

# EUROPEAN TECH INSIGHTS 2021

Part II  
Embracing and Governing  
Technological Disruption



# INSTITUTIONAL REMARKS

There has always existed an interplay between human-kind and technology's promise to improve our lives. Seldom, and certainly not in modern times, has the adoption of technology accelerated as quickly as it has with the Covid-19 pandemic.

## IN THE PAST YEAR, THE LION'S SHARE OF WORK AND SOCIAL INTERACTIONS HAS GONE DIGITAL AND THUS TECHNOLOGIES HAVE PERMEATED THE FABRIC OF EVERYDAY LIFE.

This has created both immense opportunities and complex challenges. On one hand, citizens are now able to engage with the world from their living rooms and have access to an unprecedented breadth of knowledge. Technology is revolutionizing healthcare in areas such as diagnosis and vaccine production. In the case of tedious and dangerous tasks, we have been able to substitute humans with robots, and algorithms for our advanced computation.

On the other hand, there has been a decline in trust of democracy and an increase in political polarization. Europeans are increasingly seeing that this is made worse by social media and are, in general, feeling more negatively towards the Big Tech companies. This is in part because geopolitical conflict accompanied our migration to the digital domain. It now threatens to splinter the internet, and to disrupt supply chains and companies.

Whilst the relevance of technology and the digital domain is increasing at an exponential rate, much remains unregulated. The digital economy relies on the wholesale of private data; the digital discussion is filtered through algorithms that do not favor veracity and reason; and the geopolitical conflict is lacking new governance solution.

We have before us a unique opportunity, thanks to technological development, to improve our lives, societies, and the international system. The question is: what should be done? This is the key motivation behind our annual report, European Tech Insights, which investigates how citizens see their relationship with technology and how we can actively shape the future accordingly.

Indeed, this was the catalyst for the creation of the Center for the Governance of Change. Through the Center, we are researching precisely how emerging technologies are reshaping the world and, more importantly, how to govern this change in areas from geopolitics and data privacy to economics. This is in line with IE University's broader goal to reinvent higher education through technological change.

We are thrilled to present you with this year's European Tech Insights and its focus on what we as humans can delegate to robots and AI, how to handle the geopolitical conflict over technology, and the ways in which technology can strengthen our democracy. It is our hope that this report will encourage you to join the discussion on how rapid technological change can be governed for the benefit of society.

**Diego del Alcázar Benjumea**

*Vice President of IE University, Co-chair of the Center for the Governance of Change.*

**Susana Malcorra**

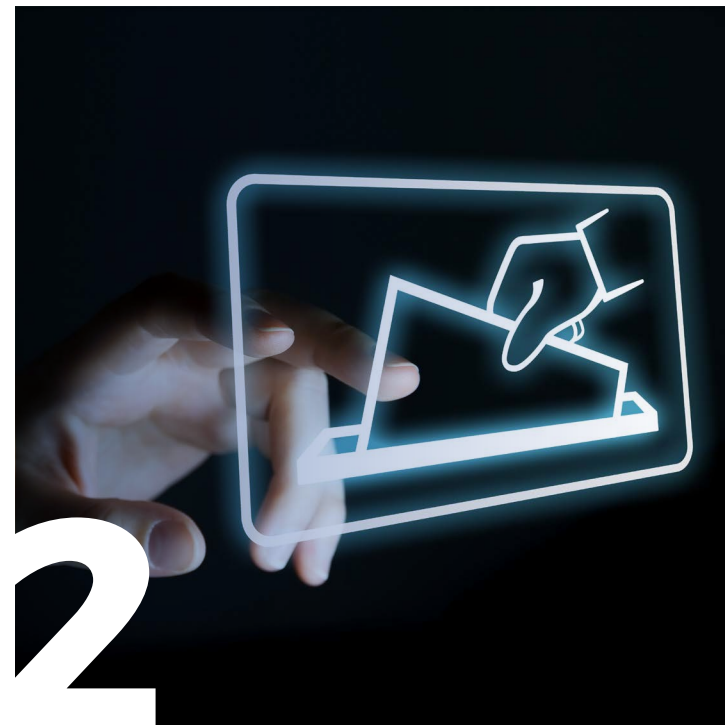
*Dean of the School of Global and Public Affairs, Co-chair of the Center for the Governance of Change.*

# TABLE OF CONTENTS



## 1 THE GEOPOLITICS OF TECHNOLOGY

p. 5



## 2 DEMOCRACY IN THE DIGITAL AGE

p. 8



## 3 EMBRACING TECHNOLOGY?

p. 12

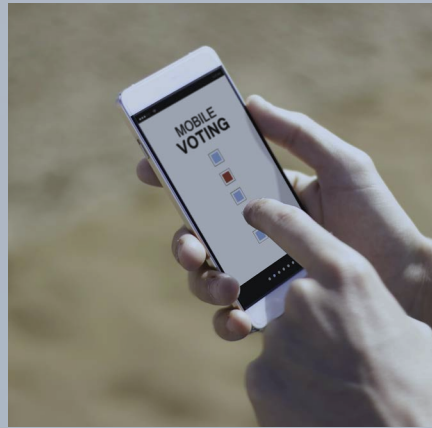


## 4 THE REGULATION OF BIG TECH

p. 17



# KEY FINDINGS



A vast majority of Europeans want democracy to go digital. **72%** would prefer to vote via their smartphones rather than physically, and only 17% are against.



There is a strong and broad support for the introduction of a “tech tax” with **65%** of citizens in favor and **15%** against.

Over **50%** of Europeans support replacing their parliamentarians with algorithms. Younger generations particularly support this, with 60% of 25–34 year olds in favor.



The perception of Google, Amazon, Facebook and Apple has deteriorated notably over the last year: only Germany supported breaking them up last year. Today **all European countries except Italy and Poland** are in favor of limiting the power of Tech giants.



**42%** of Europeans support the use of facial technology in their daily lives if it makes them more convenient.



The vast majority of Europeans (**86%**) believes digital addiction is a problem. This view is in particular strong among the younger generations that use smartphones more heavily.





1

# THE GEOPOLITICS OF TECHNOLOGY

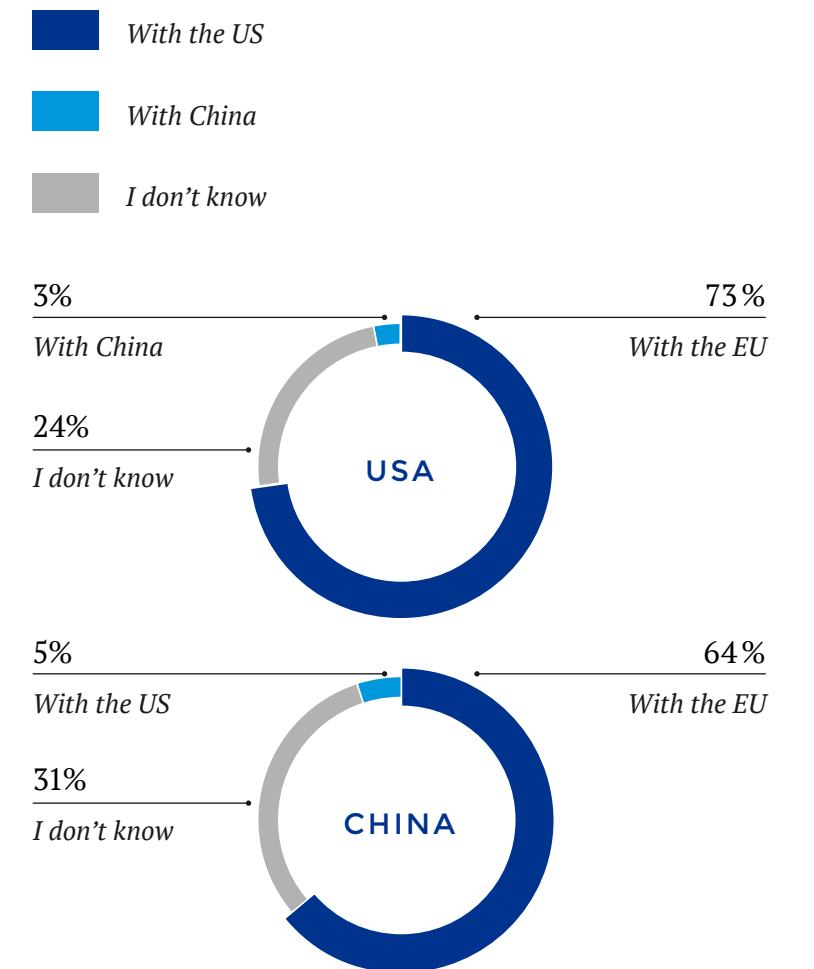
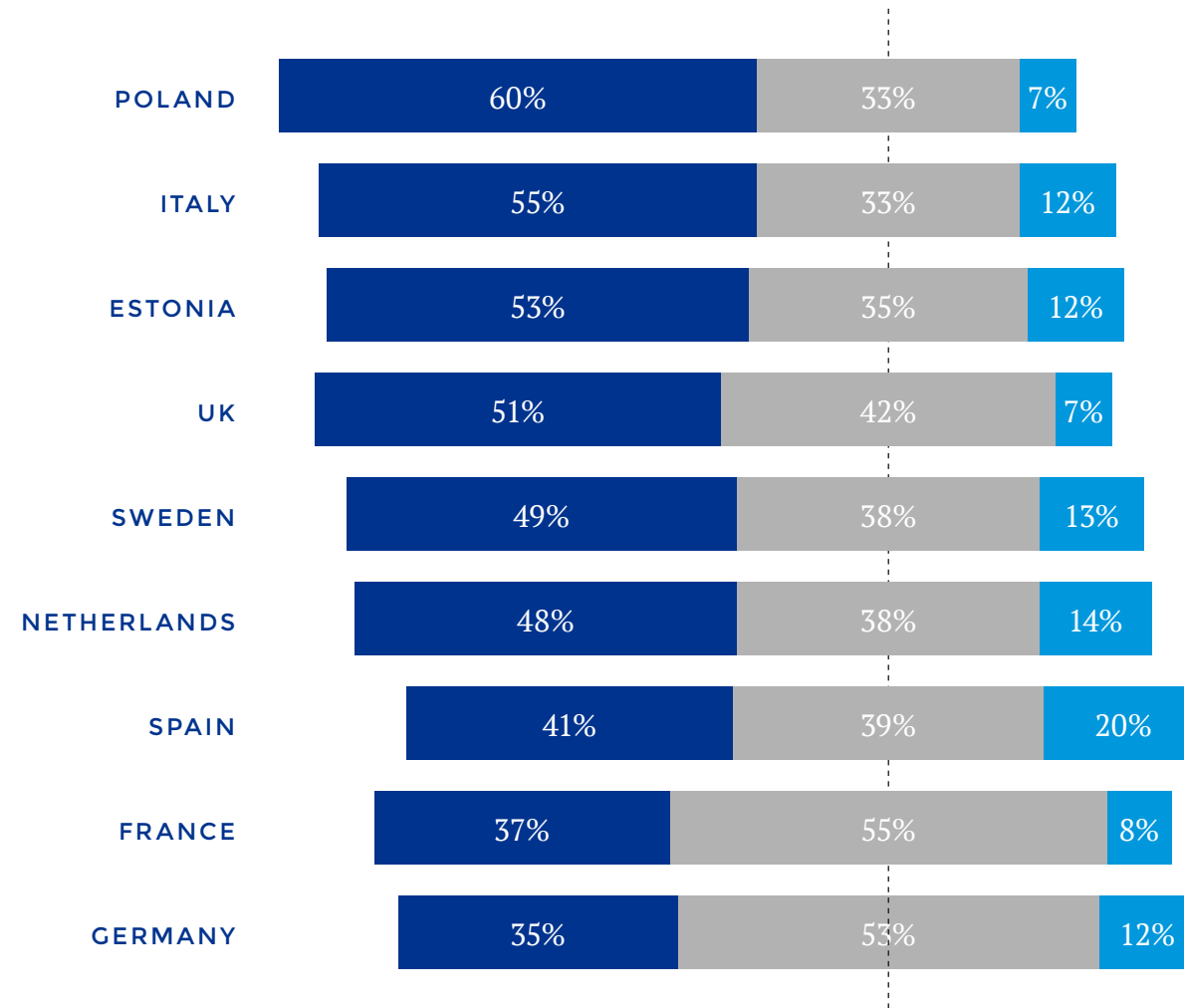
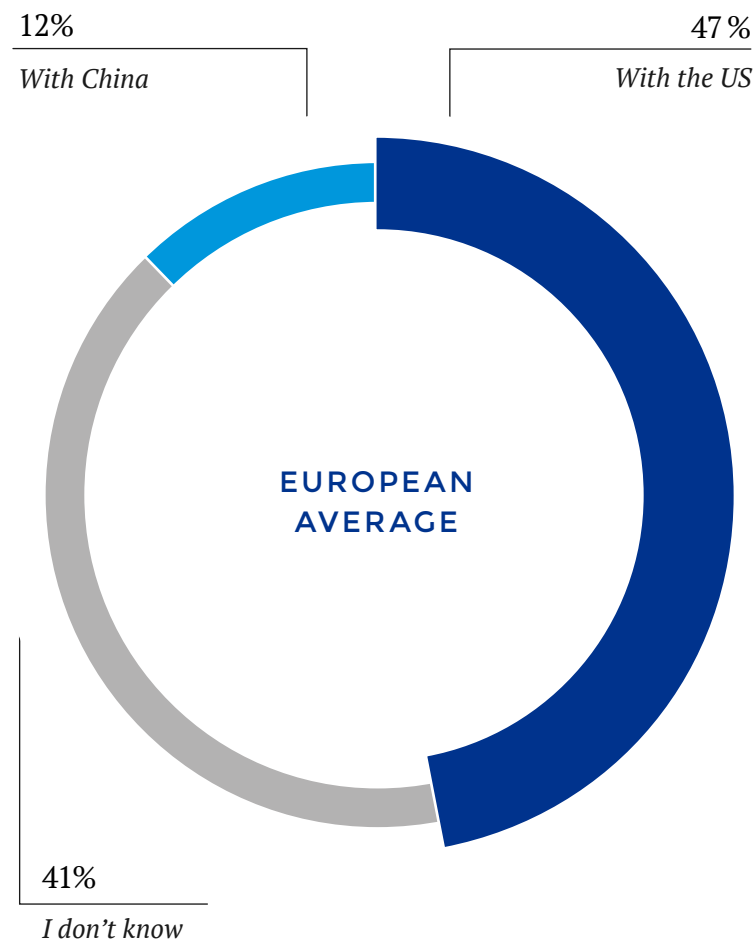


FINDING 1 – GEOPOLITICS OF EUROPE

Over the course of the last years, we have seen an escalating power competition between the US and China in the economic and technological fields. Having to pick sides, Europeans firmly support the US (47%) rather than China (12%). Europe is also the preferred partner for both American (73%) and Chinese (64%) respondents. However, there are notable differences among European states: while over 50% of Polish, Italian and Estonian prefer to side with the US, only about a third of the citizens of EU’s largest states like Germany side with the transatlantic partner.

QUESTION:

There is increasing confrontation between the US and China, who are competing for economic and technological dominance. Who would you prefer Europe to side with?

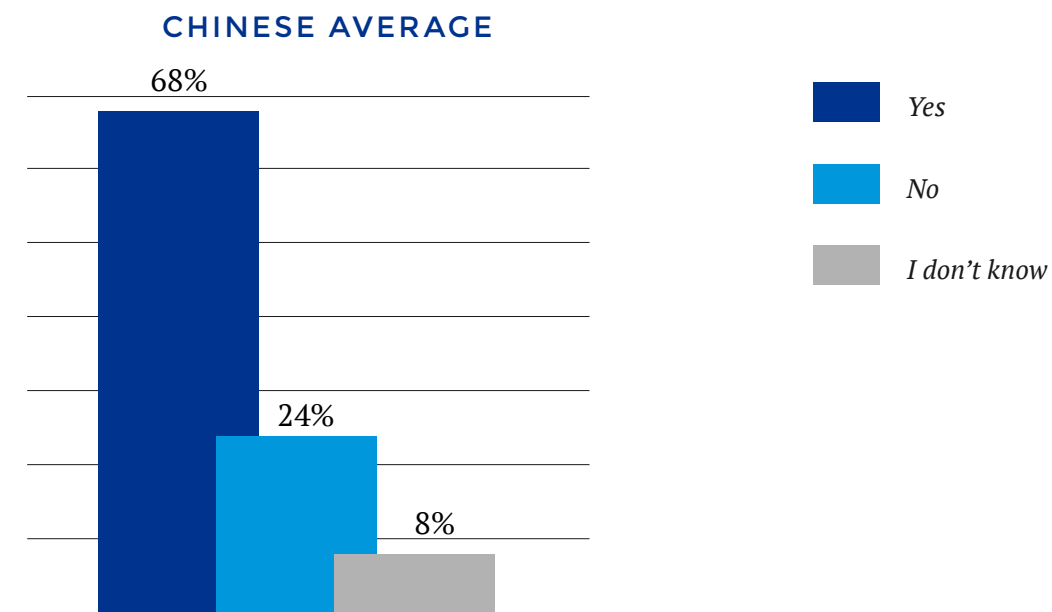
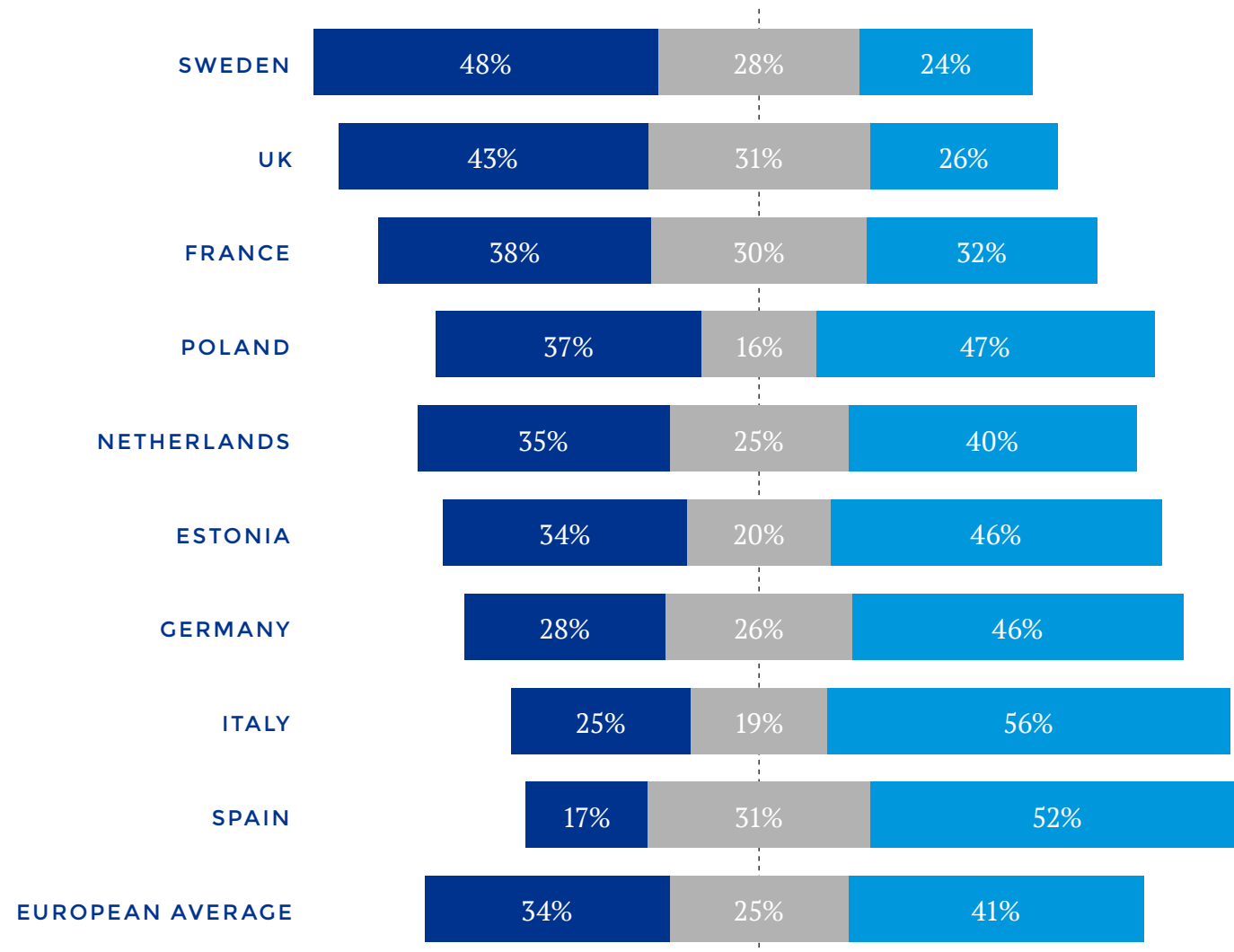


FINDING 2 – CONFLICT OVER 5G

Even though a number of European countries have banned Huawei from providing 5G, a majority of Europeans (41%) are against banning Chinese companies from their telecommunications networks. Only Sweden (48%), UK (43%) and France (38%) do not want Chinese companies getting involved in their 5G, while 56% of Italians and 52% of Spaniards do not think they should be banned. By contrast, 68% of Chinese respondents think Europeans should be allowed to help build their network.

QUESTION:

Some European governments are concerned about the involvement of Chinese companies (like Huawei) in their 5G networks due to possible Chinese government surveillance. However, these companies could also help lower prices for mobile users. Should European governments ban Chinese companies from their telecommunications networks?



QUESTION:

Some European governments are concerned about the involvement of Chinese companies (like Huawei) in their 5G networks and are discussing banning them. Do you think European providers should be allowed to help build the 5G network in China?)

2

**DEMOCRACY IN  
THE DIGITAL AGE**



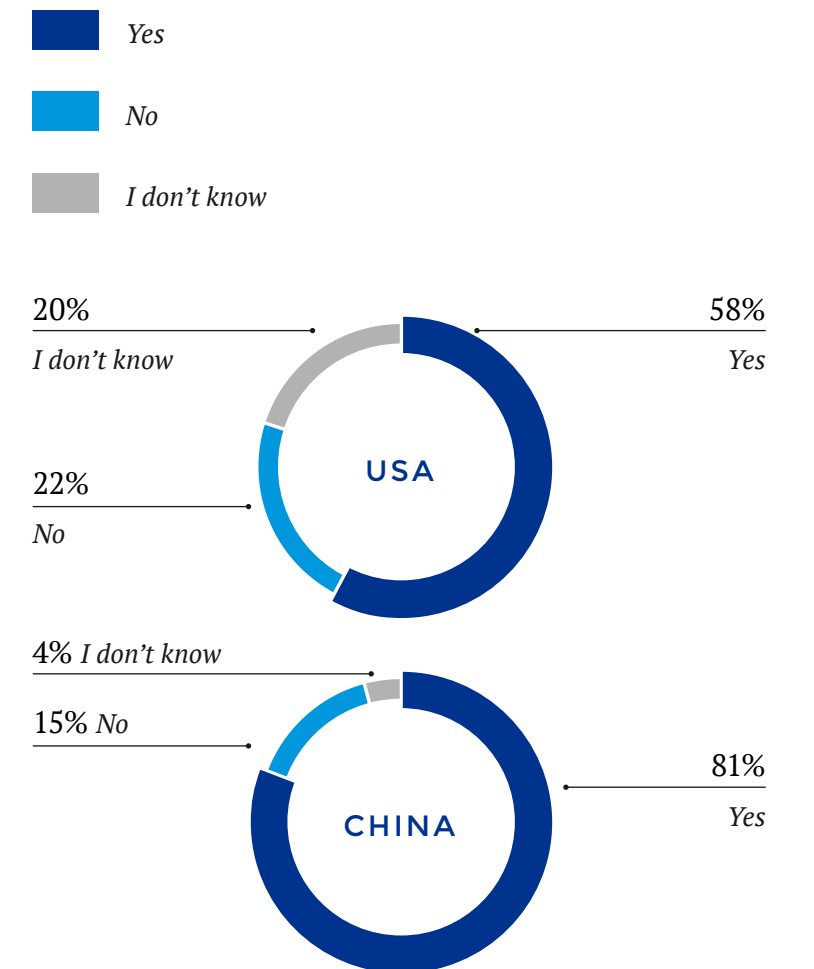
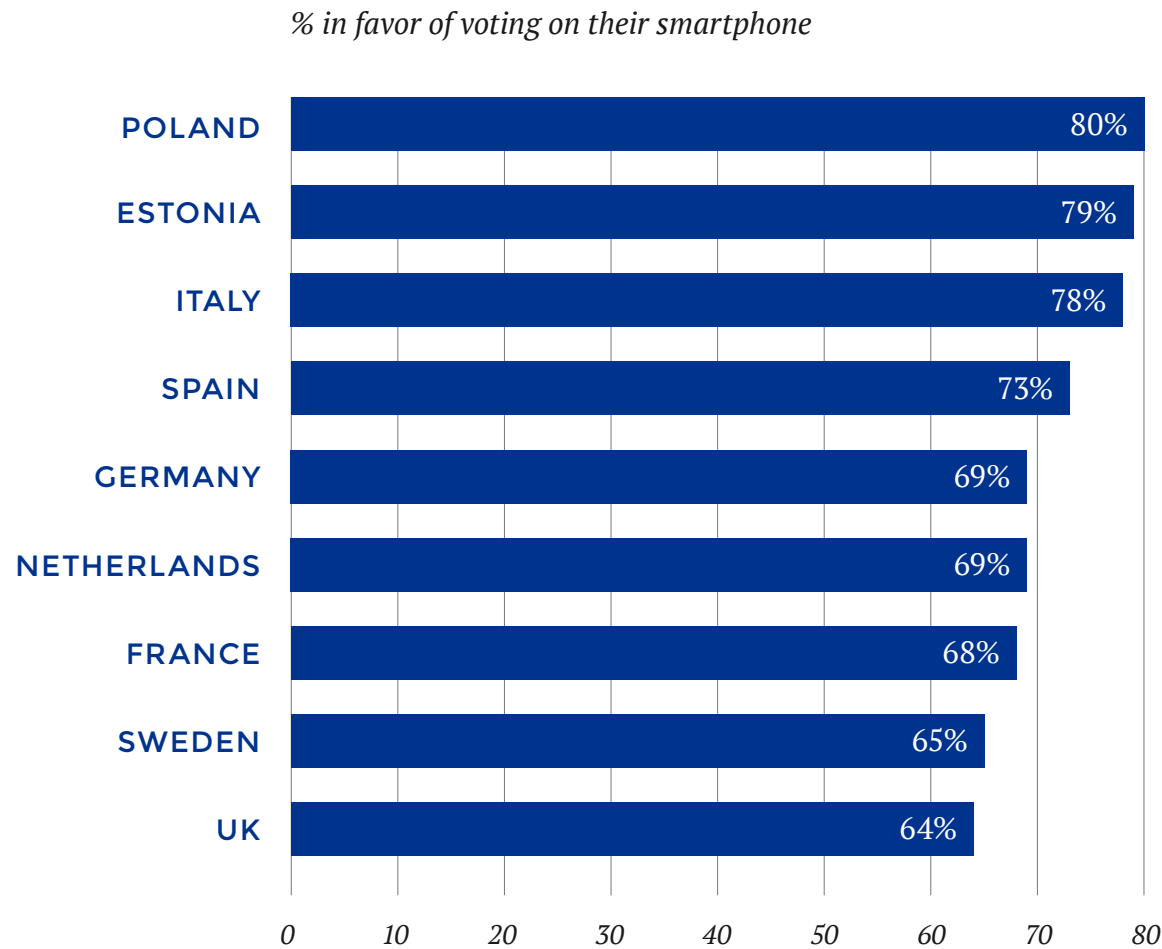
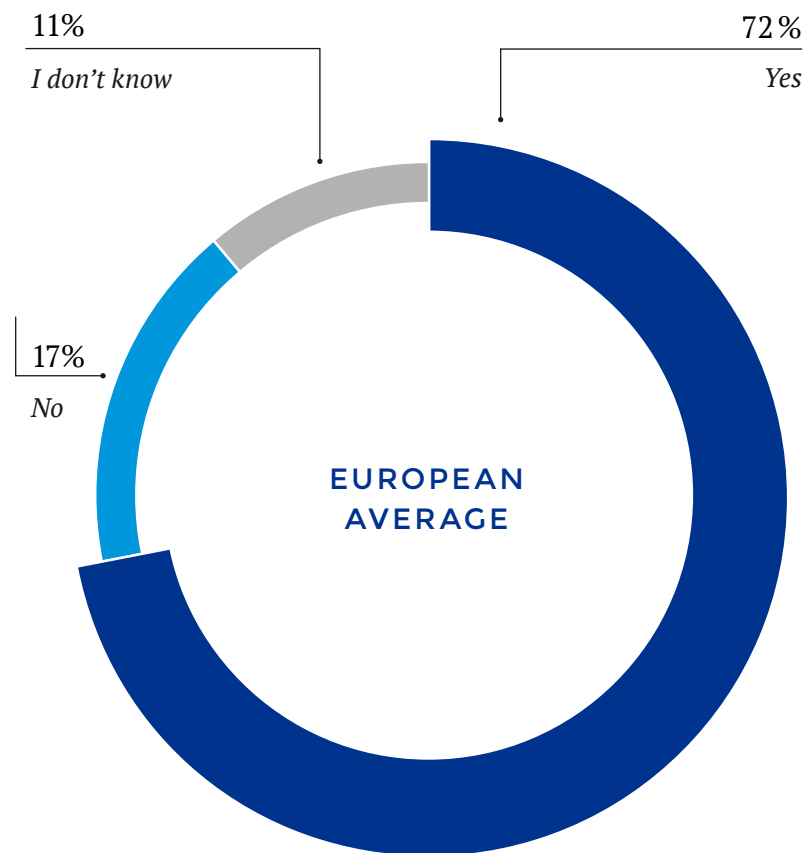


FINDING 3 – DIGITAL DEMOCRACY

**A vast majority of Europeans (72%) would like to be able to vote in elections through their smartphone, while only 17% would oppose it.** Strongest support is found in Poland (80%), Estonia (79%), Italy (78%) and Spain (73%). Similar numbers are found in the United States, where 58% support the idea and only 22% is opposed to it. In China, an overwhelming majority (81%) support smartphone voting.

QUESTION:

If voting in elections via internet was 100% secure, would you be willing to vote on your smartphone instead of physically?



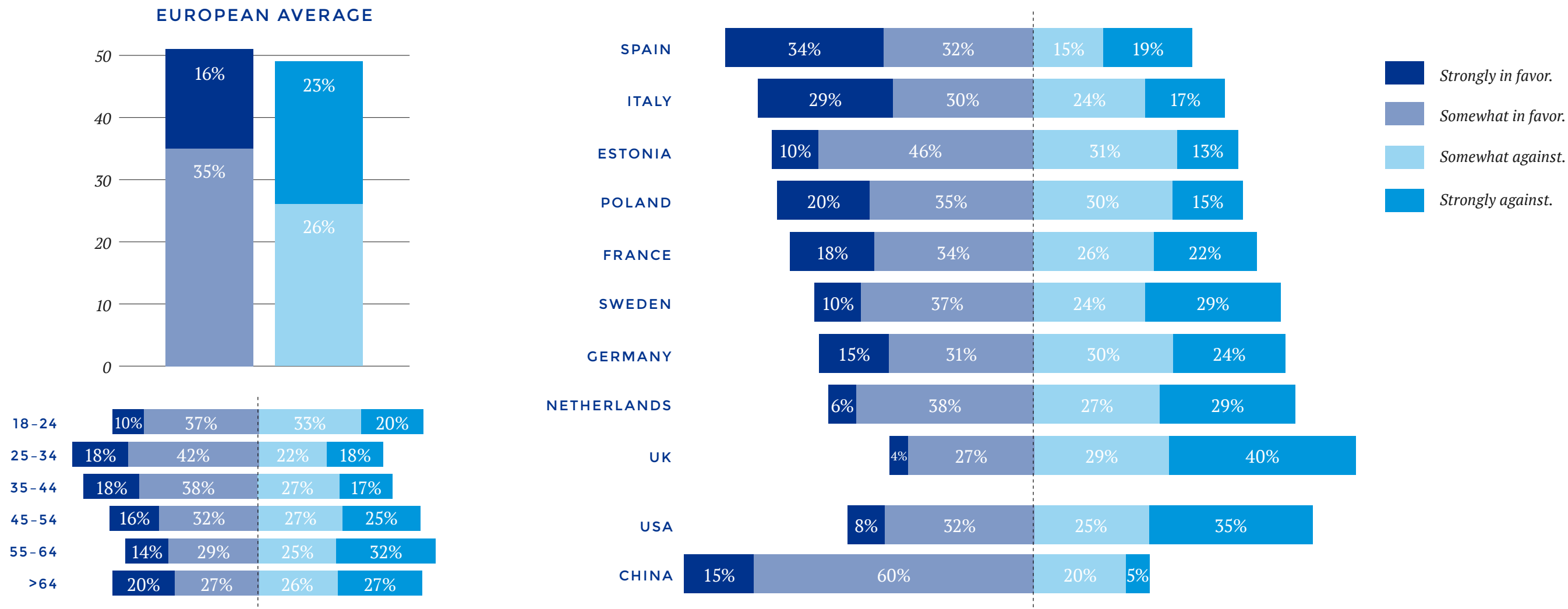


FINDING 4 – AI AND DEMOCRACY

**51% of Europeans support reducing the number of national parliamentarians and giving those seats to an algorithm.** This proposal is particularly popular in Spain (66%), Italy (59%) and Estonia (56%), whilst the citizens of Germany, the Netherlands, the UK and Sweden are mostly against. The results vary significantly by generation, with the younger ones being more open to the idea: over 60% of Europeans aged 25-34 and 56% of those aged 34-44 are excited about this measure, whereas a majority of respondents above 55 years old is against. China and the US hold opposite views: 75% of the Chinese support it, 60% of Americans oppose it.

QUESTION:

How would you feel about reducing the number of national parliamentarians in your country and giving those seats to an artificial intelligence algorithm that would have access to your data to maximise your interests?



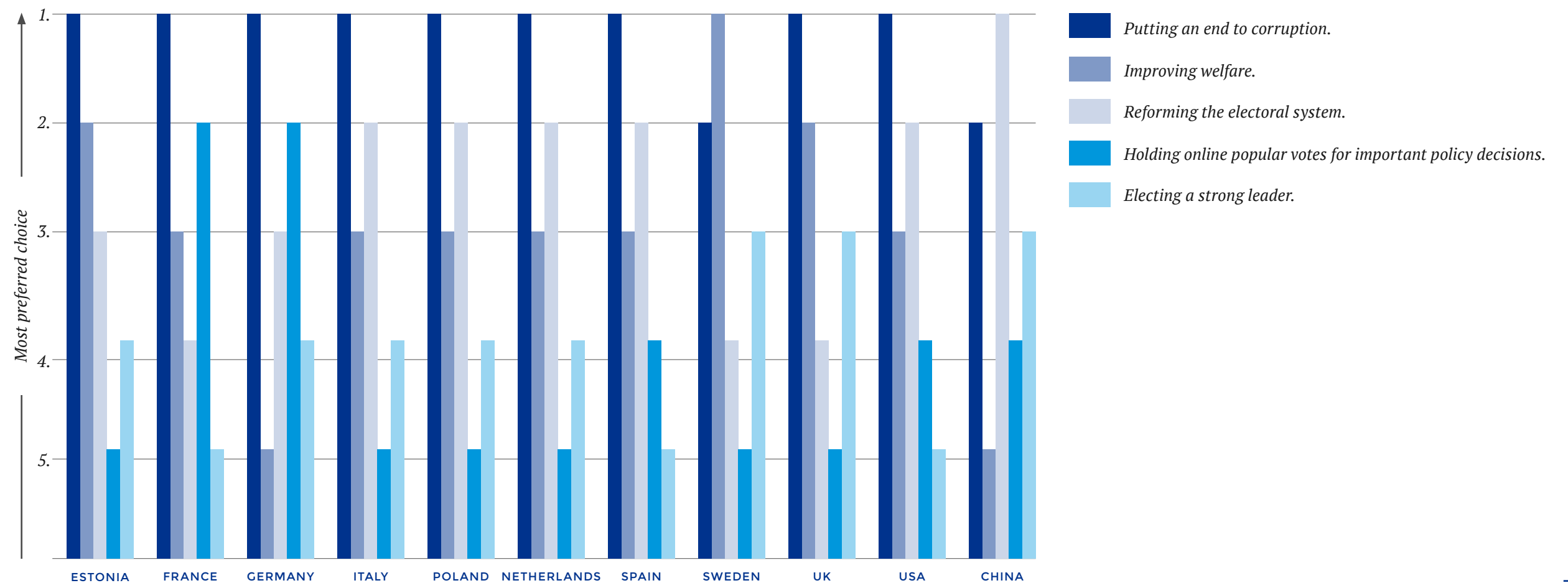
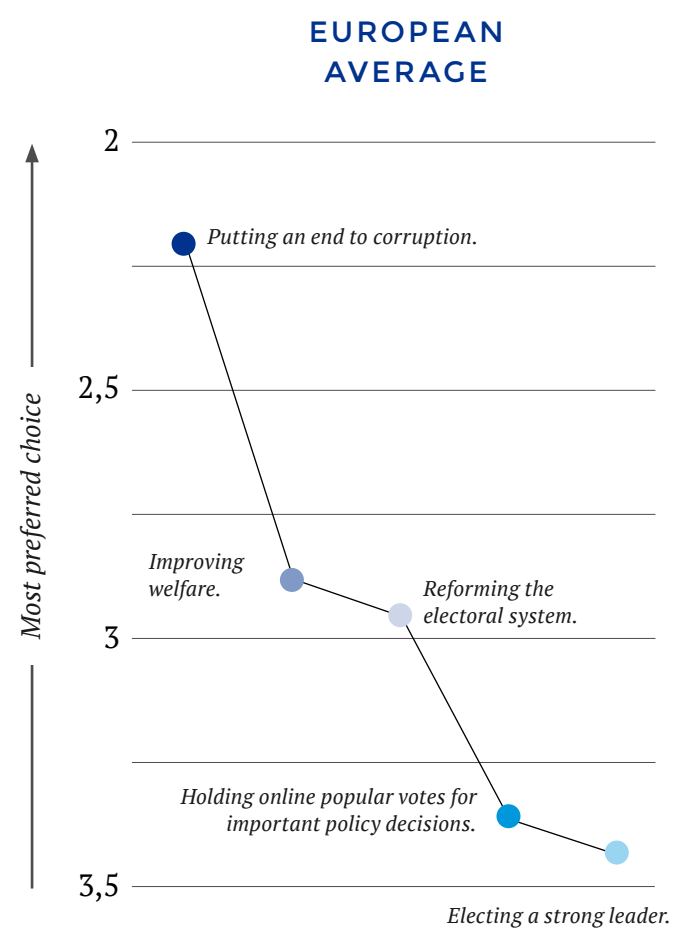


FINDING 5 – IMPROVING DEMOCRACY

**Both Europeans and Americans agree that ending corruption is the most important step to restore trust in democracy.** In aggregate, Europeans also think improving welfare is critical and place it as the second most important action, while “electing a strong leader” comes as the last priority. Only Sweden believes improving welfare is more important than putting an end to corruption. Holding online referendums for important policy decisions is also the second preferred option for French and German respondents.

QUESTION:

Data suggest that satisfaction with democracy has declined the last decades. What would be the most important step to improve your belief in democracy?





**3**

**EMBRACING  
TECHNOLOGY?**



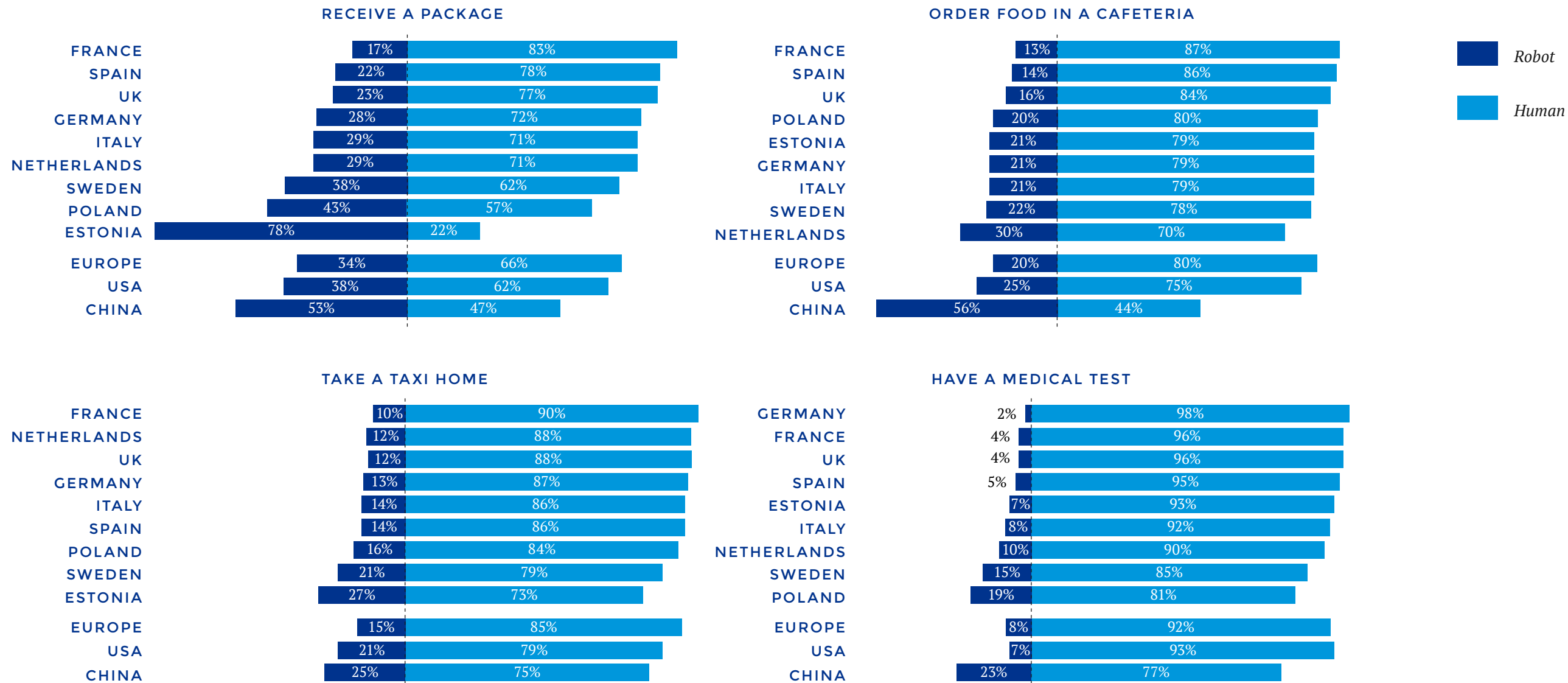


FINDING 6 – ROBOTS AND HUMANS

**More than a third of Europeans (35%) prefer to have a package delivered by a robot rather than a human.** The view is strongest in Estonia (78%), Poland (43%) and Sweden (38%). Europeans prefer to interact with humans when ordering food except 30% of the Dutch, who would prefer a robot. However, few respondents trust robots to drive them home (15%) or perform a medical test (8%). Americans hold similar views, with 38% of them preferring to deal with robots when receiving packages and 25% when ordering food. In China, a majority of citizens would prefer to deal with a robot when ordering food (56%) and receiving a package (53%).

QUESTION:

In the following situations, would you rather interact with a human or a robot?

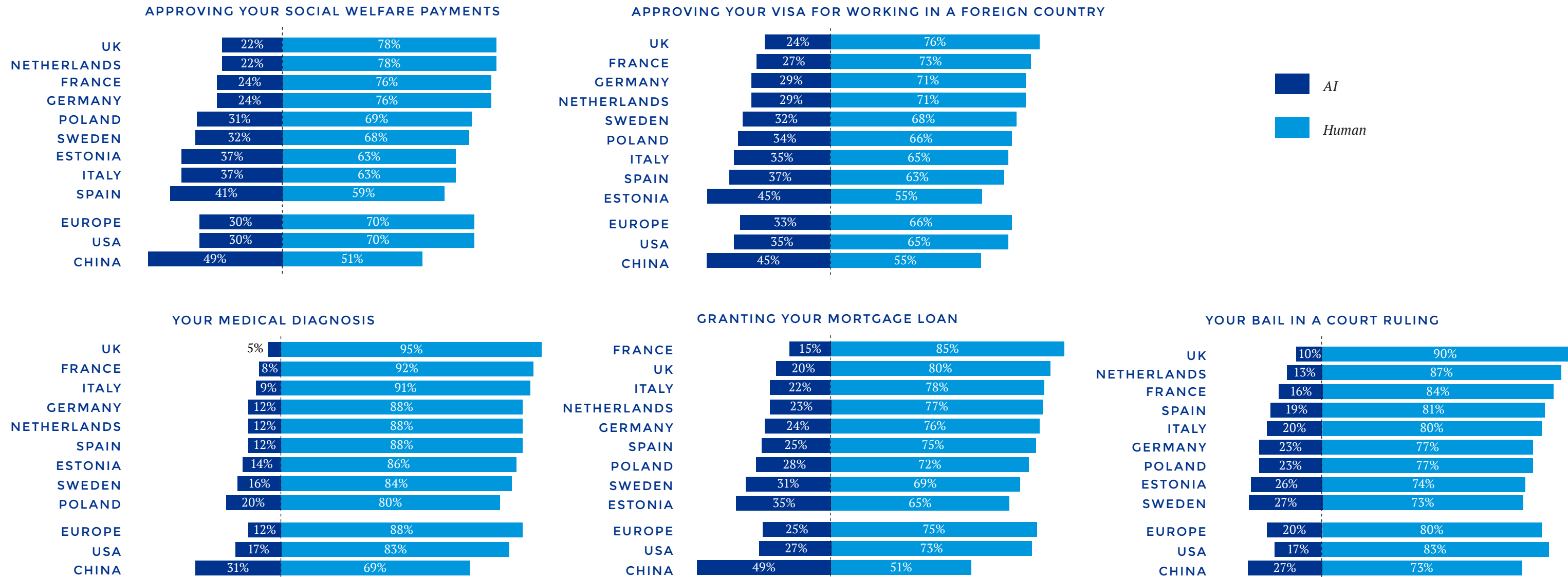


FINDING 7 – AI AND HUMANS

**One third of Europeans would prefer to have an AI rather than a civil servant make a decision on their social welfare payments or approving their visa. One quarter of Europeans also trust AI more than humans when it comes to negotiating and granting mortgage loans.** The strongest trust in AI is seen in Estonia, Italy and Spain: up to 41% of Spaniards and 37% of Italians and Estonians favor AI making a decision on their social welfare payments and 45% of Estonians, 37% of Spaniards and 35% of Italians prefer trust AI when applying for a visa for working in a foreign country.

QUESTION:

Artificial Intelligence (AI) can make data-driven decisions with accuracy often surpassing humans. Would you rather have a human or Artificial Intelligence make a decision on:



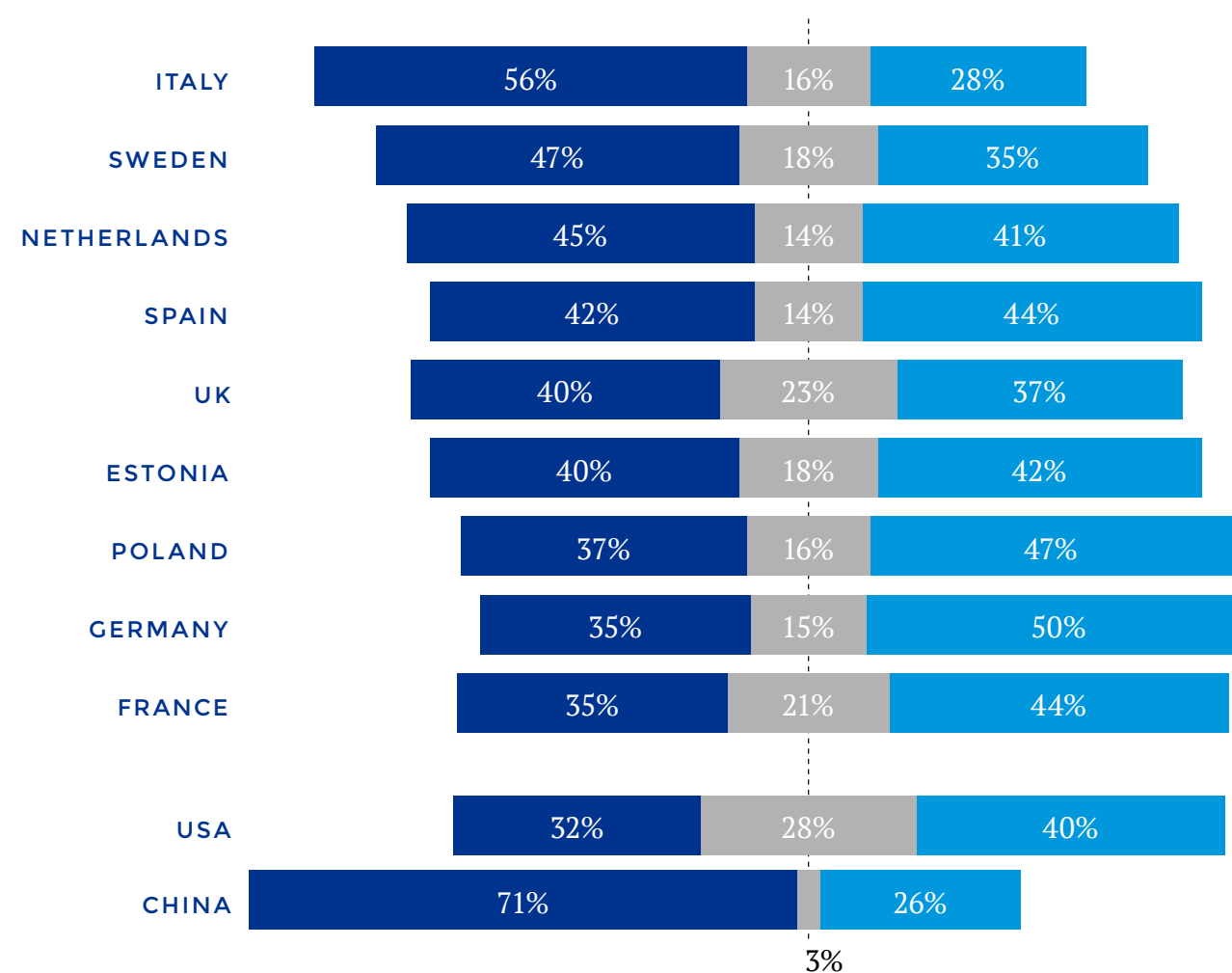
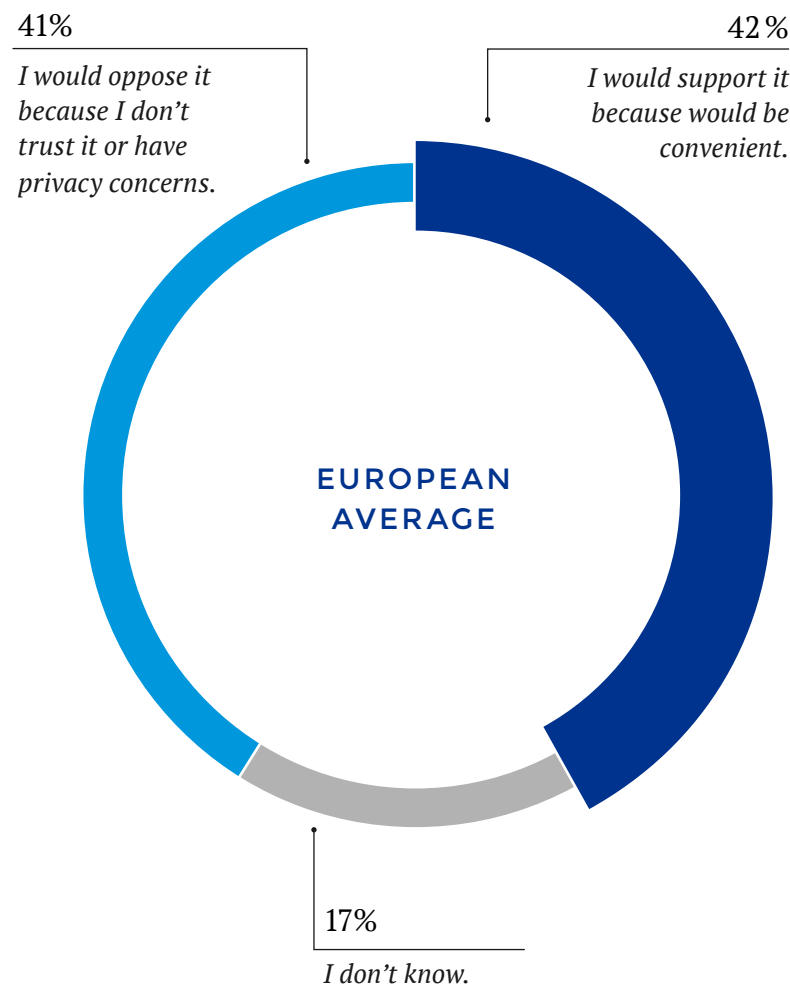


FINDING 8 – FACIAL RECOGNITION

**A majority of Europeans (42%) support the use of facial technology for verifying the identity of citizens if it makes their lives more convenient.** We see increased support in countries such as Italy (56%), Sweden (47%) or The Netherlands (45%), however these numbers are far from China, where the use of facial recognition is massively accepted (71%). In terms of gender, men (48%) are notably more willing than women (36%) to accept the use of the technology in their daily lives, while the younger generations are more privacy-minded than the older ones. A majority of those under 45 years old oppose the measure, while those above 65 years old approve it.

QUESTION:

The use of facial recognition technology for verifying the identity of a person is increasing around the world. Would you support or oppose the use of facial recognition in your daily life if that meant not needing to carry access cards anymore (e.g., key cards, public transportation passes or gym cards)?



- I would support it because would be convenient.
- I would oppose it because I don't trust it or have privacy concerns.
- I don't know.

FINDING 9 AND 10 – DIGITAL ADDICTION

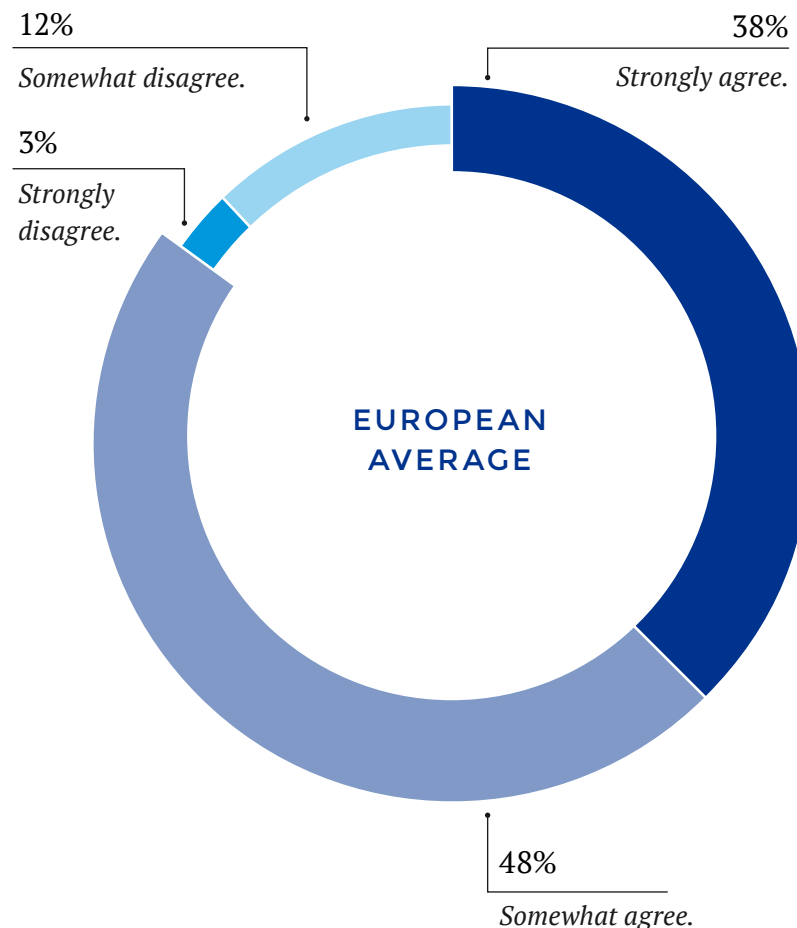
**An overwhelming majority of Europeans (86%) believe that digital addiction is a problem, however only 39% of them believe their smartphone hinders their productivity at work.** There is an important generational gap, as a majority of the younger respondents (62% of the 18-24 years old group and 53% of the 25-34 group) do believe their phones hinder their productivity, while more than 3/4 of those above 65 years old disagree with the statement.

QUESTION:

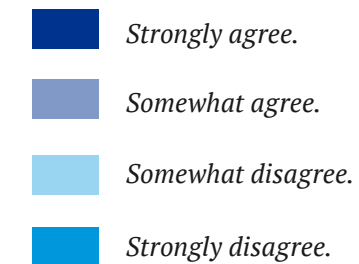
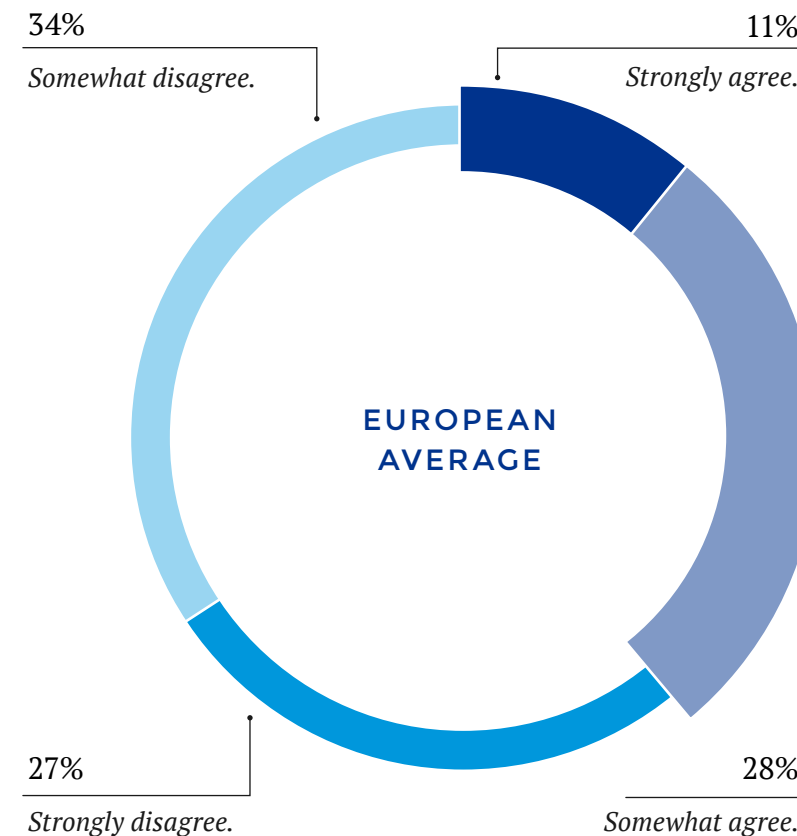
#9: Some people argue that smartphone addiction is increasing. Do you feel that “digital addiction” is a problem?

#10: Do you think your smartphone hinders your productivity at work?

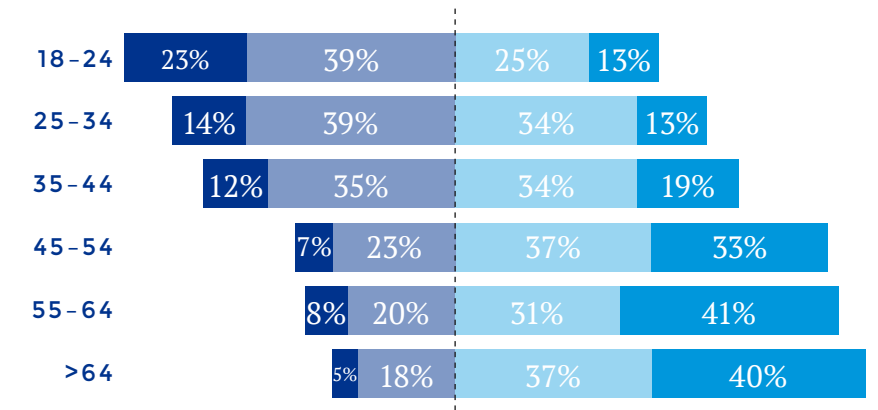
Some people argue that smartphone addiction is increasing. Do you feel that “digital addiction” is a problem?



Do you think your smartphone hinders your productivity at work?



Do you think your smartphone hinders your productivity at work?





4

# THE REGULATION OF BIG TECH

FAANG

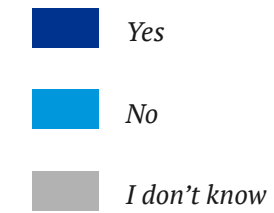
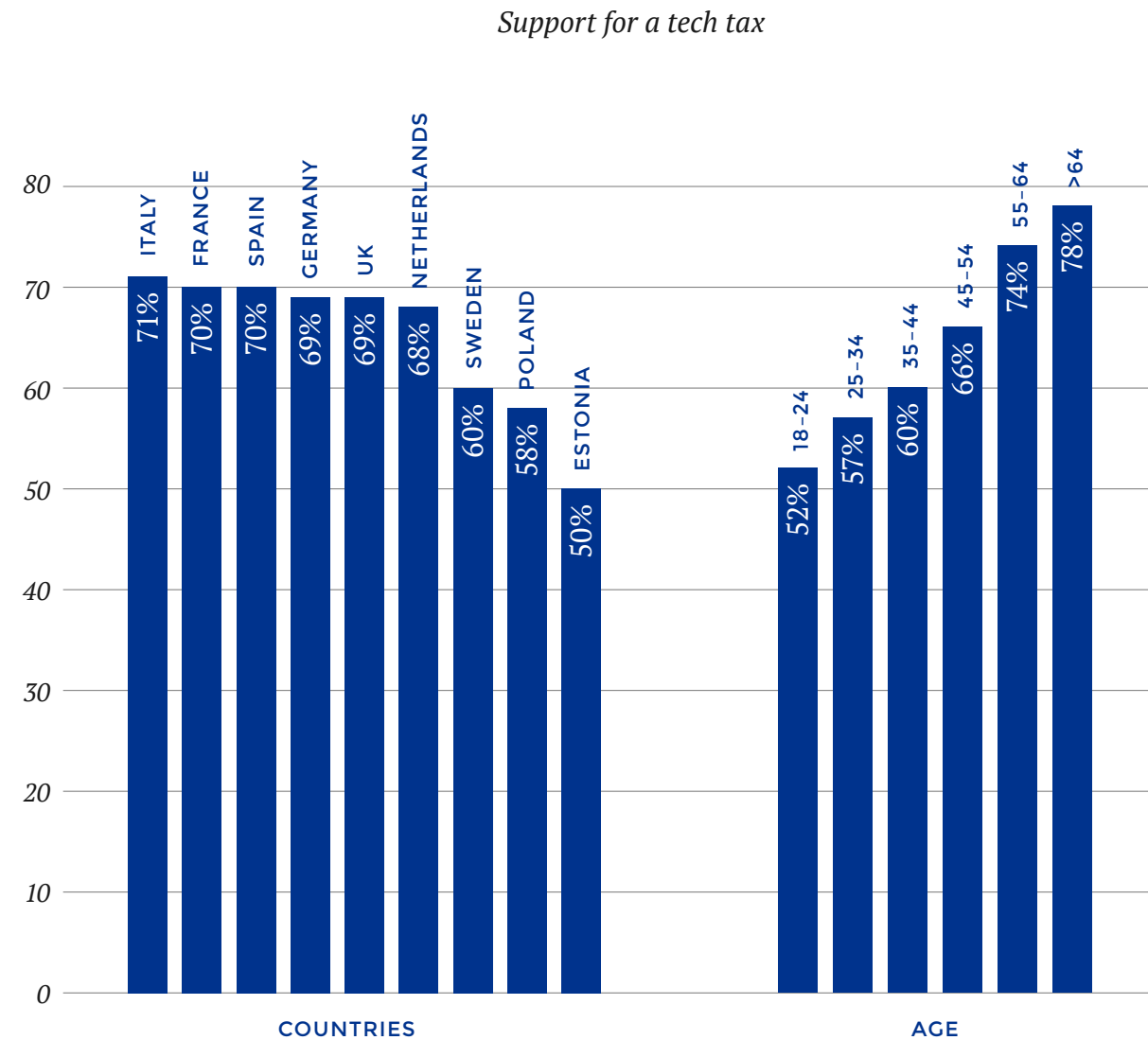
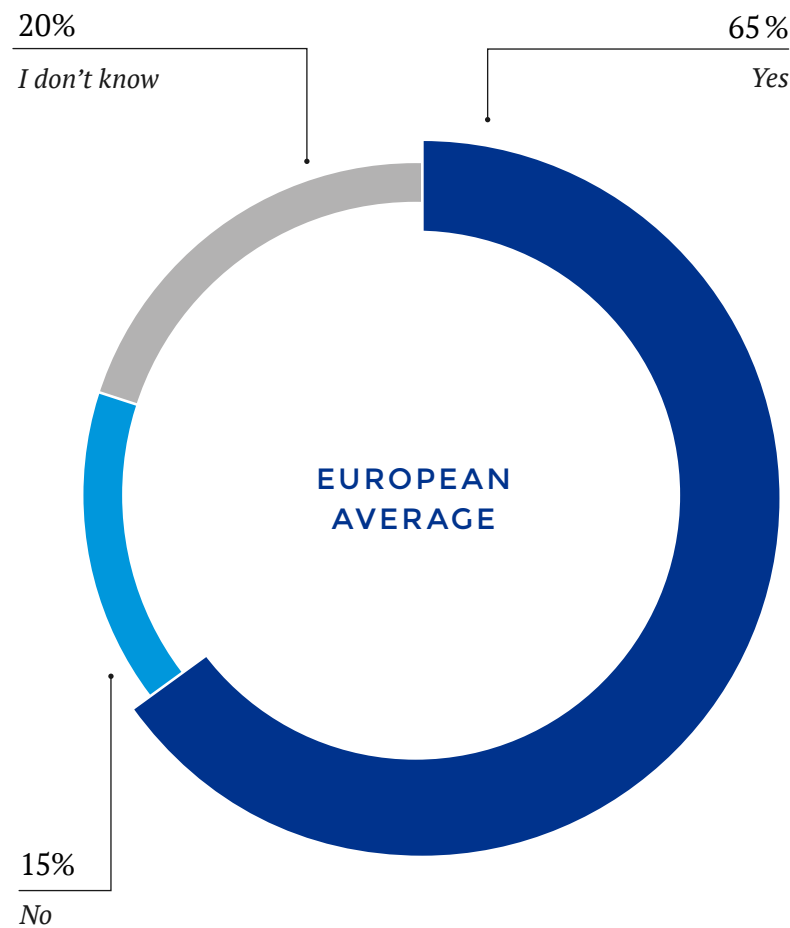


FINDING 11 – TECH TAX

As international talks on global corporate tax unfold, **Europeans massively support the adoption of a tech tax (65% vs. 15%), with close to 70% of Germans, Italians, Spaniards and Dutch favoring of such measure.** Support for the tech tax grows with age: up to 78% of the oldest respondents (65+) approve the measure, while only 52% of the youngest respondents (18-24) support it.

QUESTION:

Some experts claim that Big Tech companies use loopholes to avoid paying billions in taxes in European countries. France has just adopted a “tech tax” on technology companies who declare their profits abroad. Do you support such tax in your country?



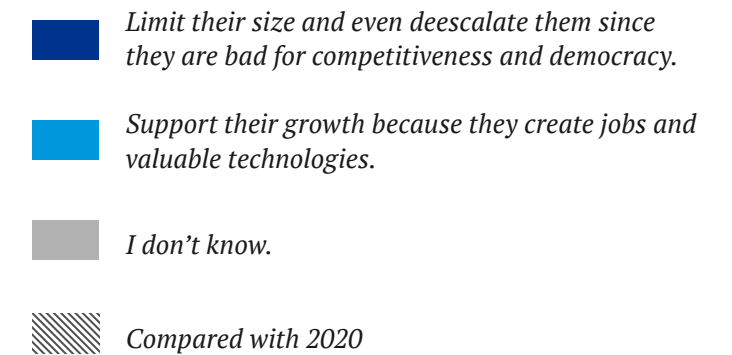
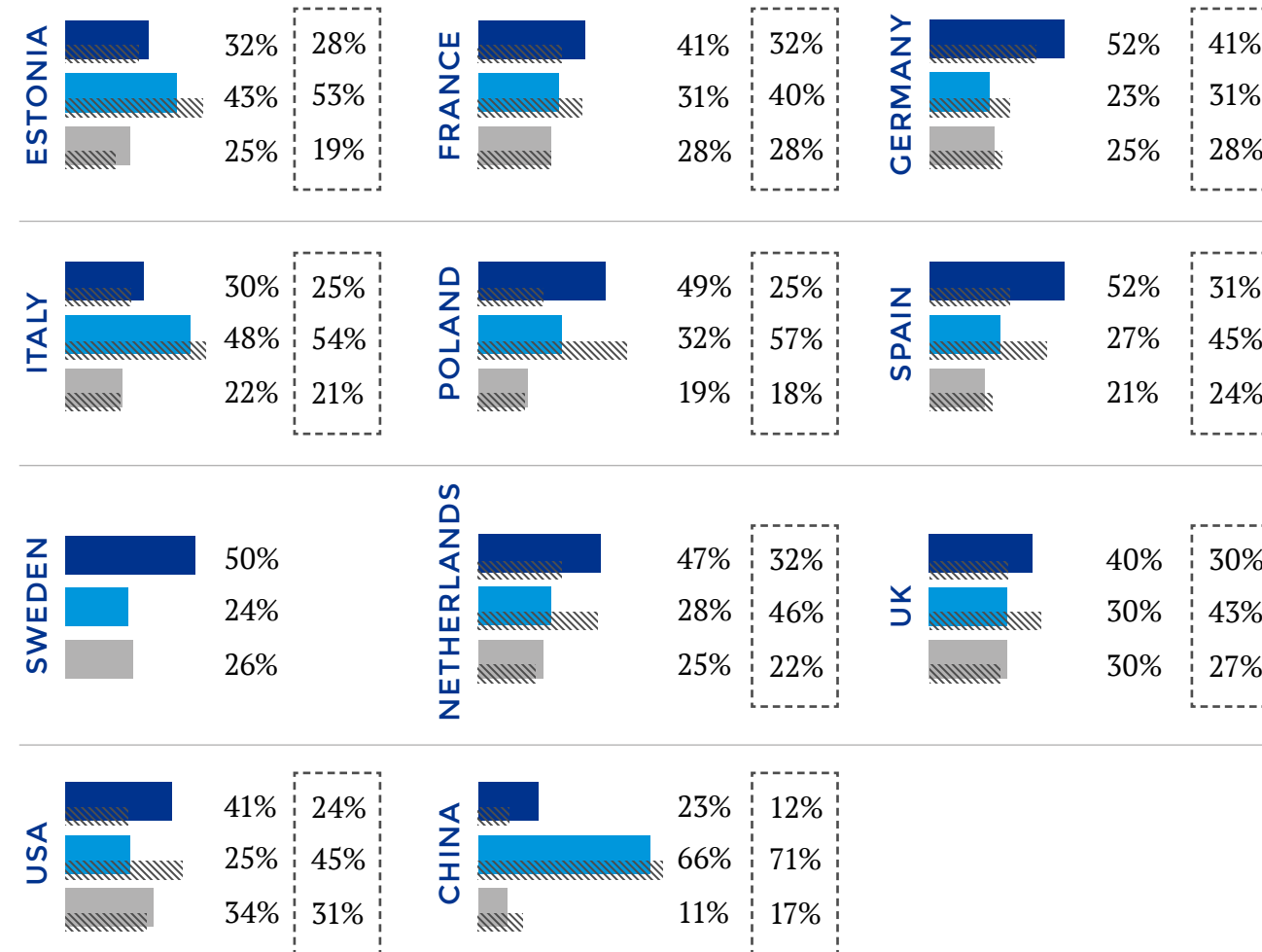
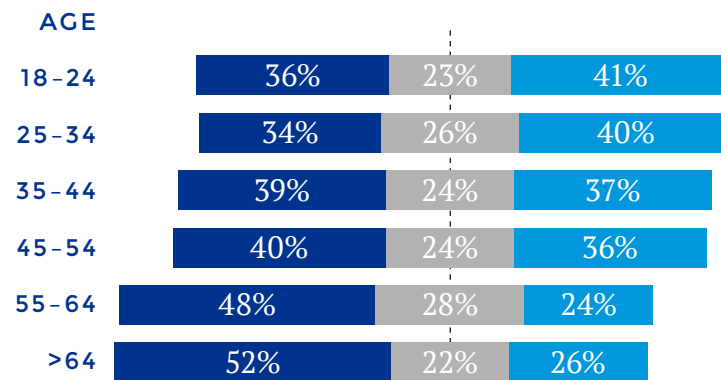
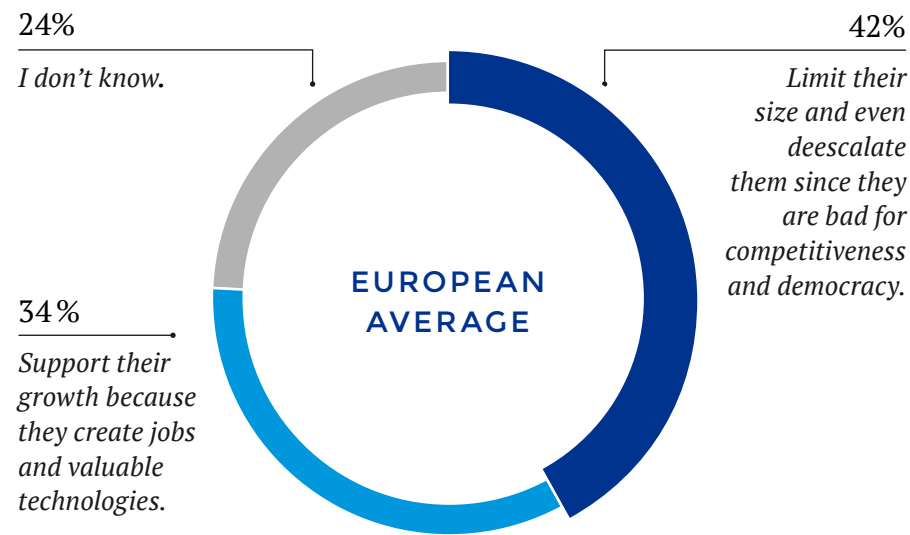


FINDING 12 – REGULATION OF BIG TECH

**The opinion of Europeans towards Big Tech companies deteriorated notably over the last year, when a wide majority of Europeans (46%) supported to help them grow as they create jobs and technologies. This year, most Europeans (42%) think that governments should limit the size of the GAFAs companies or even de-escalate them.** Last year, Germany was the only European country in favor of limiting their size; today most European countries surveyed want governments to limit them. In terms of age groups, younger generations are the most supportive of Big Tech, with around 40% of those respondents under 35 years old in favor of their growth.

QUESTION:

In your view, what should European governments do with the so called GAFAs companies (Google, Apple, Facebook and Amazon)?



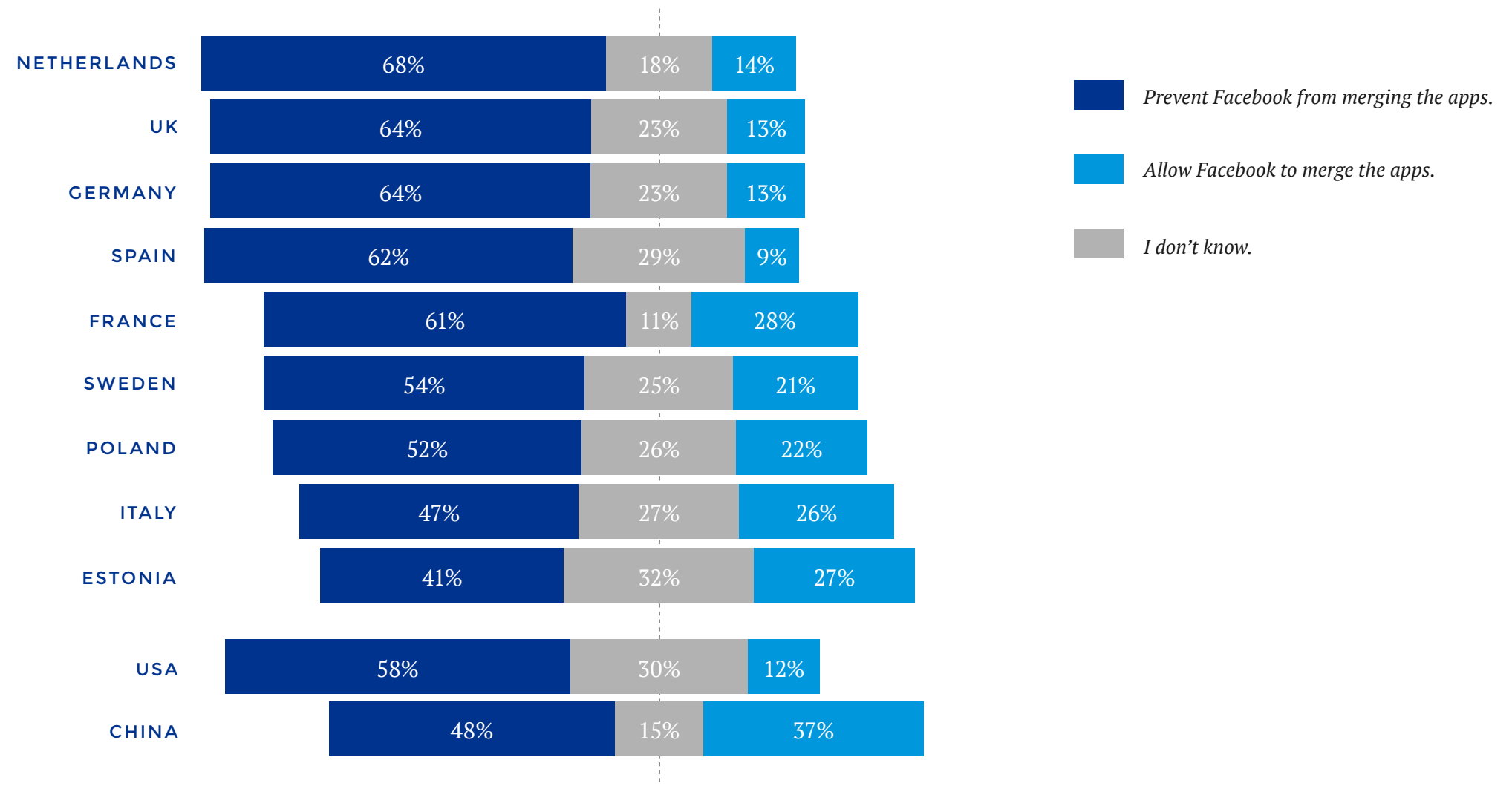
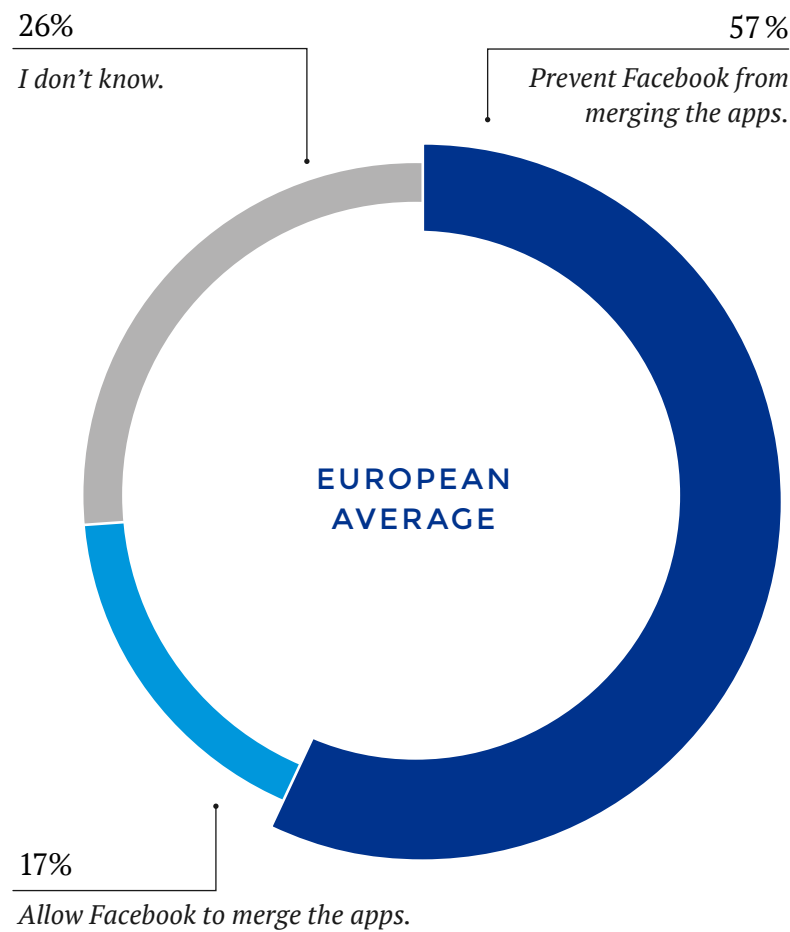
FINDING 13 – BIG TECH MONOPOLIES

**Europeans are overwhelmingly against Facebook becoming a private messaging behemoth.**

57% of respondents want governments to prevent Facebook’s merge of WhatsApp, Instagram and Messenger, while only 17% think they should allow it. Americans hold similar views, as 58% are against the integration and only 12% support the apps merging. Strongest opposition is seen in the Netherlands (68%), Germany and UK (64%), Spain (62%) and France (61%).

**QUESTION:**

Facebook, who owns WhatsApp, Instagram and Messenger, is planning to progressively integrate all four apps. Some experts argue this would lead to a monopoly on messenger-services and present privacy issues since personal data would become assimilated across all four apps. Do you think governments should:



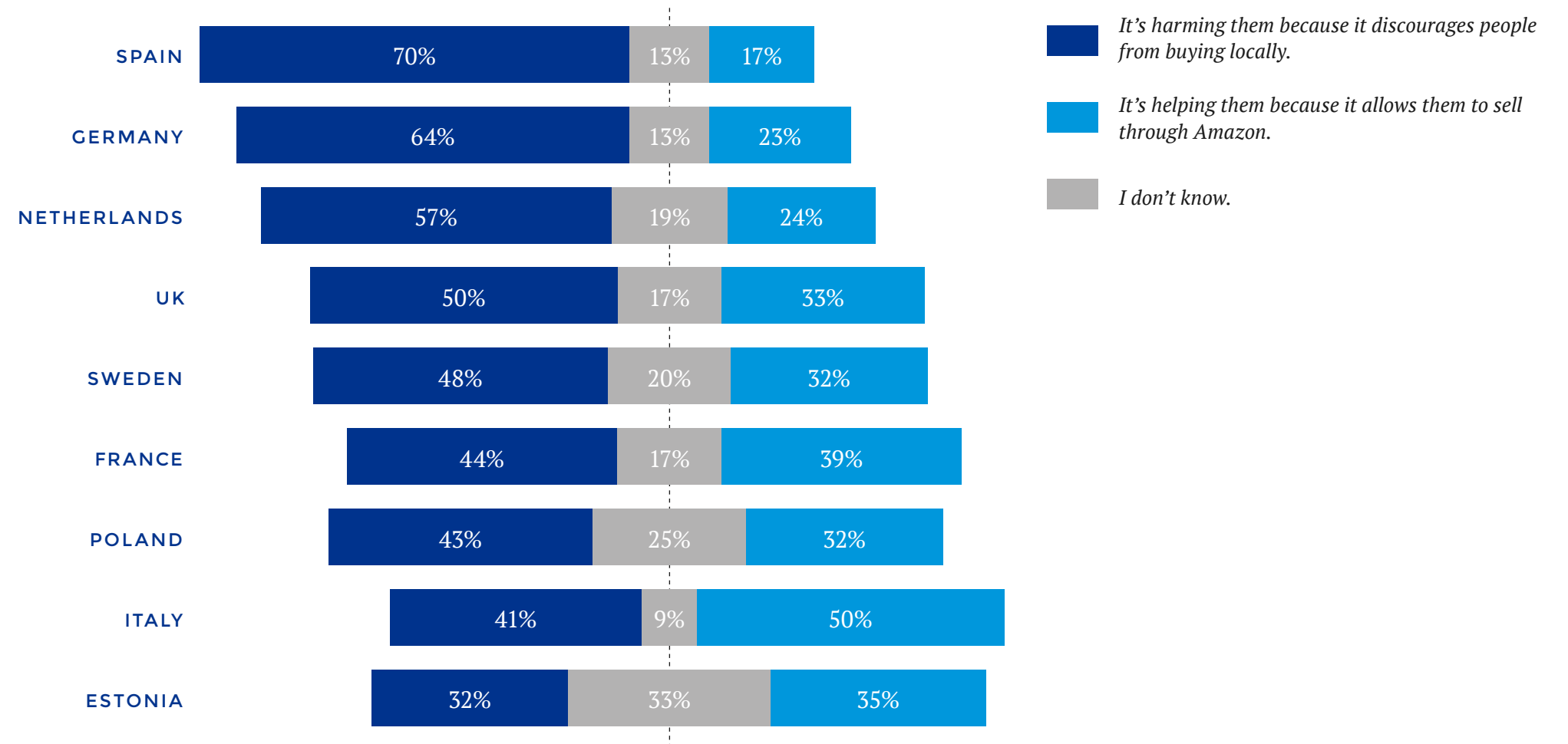
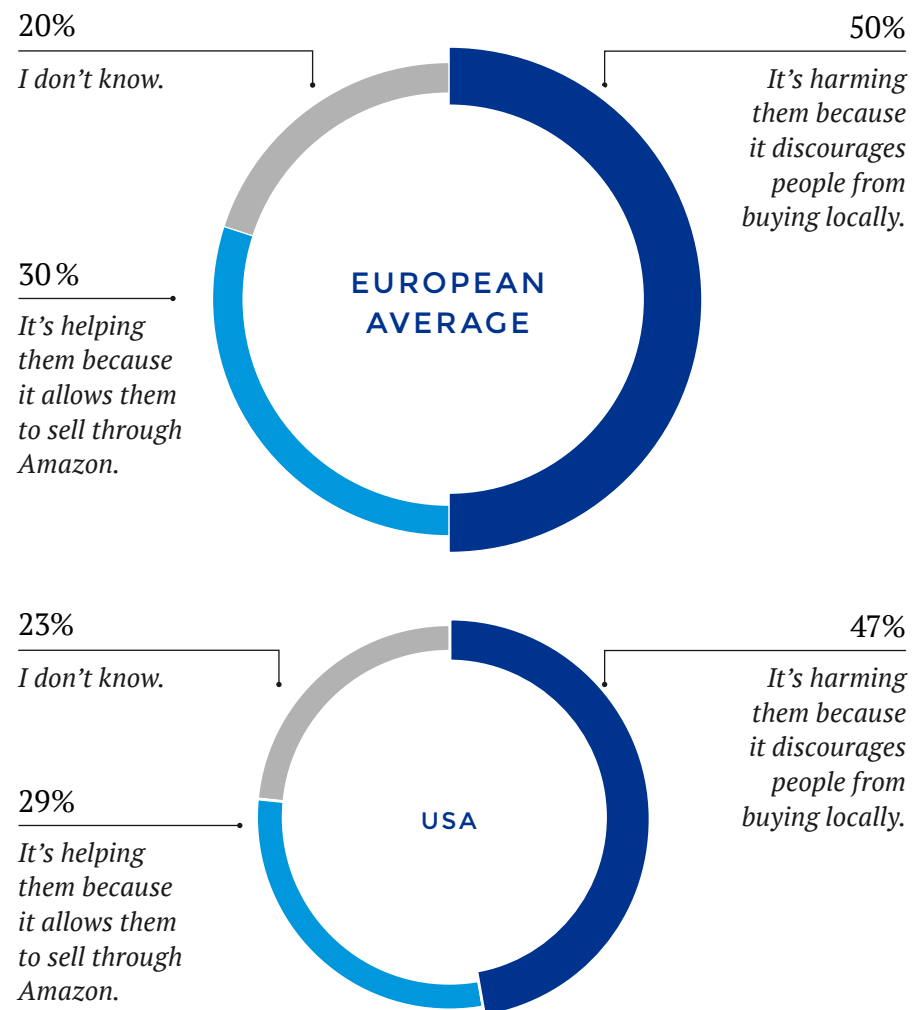


FINDING 14 – ECOMMERCE PLATFORMS

**A majority of Europeans (50%) believe Amazon is harming small businesses and local shops:** all European countries surveyed hold this view, except Italy and Estonia. Up to 70% of Spaniards, 64% of Germans, and 57% of Dutch believe the tech giant is harming local businesses. Similarly, 47% of respondents from the USA feel the same way.

QUESTION:

Do you think Amazon is helping or harming small businesses and local shops?

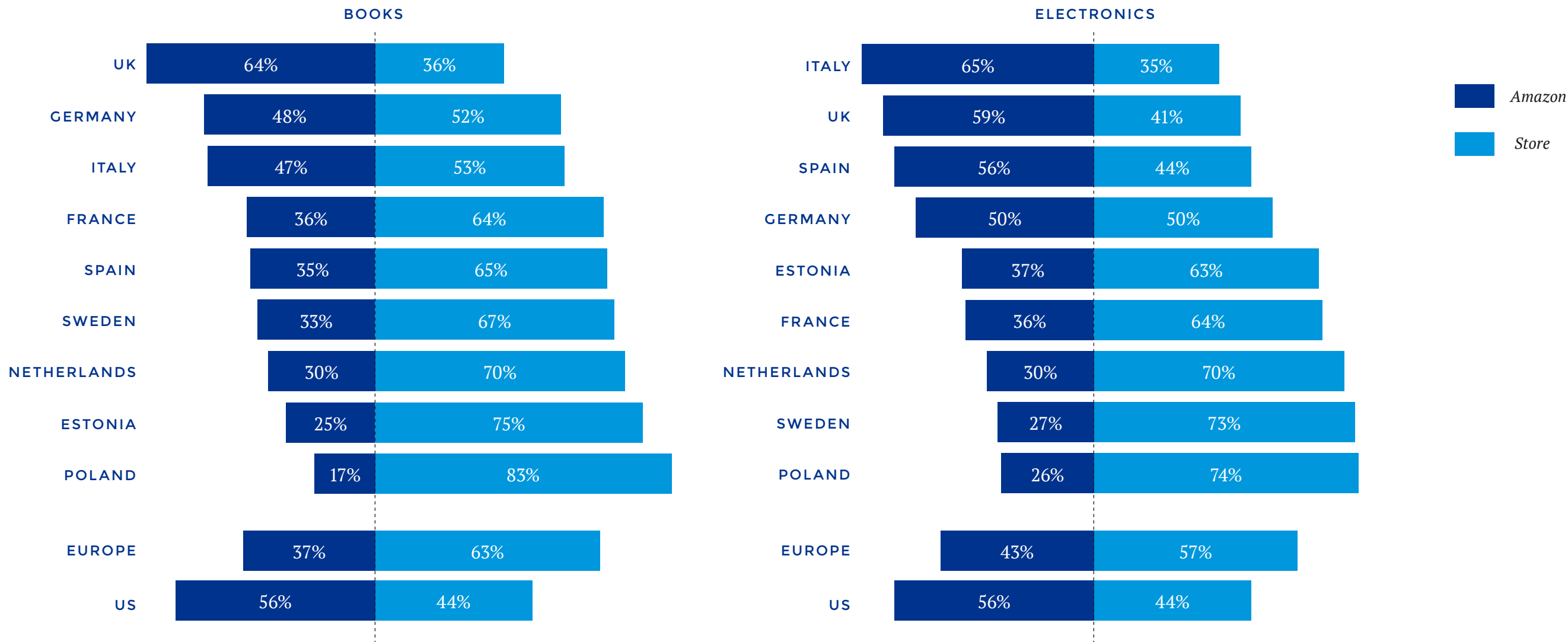


FINDING 15 – ECOMMERCE PLATFORMS

Although a majority of Europeans believe Amazon is harming local businesses, up to 64% of British respondents, 48% of Germans and 47% of Italians prefer to buy their books via their platform instead of going to a physical store. Likewise, 43% of Europeans buy their electronics online instead of going in person to a shop, with up to 65% of Italians, 59% of Brits and 56% of Spaniards doing so. American respondents too prefer to buy books and electronics on Amazon instead of physically (56%).

QUESTION:

On average, are you more likely to buy the following items on e-commerce platforms, such as Amazon, or in a physical store?





# SURVEY METHODOLOGY

European Tech Insights 2021 was fielded in January 2021. The data was received in February and analyzed by the IE Center for the Governance of Change in February and March 2021. We surveyed 2,769 adults from 11 countries (Estonia, France, Germany, Italy, Netherlands, Poland, Spain, Sweden, United Kingdom, China and the United States). Samples were representative in terms of age and sex.

Respondents were part of recurrent panels recruited by Netquest or affiliated companies into panels via social media, direct mailing or through referrals from other respondents. They receive small in-kind incentives for responding to each survey.

ESTONIA  
FRANCE  
GERMANY  
ITALY  
NETHERLANDS  
POLAND  
SPAIN  
SWEDEN  
UK  
CHINA  
USA

---

**2,769**  
**RESPONDENTS**



# AUTHORS



**Oscar Jonsson,  
Academic Director**

Oscar Jonsson is the Academic Director for the Center for the Governance of Change. He holds a PhD from the Department of War Studies at King's College London. He has been Director of the Stockholm Free World Forum, a visiting researcher at UC Berkeley and a subject-matter expert at the Swedish Armed Forces Headquarters. Oscar has advised governments, armed forces' leadership and financial institutions on strategic affairs and geopolitical risk, and featured in international print and broadcast media.

Oscar's research focuses on the impact of emerging technologies on modern statecraft and conflict, and in particular Russian modern warfare. He is the author of *The Russian Understanding of War* (Georgetown University Press) which is on the Commander of US Special Forces' reading list for 2020 and finalist for the Association of American Publisher's award for scholarly and professional excellence in social sciences 2020.



**Carlos Luca de Tena,  
Head of Operations**

Carlos Luca de Tena is a public policy professional who has advised international organisations and top multinational companies in public affairs, mostly in the field of digital economy. He is the Head of Operations of the Center for the Governance of Change. Carlos has worked as a Consultant at Llorente & Cuenca and APCO Worldwide and was in charge of European Affairs at the French Association of Town Mayors.

Carlos holds a master's degree in European Affairs from Sciences Po Paris and the University of Bath and studied as an undergraduate at Sciences Po Paris, Universidad Carlos III de Madrid and the London School of Economics.







## ABOUT THE CGC

This study was conducted by the IE Center for the Governance of Change (CGC), an applied-research, educational institution that studies the political, economic, and societal implications of the current technological revolution and advances solutions to overcome its unwanted effects.

The CGC does so by producing pioneering, impact-oriented research that cuts across disciplines and methodologies to unveil the complexity of emerging technologies such as artificial intelligence, big data, blockchain, and robotics, and explores their potential threats and contributions to society.

Moreover, the CGC also runs a number of executive programs on emerging tech for public institutions and companies interested in expanding their understanding of disruptive trends, and a series of outreach activities aimed at improving the general public's awareness and agency over the coming changes. All this for one purpose:

**TO HELP BUILD A MORE PROSPEROUS AND SUSTAINABLE SOCIETY FOR ALL.**

