely, business is thought to have a vested interest in using personal data for its own financial interest.

Respondents are also unsure whether their governments would protect their rights in the event of a data breach (Fig. 13). India is once again an outlier: 65% believe that the government would protect their rights in such a scenario.

Women trust the government less in terms of data and protection of rights.

Across all countries, attitudes towards the government's ability to protect data and rights (if there was a data breach) differ by gender. Women tend to have a more negative view than men, with women in the US showing the lowest trust in the government protecting their rights in relation to data. These skeptical views may be derived from negative personal experiences. The experts interviewed

“In state institutions

there is a constant scandal of leaking personal data. Even now, with the commercial register, there are suspicions of unauthorized access. Some time ago the Ministry of Education and Science (MoES) servers were hacked and the hackers had access to all the data of the children and those enrolled in kindergartens.”

GOVERNMENT EXPERT, HEALTH & LAW, BULGARIA

point out that women are often victims of sexual harassment online. There is thus a greater degree of pessimism towards technology among women.

Innovation or regulation?

Economic growth and regulation are often perceived as being in potential conflict. When it comes to new technologies and data protection regulation, this sentiment may be similar.

There is concern that the digital economy grows at a high social cost (Fig. 15). Technology and economic advances benefit only a minority at the expense of the majority. In the case of illicit data mining, the accumulation of wealth is based on unethical practices.

Within Europe, people in Bulgaria (45%), followed by the UK and Germany (each 44%), are most likely to agree that growth and innovation must be accompanied by regulation.

However, in most markets a greater number of respondents believe that (over)regulation will have a negative impact on innovation. Moreover, if regulation is only implemented in some nations and not in others, it will create an unfair global marketplace favouring companies in countries with lower degrees of regulation. This view is not only prominent in Europe in the wake of the General

Data Protection Regulation (GDPR)¹, but also the US. In the US, there is a general suspicion about anything which could inhibit the invisible hand of the market as reflected in the fact that 48% agree that growth and innovation may conflict with ethical issues and safety regulations.

Sweden is the only country where regulation is not seen as inhibiting innovation and growth. The country has been able to embrace digitalisation despite high levels of regulation. Some observers even go as far as to suggest that relocation of labour intensive production processes to low wage countries forced Swedes to seek opportunity in the digital economy. They suggest that it was labour market and wage regulation which initially made the economy less competitive, but which, to today's benefit, forced Swedes to develop new niches in the knowledge economy.

The disruptive nature of digitisation may unleash different, competing forces. A pertinent question for the future will thus be how to combine the best regulatory safeguards while ensuring favourable conditions for innovation and economic growth. Our results show that while governments will be tasked with addressing these issues, they can also be part of the solution.

¹ The GDPR is a regulation in EU law on data protection and privacy that was put into place in May 2018.

“We are not ready to innovate if we cannot at the same time be 200 percent sure that it does not lead to more surveillance and less personal integrity.”

GOVERNMENT EXPERT, HEALTH & SOCIETY, SWEDEN



Experiences in the field of data breaches and censorship

Have you ever ...

- ... read about a case where someone in your country claimed they had experienced a breach of data privacy?
- ... experienced content being blocked in your country?
- ... experienced certain sites and / or platforms being blocked in your country?
- ... experienced a breach of your personal data?

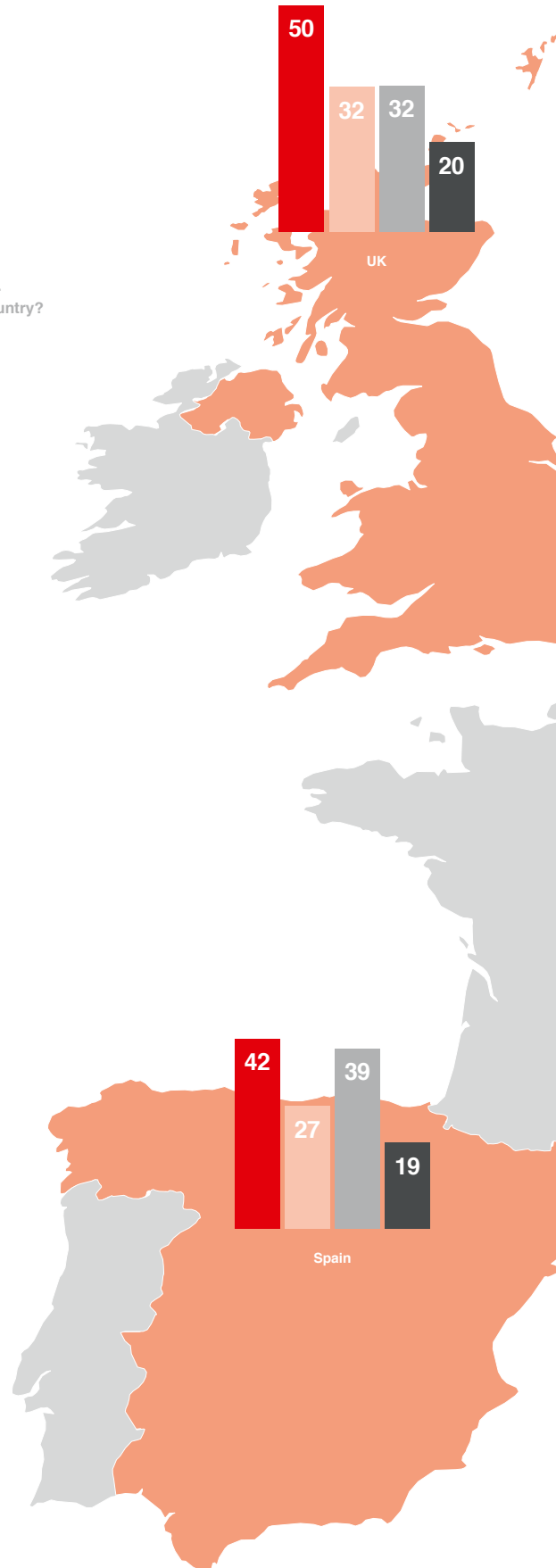
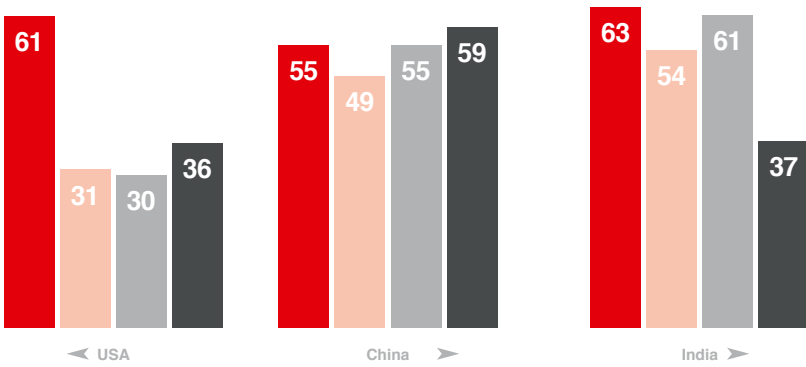
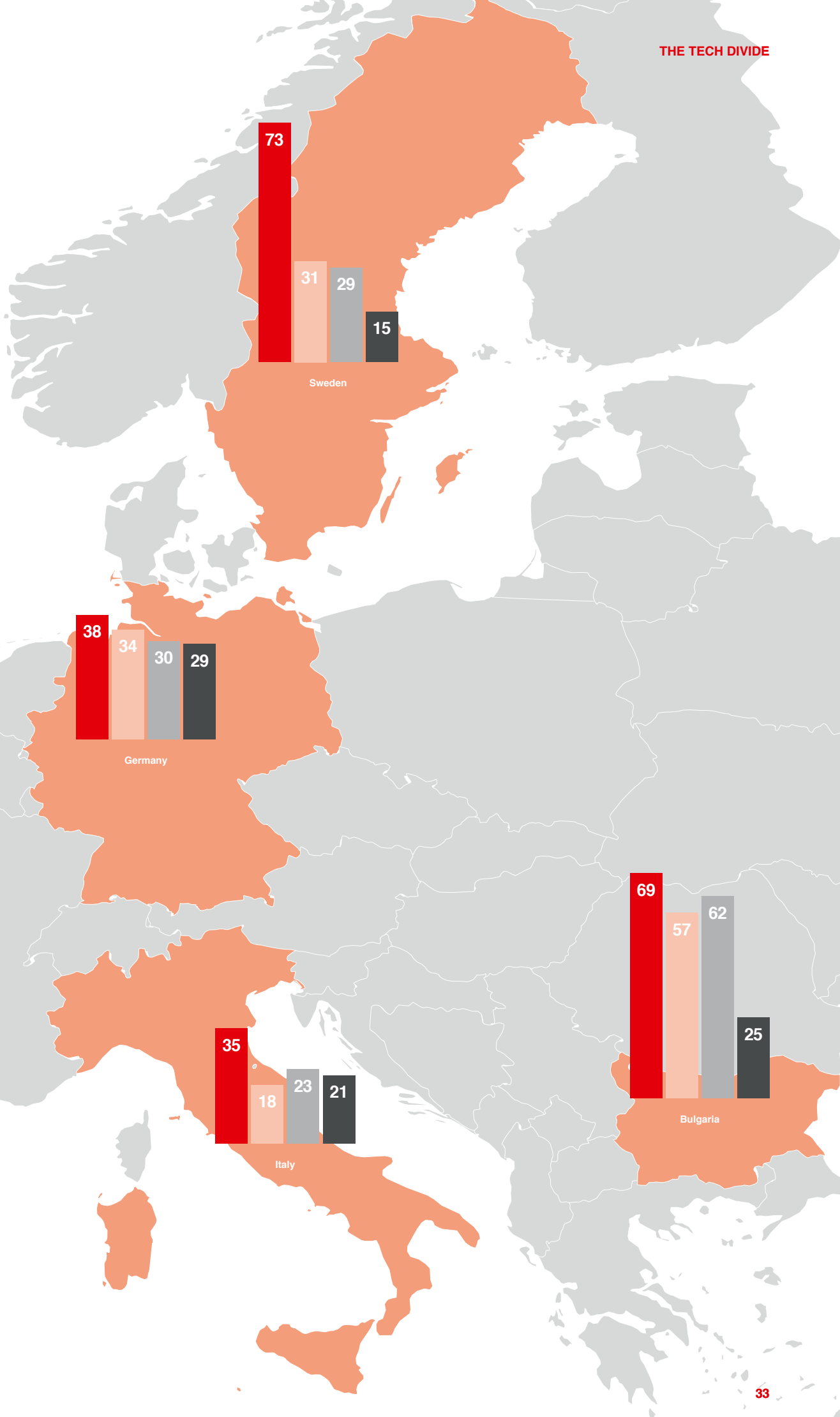


Fig. 11: Figures in percentage.



Digitisation and future technologies lead to a greater need for security in order to protect personal data and privacy

Digitisation and future technologies have an influence on different areas of life. To what extent do you agree with the statement?

■ Fully / tend to agree
 ■ Neither agree nor disagree
 ■ Tend to disagree / do not agree at all
 ■ Don't know

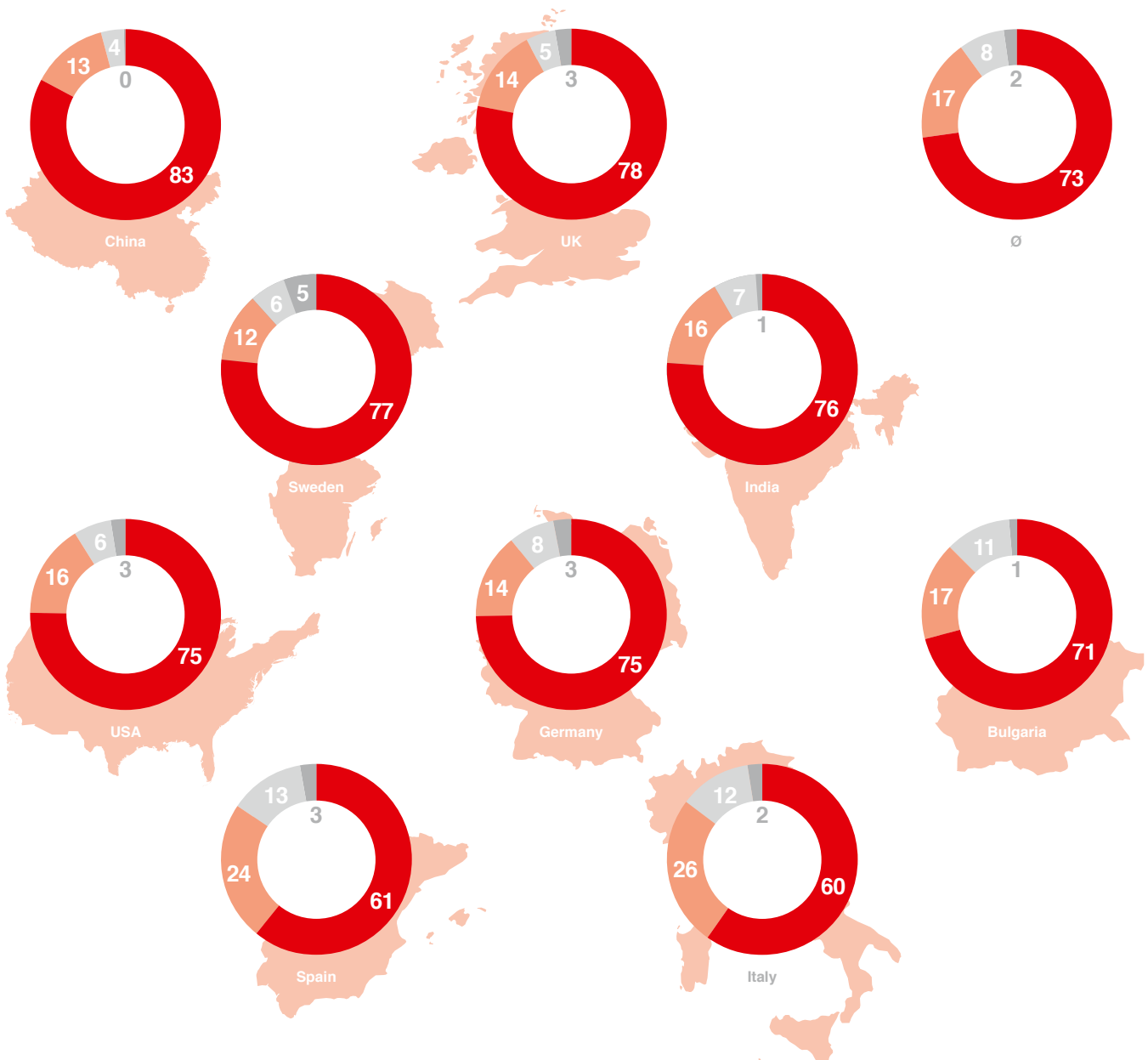


Fig. 12: Scale from 1 'fully agree' to 5 'do not agree at all'. Figures may contain rounding differences. Figures in percentage.

Competence of governments regarding data security

How do you personally feel about the following statements?

The government in my country is protecting my data.

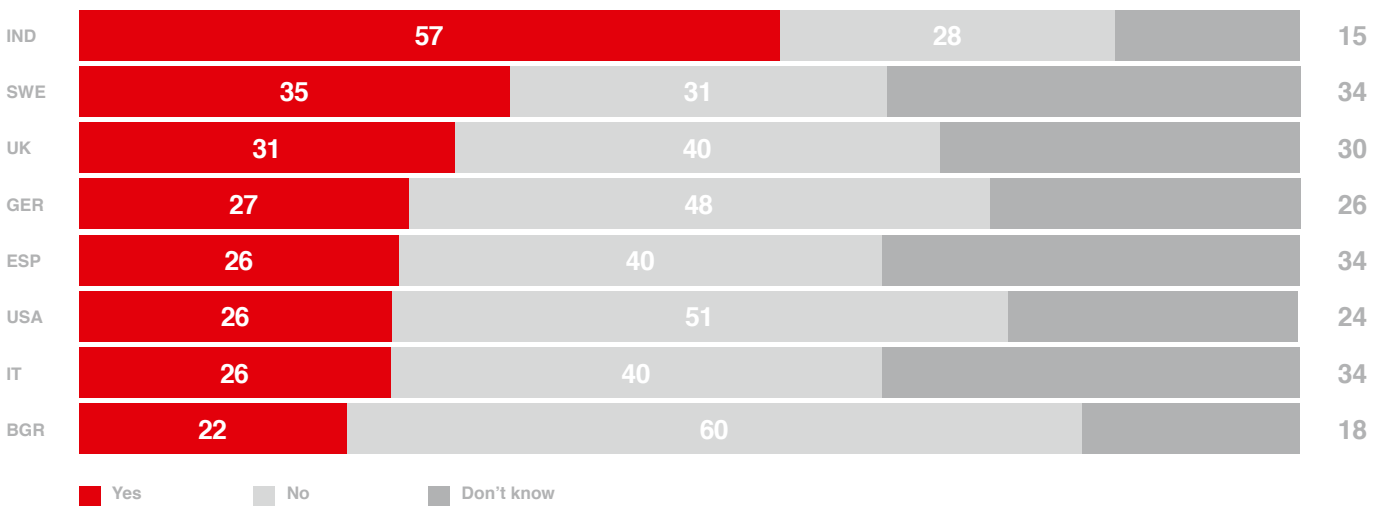


Fig. 13a: Question was not asked in China. Figures may contain rounding differences. Figures in percentage.

The government in my country would protect my rights if there was a data breach.

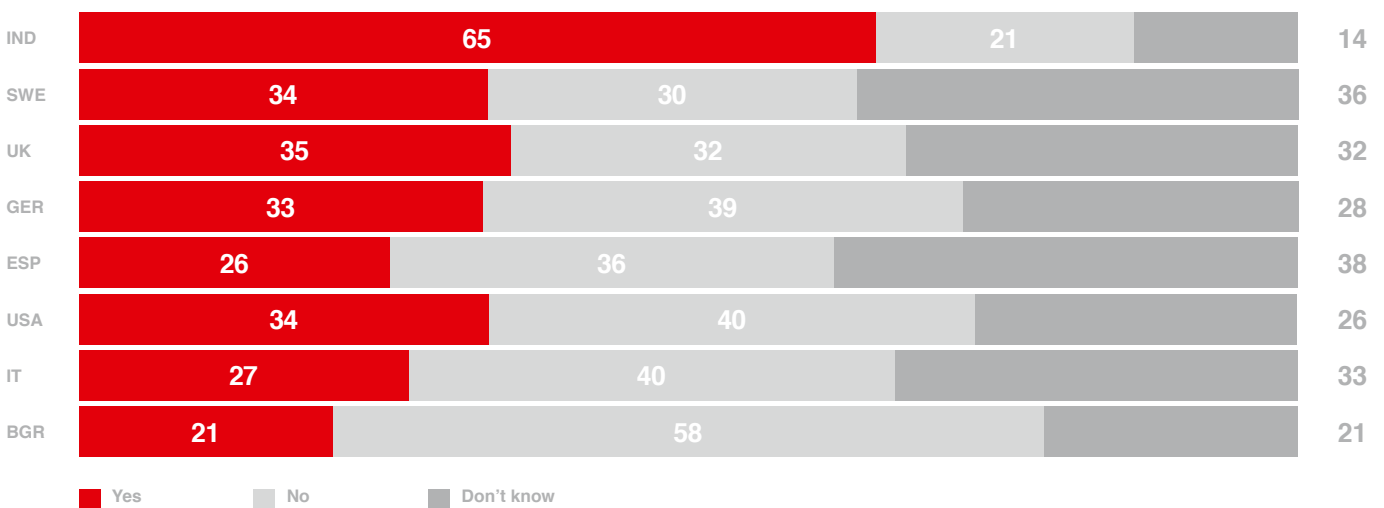
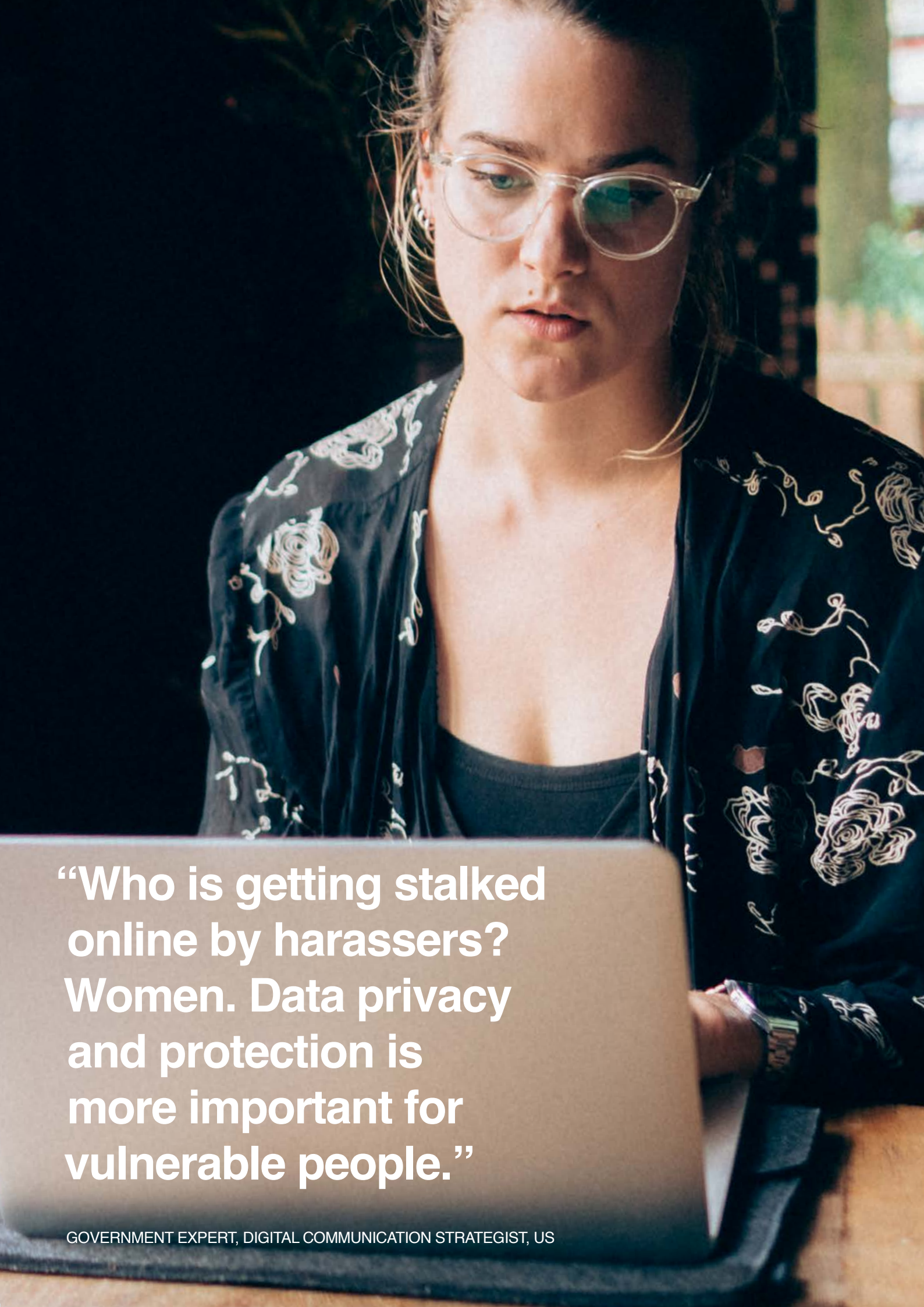


Fig. 13b: Question was not asked in China. Figures may contain rounding differences. Figures in percentage.

A young woman with light-colored hair and glasses is looking down at a laptop screen. She is wearing a dark blue or black cardigan with white floral embroidery. The background is dark and out of focus, suggesting an indoor setting with some greenery.

“Who is getting stalked online by harassers? Women. Data privacy and protection is more important for vulnerable people.”

GOVERNMENT EXPERT, DIGITAL COMMUNICATION STRATEGIST, US

“Money is important

– but its source is also important. If it comes at the expense of your family, society and moral values it is not worth the cost.”

SOCIETY EXPERT, SOCIAL SCIENTIST, INDIA

In my country, economic growth and innovation are confronted by ethical issues and safety regulations

To what extent do you agree with this statement?

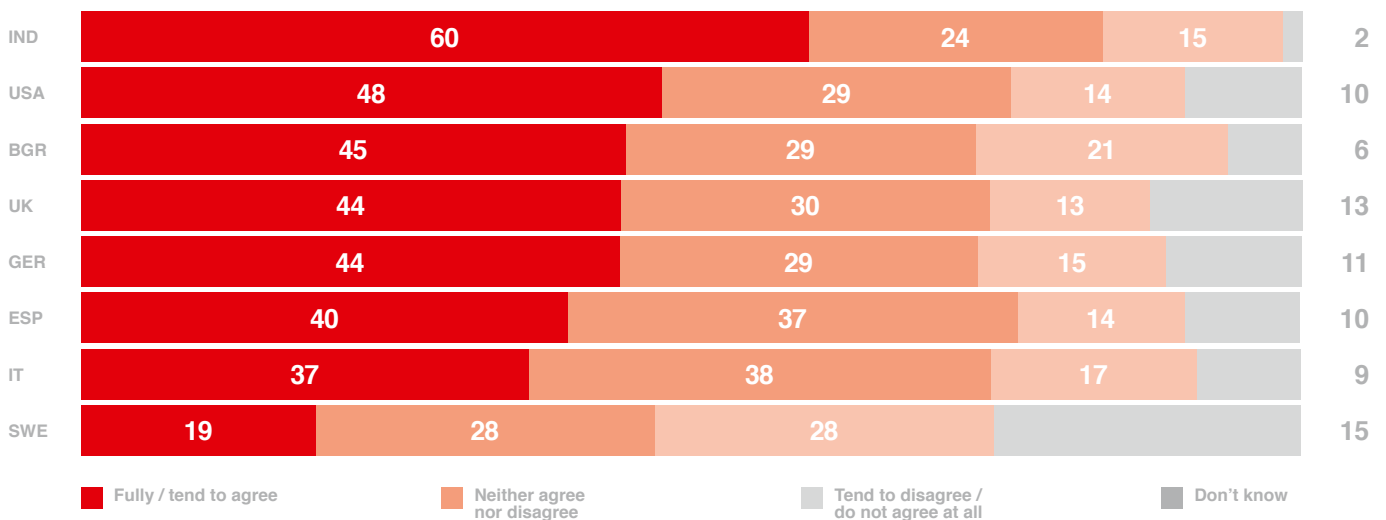


Fig. 15: Scale from 1 'fully agree' to 5 'do not agree at all'. Question was not asked in China. Figures may contain rounding differences. Figures in percentage.

Key Takeaways

Data protection as a key factor

A considerable number of people have been victims of data breaches. New technologies increase demands to protect personal data and privacy.

Trust in government's ability to protect personal data is limited.

In most markets, a greater number of respondents believe that economic growth and innovation are in potential conflict with ethical issues and safety regulations.

Study Design

Quantitative research

Ipsos conducted quantitative research with 9,005 adults aged 18–65 (in Bulgaria 18–60, in India and China 18–50) between June 6th and June 26th 2018. The survey across 9 countries was conducted online using the Ipsos Online Panel System.

For the selection of European countries, a variety of different economic and digitisation levels were considered. Rapidly developing markets, such as India and China, were included as well. The USA was included in the sample because it is characterised by innovative strength.

In established markets with a high level of internet penetration (more than 60% online), the results can be taken as representative of the general working age population. The results are weighted to ensure that the sample's composition reflects that of the adult population according to the

most recent country census data. However, in emerging markets such as India and China, internet penetration is lower. The results should therefore be viewed as representative of a more urban, affluent, and 'connected' population.

Looking at the distribution of education and age groups, there are important differences in the samples for India and China. In these countries, the maximum age of respondents is 50 and the education distribution is characterized by a higher proportion of highly educated respondents. The higher proportion of younger and highly educated respondents may have had an influence on the survey results. Furthermore, because of the lower level of internet penetration, respondents tended to be from urban regions (bigger cities).

In China, it was not possible to include questions pertaining to the government in the survey.



Bulgaria:
n=1,000



China:
n=1,002



Germany:
n=1,001



Spain:
n=1,000



Sweden:
n=1,000



UK:
n=1,000



India:
n=1,002

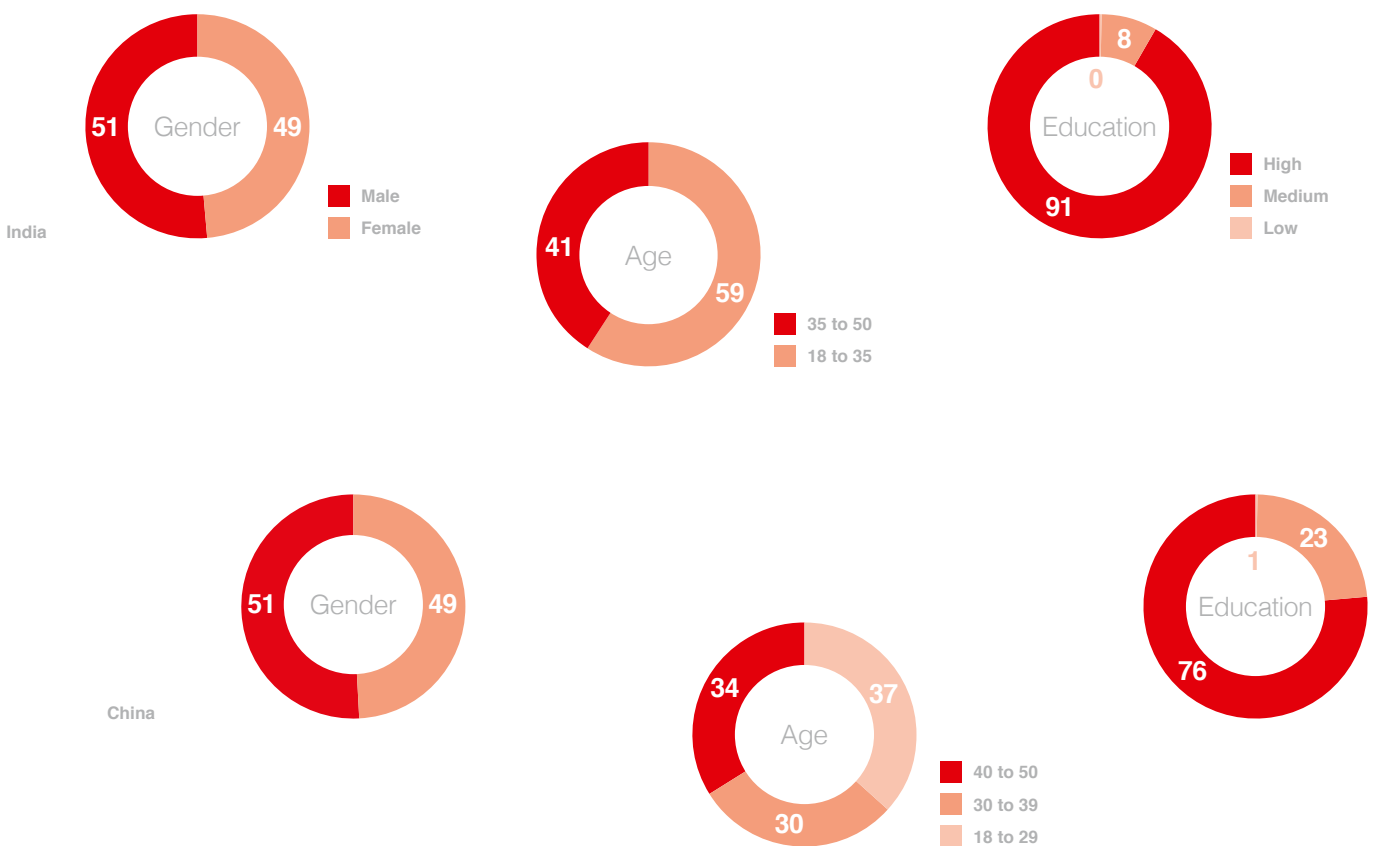


USA:
n=1,000



Italy:
n=1,000

Demographic sample structures of India and China



Qualitative research

Ipsos identified and recruited n=5 experts from the same markets covered by the quantitative study (except Spain) to discuss the quantitative results and draw on the experts' understanding of the cultural context relevant to each country, thus informing the quantitative findings.

The experts were defined by a relevant background in social science, communication, or economics and have dealt with digitisation throughout their professional ca-

reers. All of the experts are characterised by a broad as well as more specific understanding of digitisation, depending on their professional background and position.

The expert interviews, each lasting about 60 minutes, were conducted by telephone or in person between September 4th and October 5th 2018.

Imprint

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