

BIG DATA

A EUROPEAN SURVEY
ON THE OPPORTUNITIES AND RISKS
OF DATA ANALYTICS

January 2016



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Preface & Guest Commentary



Matthew Kirk, Director External Affairs, Vodafone Group and
Chairman of the Advisory Board, Vodafone Institute of Society and Communications

If analysed and understood, the staggering amount of electronic data generated on a daily basis has the potential to help us enhance our societies and invigorate our economies. As advances in technology – from ultrafast internet connections to tiny low-powered sensors – have made it possible to collect and analyse data more efficiently and accurately than ever before, it looks as though the phenomenon of Big Data will start to deliver on its promise soon.

This brings into sharp focus questions about how Big Data may impact people's privacy and human rights. While analysis of data to help prevent the spread of disease would benefit the whole of society, using data to predict someone's propensity to commit criminal acts could lead to discriminatory effects. Furthermore, the ease with which data can be collected may result in incidental or accidental collection of sensitive data unless the necessary safeguards are incorporated into the design of Big Data projects.

Finding a way to take advantage of the social and economic benefits that big data offers while protecting the rights and freedoms of individuals is one of the most important challenges we face today. The collection and analysis of data could change our lives for the better, but this will only happen if we understand individuals' privacy concerns and put them at the heart of Big Data initiatives.

We hope this study from the Vodafone Institute for Society and Communications will contribute to this important debate. It analyses over 8,000 individuals across eight European countries and offers valuable insight into people's perceptions of data analytics. While there are some interesting differences across countries, the consensus is that organisations need to simplify their communications, be more transparent about how data is collected and analysed and give users more control over how their data is used.

We are at an important juncture: the potential of Big Data will only be realised if data is permitted to flow freely and organisations have the freedom to innovate. This, in turn, will only happen if we understand and respect privacy concerns and find the right balance between what is technically possible, what is legally allowed and what is socially acceptable.



Viktor Mayer-Schönberger, Professor of Internet
Governance and Regulation, Oxford Internet Institute

Make no mistake – this impressively comprehensive study on European attitudes towards Big Data is nothing short of an indictment of current European data protection practices. The public's lack of trust is dramatic. Just as the European Court of Justice is reinforcing privacy laws in the shadow of Big Data – think of the right to be forgotten or the invalidation of the "safe harbour" agreement -, the vast majority of the population is tuning out. Or at least that is how it looks at first glance.

However, those that have predicted the death of privacy – mostly heads of US Internet and IT companies – have no reason to rejoice and declare victory. Because upon a closer look, we discover that Europeans, as the survey ably evidences, remain strongly wedded to the value of privacy. That commitment hasn't changed (nor, quite frankly, does it differ greatly from North American attitudes; humans do treasure their privacy on either side of the Atlantic.)

But Europeans seem deeply sceptical of the prevalent practice of data protection. They don't believe they have control over how their data is used. Their desire for easier and more transparent privacy policies of data users are rooted in the bewildering complexity of how their personal data is currently processed.

Who can blame them? Privacy terms of popular web platforms run into dozens of pages. Researchers have estimated that to just read these terms of the top ten Internet players would require more than two hundred hours, and given the legalese of these terms there's little hope for enlightenment once one is done.



Viktor Mayer-Schönberger, Professor of Internet
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This will only get worse in the context of Big Data, with increased complexity of data analysis, often combining different data sets for novel purposes. People are sensing that, the survey results show, as they express deep scepticism vis-à-vis a Big Data approach. But there is much nuance beyond the initial doubt: people seem much more pragmatic than current data protection legislation when it comes to the use of their personal information. Many of them understand that personal data is the currency they have to pay in exchange for free services, such as online search, email or social media. And they are more open-minded about the use of health data as it can lead to more effective diagnosis and treatment. Equally pragmatic yet consistent are their red lines: financial privacy seems crucial, as are clear prohibitions of personal health data being reused by insurers (rather than aiding medical intervention). And though companies may reuse personal data, handing such data over to third parties is a distinct no-no for most in the survey.

I see two important messages emerge from this valuable study. The first surely is humbling for the European data protection elite. The people do not find the current mechanisms in place to protect personal data to be effective. This requires new thinking. Policymakers are tasked to come up with better ways to protect personal data; ways that acknowledge the complexity of Big Data analytics and the resulting limitations of individual informed consent. Unfortunately, policymakers are struggling to take this – I believe valid – criticism of the people to heart, and to come up with new, more effective mechanisms to protect personal data.

This is lamentable, because an obvious alternative exists: regulation. Rather than asking individuals to consent to something they don't (and have no realistic chance of) understanding, we could regulate the use of personal data by companies and governments, interdicting irresponsible and unaccountable behaviour. We already do this in many other areas that have gotten too complex for individuals to comprehend. We don't expect people to test themselves the medication or the food they buy.



Viktor Mayer-Schönberger, Professor of Internet
Governance and Regulation, Oxford Internet Institute

Rather, we have regulations, regulators, and regulatory agencies, which have put in place stringent processes of checks and oversight. Neither are we expecting individuals to make choices about wearing seatbelts in cars. Because not being buckled up is so dangerous, we have just mandated their use. I strongly believe we will have to do the same to protect personal data in the age of Big Data, and shift much of the burden of data protection from individual consent to regulating accountable and responsible data use. This does not necessarily have to stifle Big Data innovation – on the contrary: permitting responsible data use (including repurposing of personal data) without individual consent can create space for innovative experimentation by responsible data users. It's time we tell the policymakers!

The second, equally important message is that for all the hyperbole and rhetoric around Big Data, companies and governments so far have failed to make a compelling case to the people why Big Data has strong positive individual and social value. Moreover, the revelations about data misuse from private companies all the way to democratic governments (as evidenced in the Snowden files) have not helped build and maintain trust by the people that their personal data is used appropriately. Here, companies and governments need to act, because without trust of the people Big Data cannot flourish. My personal sense is that Big Data if done responsibly holds tremendous societal value. So I wish for this trust to be built. But I fully recognize that it is up to the data users to create and preserve that trust.

I believe these two crucially important messages coming out of this study suggest ample and imperative calls for action by policymakers and stakeholders alike. As an optimist, I can but hope they will heed the call. But there is so much more this important survey offers. That is precisely its distinct and lasting value: to offer both narrative and nuance on an issue of seminal importance for the future of our society.



Survey Design



Objective of the study



- Explore potentials and risks of “Big Data”
- Provide thought-provoking insights
- Shed light on new angles of the issue of Big Data

Qualitative pre-phase



- **2 focus group** discussions
- Carried out in **Germany, Italy**
- Period: **July 2015**

Quantitative survey



- **Questionnaire:** “Big Data Scenarios”, usage, knowledge and attitude concerning data collection (for details see backup)
- **8 Countries**, international survey with focus on Vodafone markets in Europe
- **Period:** **Aug./Sep. 2015**
- **Method: CATI** (computer assisted telephone interviews)



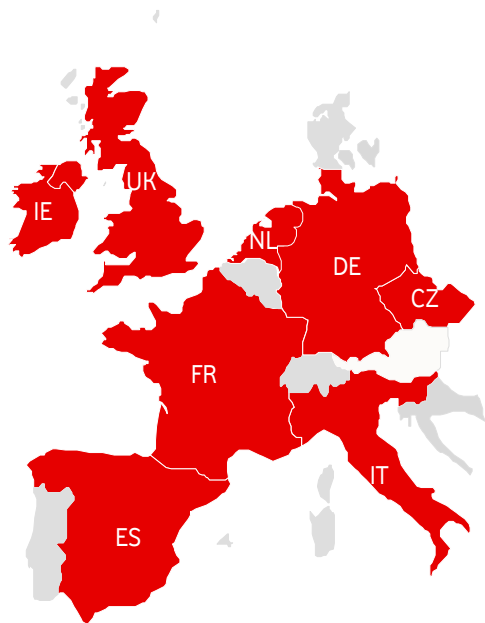
Sample



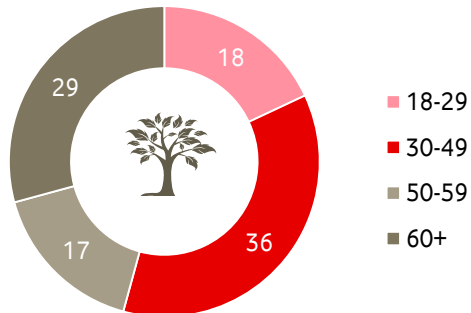
- Total (n= 8,256)**
- Czech Republic (n= 1,008)
 - Germany (n= 1,216)
 - France (n= 1,018)
 - Ireland (n= 1,009)
 - Italy (n= 1,000)
 - Netherlands (n= 1,002)
 - UK (n= 1,002)
 - Spain (n= 1,001)
- In the overall data, each market is weighted to be equal
 - Each country: weighting acc. to age, gender, education



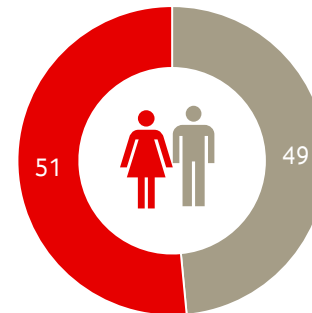
Sample Description



Age

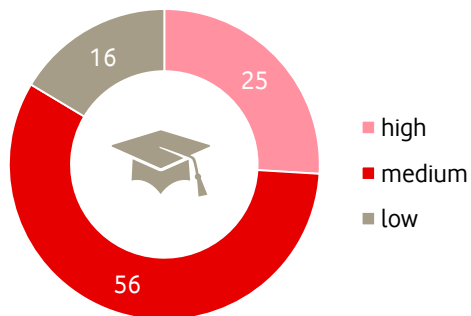


Gender*



%

Educational level



* Due to rounding, numbers presented in this document may not add up precisely to 100%



- Within the quantitative part of the survey, four different scenarios about data usage and big data analytics have been evaluated:
 - Connected Cars, GPS, Mobility
 - E-Commerce, Shopping, Loyalty Cards
 - Health, Clinical Diagnostics
 - Smart Meter, Smart Home
- Each respondent was presented with at least one of four scenarios.
- The scenarios describe a situation in an everyday setting that can involve the usage of big data. Each scenario is introduced with a short description.
- For each scenario, the respondents were asked to evaluate how comfortable they felt with five to six statements and situations.
- These statements/situations represent different levels of data usage and intrusion into people's privacy.



Connected Cars, GPS, Mobility



Cars generate a huge amount of data today thanks to their sophisticated electronic systems, much of which is used for diagnostic purposes in order to ensure the car is performing correctly, or can be repaired. Given the amount of data that is generated how comfortable would you be with this data being used in any of the following ways?

E-Commerce, Shopping, Loyalty Cards



Please imagine that you regularly visit a shop or use store loyalty cards. You have accepted to be contacted by the company. To what extent are you comfortable with the following scenarios?

Health, Clinical Diagnostics



Many experts say that the collection and analysis of patients' data will fundamentally change and improve medical research leading to the development of new and improved treatments, and thus help thousands of patients, while others see risks and potential disadvantages for individuals. How comfortable are you with the following scenarios?

Smart Meter, Smart Home



In many countries smart meters have been installed in people's homes. They automatically send the amount of power you use to your energy company. If such a device were installed in your home, to what extent would you be comfortable with the following scenarios?



Key Findings



- **People unconvinced by Big Data in general**
- **Low level of trust in both companies and the government regarding the use of personal data**
- **People rarely read terms and conditions**
- **Users wish for clear and simple language in terms and conditions, more control and transparency**
- **Big Data for Good: Respondents more willing to share data for health, traffic and the environment**
- **Sceptical Germans, Big Data friendly Spaniards: different perceptions across Europe**
- **Low level of confidence among the elderly and less educated**



People unconvinced by Big Data in general

When asked about what they think about the Big Data phenomenon in general, the digital service users surveyed are sceptical. Less than one-third of all respondents say that they think there are advantages associated with the Big Data phenomenon – over half of the participants say they see more disadvantages.

Low level of trust in both companies and the government regarding the use of personal data

The study points to the need for companies and service providers to improve communications and do more to build a trusting relationship with their customers if they are to be successful with Big Data projects: Only 26 percent of respondents agree that organisations respect the privacy of their personal data and only 20 percent say they know where and by whom their personal data is collected and stored. Only 29 percent of the people feel they have control about which information is collected about them.

The level of trust in how private and public-sector institutions manage personal data is low. Whereas health service providers (43 percent), the own employer (36 percent) and banks (33 percent) inspire slightly higher confidence, only a few users trust search engines (16 percent) and social media service providers (11 percent).



People rarely read terms and conditions

Although many people grant access to their data on a daily basis, they often have no idea about what exactly happens with it. The survey reveals that only 12 percent of the European citizens surveyed obtain their information on data usage from the service providers' Terms & Conditions of Use (T&Cs of Use) or General Terms & Conditions (GTCs). 34 percent said they get their information about data collection from the media. An average of 40 percent of respondents stated that they often accepted T&Cs of Use and GTCs without actually having read them.

Users wish for clear and simple language in terms and conditions, more control and transparency

64 percent of respondents would like there to be a higher level of transparency on the use of their personal data. 68 percent want terms and conditions to be more concisely worded and easier to understand. On average, 51 percent of Europeans would like to be able to define their own privacy settings. Many of the younger users are in favour of this confidence-inspiring step. Obviously, it isn't enough to be a well-known or established brand name because only 34 percent of respondents said that this inspired their confidence.



Big Data for Good: Respondents more willing to share data for health, traffic and the environment

There is broad consensus on the issue of personal data being passed on to third parties for commercial purposes. The vast majority of survey respondents strongly disapproves of this practice, irrespective of the reason or type of data.

When asked about their ideas on specific applications for big data, two thirds of the respondents say they could envisage data from many people being anonymously collected by the healthcare service to improve disease identification and treatment. Overall, 53 percent of the Europeans surveyed also say that they wouldn't mind their data being collected, stored and analysed in nonanonymous format if it would help them or other people to improve their health. 68 percent stated that they were in favour of installing smart meters to record data on building residents' usage behaviour so that more eco-friendly heating practices could be introduced. 55 percent of respondents were also happy about data on their movements in the car being transferred to navigation system service providers for personalised traffic reports.

Sceptical Germans, Big Data friendly Spaniards: different perceptions across Europe

The comparison of countries shows that Germans are especially critical concerning privacy issues, and are particularly sensitive about their personal data being passed on. The Irish, the British and the Dutch are (a little) less sensitive to the issue. The Dutch feel very confident in the digital space, they also believe that they are the most informed internet users in Europe. South Europeans in the survey are generally more relaxed as far as the collection and use of their data is concerned.



Low level of confidence among the elderly and less educated




People's competence and expertise in internet use varies considerably depending on their level of education and age. People with a low level of education feel that they are inadequately informed about data collection and use practices. While younger people consider themselves to be competent in the digital world, elderly people feel a lack of knowledge and trust. People over 60 are most critical, while those under 49 would like to get more personally involved in determining their privacy settings.



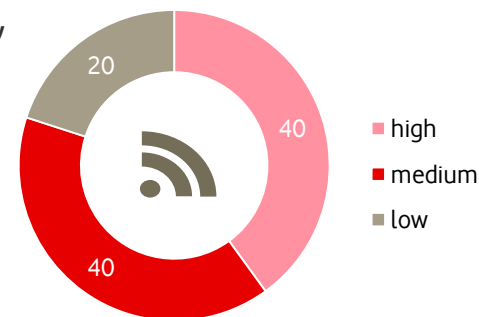
Digital Affinity and User Segments



Definition of Digital Affinity

		High	Medium	Low
	1. Internet users	yes	yes	no
	2. Usage of mobile electronic devices (smartphone, laptop, tablet, music player, e-reader, wearables)	at least 2 out of 6	under 2 out of 6	n.a.
	3. Digital services and products usage (search engines, e-mails, social media, chat, location-based-services, online shopping, online banking, fitness apps, streaming)	at least 6 out of 9	under 6 out of 9	n.a.

Digital Affinity
in Sample

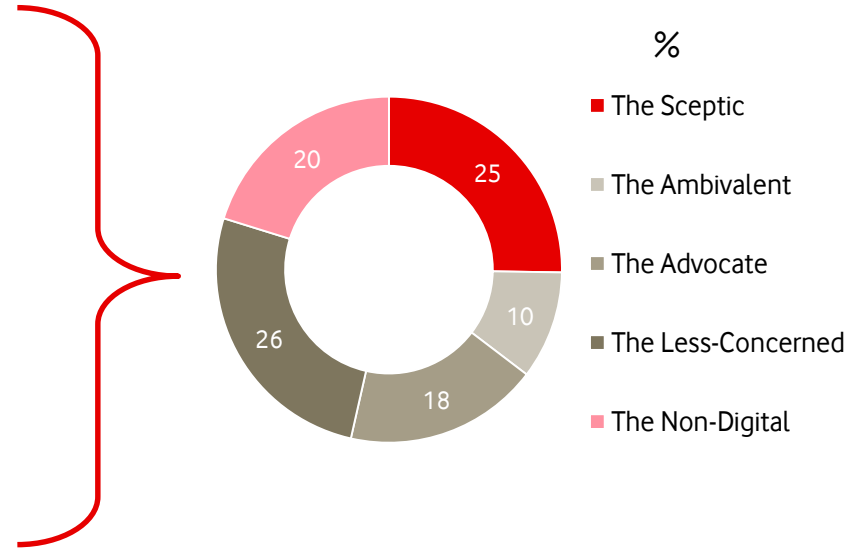




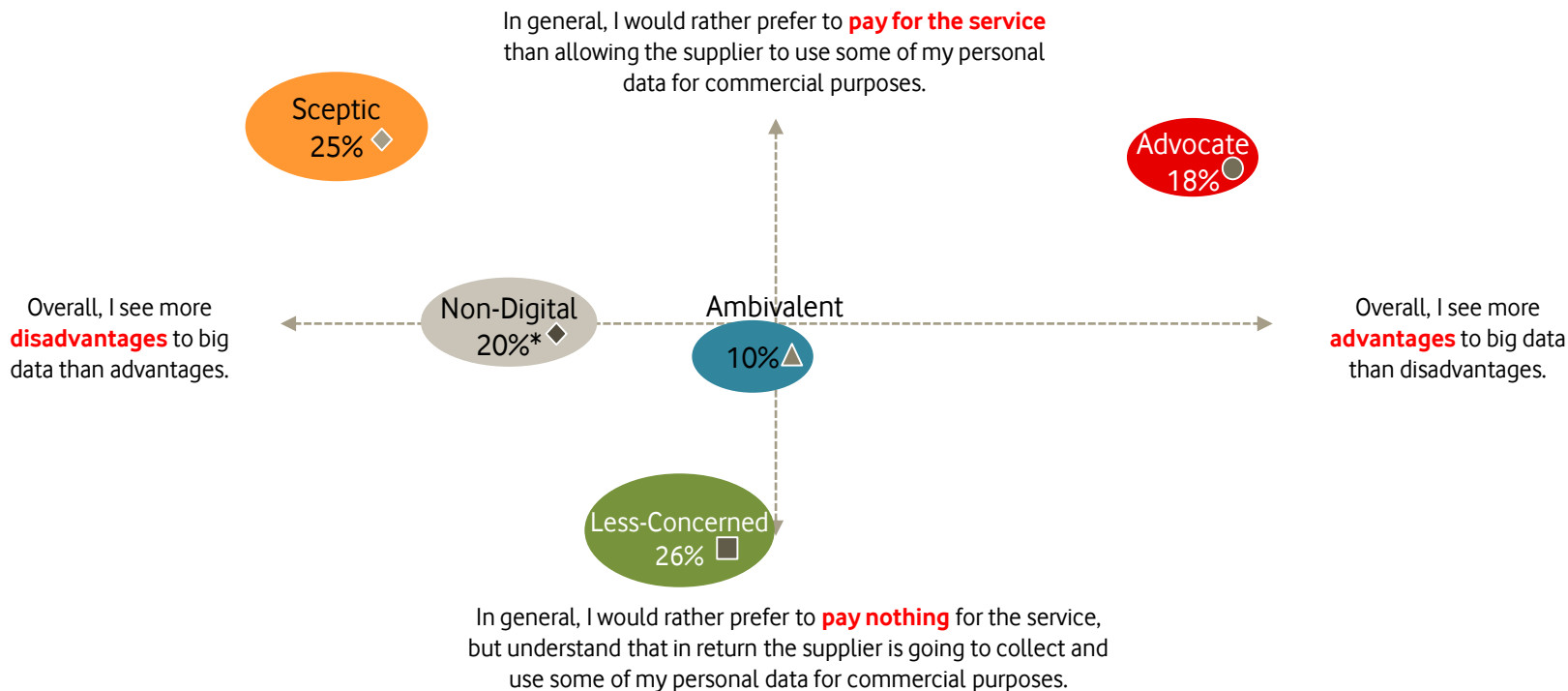
Items included in the segmentation

- Knowledge about data collection (GK01)
- Trust in organisations regarding personal data usage (GA01)
- Statements on Big Data and data security (GA03)
- **Payment or personal data access in return for a service (GA04)***
- Permission of access to different personal data (GA05)
- Measures to protect personal data (GA06)
- **Attitude towards the Big Data phenomenon (GA07)***

* Main influence in the segmentation

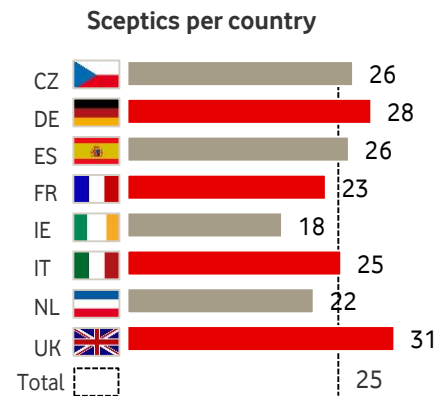
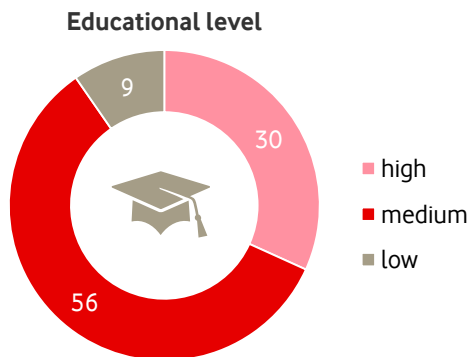
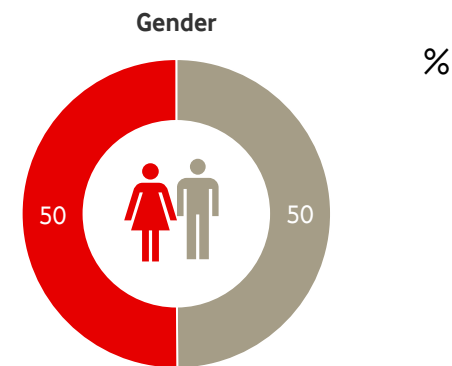
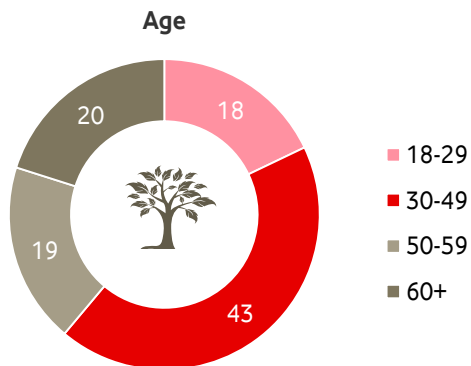


Which segments can we identify by looking at people's attitude towards big data / personal data?





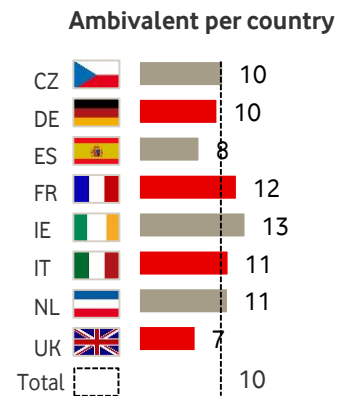
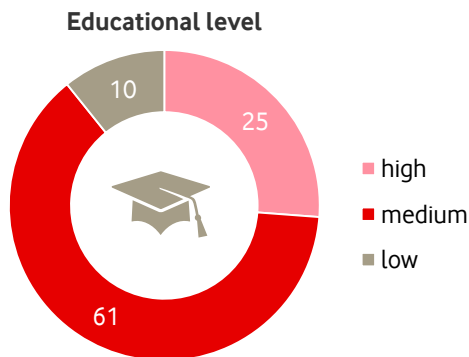
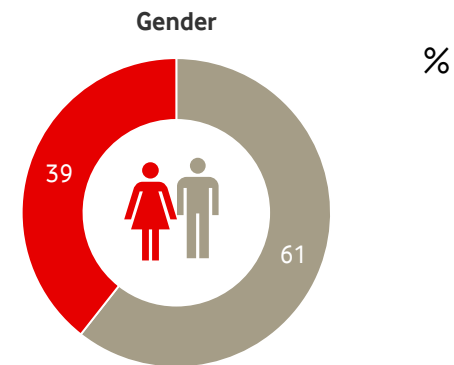
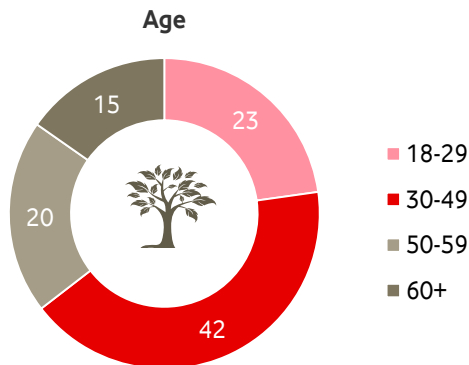
Data-security-interested,
Big Data sceptic, willing to
pay for services instead of
providing free access





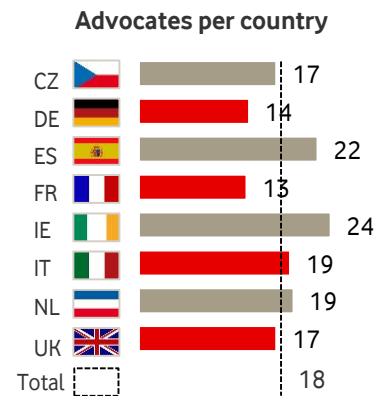
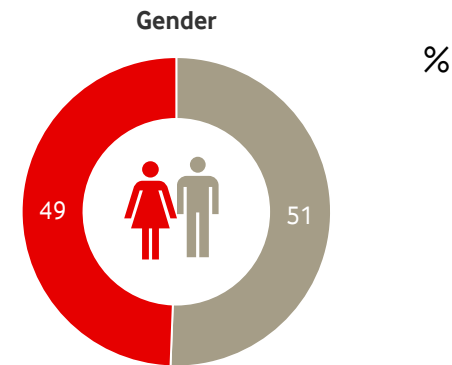
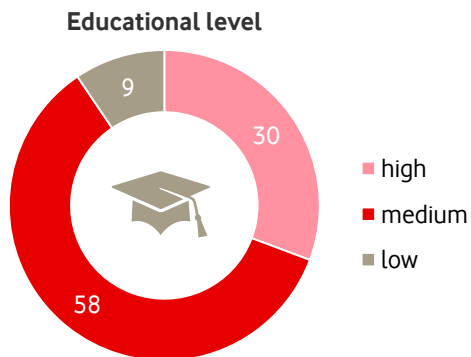
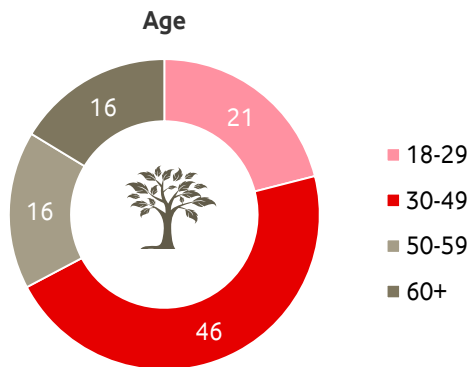
The Ambivalent

Ambivalent regarding
paying for or getting a
service for free and with
Big Data in general

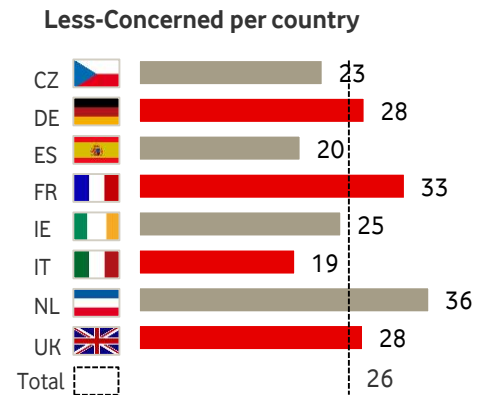
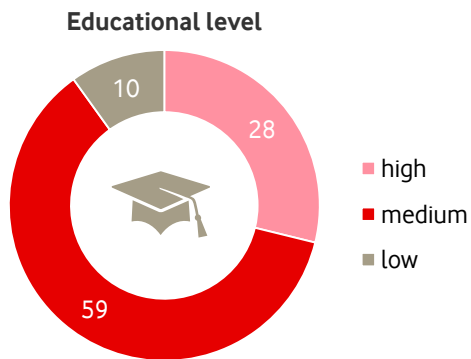
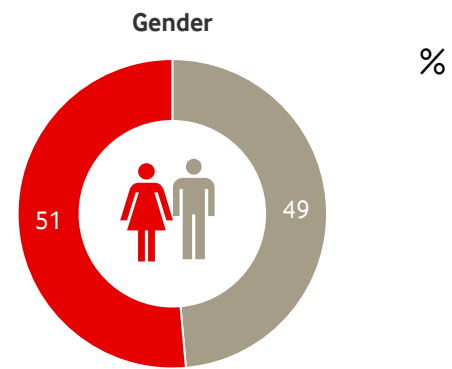
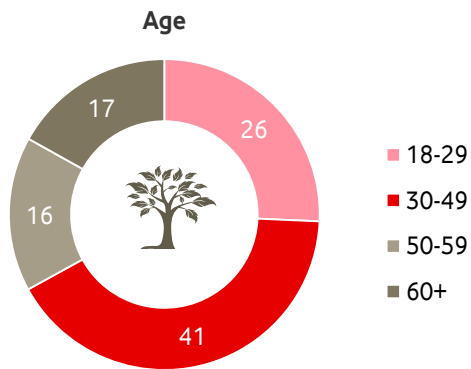




Quite informed and security sensitive Big Data advocate, who prefers paying for services rather than providing free access



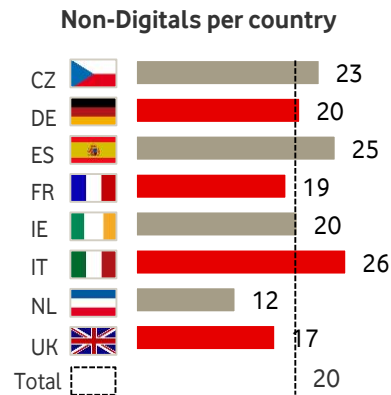
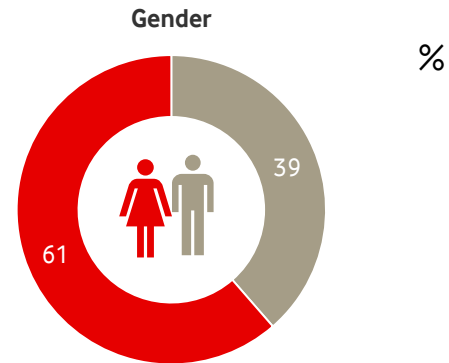
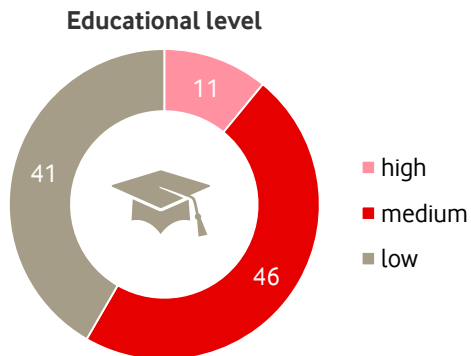
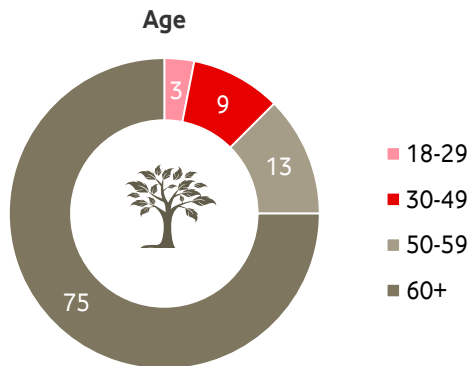
The less informed user who prefers to pay nothing for a service, being rather undecided regarding Big Data





The Non-Digital

The elderly retired
internet non-user and Big
Data sceptic





General Knowledge, Trust and Attitudes



Knowledge

- About personal data usage



*"Big Data could mean a database, a large information repository."
(Qual-I)*

"By passing on my data they infringe my rights. I don't know why they do it. They can use it for analyses but should not sell it to third parties [...] or Google or Apple who pass it on to the NSA."(Qual-D)

*"If you want to register on a website you need to agree to all this stuff, otherwise you just can't register."
(Qual-I)*

- Overall, there is a low level of knowledge how various institutions collect personal data - highest in Netherlands, lowest in Italy and UK. Especially low in the age group of 60+.
- The higher the education level, the better the knowledge about how personal data is collected.
- Main sources of knowledge are news (34%) and internet research (30%). Reading terms and conditions does not help provide knowledge to consumers (12%).
- News as a knowledge source is most important in Germany (57%) and Ireland (41%).
- Internet research as a knowledge source ranks very high in UK (41%) and among the 18-49 years old (18-29: 40%, 30-49: 37%).



Where do you get your knowledge about their collection of data from?

Countries

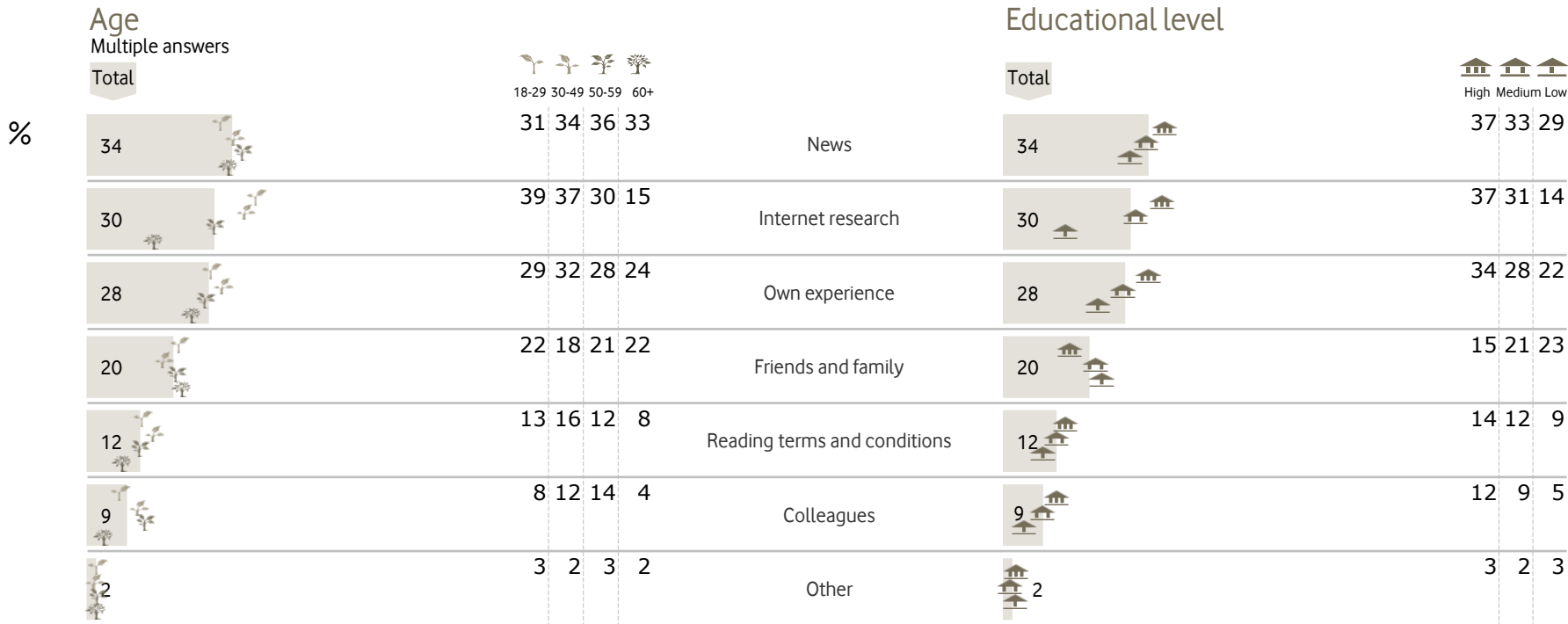
Multiple answers



GK02: Where do you get your knowledge about their collection of data from? Multiple answers.
Base: Part of the respondents (n= 4.134)



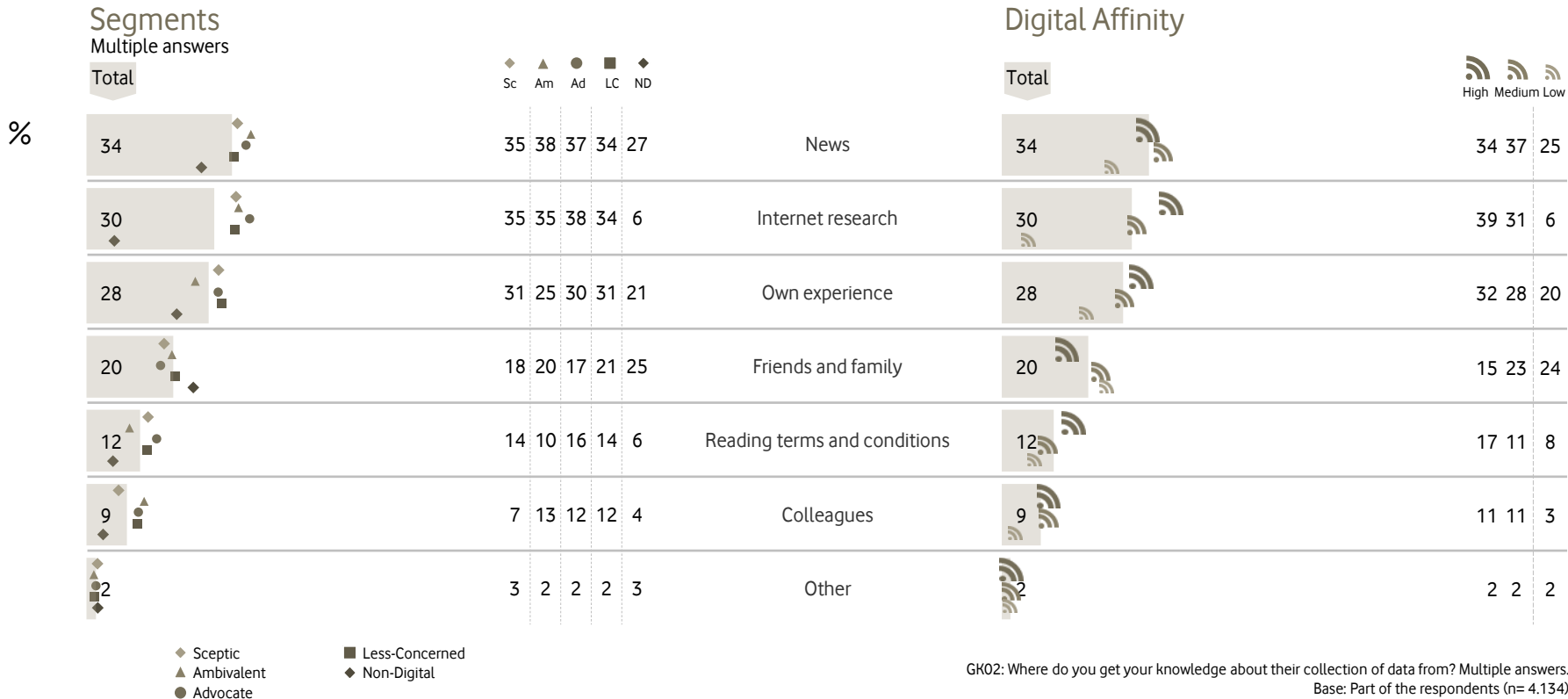
Where do you get your knowledge about their collection of data from?



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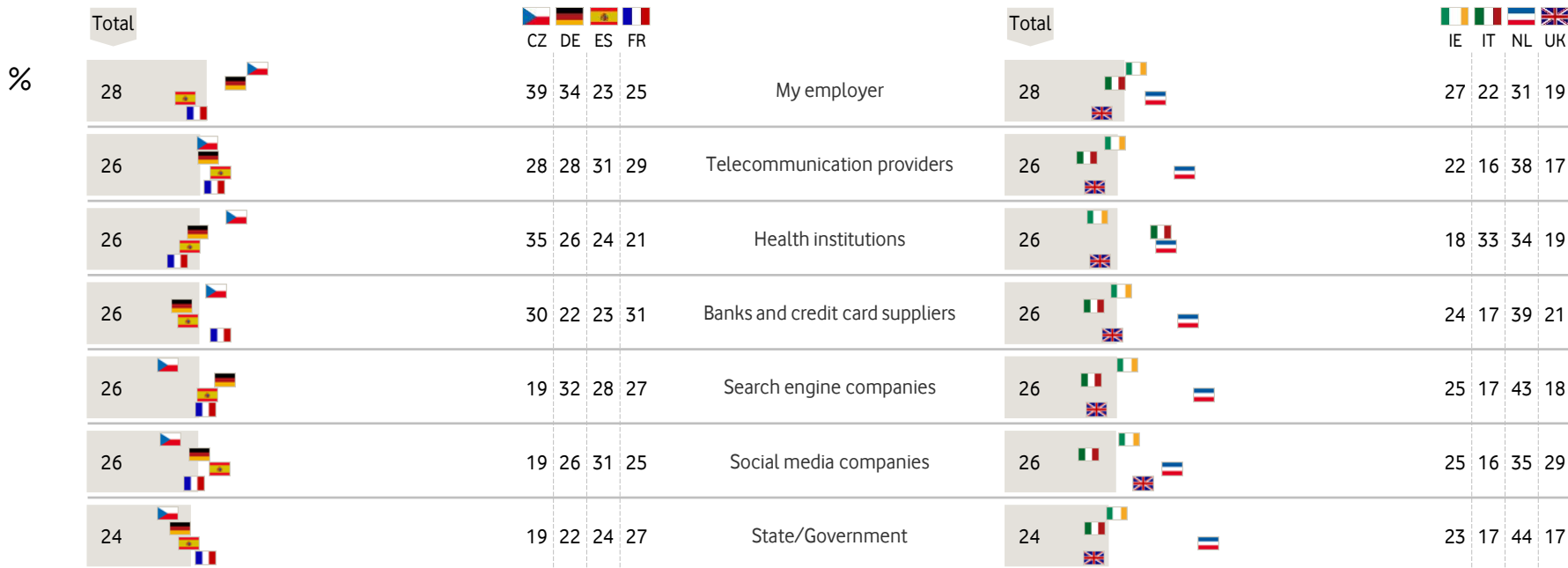


GK02: Where do you get your knowledge about their collection of data from? Multiple answers.
Base: Part of the respondents (n= 4.134)

How much do you know about the data collection and usage of the following institutions?

Countries

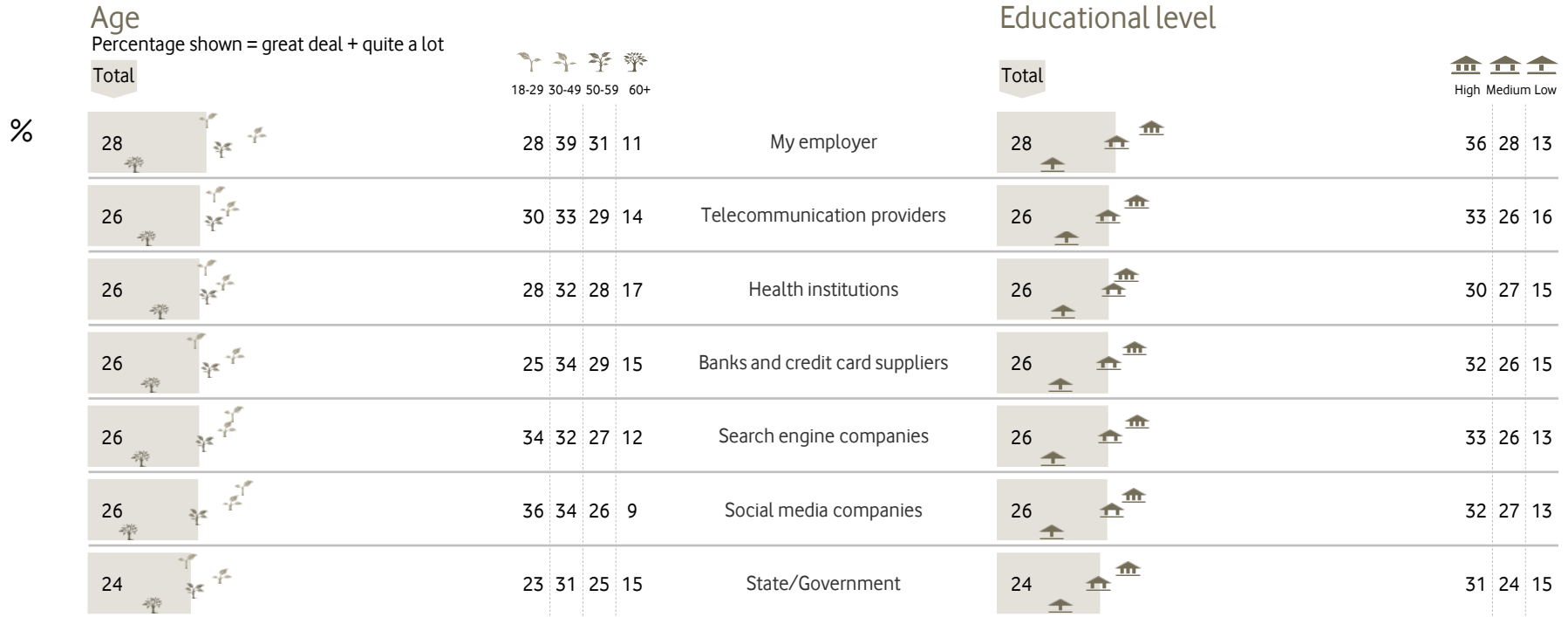
Percentage shown = great deal + quite a lot



GK01: Some organisations or institutions collect, store and analyse personal data for various purposes. How much do you know about the data collection and usage of the following institutions? Please use the scale from 1 “a great deal” to 5 “nothing”. You can use the numbers in between to grade your answer. Top 2 boxes. Base: All respondents (n= 8.256)

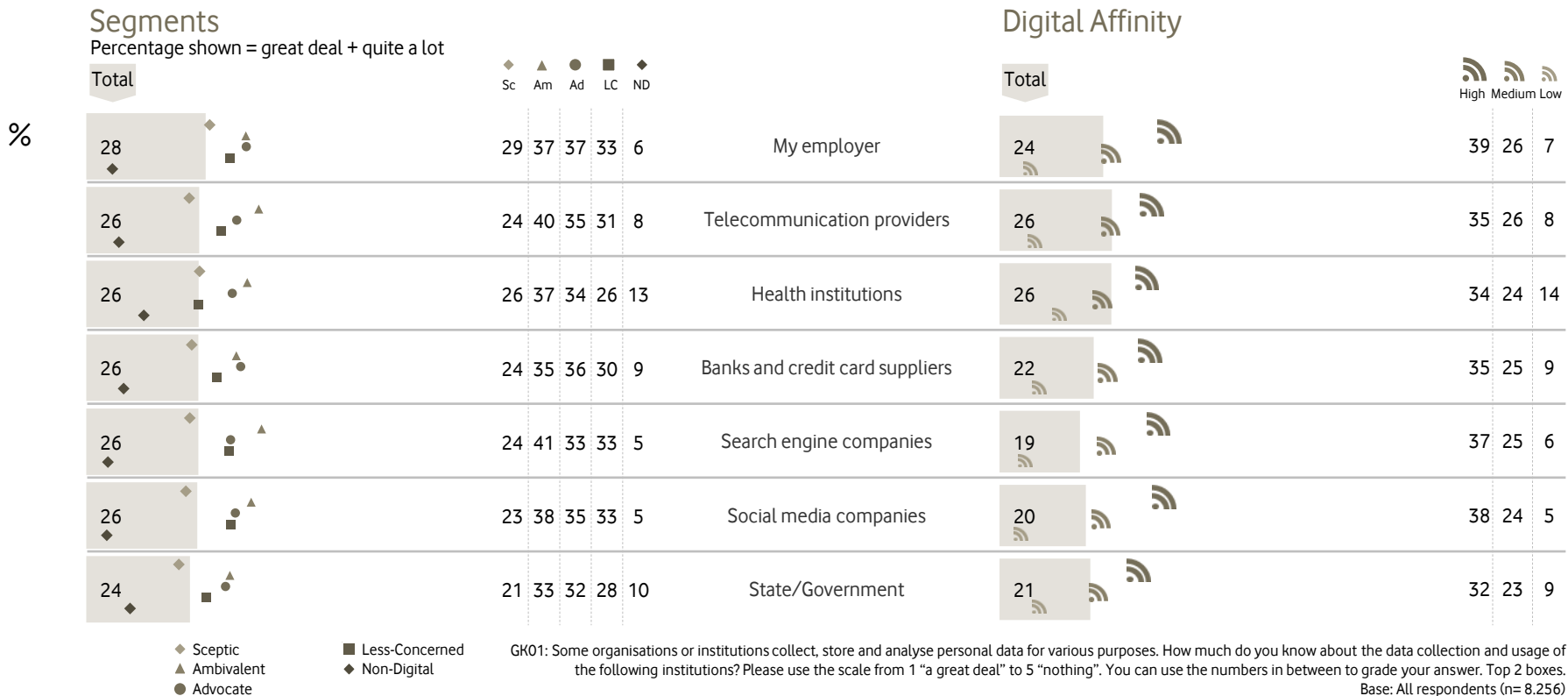


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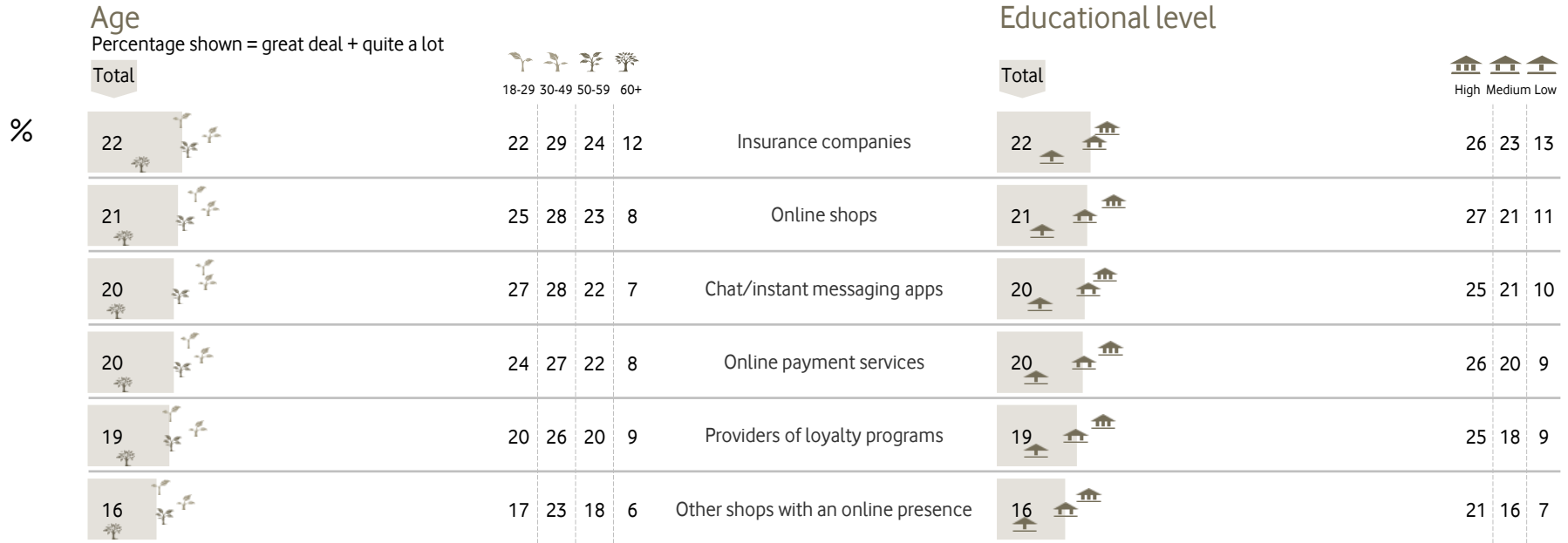
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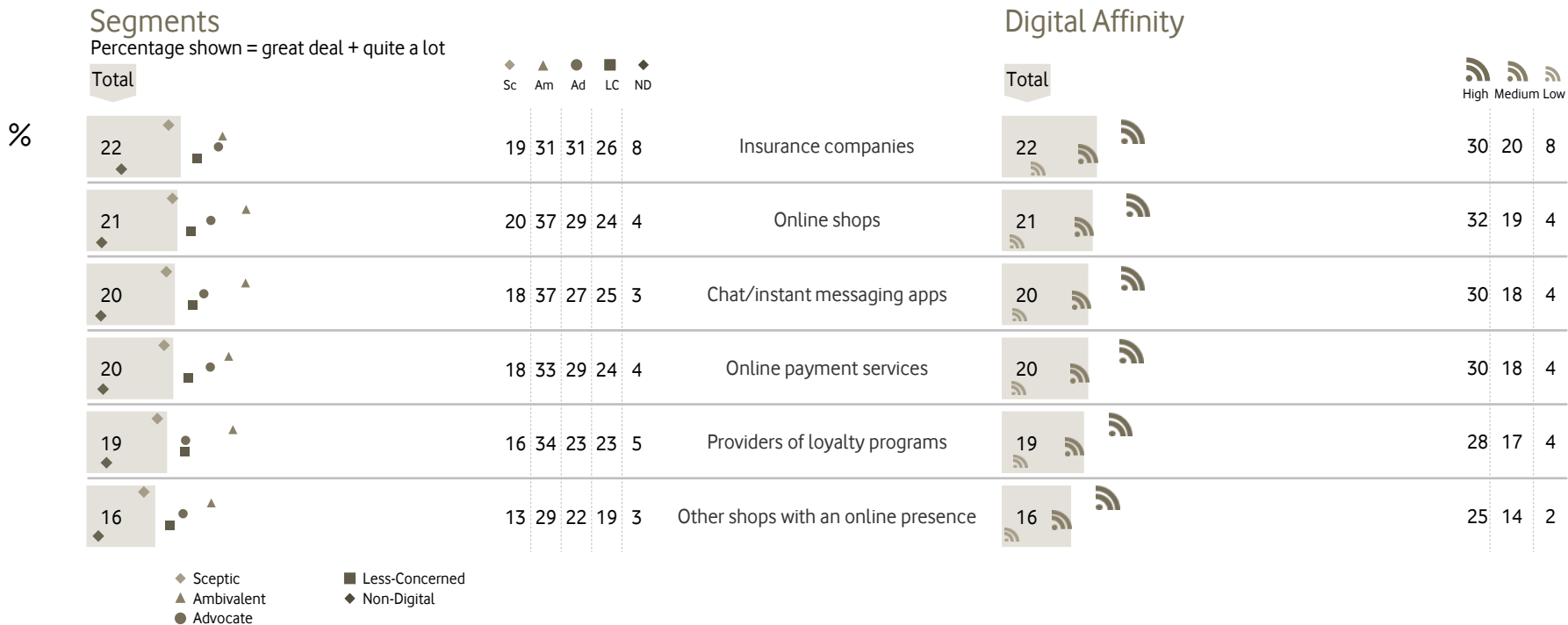
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Trust

- In organisations and institutions
- Possibilities for gaining trust

"I would trust banks and doctors rather than Facebook. I don't think they are likely to use the data. They're a different kind of company." (Qual-D)

"The regulations should be easy to understand and read... not six pages but half a page." (Qual-I)

"Companies should be more careful with sensitive data." (Qual-I)

"The privacy statements should be handled more transparently. The different points should be put into a grid." (Qual-D)

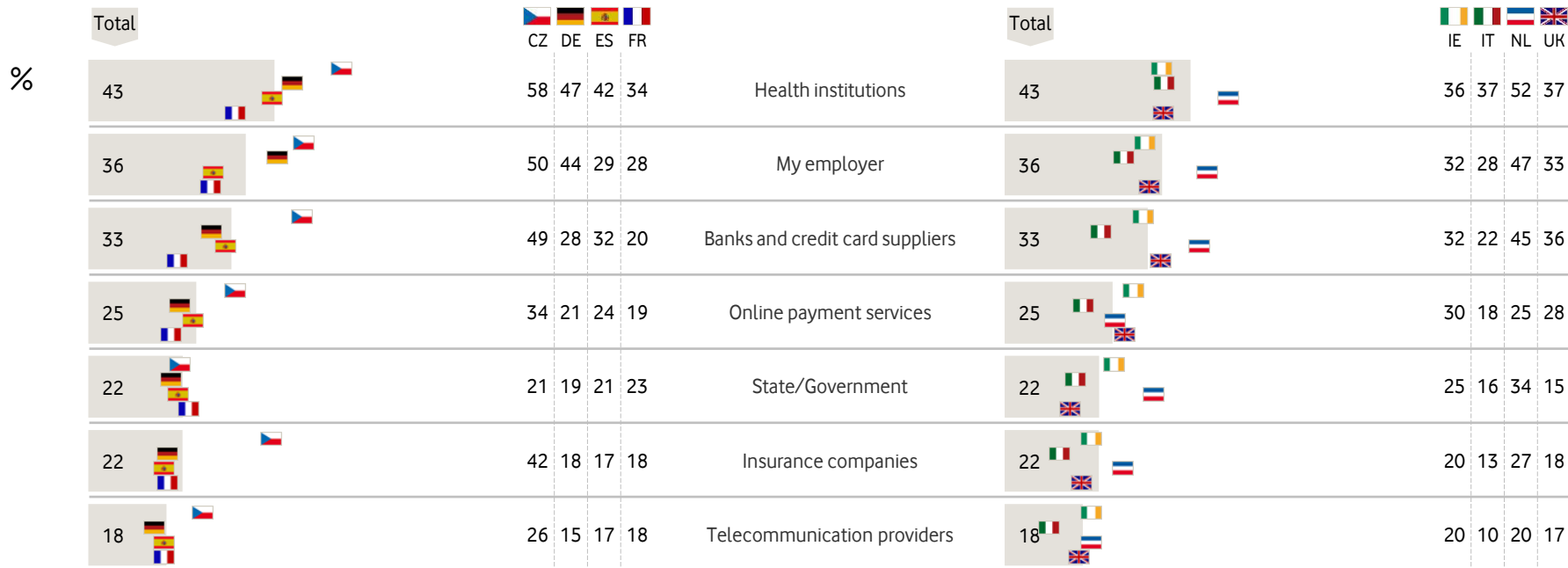
- There is generally a low level of trust regarding personal data handling of various organisations and institutions.
- Highest levels of trust exist for health institutions (43%), followed by employers (36%), banks and credit card suppliers (33%).
- Telecommunication companies have poor trust levels (18%) with a range from 10% in Italy to 26% in the Czech Republic.
- Trust decreases amongst older consumers, especially at the age of 60+.
- Lower trust levels are also found among people with lower levels of education.
- Simple and clear language (68%) and transparency (64%) are judged as the most important factors for companies to gain trust, followed by the offer of individual privacy settings (51%) and independent certifications (49%).
- Being a well-known brand (34%) is not enough to gain trust.
- Trust encouraging measures which involve personal responsibility (i.e. encouraging public feedback/ offer personal privacy settings) are mostly acknowledged by people between 18-49 years and high educated respondents.



To what extent do you trust [...] with regard to the use of your personal data?

Countries

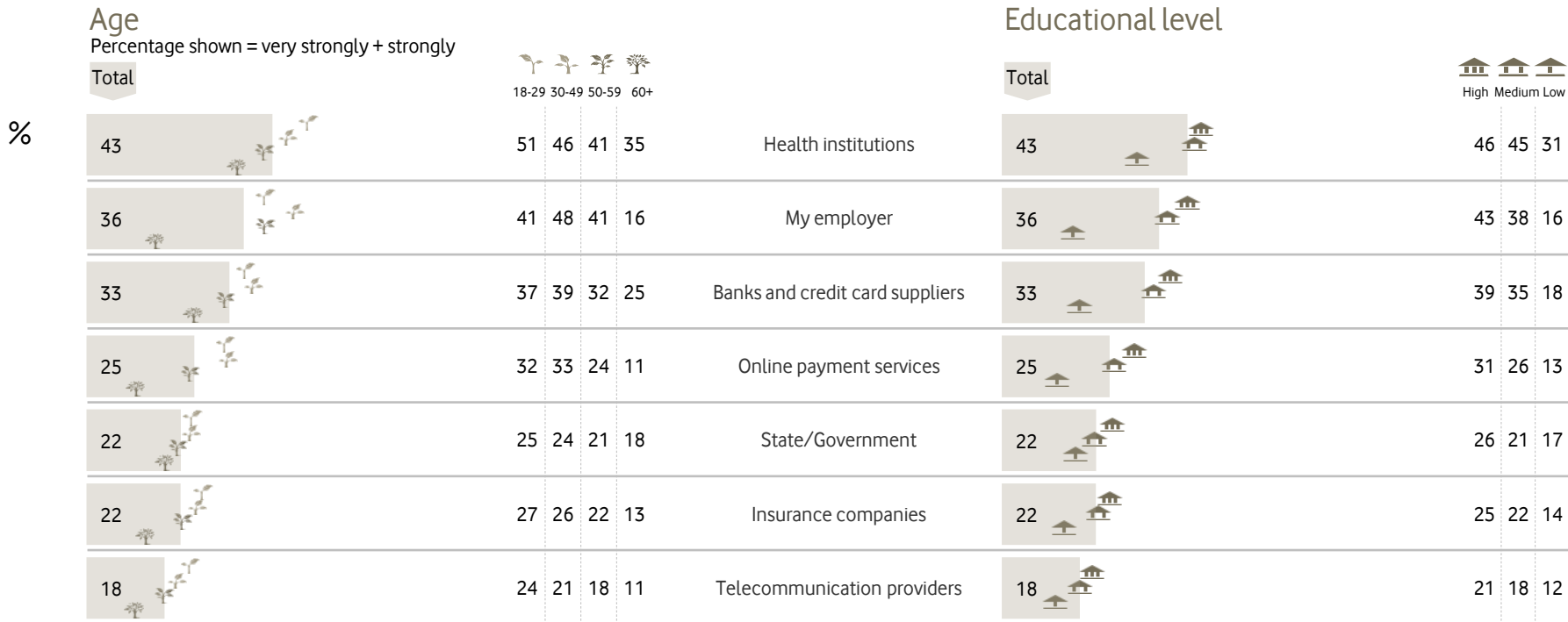
Percentage shown = very strongly + strongly



GA01: To what extent do you trust the following organisations or institutions with regard to the use of your personal data? Please use the scale from 1 "very strong" to 5 "not at all". You can use the numbers in between to grade your answer. Top 2 boxes. Base: All respondents (n= 8.256)



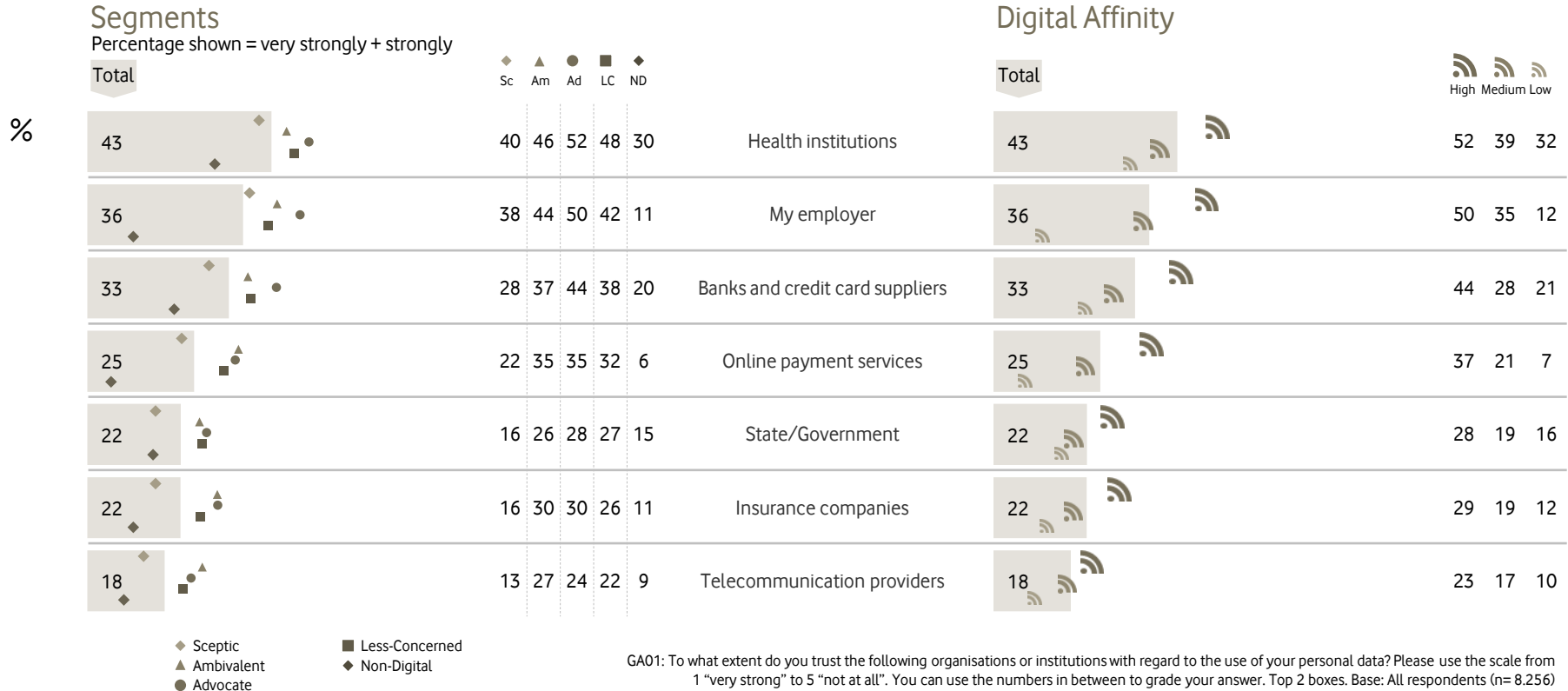
To what extent do you trust [...] with regard to the use of your personal data?



GA01: To what extent do you trust the following organisations or institutions with regard to the use of your personal data? Please use the scale from 1 "very strong" to 5 "not at all". You can use the numbers in between to grade your answer. Top 2 boxes. Base: All respondents (n= 8.256)



To what extent do you trust [...] with regard to the use of your personal data?



GA01: To what extent do you trust the following organisations or institutions with regard to the use of your personal data? Please use the scale from 1 "very strong" to 5 "not at all". You can use the numbers in between to grade your answer. Top 2 boxes. Base: All respondents (n= 8.256)

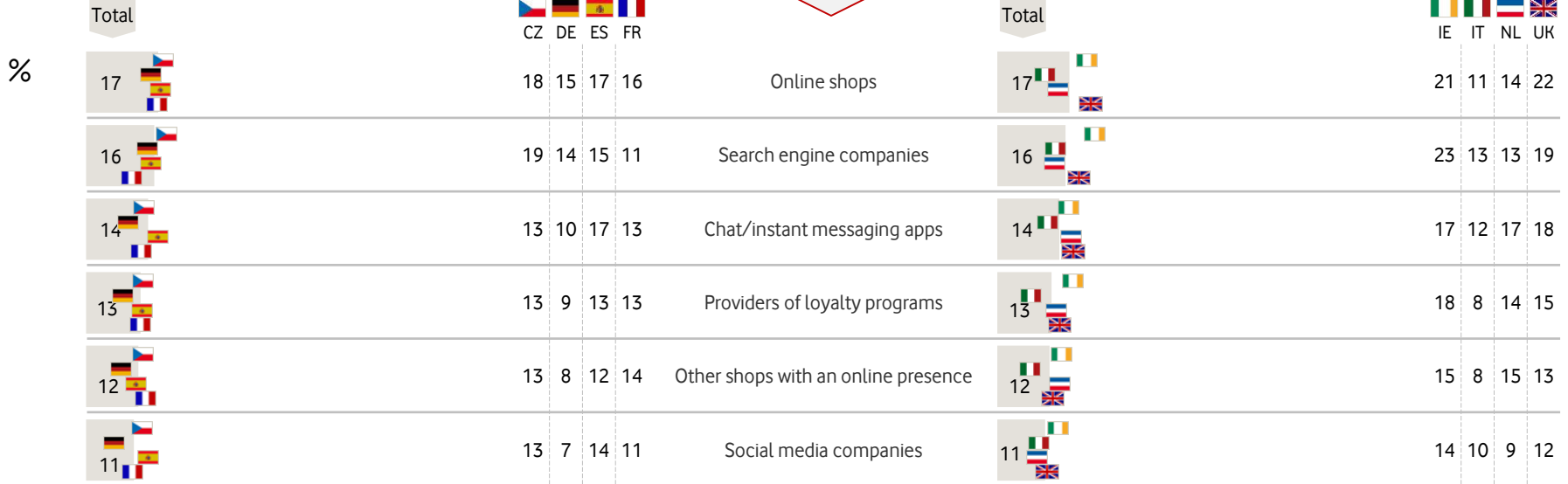


To what extent do you trust [...] with regard to the use of your personal data?

Countries

Percentage shown = very strongly + strongly

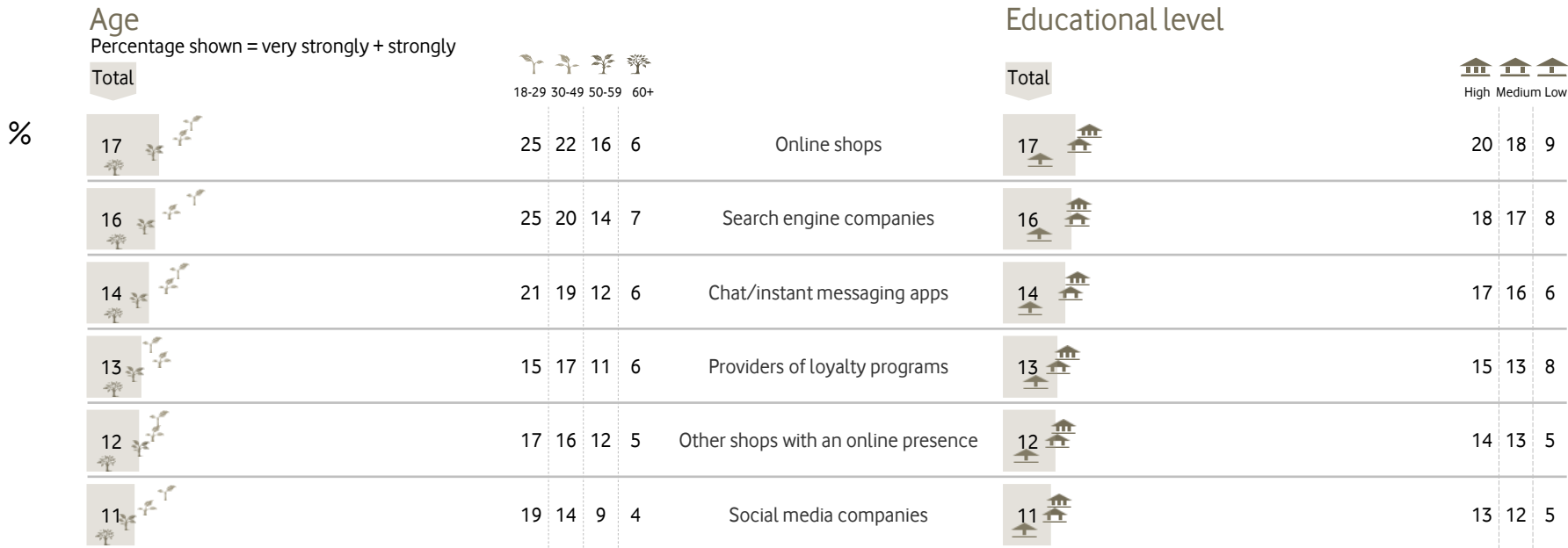
Online providers



GA01: To what extent do you trust the following organisations or institutions with regard to the use of your personal data? Please use the scale from 1 "very strong" to 5 "not at all". You can use the numbers in between to grade your answer. Top 2 boxes. Base: All respondents (n= 8.256)



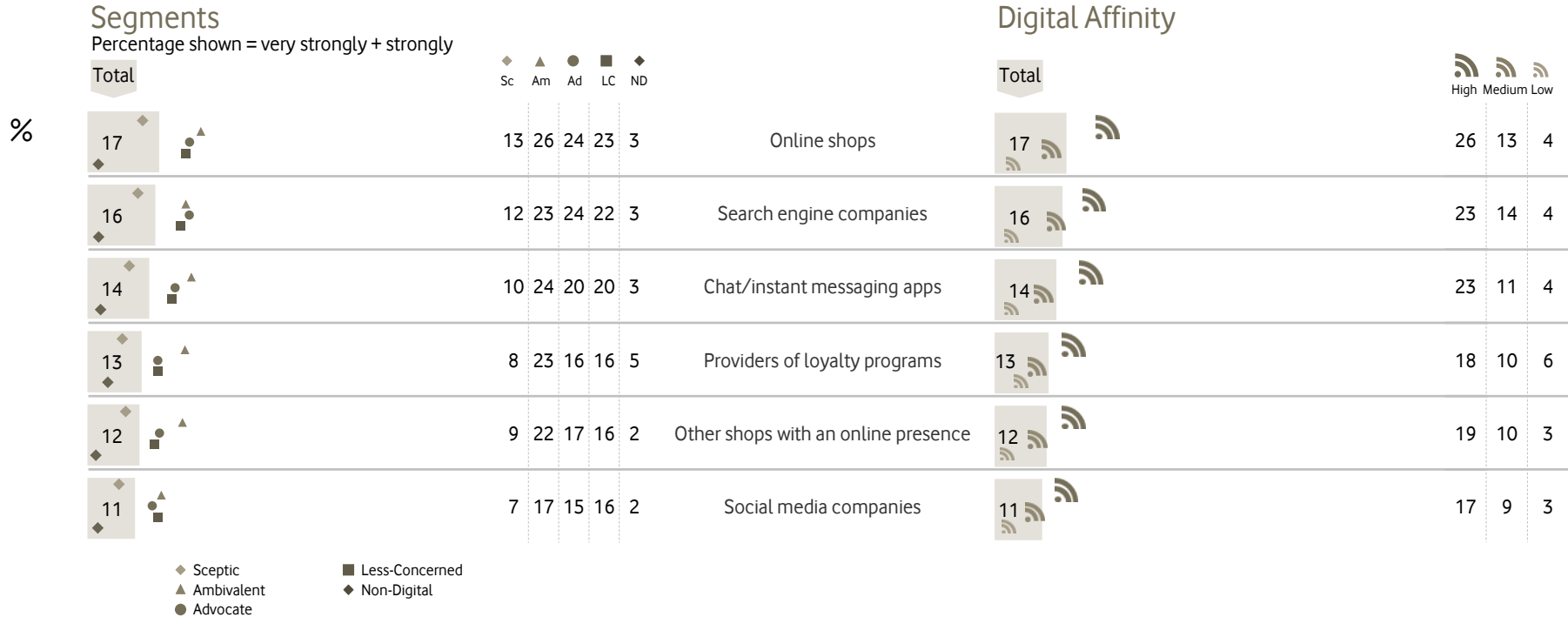
To what extent do you trust [...] with regard to the use of your personal data?



GA01: To what extent do you trust the following organisations or institutions with regard to the use of your personal data? Please use the scale from 1 “very strong” to 5 “not at all”. You can use the numbers in between to grade your answer. Top 2 boxes. Base: All respondents (n= 8.256)



To what extent do you trust [...] with regard to the use of your personal data?



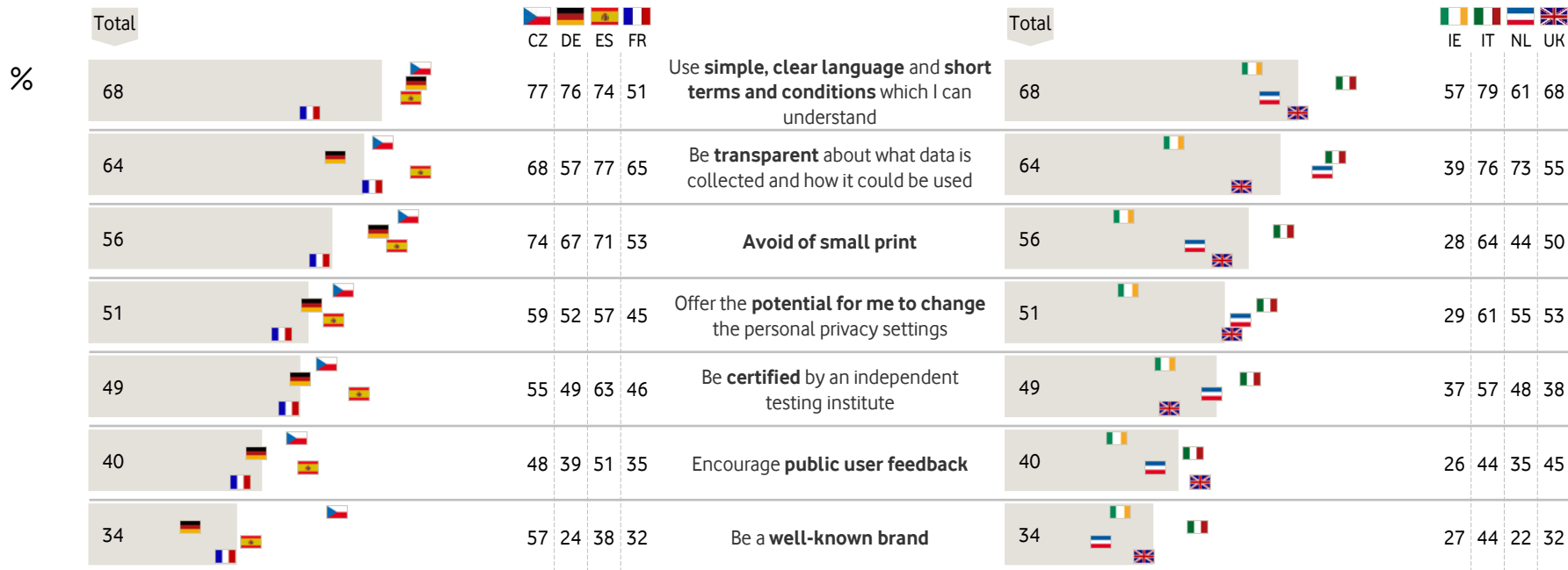
GA01: To what extent do you trust the following organisations or institutions with regard to the use of your personal data? Please use the scale from 1 "very strong" to 5 "not at all". You can use the numbers in between to grade your answer. Top 2 boxes. Base: All respondents (n= 8.256)



How should an organisation or a company gain your trust with regard to the use of your personal data?

Countries

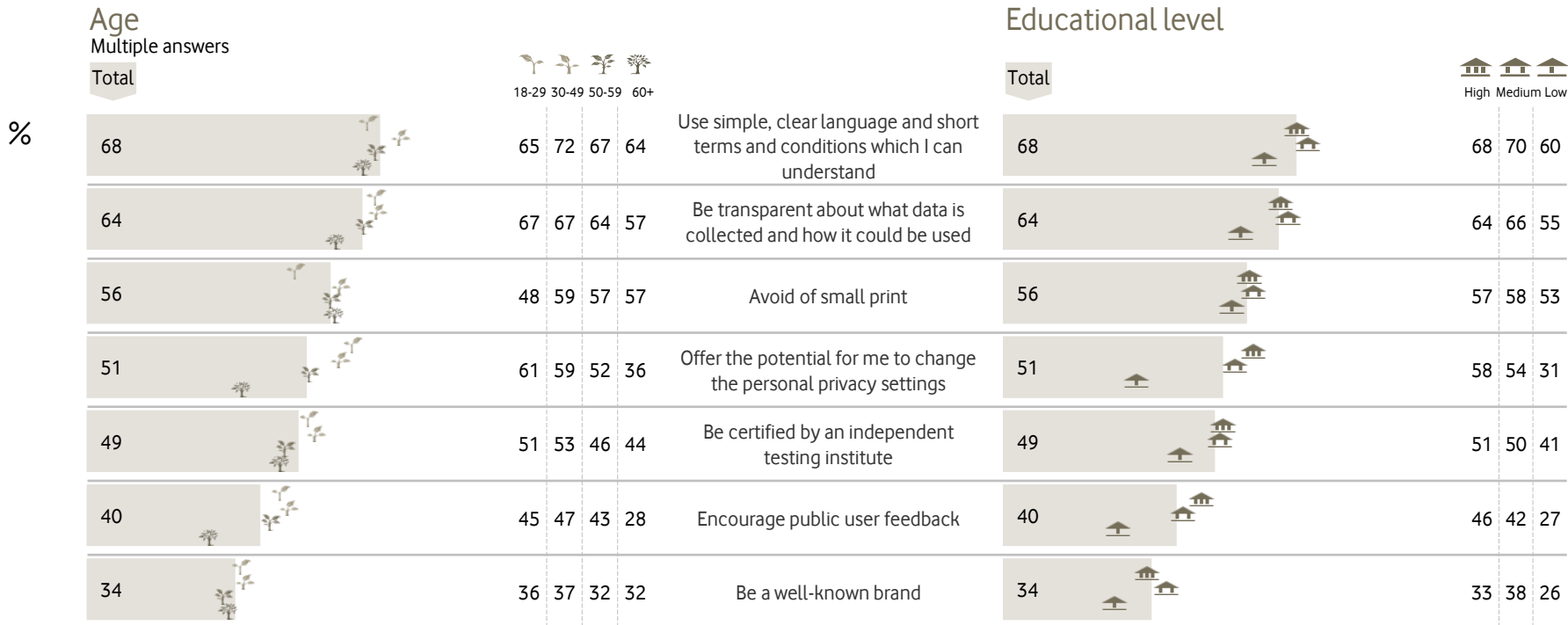
Multiple answers



GA02: In your opinion, how should an organisation or a company gain your trust with regard to the use of your personal data? Multiple answers.
Base: Part of respondents (n= 4.140)



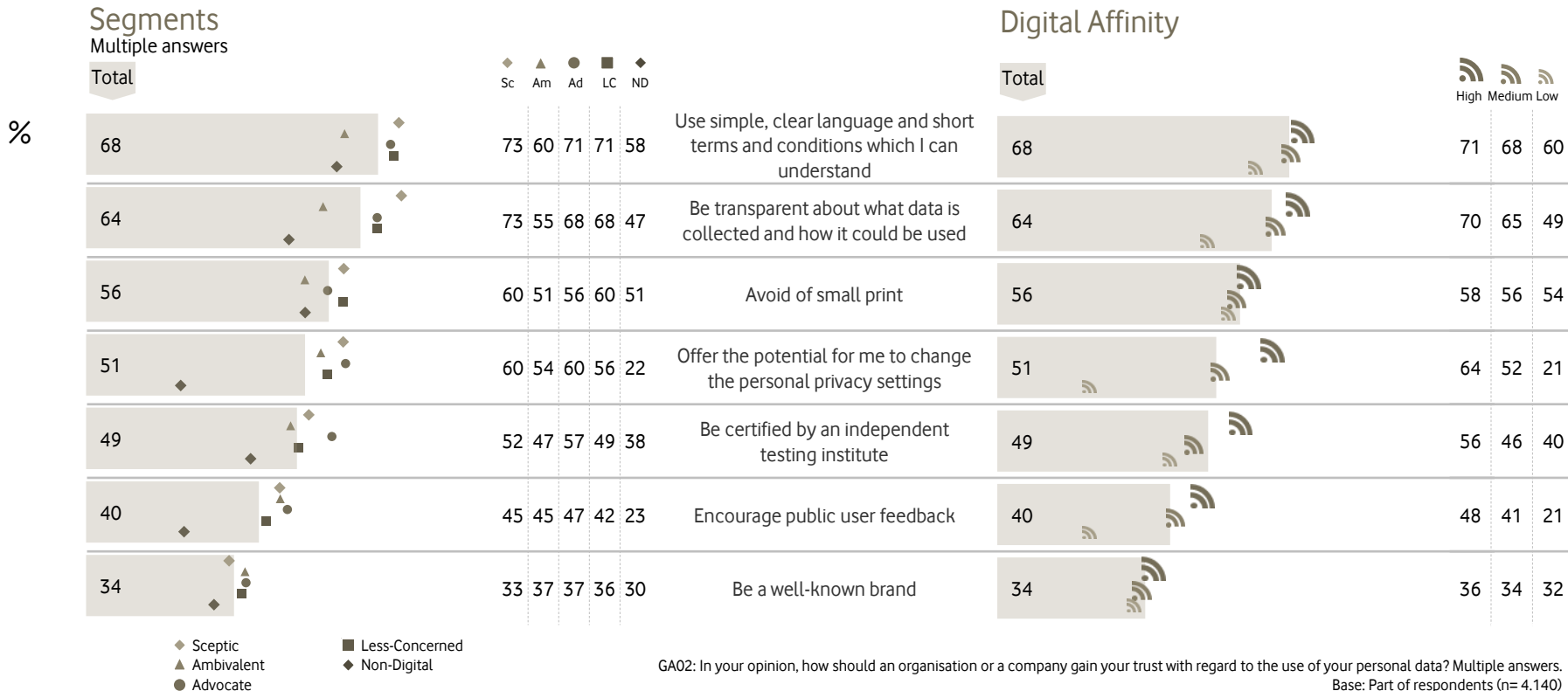
How should an organisation or a company gain your trust with regard to the use of your personal data?



GA02: In your opinion, how should an organisation or a company gain your trust with regard to the use of your personal data? Multiple answers.
Base: Part of respondents (n= 4.140)



How should an organisation or a company gain your trust with regard to the use of your personal data?





Views and opinions



"I think a lot of people see the advantages and forget about anything else." (Qual-D)

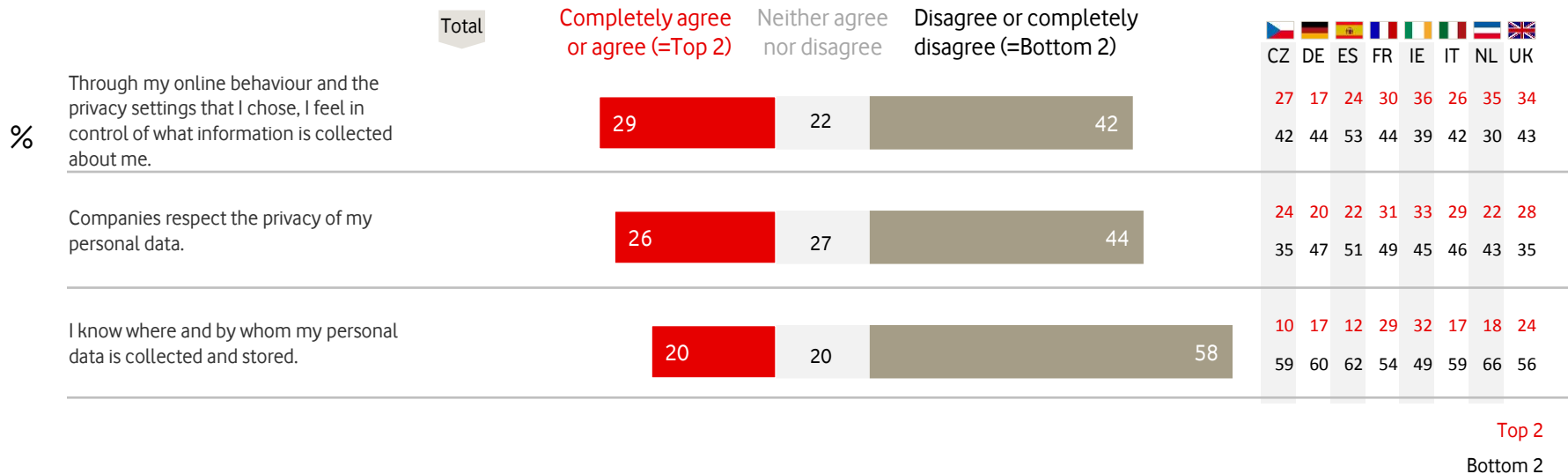
"Any query you run on the internet is tracked, and we are classified based on our web searches and interests. They keep files on all of us. The market needs as much data as possible to work." (Qual-I)

Main results

"I didn't read the privacy statements that precisely, but I know they are stored on servers." (Qual-D)

- Only 35% of respondents consider existing laws and government regulations to be appropriate.
- Only one third (36%) feel that governments respect their data privacy – the level of rating for companies is even lower (26%).
- Almost half (48%) understand that companies offer free service in exchange for “my data”. Wide range in answer percentage across countries: from 26% in Czech Republic and 27% in Italy, to 63% in Germany and 60% in Spain (60%).
- Half of respondents (51%) claim that they self-censor their emails and messages.
- Between 10% (Czech Republic) and 32% (Ireland) of respondents state that they possess knowledge about where and who stores their personal data (Total: 20%).
- Most consumers agree that governments should have access to peoples’ data for security reasons (55%).

To what extent do you agree with the following statements?



GA03: To what extent do you agree with the following statements? Please use the scale from 1 “completely agree” to 5 “completely disagree”. You can use the numbers in between to grade your answer. Base: split sample (n= 4.514-8.256)

To what extent do you agree with the following statements?

Countries

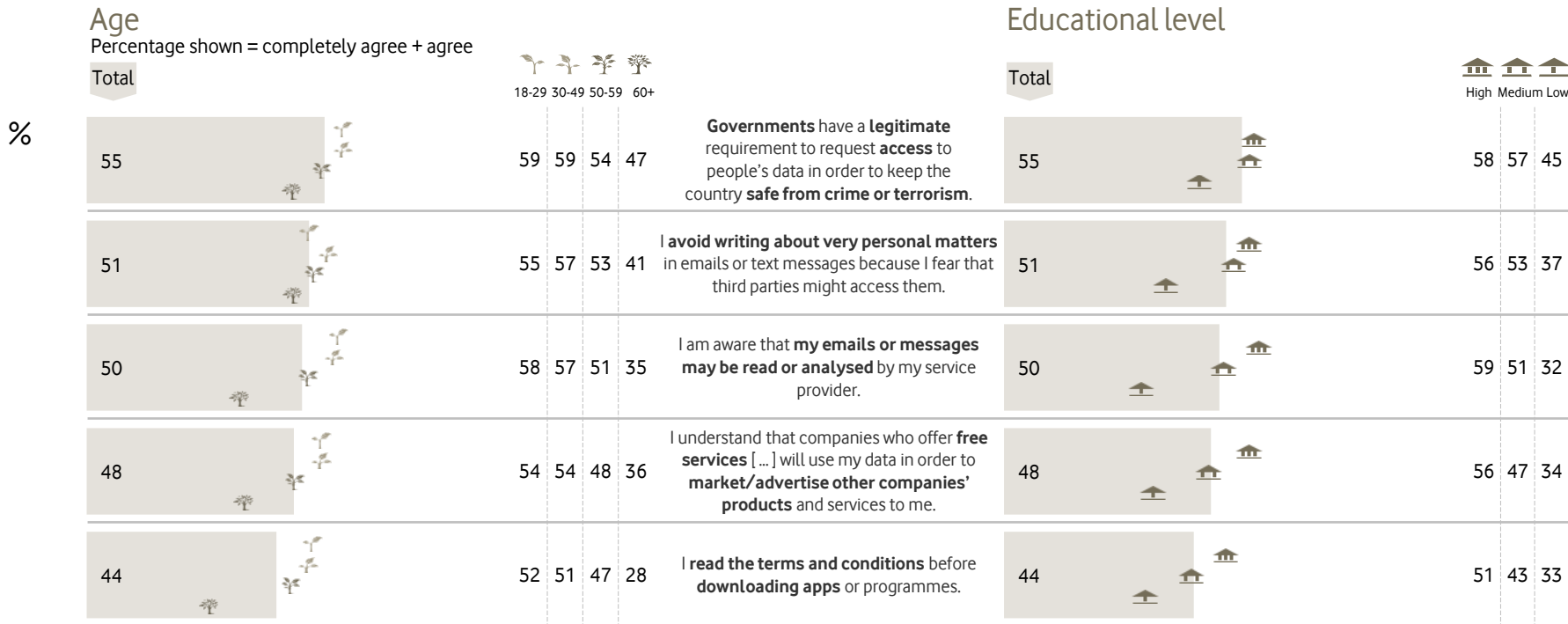
Percentage shown = completely agree + agree



GA03: To what extent do you agree with the following statements? Please use the scale from 1 "completely agree" to 5 "completely disagree". You can use the numbers in between to grade your answer. Top 2 boxes. Base: split sample (n= 4.514-8.256)



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To what extent do you agree with the following statements?

Segments

Percentage shown = completely agree + agree

Total

%

◆ Sc ▲ Am ● Ad ■ LC ◆ ND



Governments have a legitimate requirement to request access to people's data in order to keep the country safe from crime or terrorism.



I avoid writing about very personal matters in emails or text messages because I fear that third parties might access them.



I am aware that my emails or messages may be read or analysed by my service provider.



I understand that companies who offer free services [...] will use my data in order to market/advertise other companies' products and services to me.



I read the terms and conditions before downloading apps or programmes.

◆ Sceptic
▲ Ambivalent
● Advocate
■ Less-Concerned
◆ Non-Digital

Digital Affinity

Total

High Medium Low



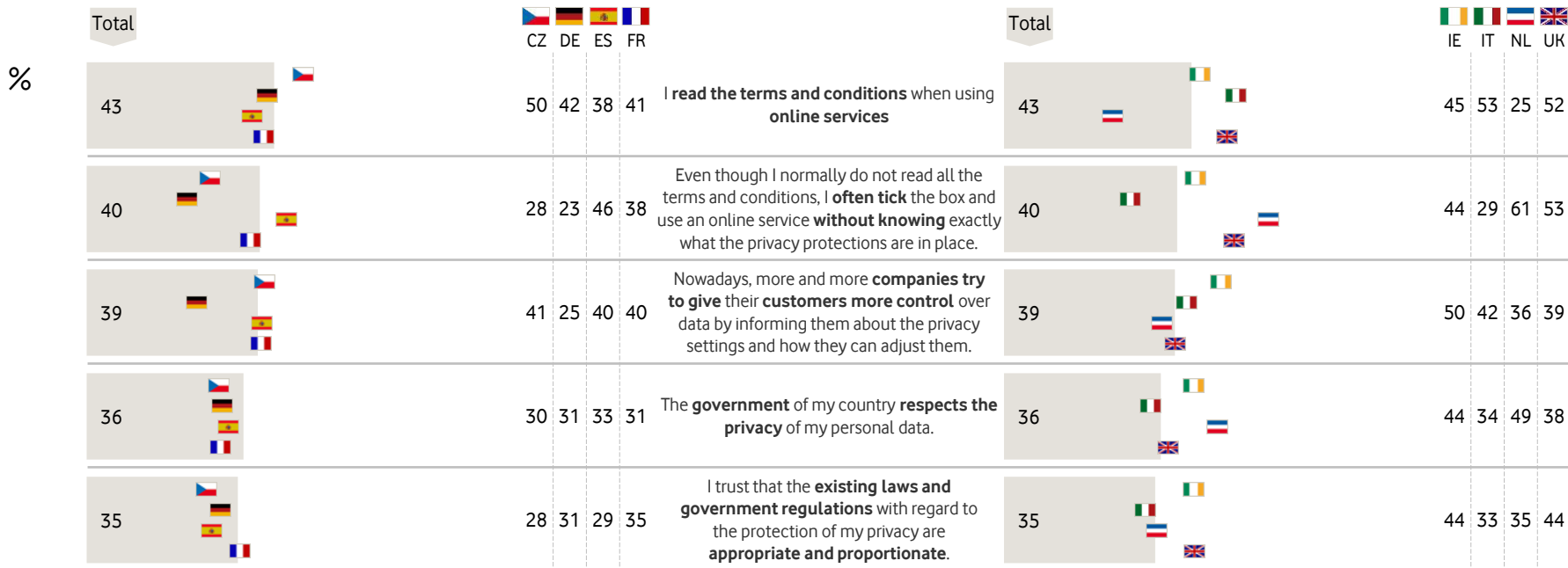
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To what extent do you agree with the following statements?

Countries

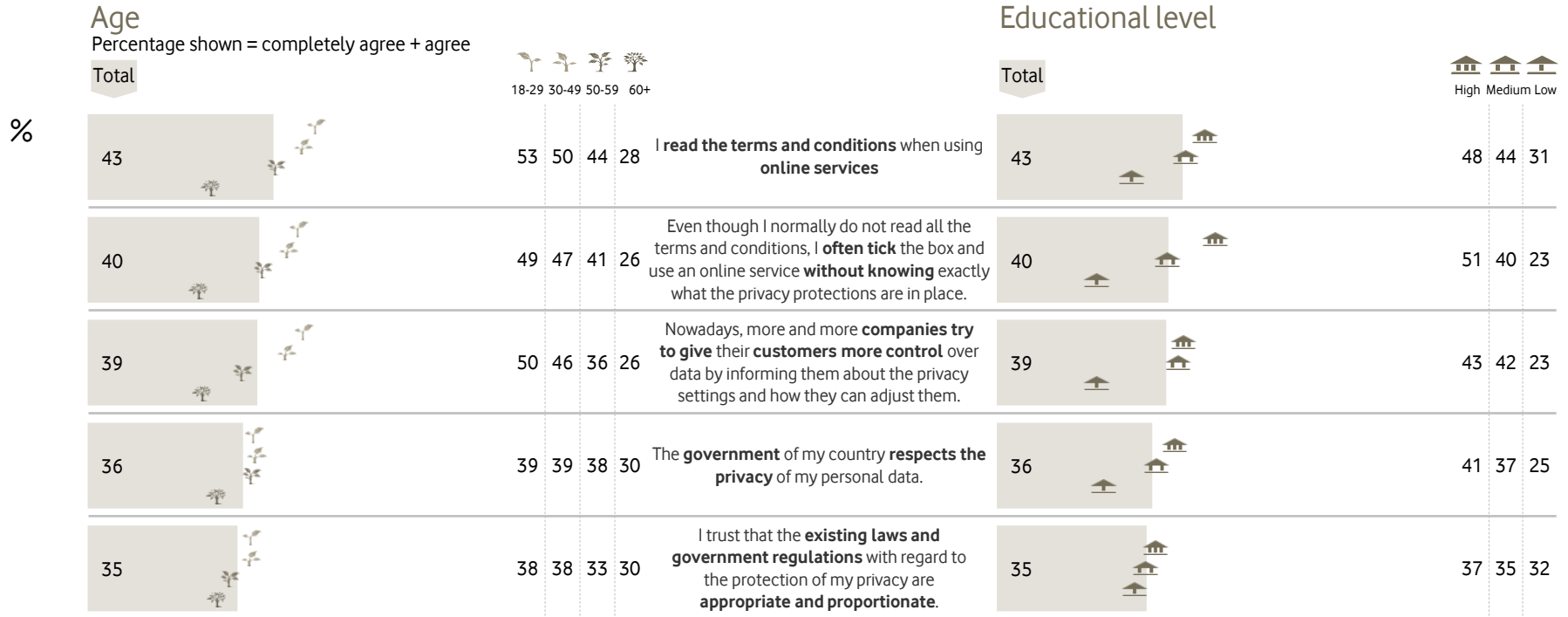
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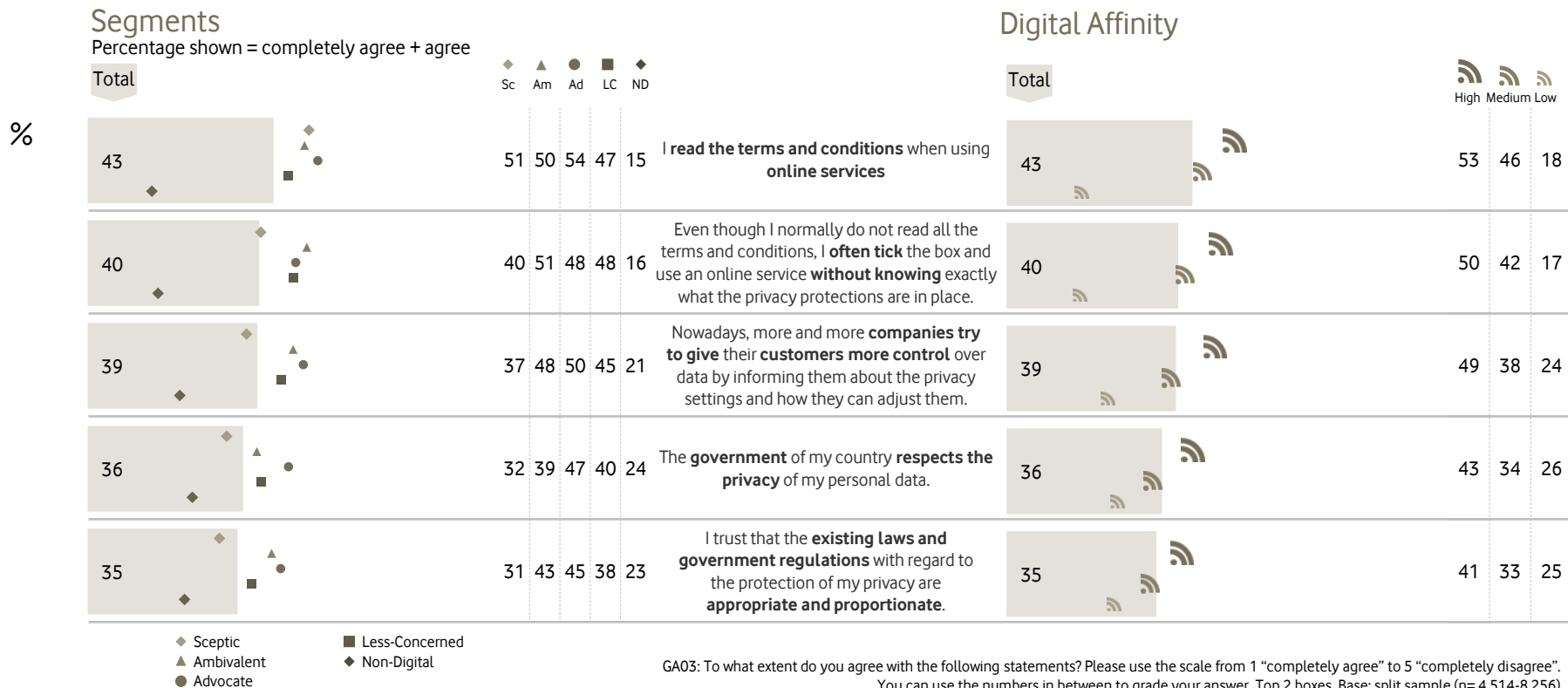


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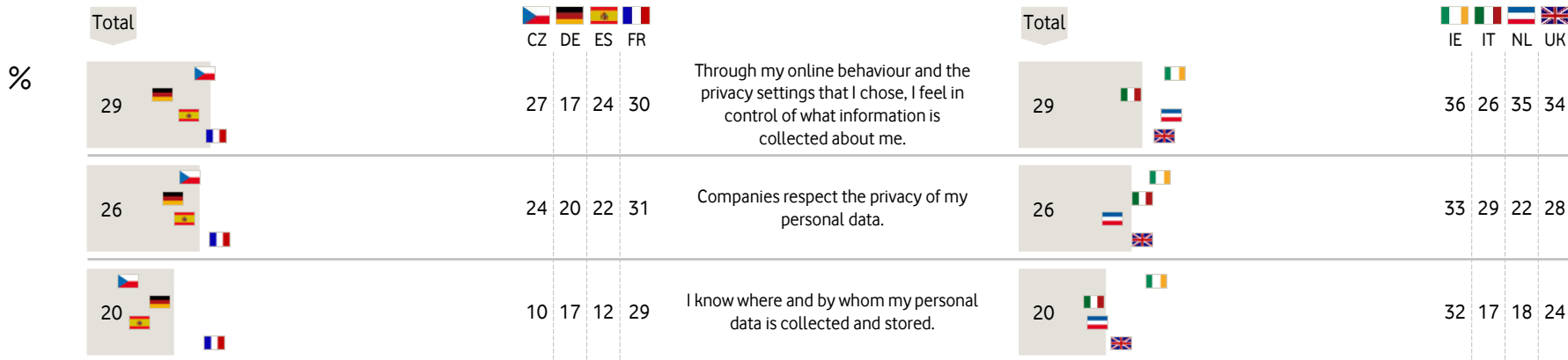
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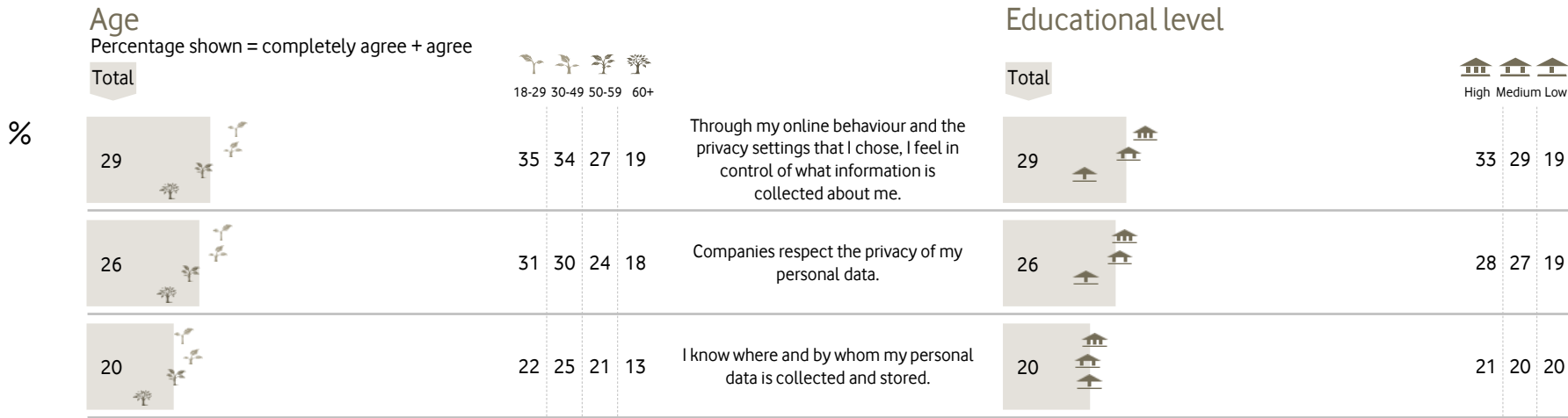
Percentage shown = completely agree + agree



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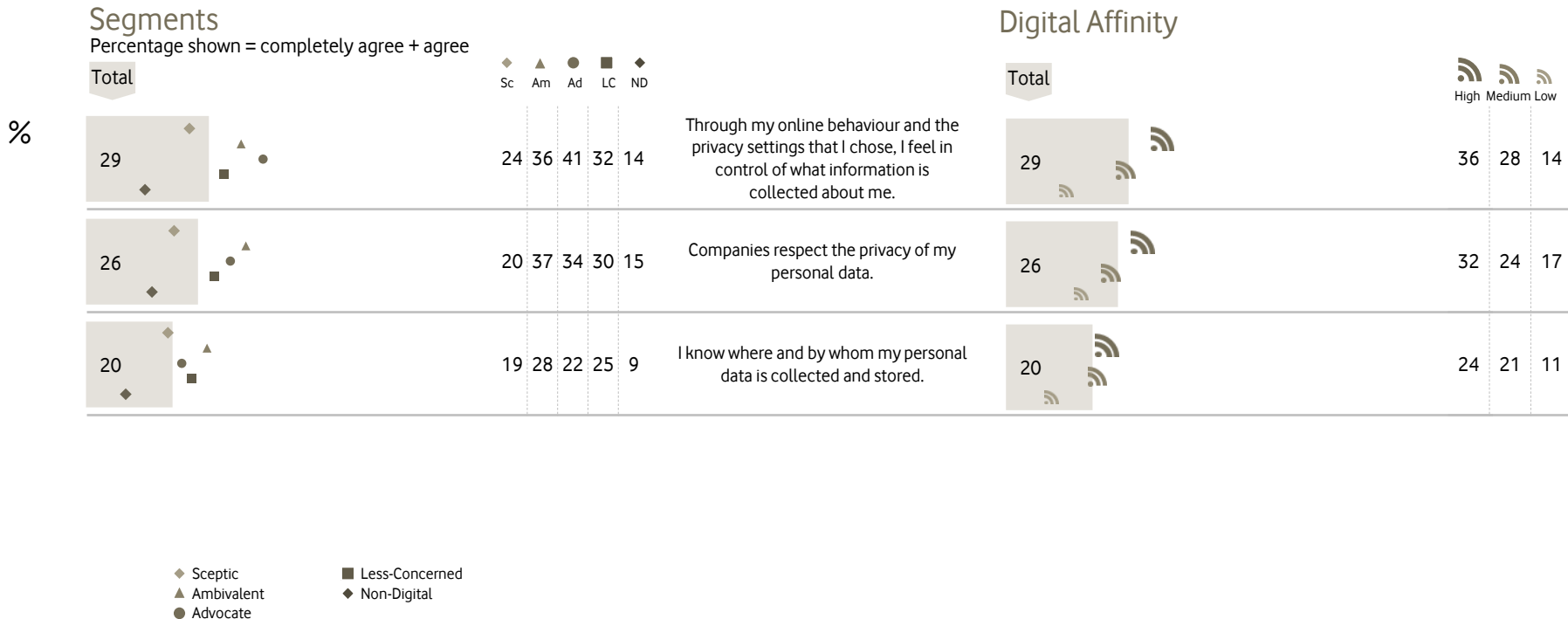
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Granting access to personal data

"I don't care if people know I own a loyalty card ... but I'd get annoyed if they knew I had diabetes." (Qual-I)

"If an establishment knows I'm passing by that's intrusive. If I provide my position voluntarily that's one thing, but if they're keeping track of where I am that's totally different." (Qual-I)

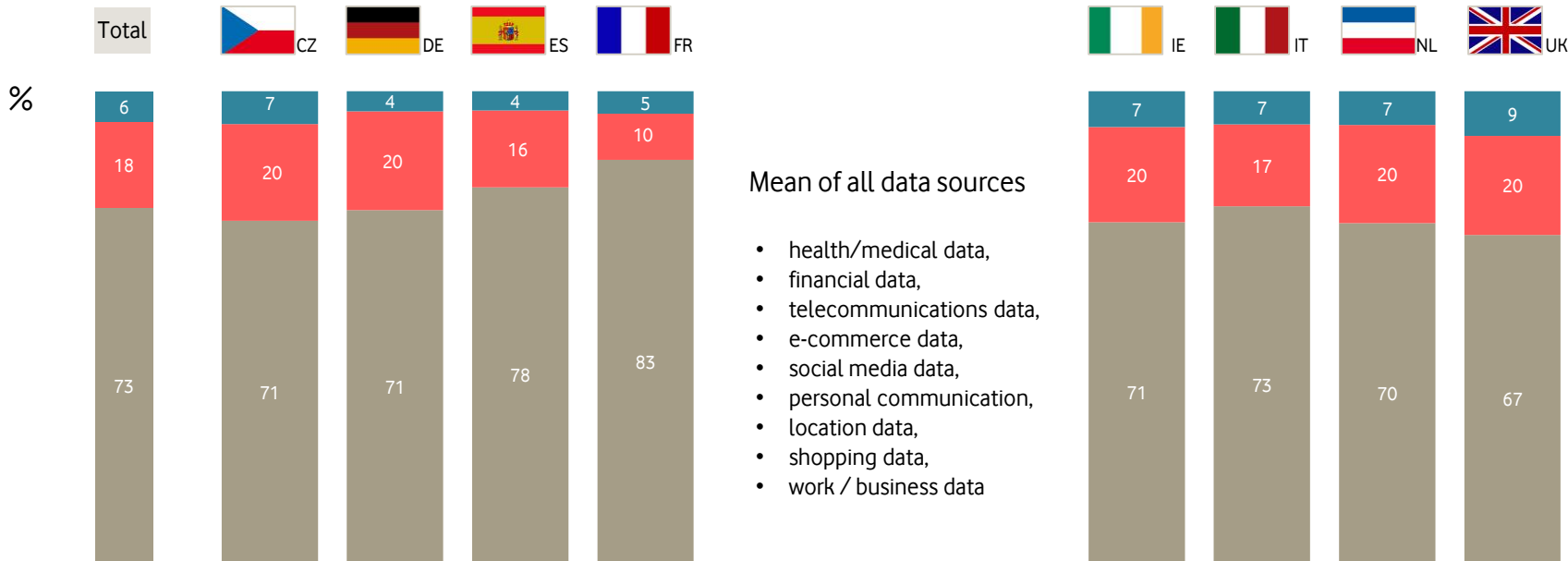
"I want to use the service, therefore I know if I want information, I have to accept it." (Qual-D)

- Generally, most people don't want to grant access to their data, especially if they get no reward in return.
- Financial data is the most sensitive data – 86% of the respondents would never grant access to this (particularly Spain: 90%)
- Personal communication data is also highly sensitive (80%).
- More consumers would be comfortable sharing their location and shopping data – between 66% (location) and 63% (shopping) of the respondents would never grant access to this data.
- Three quarters of the respondents (75%) would never grant access to their telecommunications data.



Would you grant access to the following kind of data about your person?

Countries



Mean of all data sources

- health/medical data,
- financial data,
- telecommunications data,
- e-commerce data,
- social media data,
- personal communication,
- location data,
- shopping data,
- work / business data

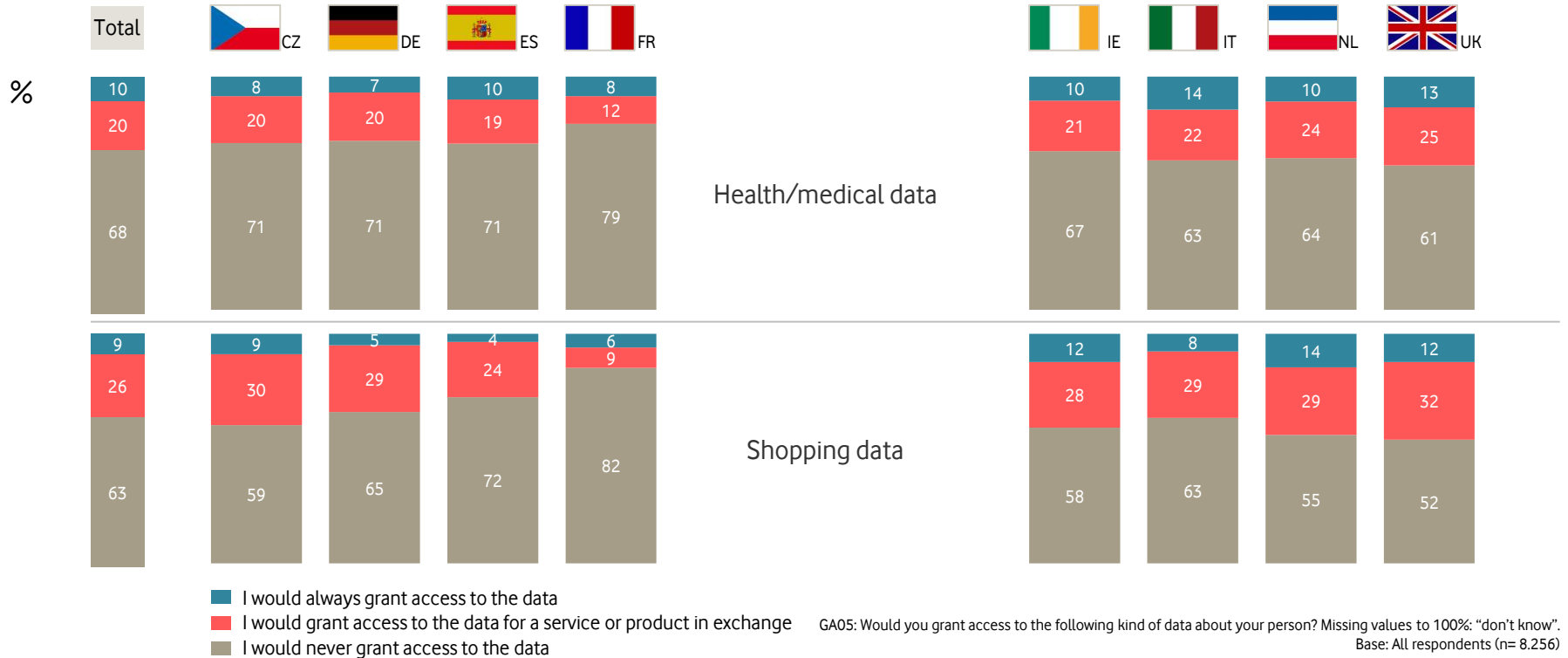
- I would always grant access to the data
- I would grant access to the data for a service or product in exchange
- I would never grant access to the data

GA05: Would you grant access to the following kind of data about your person? Missing values to 100%: "don't know".
Base: All respondents (n= 8.256)



Would you grant access to the following kind of data about your person?

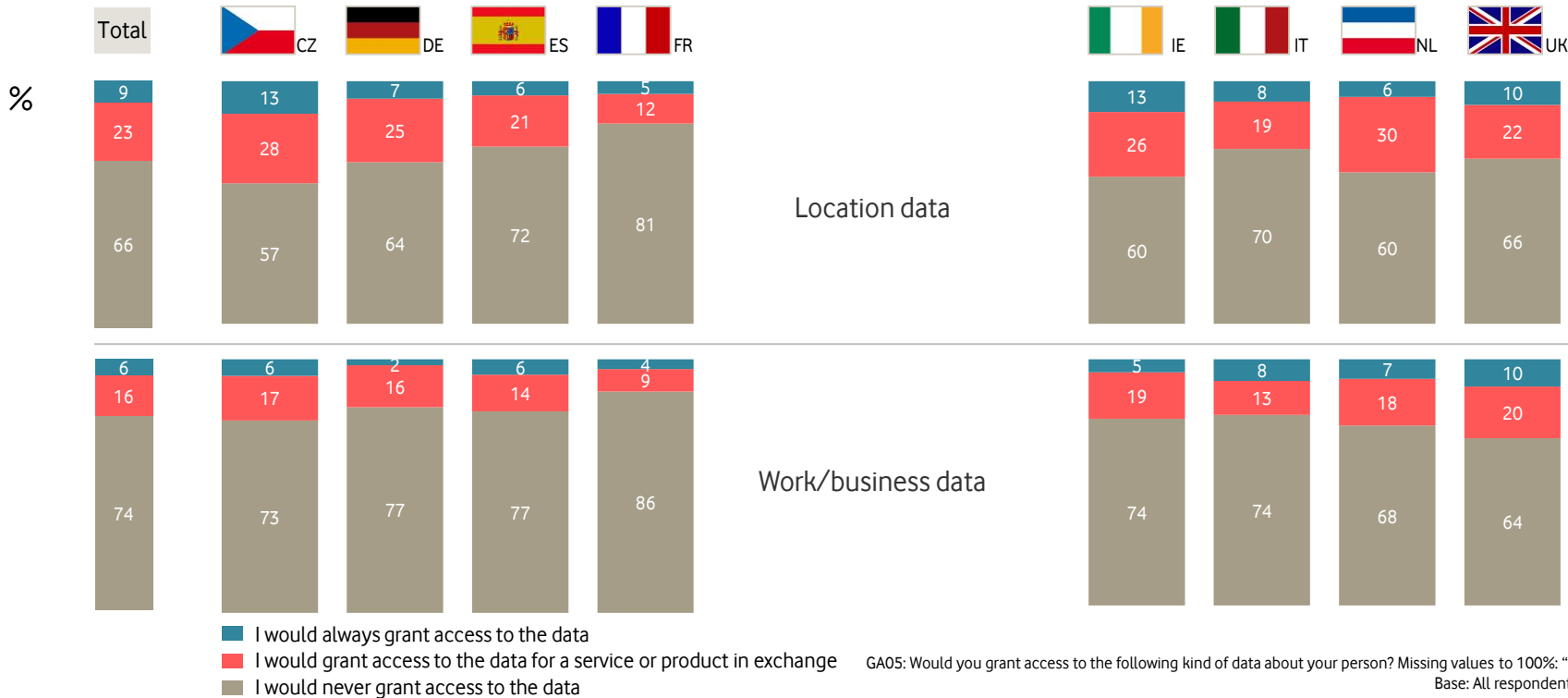
Countries





Would you grant access to the following kind of data about your person?

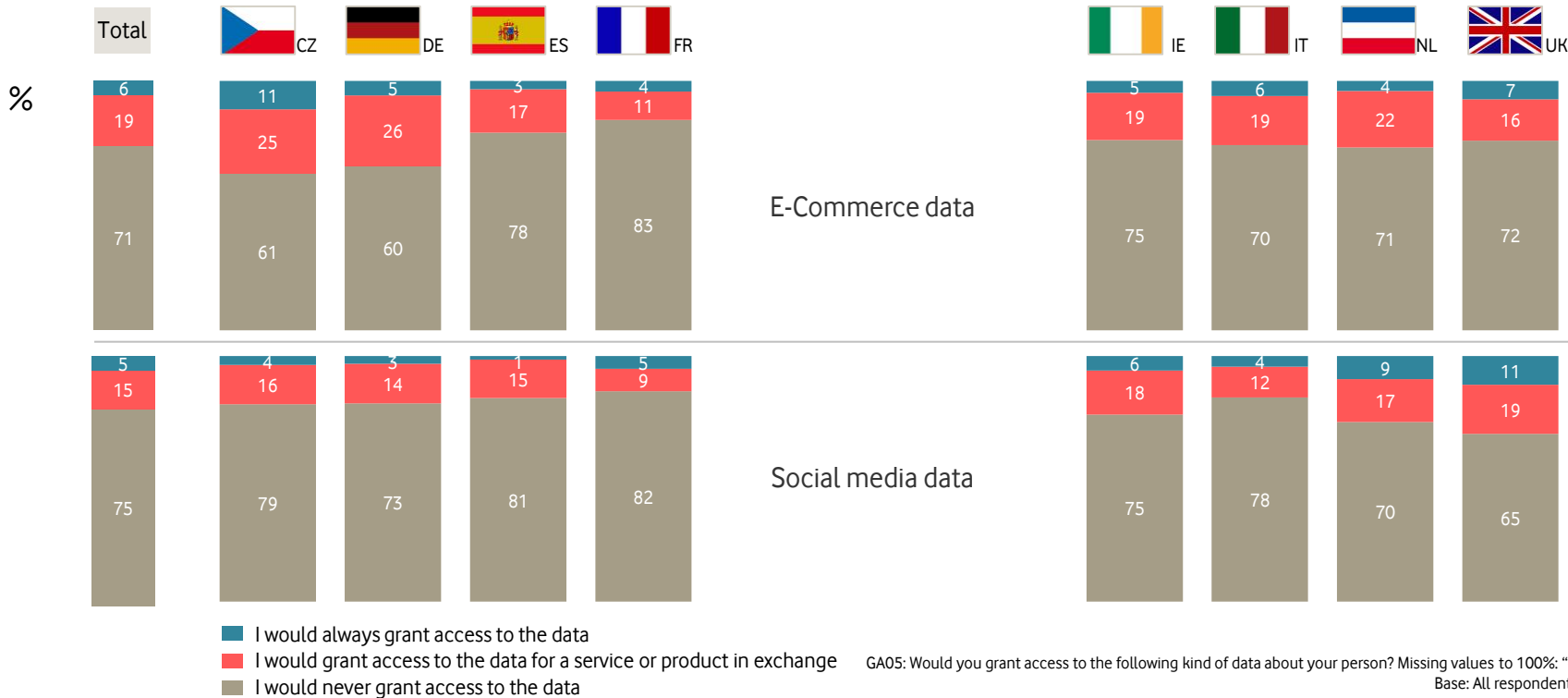
Countries





Would you grant access to the following kind of data about your person?

Countries

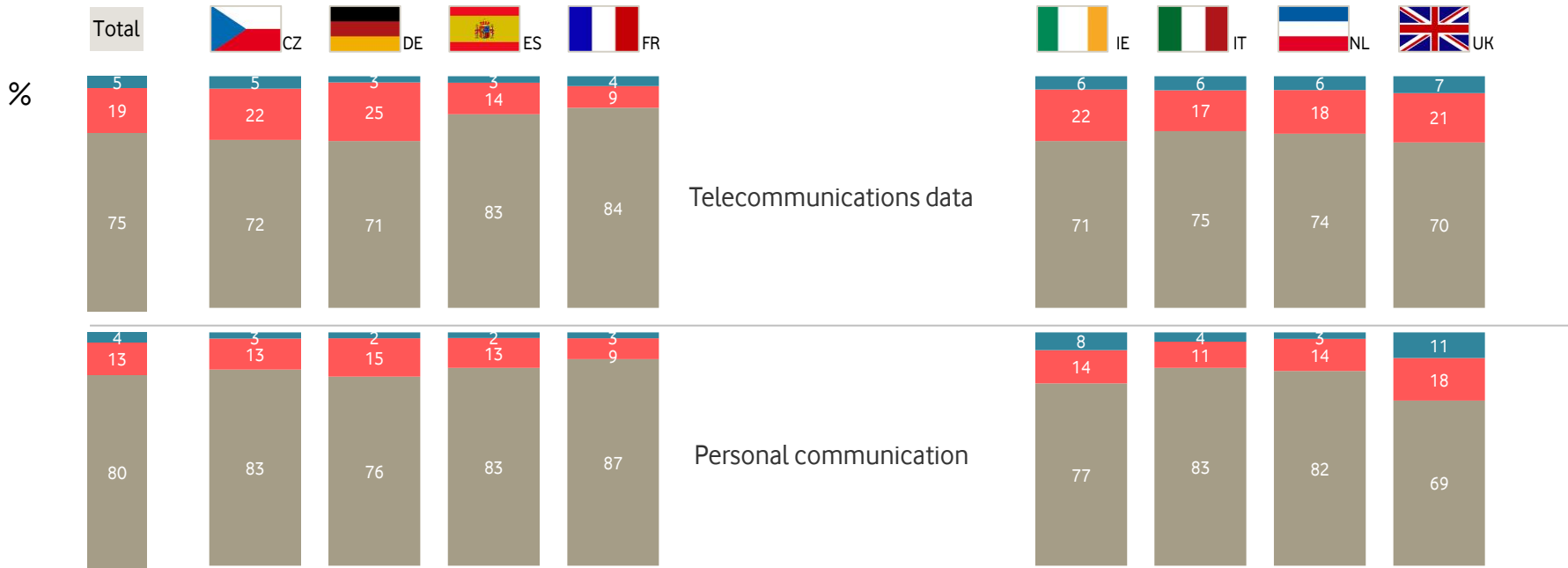


GA05: Would you grant access to the following kind of data about your person? Missing values to 100%: "don't know".
Base: All respondents (n= 8.256)



Would you grant access to the following kind of data about your person?

Countries

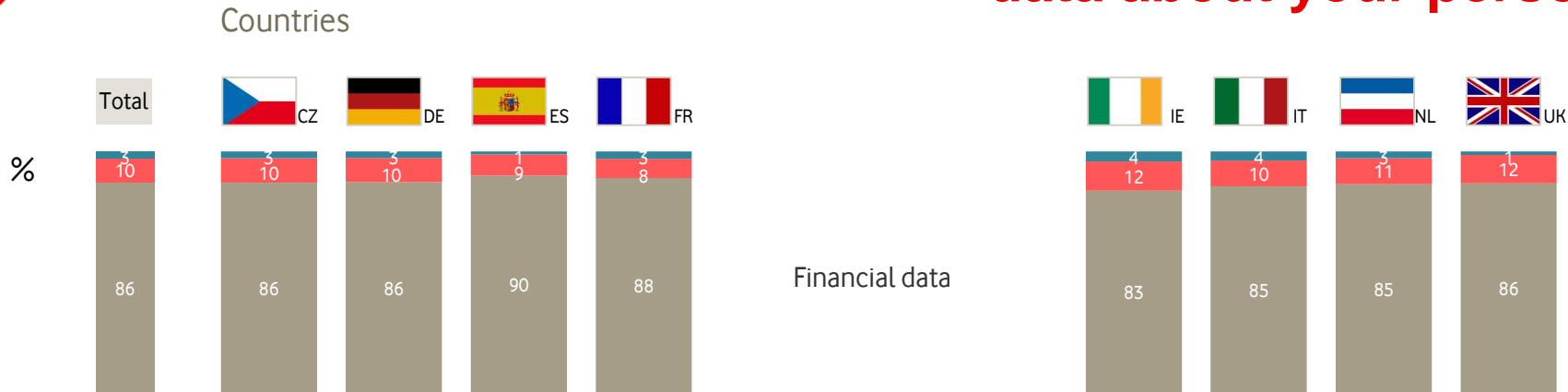


- I would always grant access to the data
- I would grant access to the data for a service or product in exchange
- I would never grant access to the data

GA05: Would you grant access to the following kind of data about your person? Missing values to 100%: "don't know".
Base: All respondents (n= 8.256)



Would you grant access to the following kind of data about your person?



- I would always grant access to the data
- I would grant access to the data for a service or product in exchange
- I would never grant access to the data

GA05: Would you grant access to the following kind of data about your person? Missing values to 100%: "don't know".
Base: All respondents (n= 8.256)



Protection of personal data



"Today it's inevitable to surrender some of your data for some activities. It also depends on what kind of data you have and how careful you are. Sometimes I don't even bother to read what I'm agreeing to." (Qual-I)

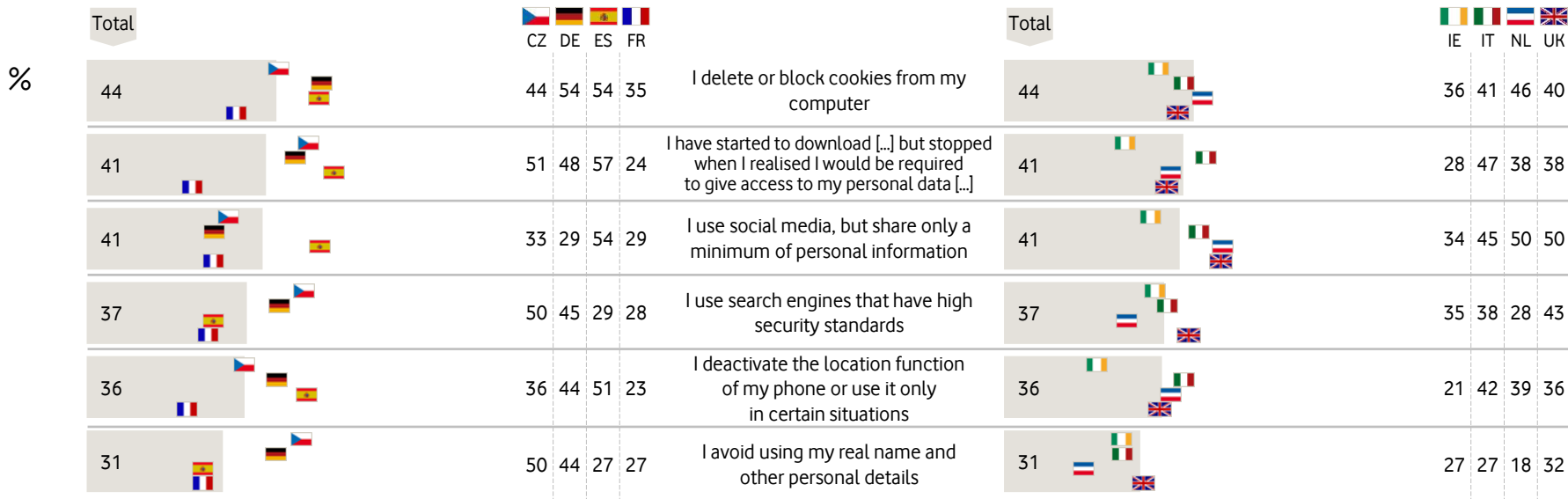
"I've lost the thread, I don't know what to think about it. I'm lost." (Qual-D)

- The action that consumers would be most likely to take in order to protect data is cookie deletion or blocking (44%), followed by sharing a minimum of information on social media (41%) and halting downloads as soon as personal data access is required (41%).
- To protect their data, people avoid certain online services, such as the usage of social media (31%), online banking (26%), online shopping (24%) or don't use their real identity (31%).
- High security standards such as VPN channels or different IP addresses and encrypted messages are rarely used (13% / 15%).

What measures do you undertake in order to protect your personal data?

Countries

Multiple answers



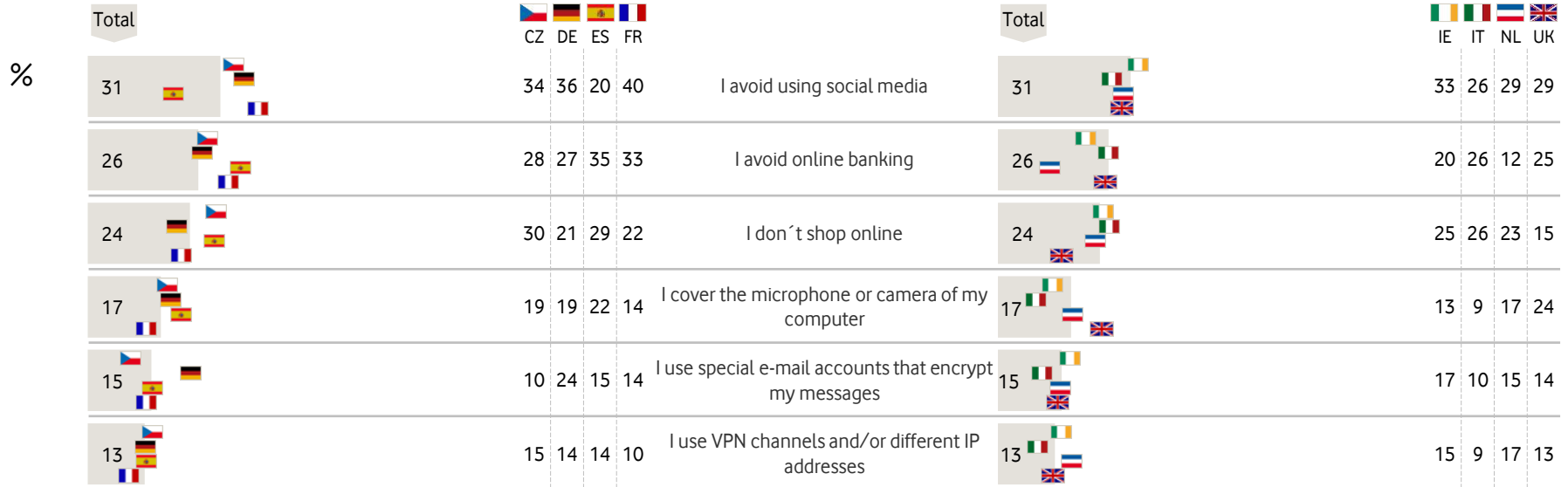
GA06: What measures do you undertake in order to protect your personal data? Multiple answers.
Base: All respondents (n= 8.256)



What measures do you undertake in order to protect your personal data?

Countries

Multiple answers



GA06: What measures do you undertake in order to protect your personal data? Multiple answers.
Base: All respondents (n= 8.256)



Attitude towards Big Data



"I think the advantages outweigh the disadvantages, so you forget about the other points." (Qual-D)

"Sometimes it's helpful, e.g. at Amazon, where you can see what was bought by other customers. For example, when you don't know that a certain product exists." (Qual-D)

"You have to choose how important these apps are for you. Therefore I can see the advantages for me, so I pass my data on." (Qual-D)

- More than half of the respondents would rather pay for a service, compared to paying nothing but giving their data in return (55% vs. 39%).
- The most sensitive are Spain and Italy (both 66%), followed by Czech (61%).
- Less-concerned countries are France (48%) and the Netherlands (45%).
- Half of the respondents see more disadvantages in Big Data (51%), than they do advantages (31%), especially Germany (62%), and the UK (60%). Ireland (47%) focuses more on the advantages.
- Almost a third of the respondents in France (32%) and Spain (29%) have no clear opinion on the Big Data phenomenon and just don't know.

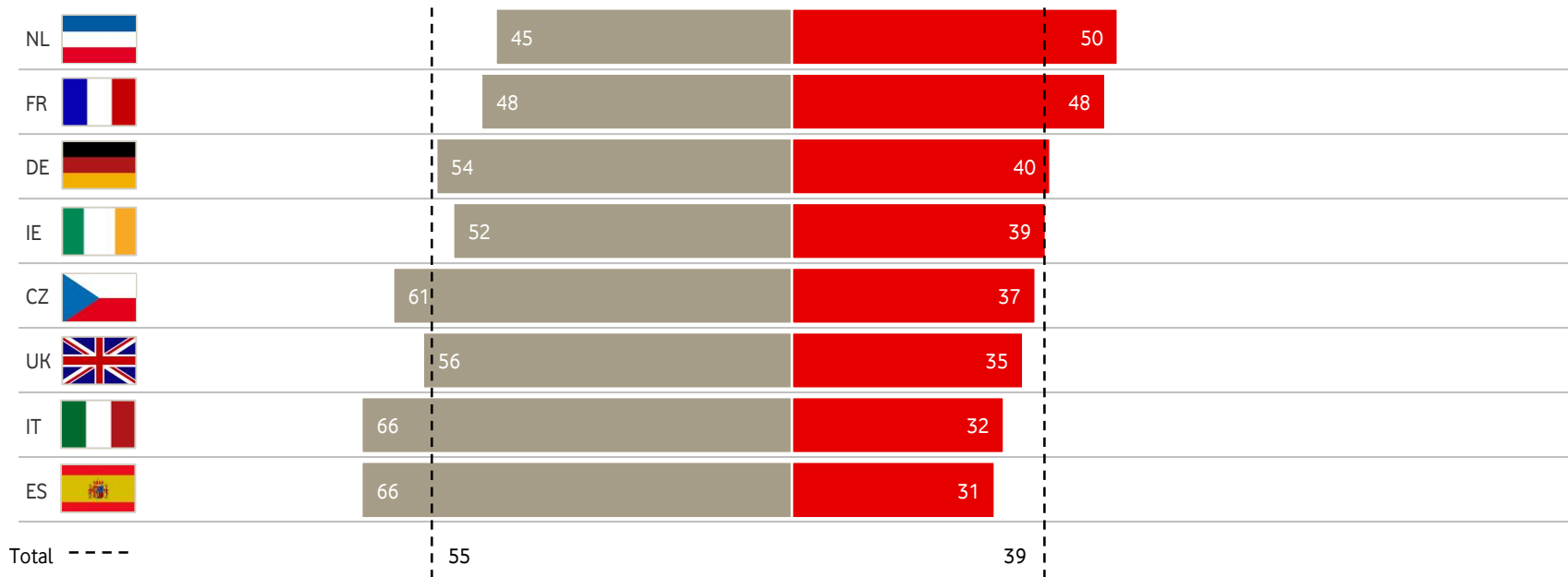


If you use a digital service, which of the following options do you prefer?

In general, I would **rather prefer to pay for the service** than allowing the supplier to use some of my personal data for commercial purposes.

In general, I would rather prefer to pay nothing for the service – but **understand that in return the supplier is going to collect and use some of my personal data** for commercial purposes.

%



GA04: If you use a digital service (e.g. email, apps), which of the following options do you prefer? Missing values to 100%: no answer.

Base: Internet users (n= 6.979)

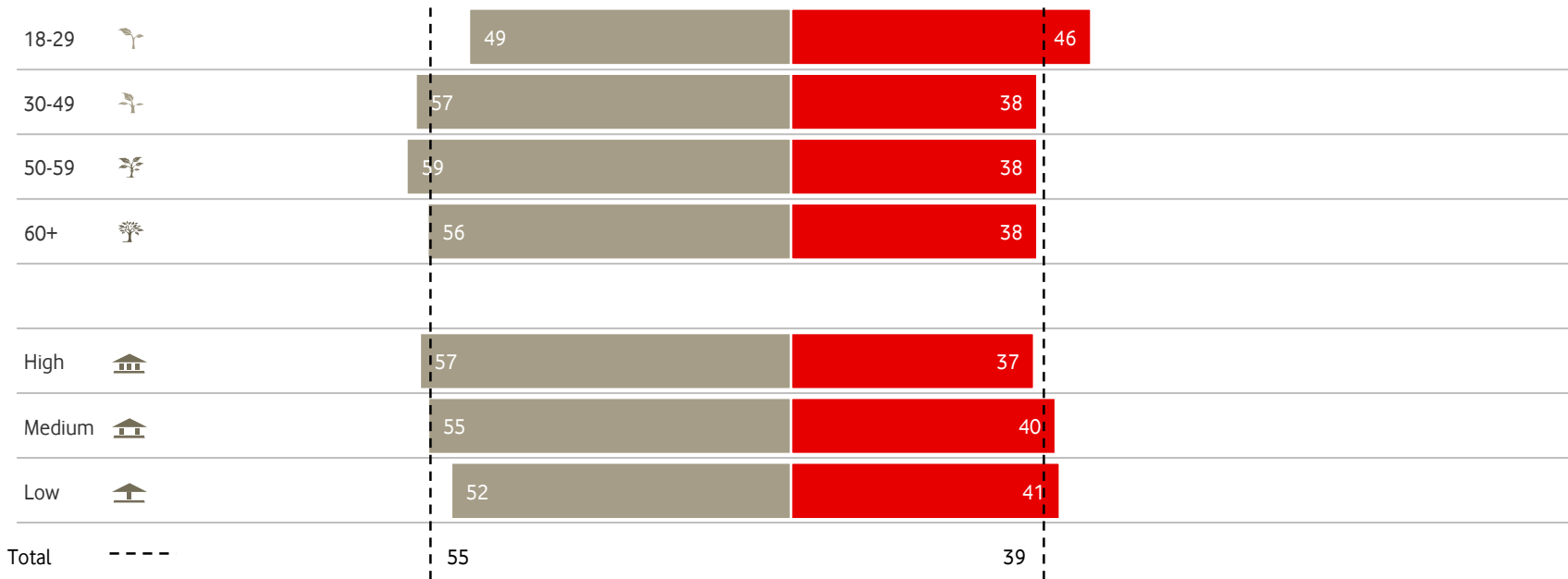


If you use a digital service, which of the following options do you prefer?

In general, I would **rather prefer to pay for the service** than allowing the supplier to use some of my personal data for commercial purposes.

In general, I would rather prefer to pay nothing for the service – but **understand that in return the supplier is going to collect and use some of my personal data** for commercial purposes.

%

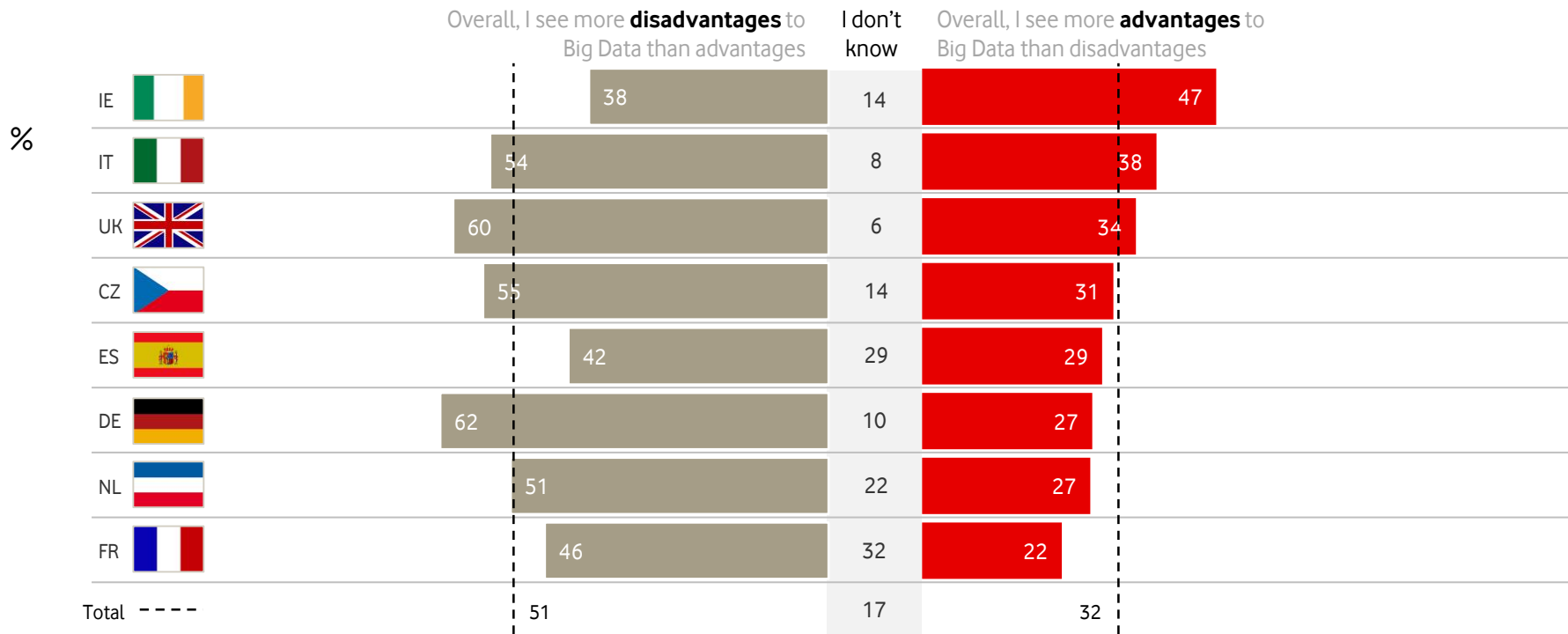


GA04: If you use a digital service (e.g. email, apps), which of the following options do you prefer? Missing values to 100%: no answer.

Base: Internet users (n= 6.979)



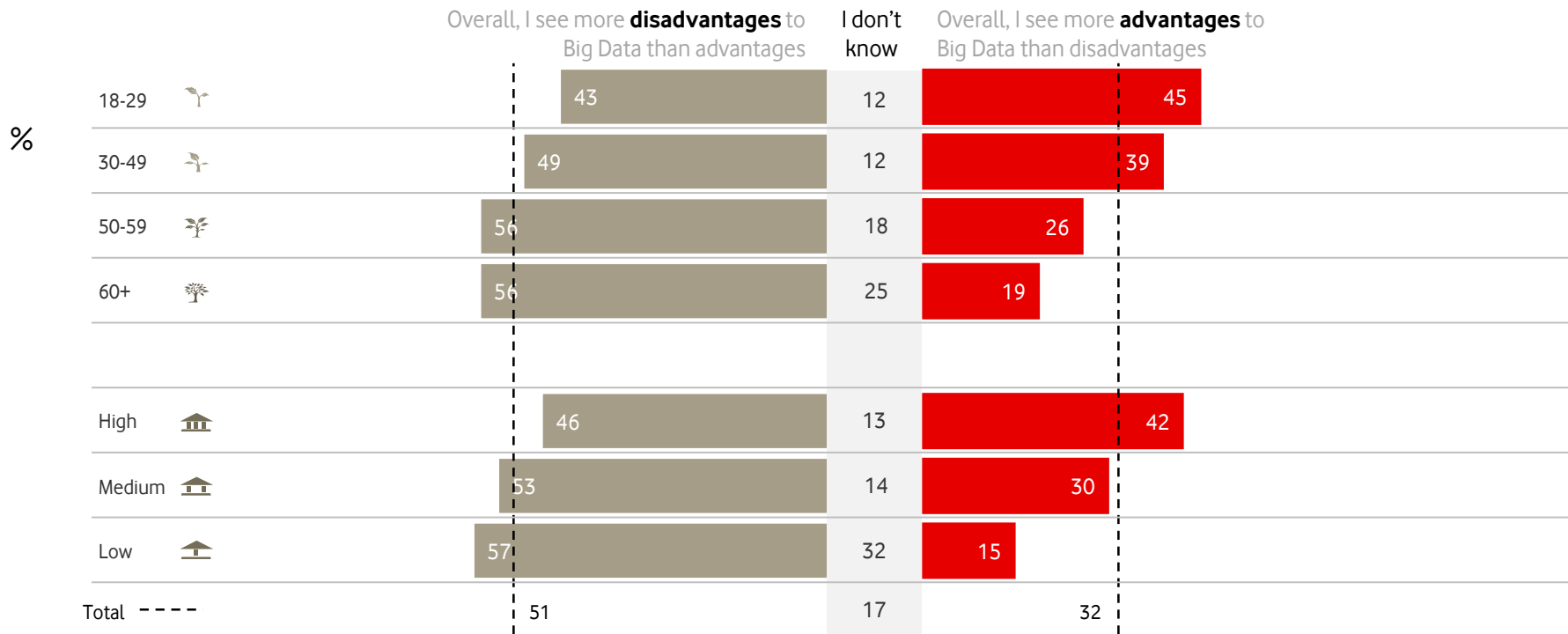
What do you think about the Big Data phenomenon?



GA07: New ways of collecting, analysing and comparing data that result from peoples' usage of the internet and mobile phones – a phenomenon called Big Data – can help to improve products and services, boost academic research, help curing diseases or solve social problems. On the other hand, it is argued that the massive collection analysis of personal data bring risks. What do you think about the Big Data phenomenon? Base: All respondents (n= 8.256)



What do you think about the Big Data phenomenon?



GA07: New ways of collecting, analysing and comparing data that result from peoples' usage of the internet and mobile phones – a phenomenon called Big Data – can help to improve products and services, boost academic research, help curing diseases or solve social problems. On the other hand, it is argued that the massive collection analysis of personal data bring risks. What do you think about the Big Data phenomenon? Base: All respondents (n=8.256)



Scenarios



Scenario 1: Connected Cars, GPS, Mobility



Connected Cars, GPS, Mobility

Cars generate a huge amount of data today thanks to their sophisticated electronic systems, much of which is used for diagnostic purposes in order to ensure the car is performing correctly, or can be repaired. Given the amount of data that is generated. How comfortable would you be with this data being used in any of the following way?



"I don't allow anybody to track me. It is difficult to see a benefit when there are disasters and the cellular networks break down." (Qual-D)

"Going from one place to another is easier with a map that shows you what the traffic is like and helps you change your route... that might make driving around the city easier." (Qual-I)

"I will think about this again if a situation crops up like they know there are 2 million people at the bus stop and there will only be 2 or 3 more buses." (Qual-D)

- Highest levels of comfort exist with suppliers of navigation systems using data for individualised traffic advice (55%), followed by governmental authorities using it for infrastructural improvements (44%) and by car manufacturers for service and car improvement (43%).
- Lower levels of comfort with data usage by the police to identify traffic violations (29%) and by insurance companies to individualise their offers (27%). Half of respondents feel uncomfortable or think it should not be allowed (police: 50%, insurance companies: 48%).
- High resistance to personal data being sold to third parties, even if on an anonymised basis (41%: should not allowed; 37%: do not feel comfortable with it).
- Spain, Ireland, France and Italy generally are more comfortable with data collection and usage in this area, whilst Germany, but also the UK and the Netherlands are less comfortable.
- Respondents aged 60+ and Non-Digitals are generally less comfortable with the collection and use of their data in this area.



%

The **car manufacturer** uses data such as the overall-status of the car and your driving behaviour in order to **optimise the service** they offer and to **improve the running of your car**.



The **suppliers of navigation systems** use your data generated to analyse traffic in real time and **provide you with individualised traffic advice**.



Your data is shared with the **local authority or relevant government department** in order to enable them to **improve the road network, flow of traffic and public transport infrastructure**.



Your data is shared with the **police** which use it to **identify traffic violations**.



Your data is used by your **insurance company to make individual offers** or premiums based on your driving behaviour.



Your data is **sold by one of the companies** mentioned above to a third party on an anonymised and aggregated basis.



■ very comfortable ■ comfortable ■ neutral ■ uncomfortable ■ it should not be allowed

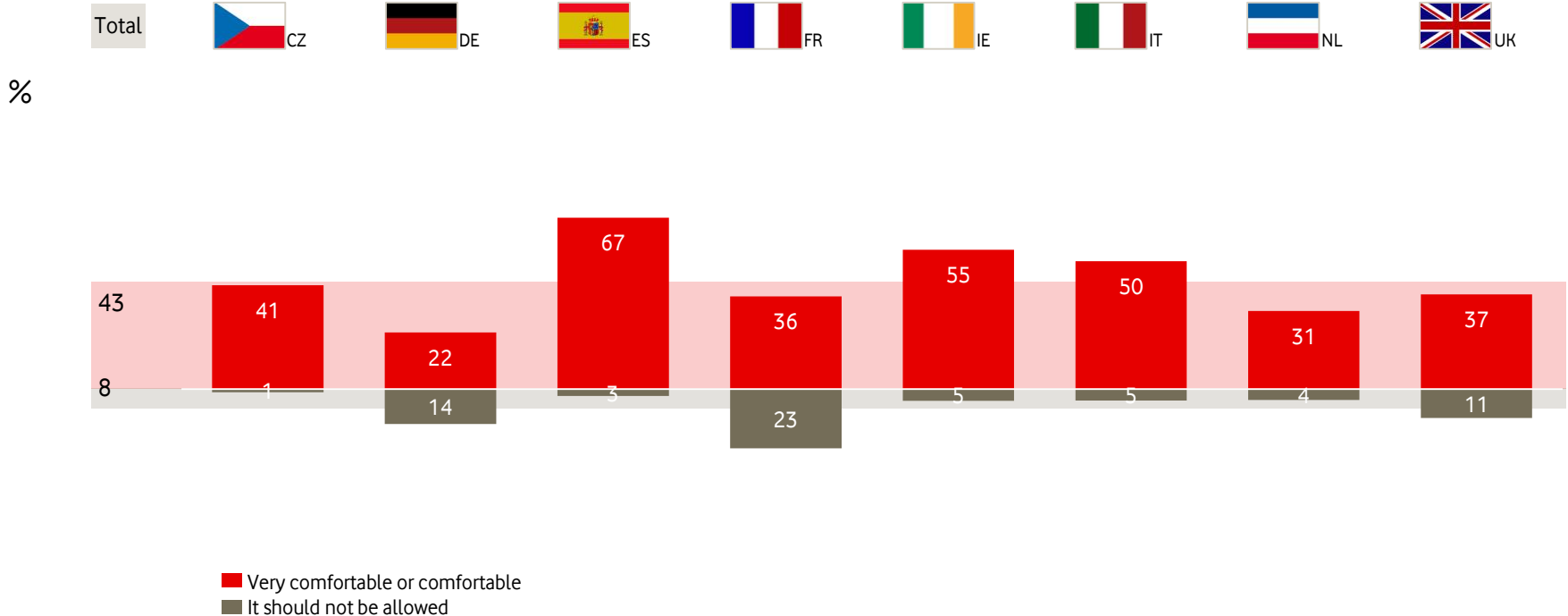
Highest rate of comfortability

Country	Age	Educat.
ES	30-49	High
ES	30-49	Medium
IT	18-29	High
IT	30-49	Low
IE	30-49	Medium
IE	18-29	Low/ Medium

E03: Cars generate a huge amount of data today thanks to their sophisticated electronic systems, much of which is used for diagnostic purposes in order to ensure the car is performing correctly, or can be repaired. Given the amount of data that is generated. How comfortable would you be with this data being used in any of the following way? Missing values to 100%: no answer. Base: Respondents answering scenario (n= 2.625)

The car manufacturer uses data such as the overall-status of the car and your driving behaviour in order to optimise the service they offer and to improve the running of your car.

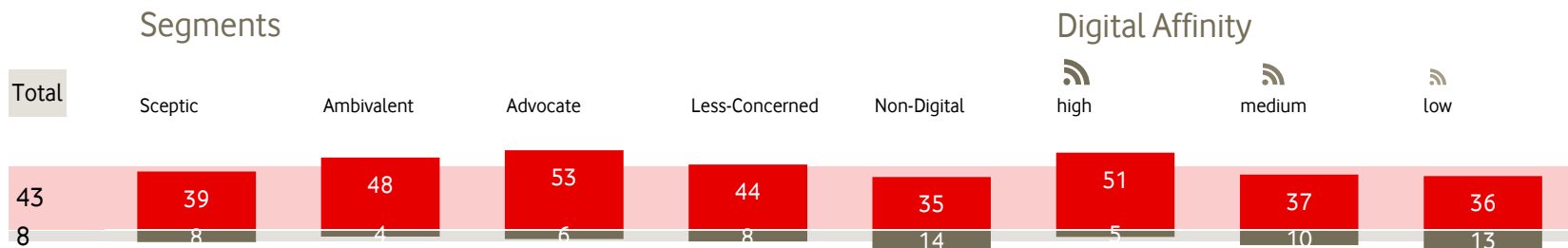
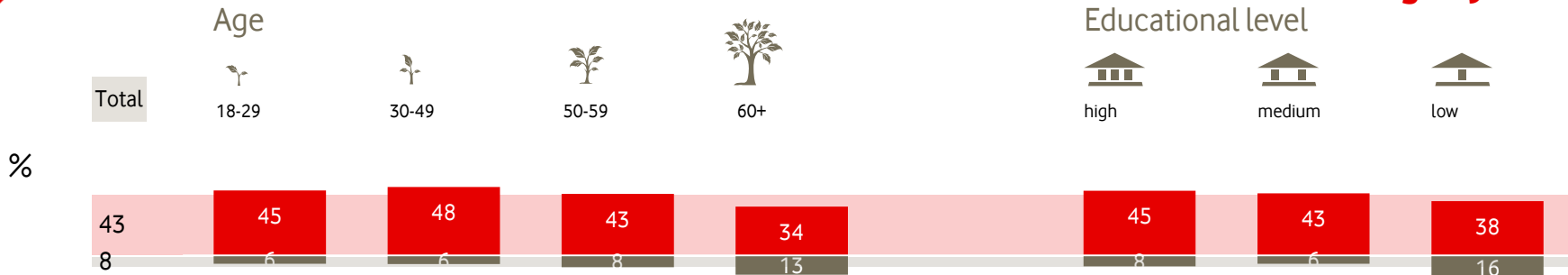
Countries



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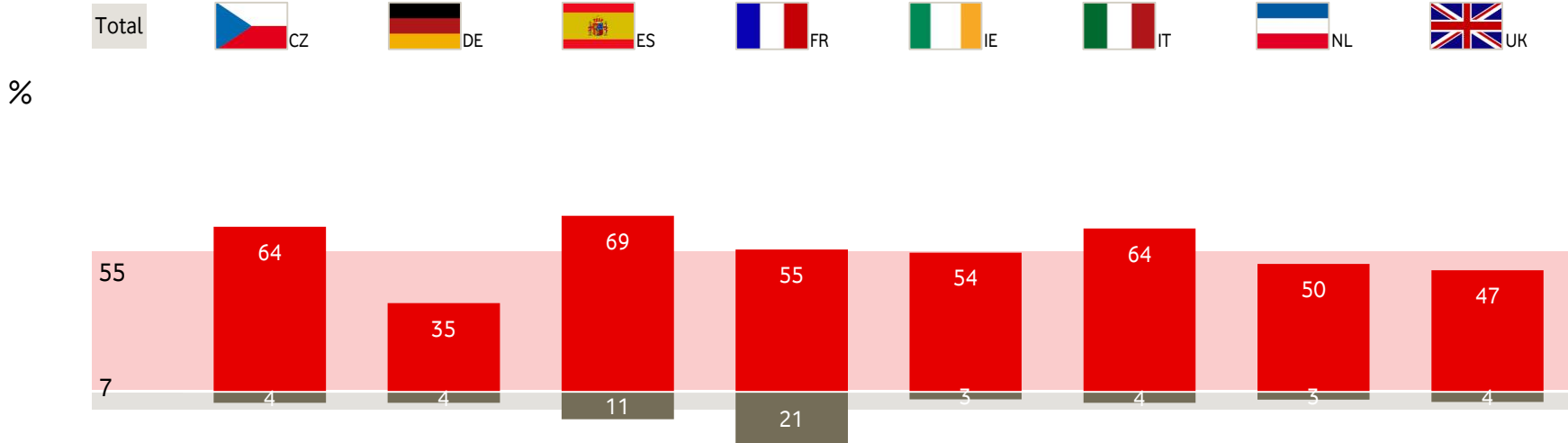
Very comfortable or comfortable
It should not be allowed

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The suppliers of navigation systems use your data generated to analyse traffic in real time and provide you with individualised traffic advice.

Countries

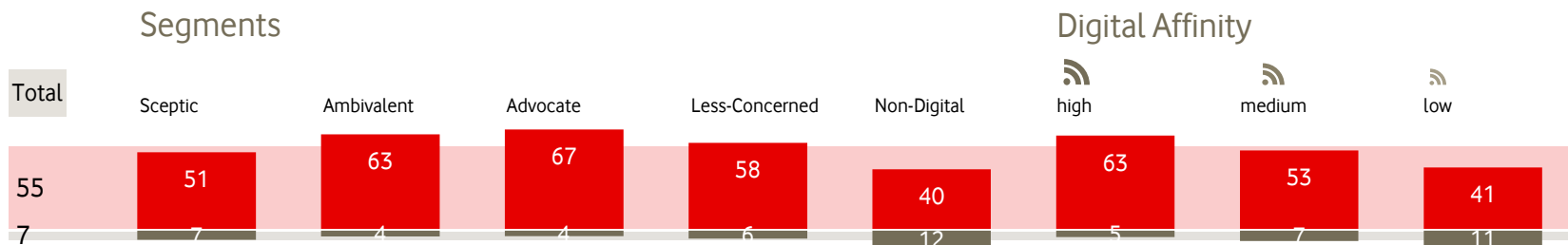
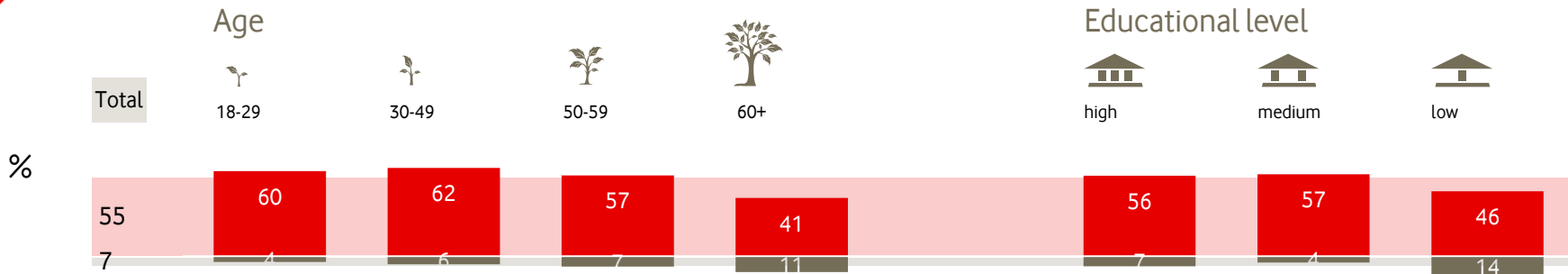


- Very comfortable or comfortable
- It should not be allowed

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The suppliers of navigation systems use your data generated to analyse traffic in real time and provide you with individualised traffic advice.



- Very comfortable or comfortable
- It should not be allowed

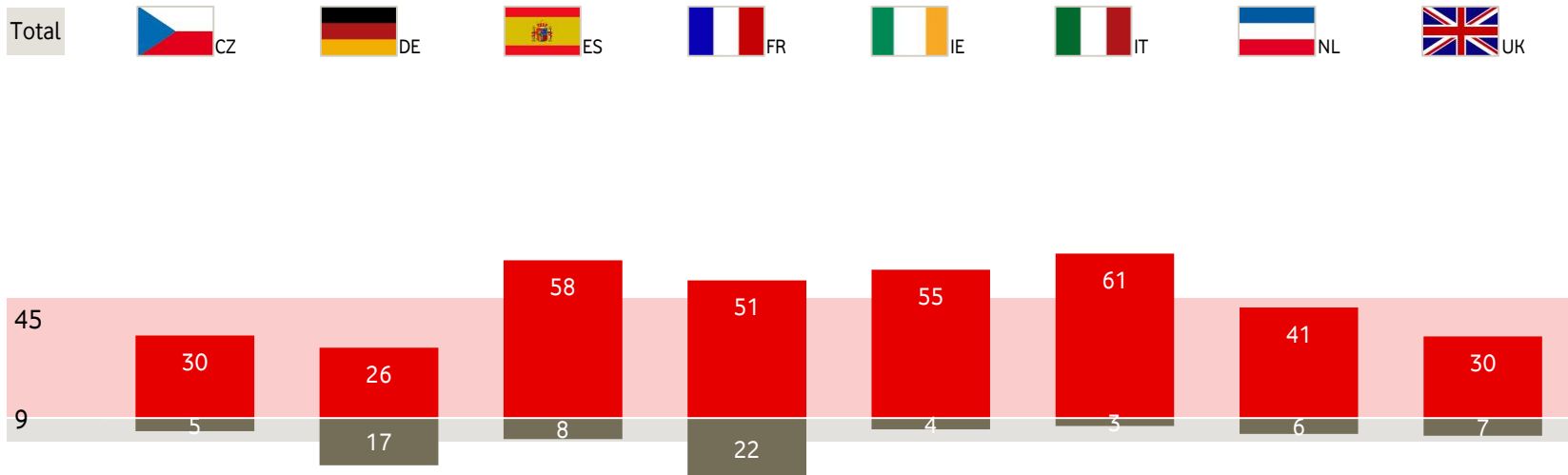
E03: Cars generate a huge amount of data today thanks to their sophisticated electronic systems, much of which is used for diagnostic purposes in order to ensure the car is performing correctly, or can be repaired. Given the amount of data that is generated. How comfortable would you be with this data being used in any of the following way? Base: Respondents answering scenario (n= 2.625)



Your data is shared with the local authority or relevant government department in order to enable them to improve the road network, flow of traffic and public transport infrastructure.

Countries

%

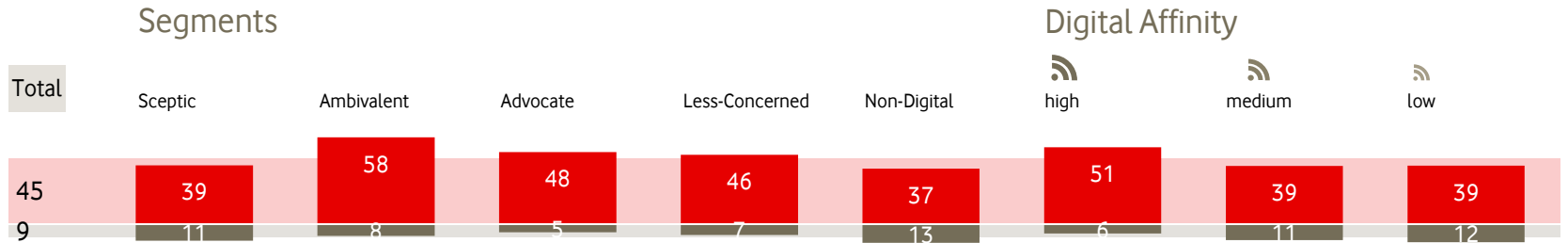
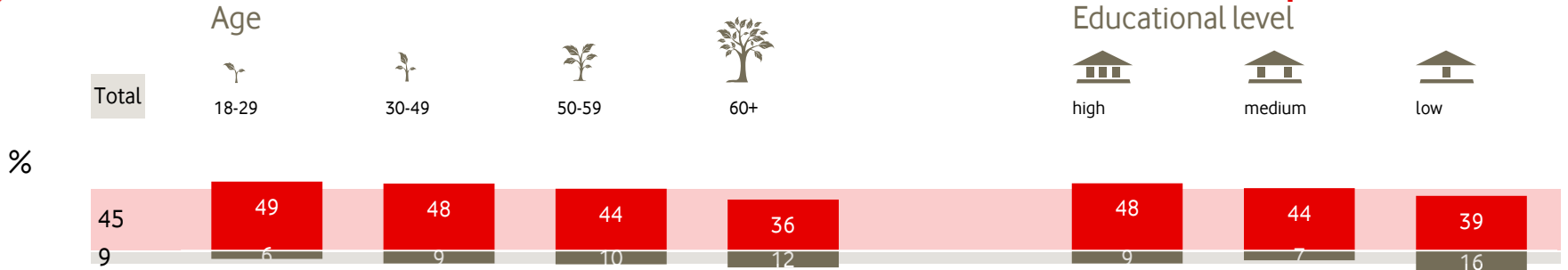


- Very comfortable or comfortable
- It should not be allowed

E03: Cars generate a huge amount of data today thanks to their sophisticated electronic systems, much of which is used for diagnostic purposes in order to ensure the car is performing correctly, or can be repaired. Given the amount of data that is generated. How comfortable would you be with this data being used in any of the following way? Base: Respondents answering scenario (n= 2.625)



Your data is shared with the local authority or relevant government department in order to enable them to improve the road network, flow of traffic and public transport infrastructure.



Very comfortable or comfortable
It should not be allowed

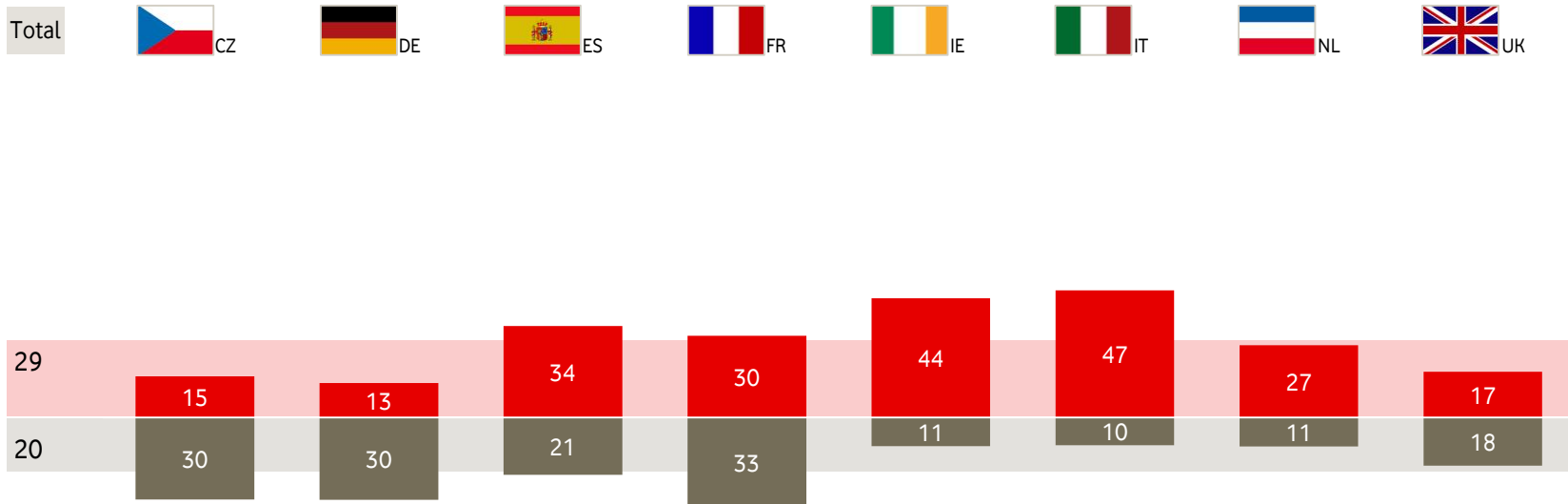
E03: Cars generate a huge amount of data today thanks to their sophisticated electronic systems, much of which is used for diagnostic purposes in order to ensure the car is performing correctly, or can be repaired. Given the amount of data that is generated. How comfortable would you be with this data being used in any of the following way? Base: Respondents answering scenario (n= 2.625)



Your data is shared with the police which use it to identify traffic violations.

Countries

%

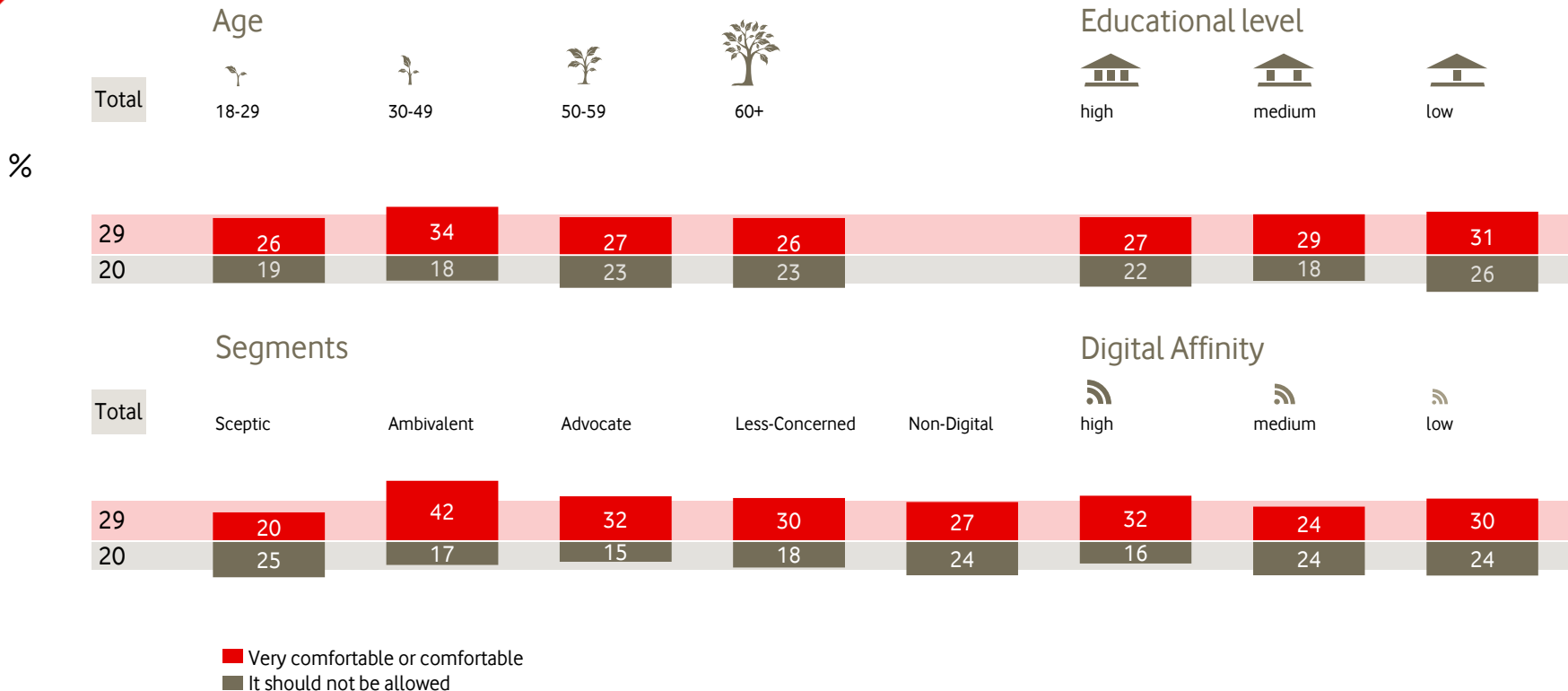


- Very comfortable or comfortable
- It should not be allowed

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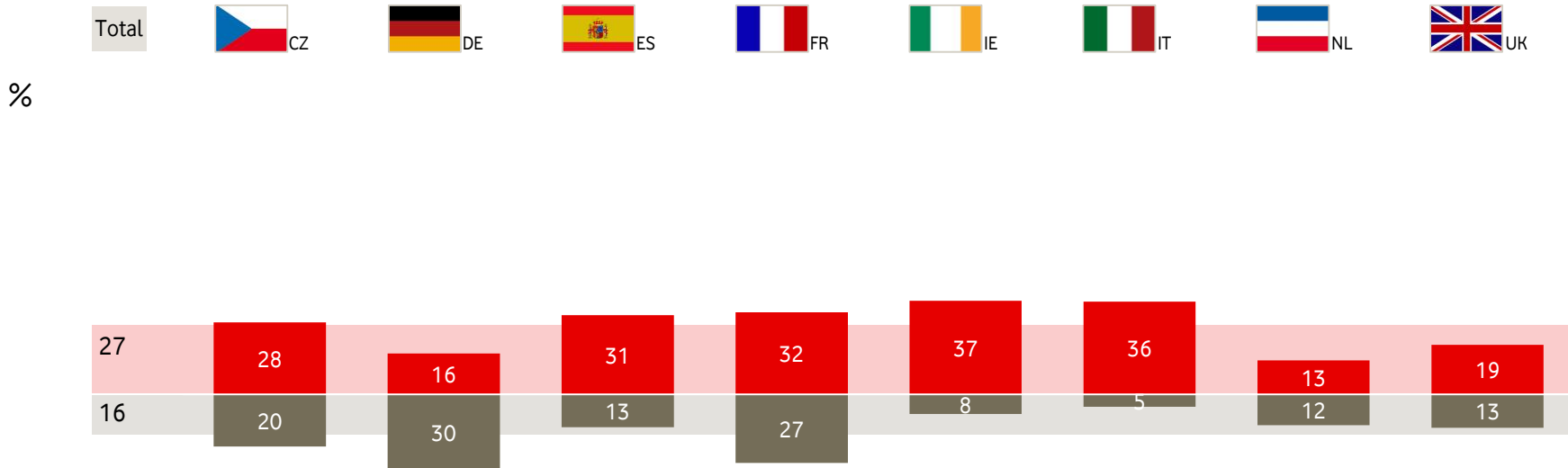


E03: Cars generate a huge amount of data today thanks to their sophisticated electronic systems, much of which is used for diagnostic purposes in order to ensure the car is performing correctly, or can be repaired. Given the amount of data that is generated. How comfortable would you be with this data being used in any of the following way? Base: Respondents answering scenario (n= 2.625)



Your data is used by your insurance company to make individual offers or premiums based on your driving behaviour.

Countries

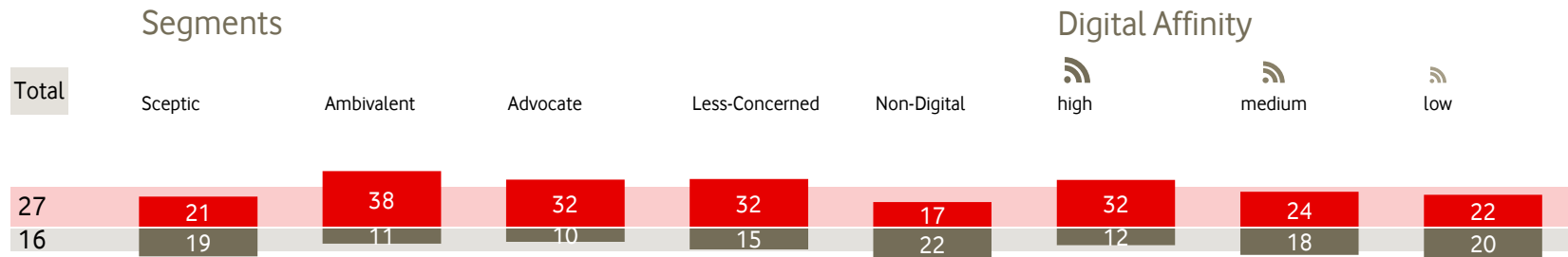
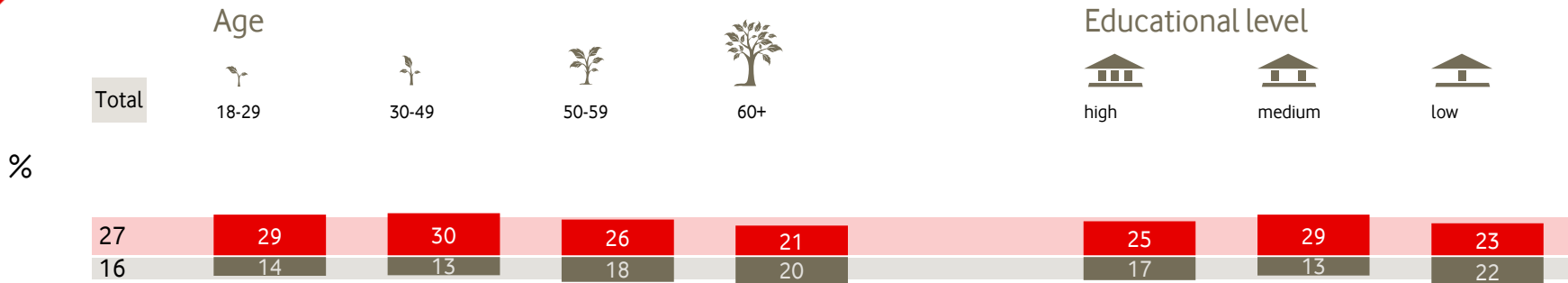


- Very comfortable or comfortable
- It should not be allowed

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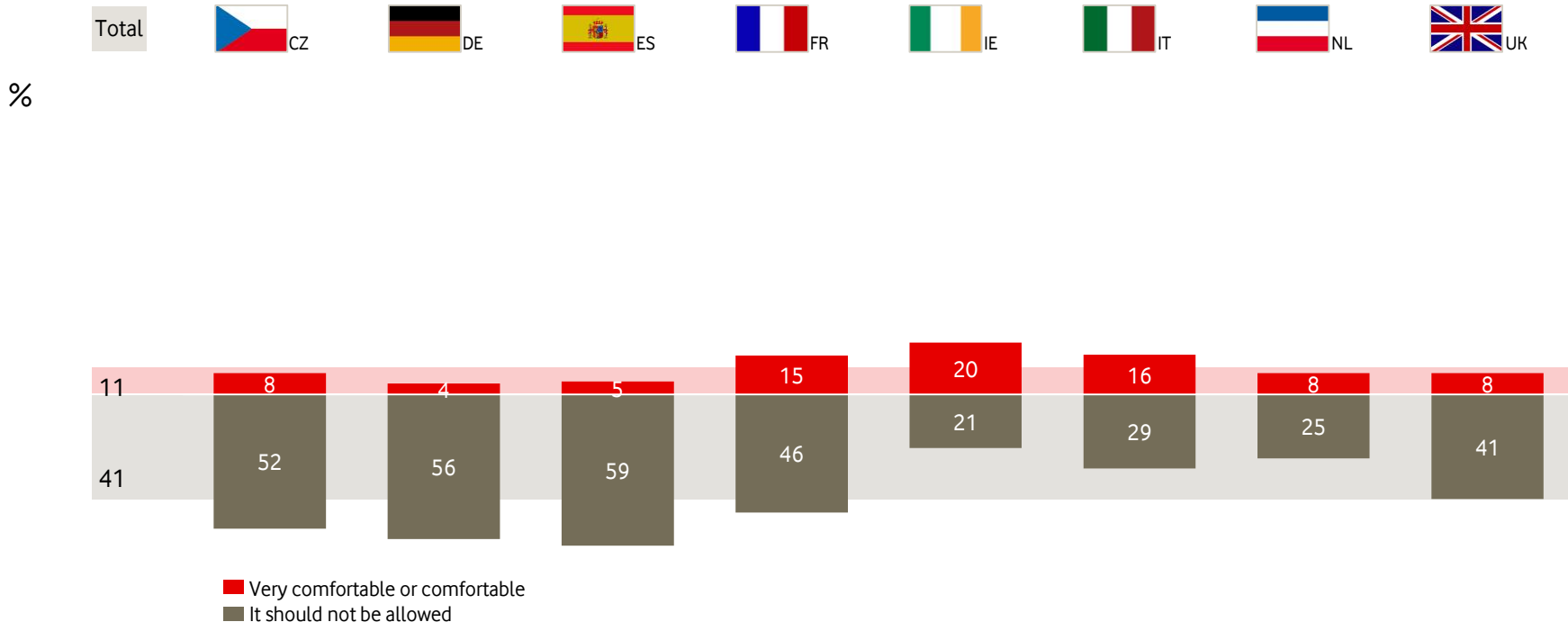
Very comfortable or comfortable
It should not be allowed

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Your data is sold by one of the companies mentioned above to a third party on an anonymised and aggregated basis.

Countries

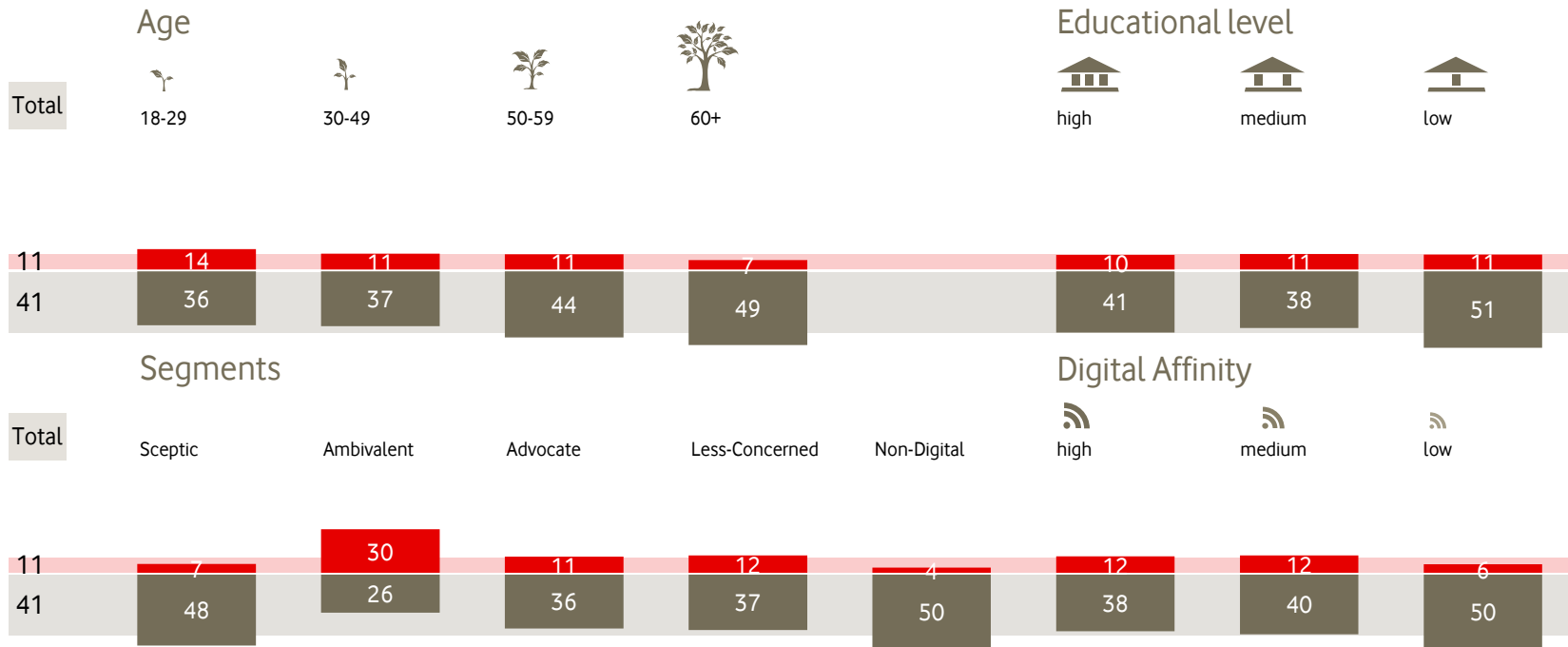


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%



■ Very comfortable or comfortable
■ It should not be allowed

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Scenario 2: E-Commerce, Shopping, Loyalty Cards



E-Commerce, Shopping, Loyalty Cards

Please imagine that you regularly visit a shop or use loyalty cards of a store. You have accepted to be contacted by the company. To what extent are you comfortable with the following scenarios?



"I think a lot of people use loyalty cards and see the advantages of them, so it's okay when they benefit from it."
(Qual-D)

"It depends on the time and the kind of ad. It could be something that I have been looking for in the past but not any more, and that might be annoying, or something that I'm still interested in, in which case it might come in handy."
(Qual-I)

"It's annoying because they have data I never gave them ... on the other hand it's something positive because of the discount."
(Qual-I)

"They collect and analyse the data after you use your loyalty card." (Qual-D)

Main results

- Levels of comfort regarding use of data for product and service improvement and for personalised offers is generally high (45% and 44%). Highest agreement in Spain (62% and 60%), but very low figures in Germany (16% and 11%).
- Comfort regarding data usage for specialised offers decreases strongly when respondent is confronted with more concrete scenarios, e.g. detection of life events (24%), income estimation (19%) or tracking (28%).
- Relatively clear opposition to the sale of data to third parties (45% state that it should not be allowed; 32% feel uncomfortable).
- Respondents younger than 50 feel more comfortable with data collection and use than older ones.



E-Commerce, Shopping, Loyalty Cards

%

The shop uses the data they collect to **improve their service or product** portfolio and adapt it to the customers' preferences.



The shop uses the data they collect to **send you personalised offers or special deals** on products that would be interesting to you based on your shopping patterns in the past.



The shop **sells your data** for advertising and marketing purposes to a third party.



The shop **uses the data** they collect and is able to **realise that a change in your life** has occurred (e. g. a child is born) and offers you special products based on this data.



The shop uses the data they collect from your shopping habits to **estimate your income and offers you suitable products** based on that estimation.



You use the smartphone app of a shop, e .g. a supermarket chain. The app has **access to your location and sends you special offers** or information when you get close to a branch of the chain.



■ very comfortable ■ comfortable ■ neutral ■ uncomfortable ■ it should not be allowed

Highest rate of
comfortability

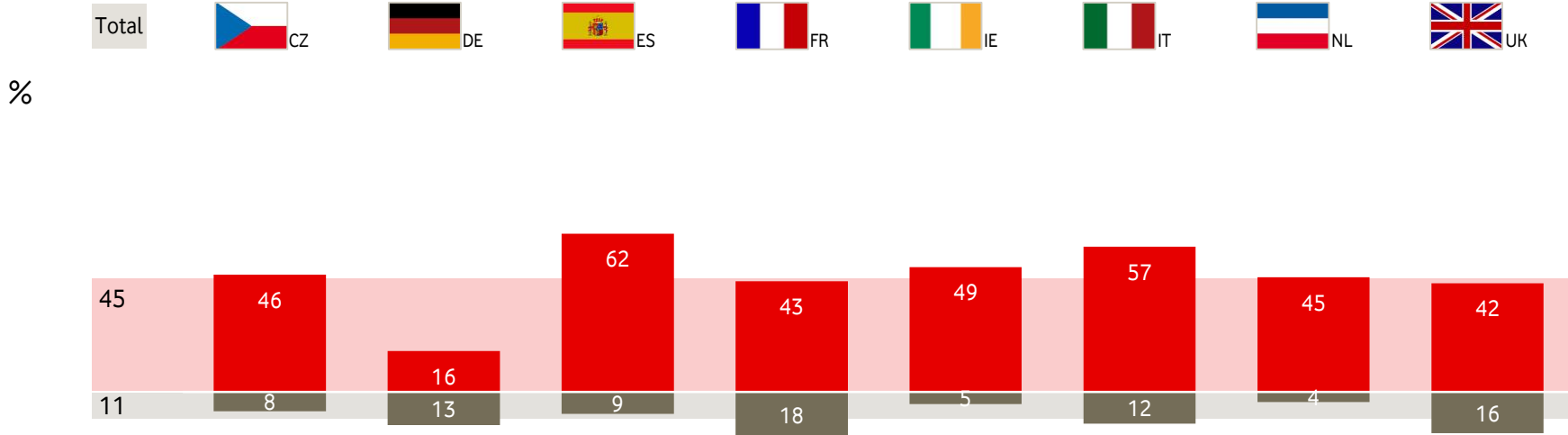
Country	Age	Educat.
ES	18-29	High
ES	18-29	High
FR	30-49	Low
IE	30-49	Medium/High
IE	30-49	Low
IT	30-49	Low

E01: Please imagine that you regularly visit a shop or use loyalty cards of a store. You have accepted to be contacted by the company. To what extent are you comfortable with the following scenarios?
Missing values to 100%: no answer. Base: Respondents answering scenario (n= 2.671)



The shop uses the data they collect to improve their service or product portfolio and adapt it to the customers' preferences

Countries

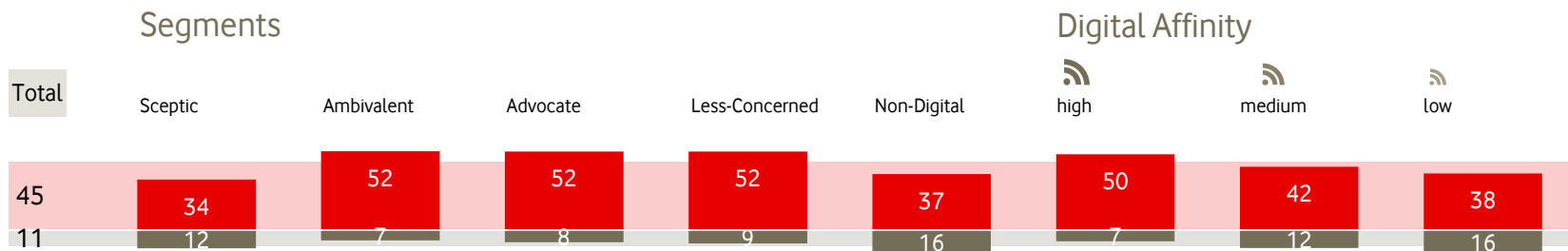
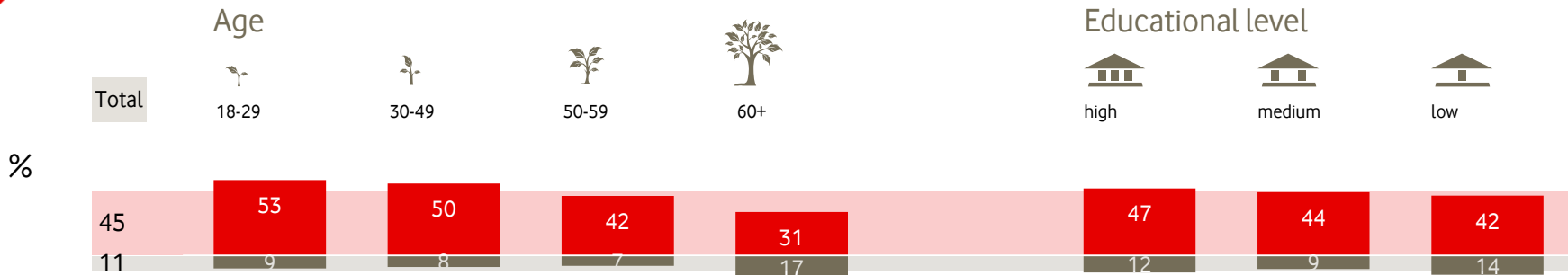


- Very comfortable or comfortable
- It should not be allowed

E01: Please imagine that you regularly visit a shop or use loyalty cards of a store. You have accepted to be contacted by the company. To what extent are you comfortable with the following scenarios?
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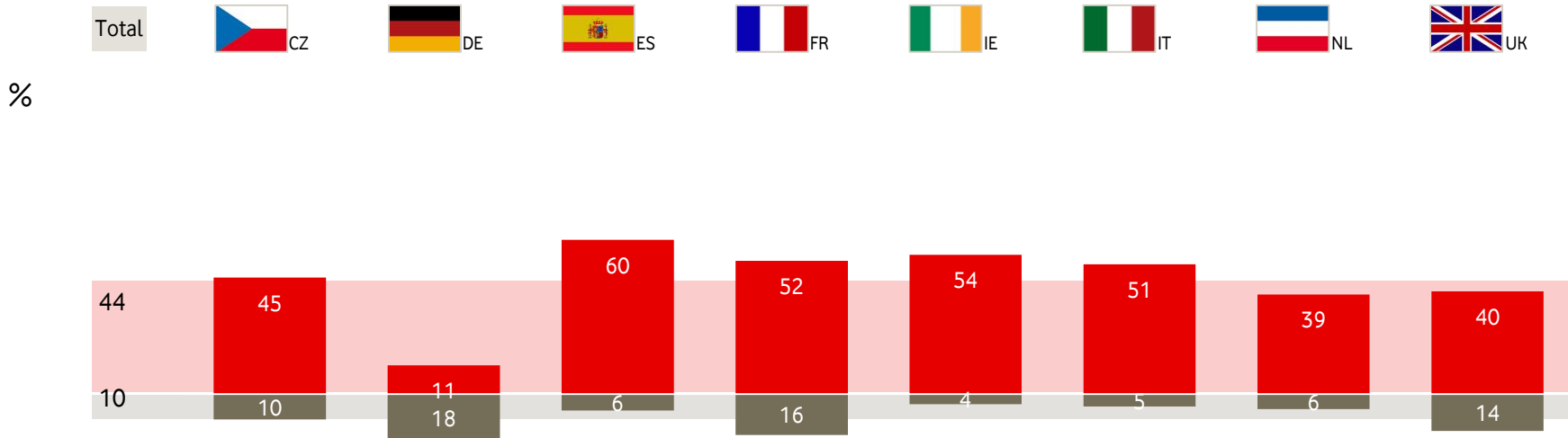
■ Very comfortable or comfortable
■ It should not be allowed

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Base: Respondents answering scenario (n= 2.671)



The shop uses the data they collect to send you personalised offers or special deals on products that would be interesting to you based on your shopping patterns in the past.

Countries

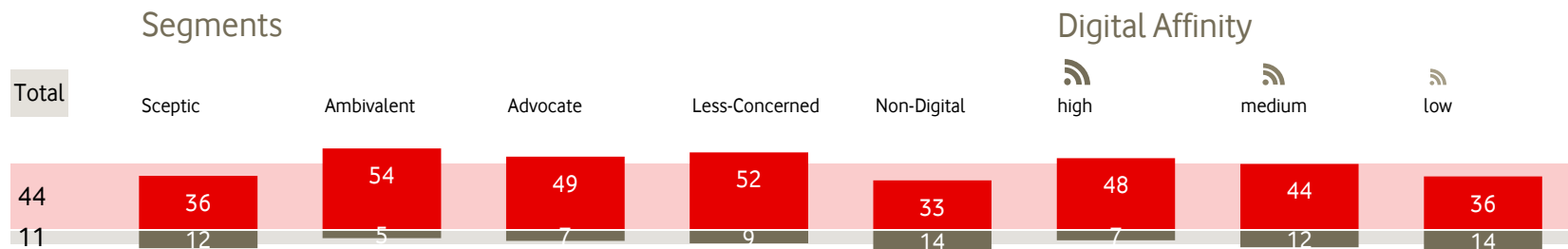
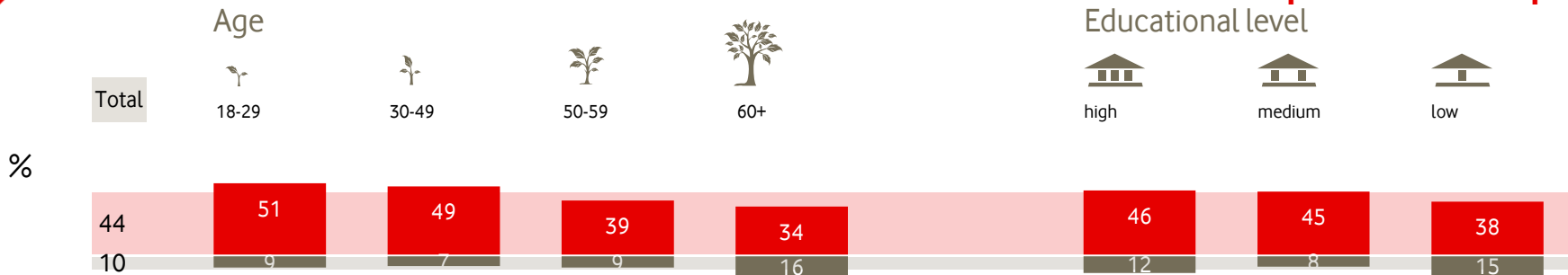


- Very comfortable or comfortable
- It should not be allowed

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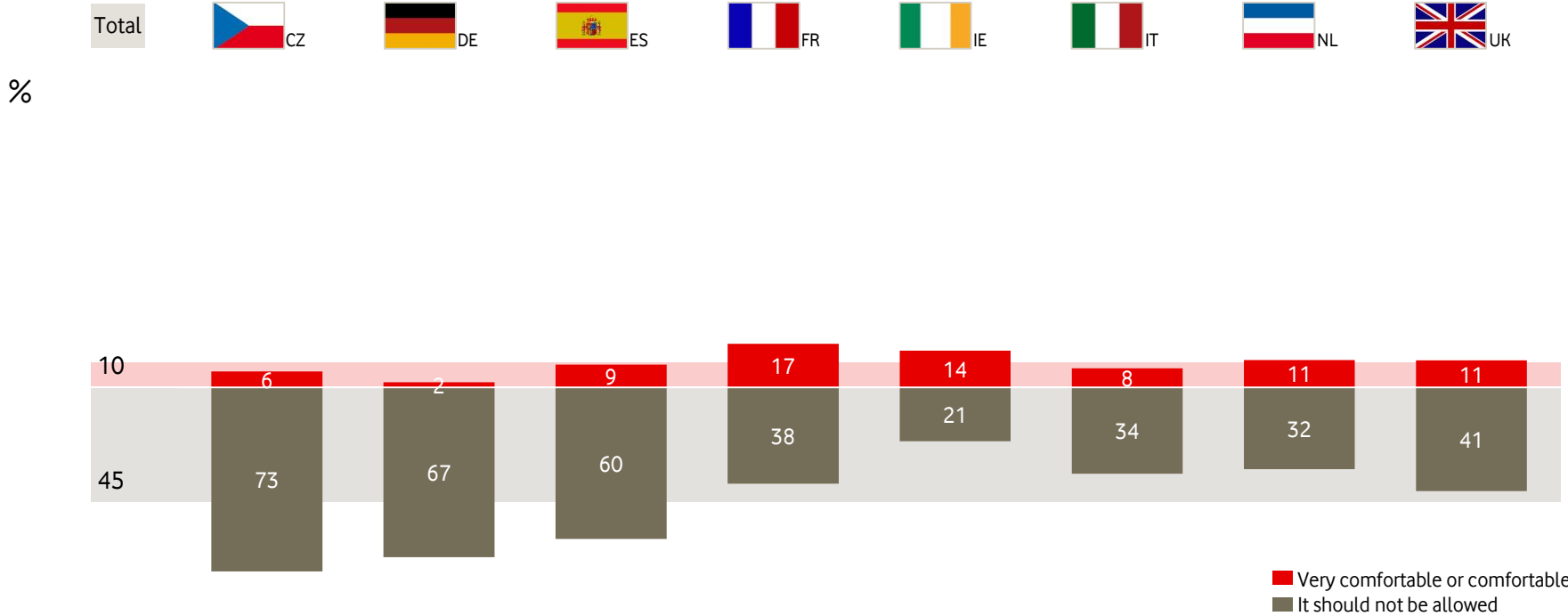
Very comfortable or comfortable
It should not be allowed

E01: Please imagine that you regularly visit a shop or use loyalty cards of a store. You have accepted to be contacted by the company. To what extent are you comfortable with the following scenarios?
Base: Respondents answering scenario (n= 2.671)



The shop sells your data for advertising and marketing purposes to a third party.

Countries

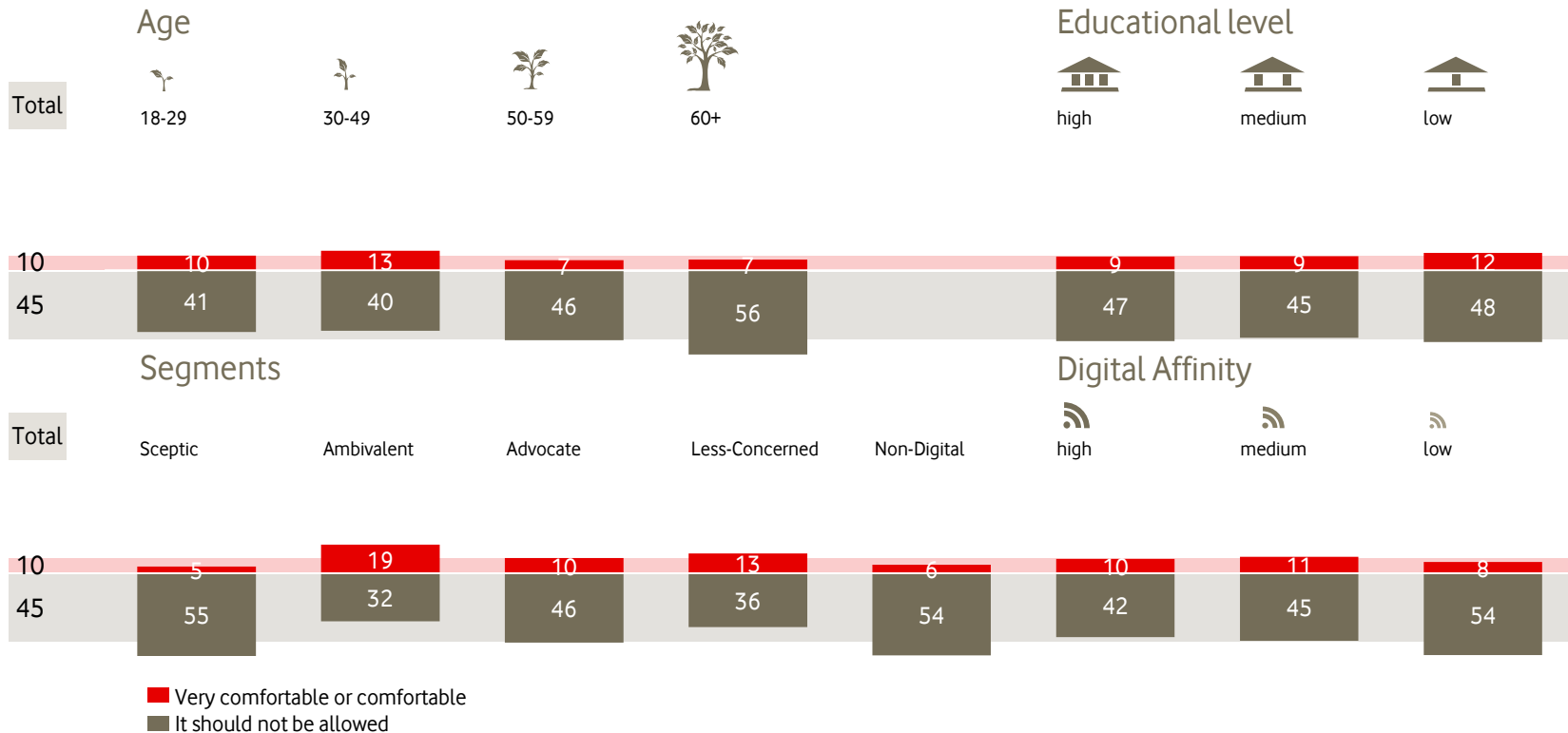


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Base: Respondents answering scenario (n= 2.671)



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%



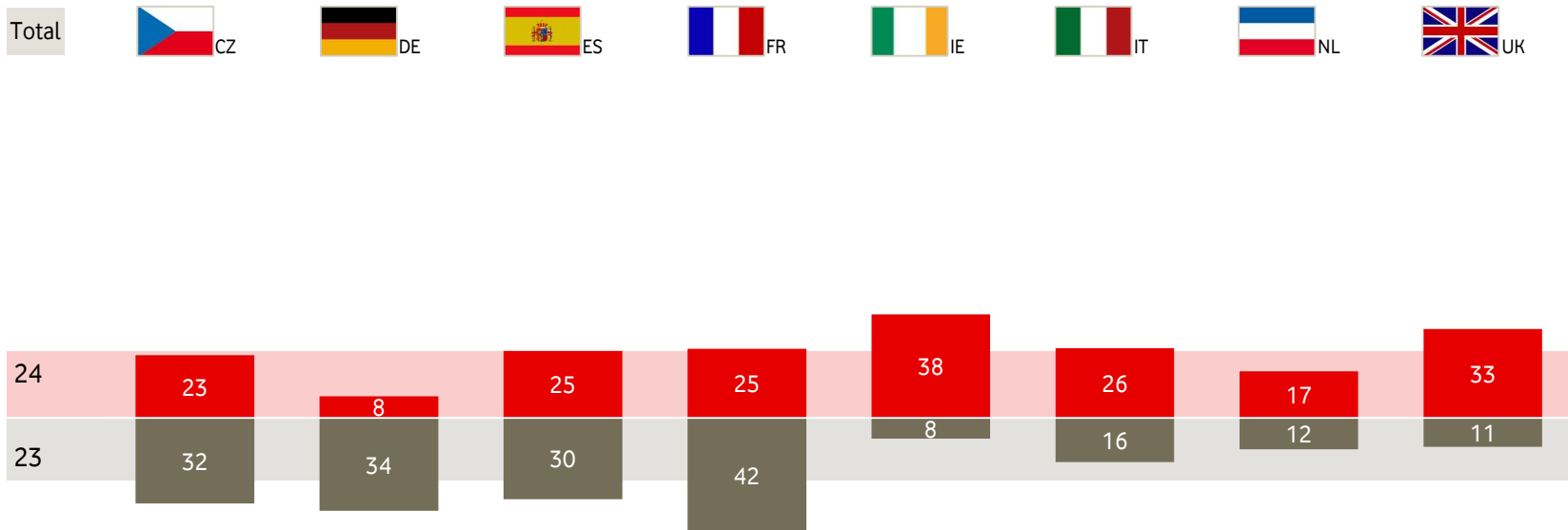
E01: Please imagine that you regularly visit a shop or use loyalty cards of a store. You have accepted to be contacted by the company. To what extent are you comfortable with the following scenarios?
 Base: Respondents answering scenario (n= 2.671)



The shop uses the data they collect and is able to realise that a change in your life has occurred (e. g. a child is born) and offers you special products based on this data.

Countries

%



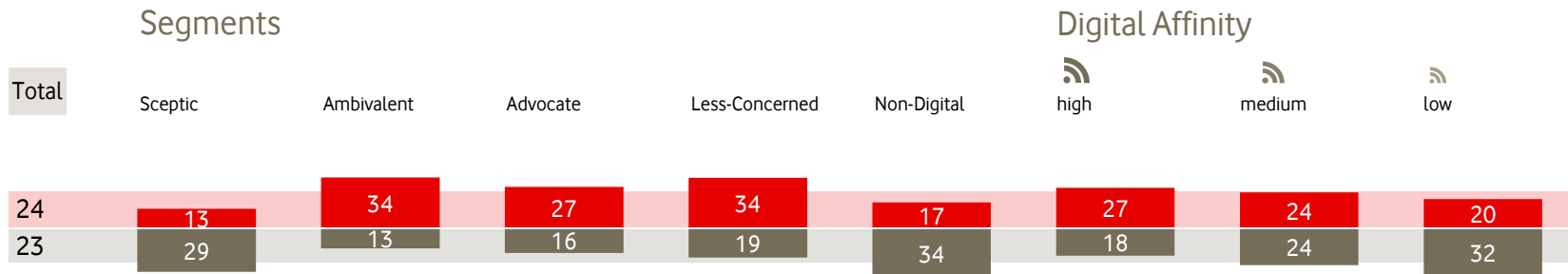
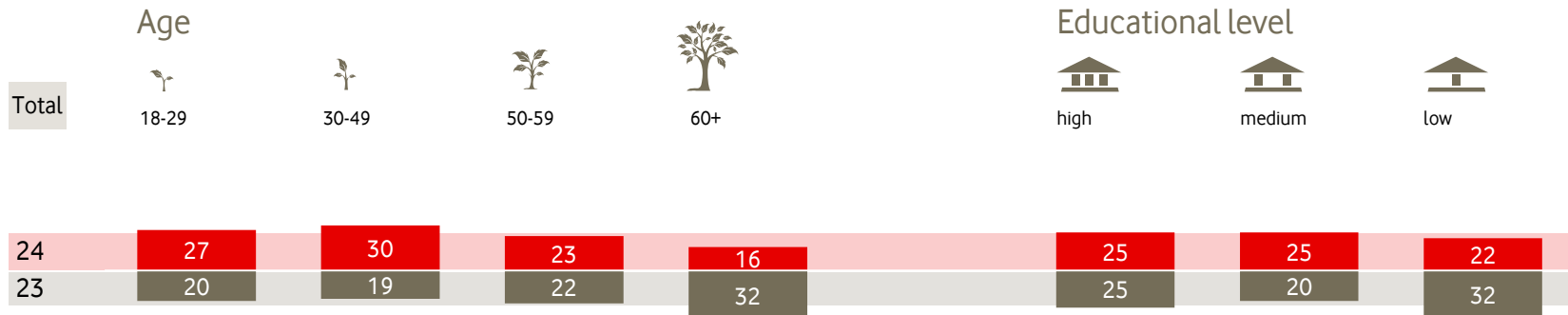
- Very comfortable or comfortable
- It should not be allowed

E01: Please imagine that you regularly visit a shop or use loyalty cards of a store. You have accepted to be contacted by the company. To what extent are you comfortable with the following scenarios?
Base: Respondents answering scenario (n= 2.671)



The shop uses the data they collect and is able to realise that a change in your life has occurred (e. g. a child is born) and offers you special products based on this data.

%



- Very comfortable or comfortable
- It should not be allowed

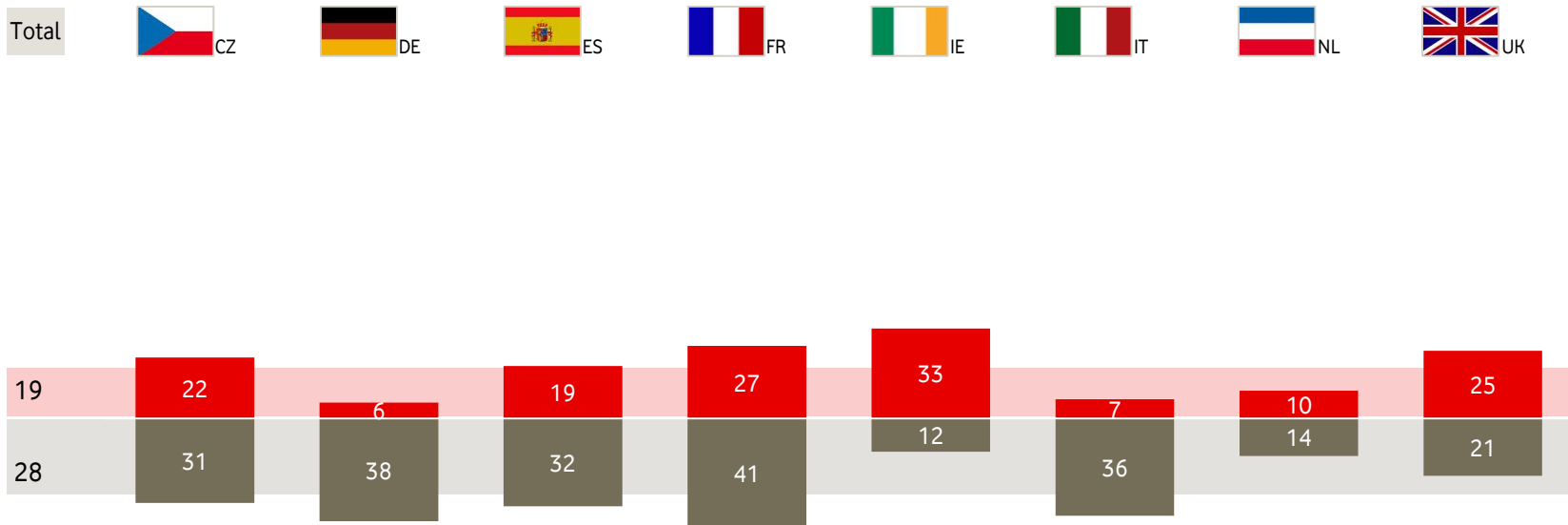
E01: Please imagine that you regularly visit a shop or use loyalty cards of a store. You have accepted to be contacted by the company. To what extent are you comfortable with the following scenarios?
Base: Respondents answering scenario (n= 2.671)



The shop uses the data they collect from your shopping habits to estimate your income and offers you suitable products based on that estimation.

Countries

%



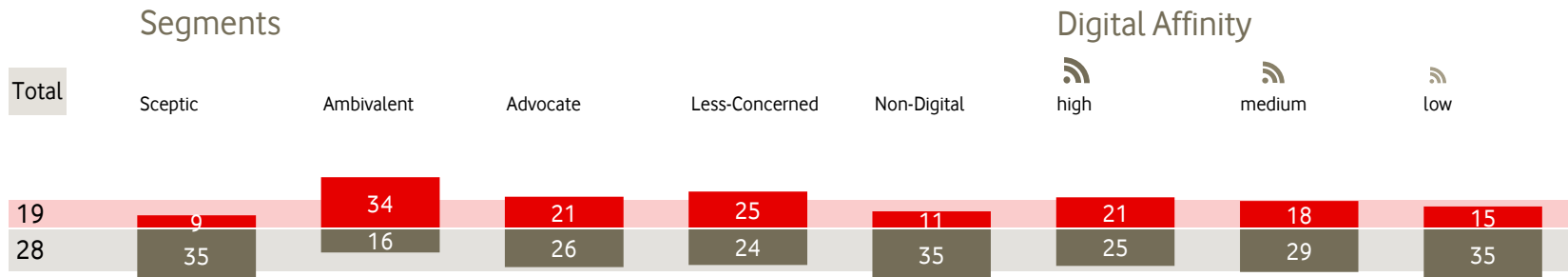
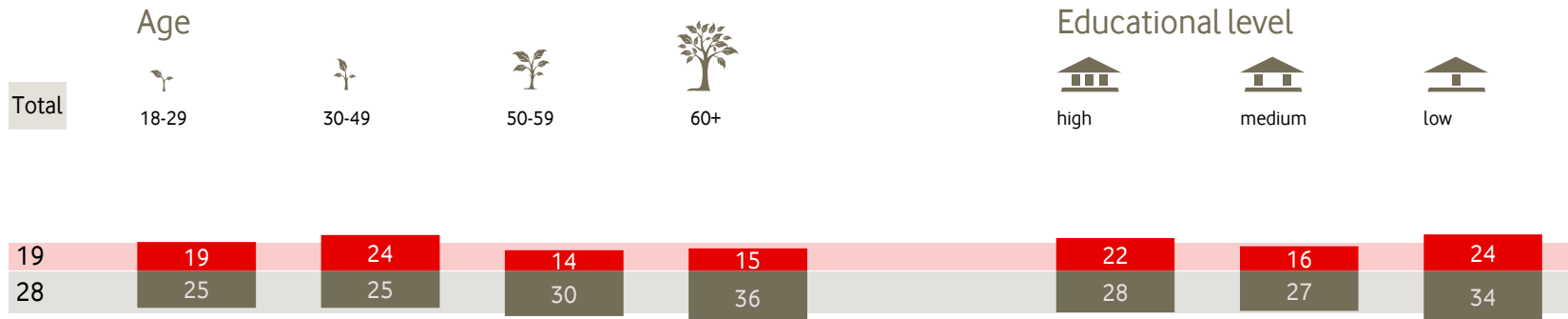
- Very comfortable or comfortable
- It should not be allowed

E01: Please imagine that you regularly visit a shop or use loyalty cards of a store. You have accepted to be contacted by the company. To what extent are you comfortable with the following scenarios?
Base: Respondents answering scenario (n= 2.671)



The shop uses the data they collect from your shopping habits to estimate your income and offers you suitable products based on that estimation.

%



■ Very comfortable or comfortable
■ It should not be allowed

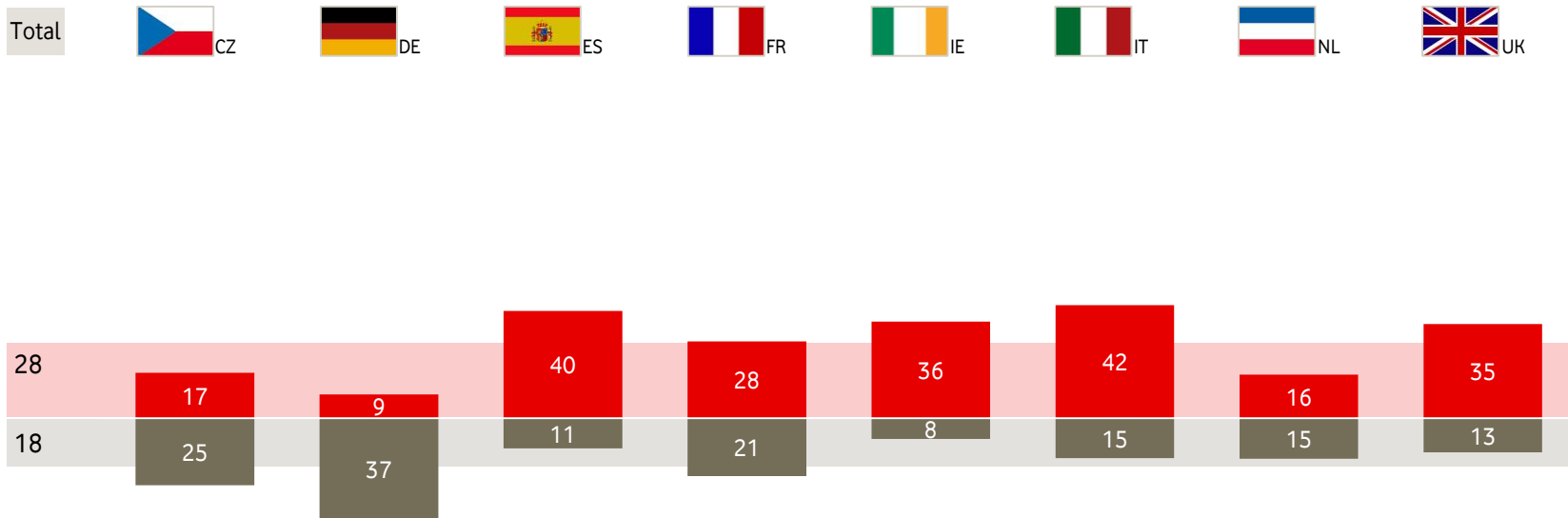
E01: Please imagine that you regularly visit a shop or use loyalty cards of a store. You have accepted to be contacted by the company. To what extent are you comfortable with the following scenarios?
 Base: Respondents answering scenario (n= 2.671)



You use the smartphone app of a shop, e.g. a supermarket chain. The app has access to your location and sends you special offers or information when you get close to a branch of the chain.

Countries

%



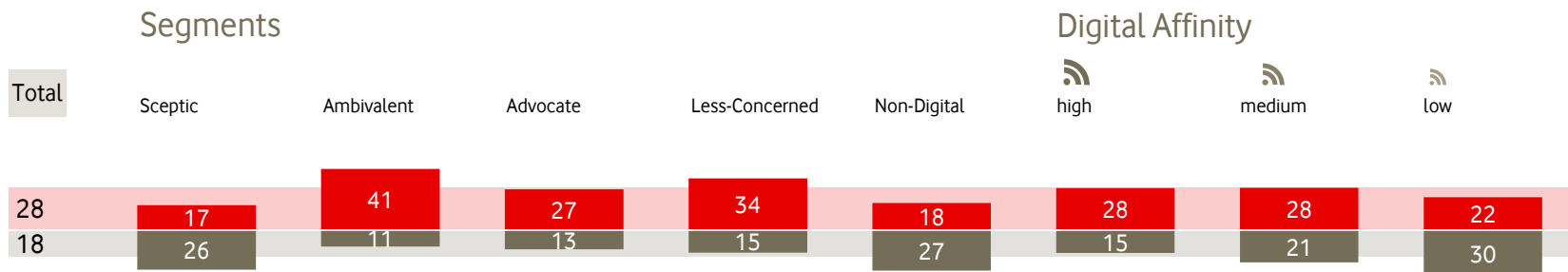
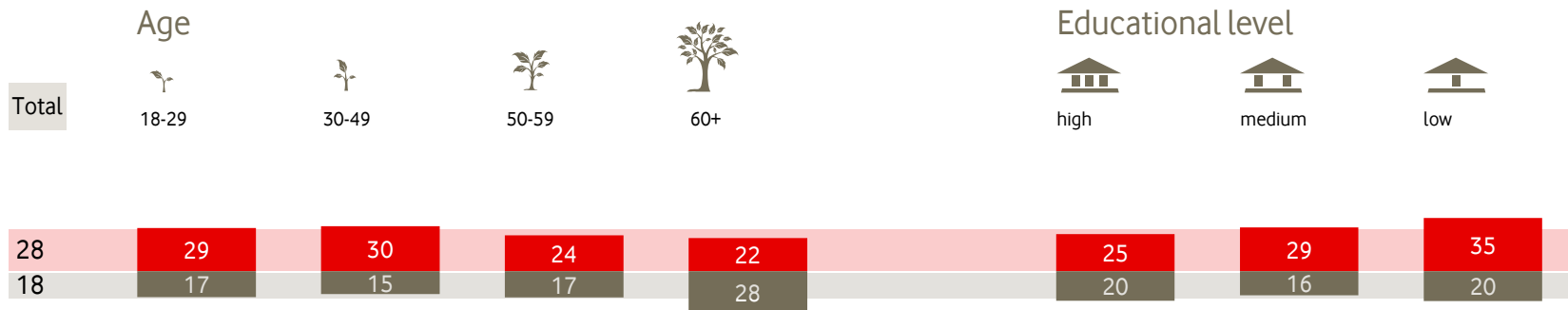
- Very comfortable or comfortable
- It should not be allowed

E01: Please imagine that you regularly visit a shop or use loyalty cards of a store. You have accepted to be contacted by the company. To what extent are you comfortable with the following scenarios?
Base: All respondents answering scenario and are smartphone users (n= 1.807)



You use the smartphone app of a shop [...]. The app has access to your location and sends you special offers or information when you get close to a branch of the chain.

%



- Very comfortable or comfortable
- It should not be allowed

E01: Please imagine that you regularly visit a shop or use loyalty cards of a store. You have accepted to be contacted by the company. To what extent are you comfortable with the following scenarios?
Base: All respondents answering scenario and are smartphone users (n= 1.807)



Scenario 3: Health, Clinical Diagnostics



Health, Clinical Diagnostics

Many experts say that the collection and analysis of patients' data will fundamentally change and improve medical research leading to the development of new and improved treatments, and thus help thousands of patients, while others see risks and potential disadvantages for individuals. How comfortable are you with the following scenarios?



Imagine your health data is to be shared with other companies, such as insurance companies, gyms and other health and lifestyle institutions.

“E-medical files are amazing because they are your medical files throughout Europe for allergies, etc. If something happens to you they already have your data.” (Qual-I)

“Insurers definitely should not own my data. They would know beforehand which illness I have, and the prices would increase.” (Qual-D)

“They don’t need my data to find a cure for a disease. Still, if it’s used for that purpose, that’s fine ... but if the pharmaceutical company uses it to sell you its products, that’s not ok.” (Qual-I)

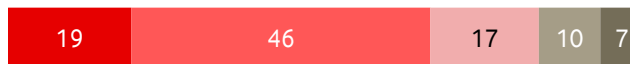
Main results

“Sending the data to the insurance company, I find that intrusive.” (Qual-I)

- Approximately two out of three respondents are comfortable handing over their personal health data to health institutions on an anonymous basis (lowest in Germany: 42%) with less comfort when it comes to sharing on a personal level.
- High resistance exists for insurance companies getting access to personal health data – 72% would deny permission (91% in Germany), UK less sceptical (40% would give permission).
- Less concern when it comes to analysis of personal health data with special apps or programmes: 59% don’t want their health and fitness data to be analysed in order to get health recommendations, 40% would be in favour (55% in Spain).
- Generally, Spain, Ireland and Italy are more comfortable with data collection and usage in this area, whilst Germany, but also France, are less comfortable.
- Respondents older than 50 and respondents with lower education, Non-Digitals and Sceptics feel less comfortable with health data collection and usage by health institutions.

%

Large amounts of people's health data should be collected and analysed on an anonymous basis by health institutions, [...], to **enable improvements in the detection and treatment of diseases.**



You would give these institutions access to your health data as long as it is **amalgamated, anonymised** and **only used for statistical/research purposes.**



You would give these institutions access to your health data and **trust that they would store and use it appropriately.**



You would give these institutions permission to **store and analyse your data as personal and identifiable data** as this could help to **cure a disease** you or others might have.



■ very comfortable ■ comfortable ■ neutral ■ uncomfortable ■ it should not be allowed

Would you give permission for your insurance to **access your health and fitness data so they can adapt your insurance rate** according to your health behaviour and fitness level, i.e. you pay more or less depending on your lifestyle?



Would you be happy for your health and fitness data to be analysed **by a special health programme** or smartphone app, and to **receive recommendations** on how to live a healthier life and prevent the onset of certain diseases?



■ Yes ■ No

Highest rate of comfort-ability or share of Yes

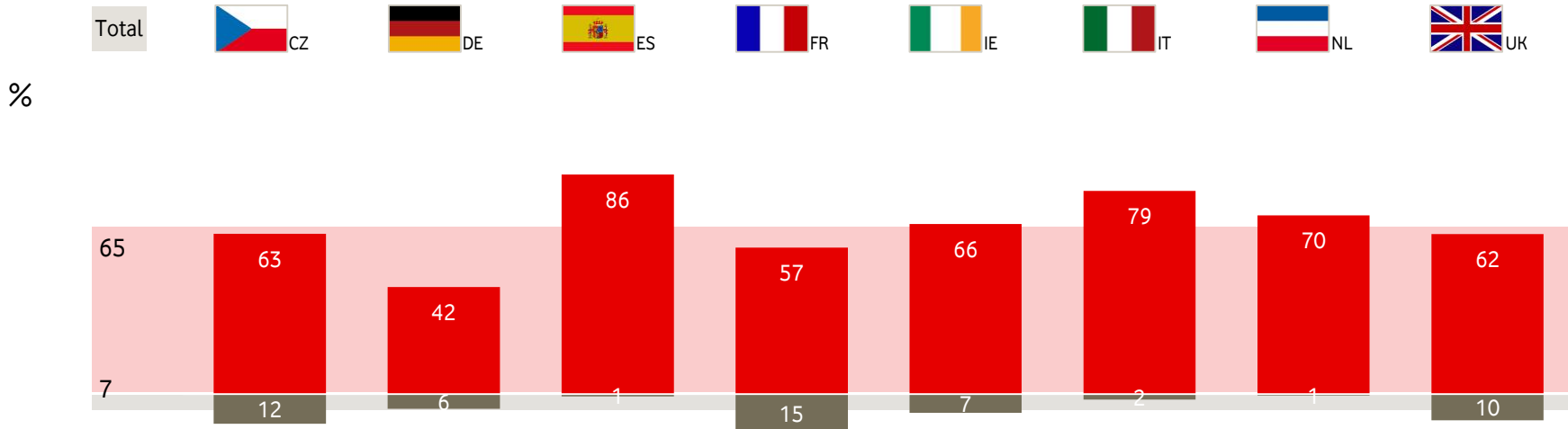
Country	Age	Educat.
ES	30-49	Medium/High
CZ	30-49	High
ES	30-49	Medium
ES	18-29	Medium
UK	30-49	Medium
IE	18-29	Medium

E02a: Many experts say that the collection and analysis of patients' data will fundamentally change and improve medical research leading to the development of new and improved treatments, and thus help thousands of patients, while others see risks and potential disadvantages for individuals. How comfortable are you with the following scenarios? E02b: Imagine your health data is to be shared with other companies, such as insurance companies, gyms and other health and lifestyle institutions. Missing values to 100%: no answer. Base: Respondents answering scenario (n= 2.650)



Large amounts of people's health data should be collected and analysed on an anonymous basis by health institutions, [...], to enable improvements in the detection and treatment of diseases

Countries

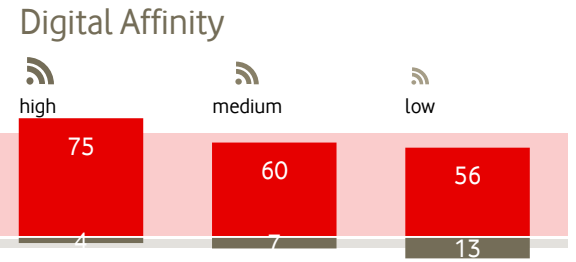
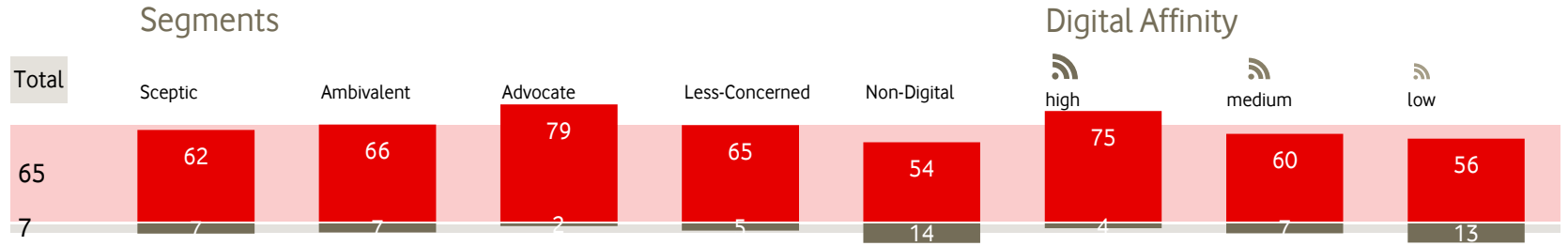
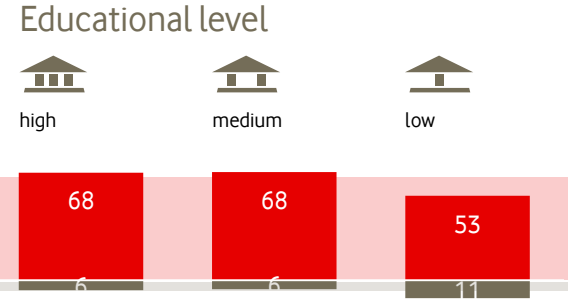
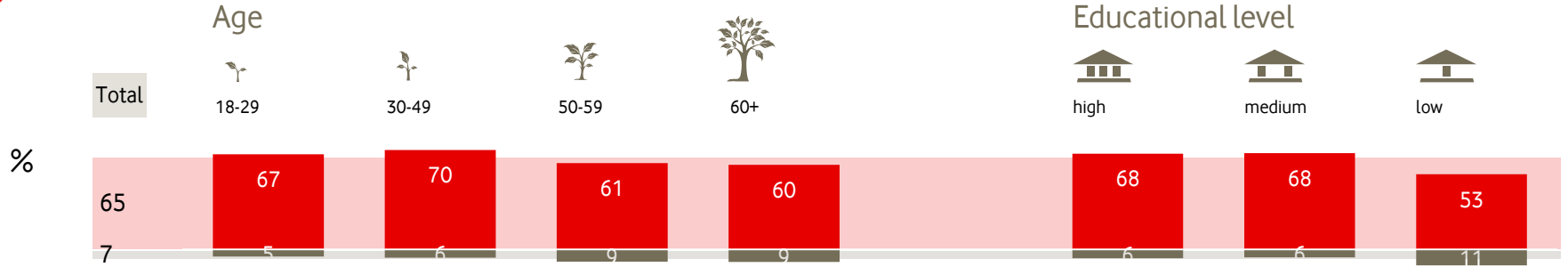


- Very comfortable or comfortable
- It should not be allowed

E02a: Many experts say that the collection and analysis of patients' data will fundamentally change and improve medical research leading to the development of new and improved treatments, and thus help thousands of patients, while others see risks and potential disadvantages for individuals. How comfortable are you with the following scenarios? Base: Respondents answering scenario (n= 2.650)



Large amounts of people's health data should be collected and analysed on an anonymous basis by health institutions, [...], to enable improvements in the detection and treatment of diseases



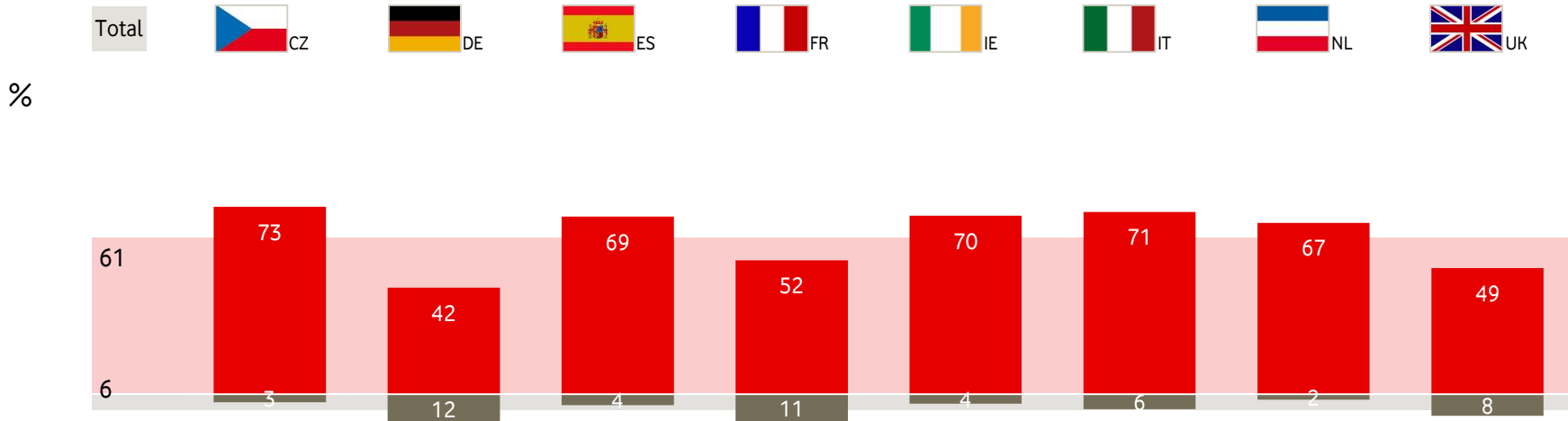
- Very comfortable or comfortable
- It should not be allowed

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You would give these institutions access to your health data as long as it is amalgamated, anonymised and only used for statistical/research purposes.

Countries

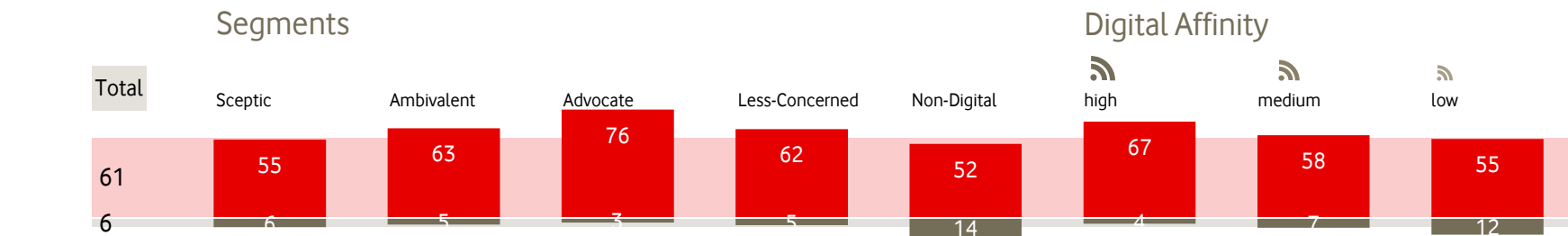
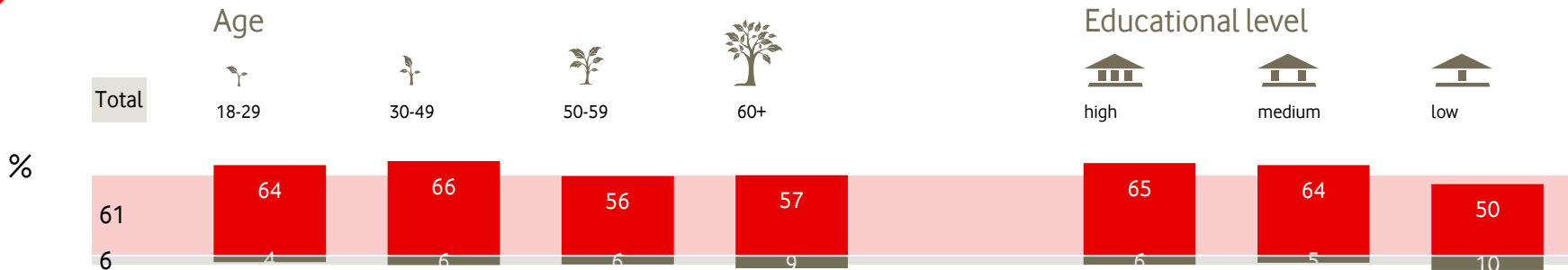


- Very comfortable or comfortable
- It should not be allowed

E02a: Many experts say that the collection and analysis of patients' data will fundamentally change and improve medical research leading to the development of new and improved treatments, and thus help thousands of patients, while others see risks and potential disadvantages for individuals. How comfortable are you with the following scenarios? Base: Respondents answering scenario (n= 2.650)



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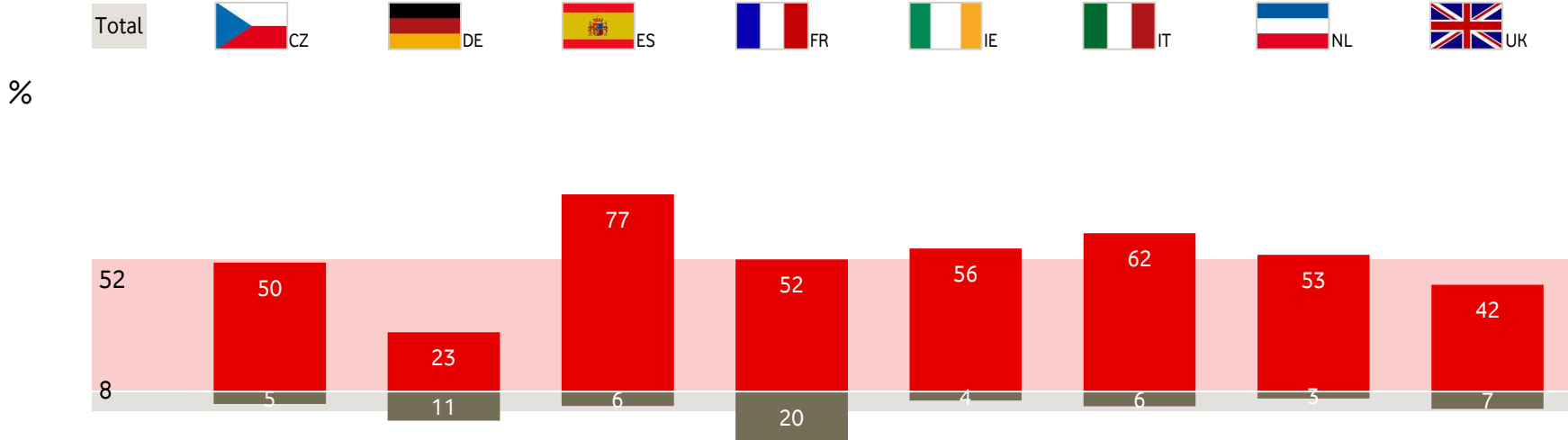
- Very comfortable or comfortable
- It should not be allowed

E02a: Many experts say that the collection and analysis of patients' data will fundamentally change and improve medical research leading to the development of new and improved treatments, and thus help thousands of patients, while others see risks and potential disadvantages for individuals. How comfortable are you with the following scenarios? Base: Respondents answering scenario (n= 2.650)



You would give these institutions access to your health data and trust that they would store and use it appropriately.

Countries

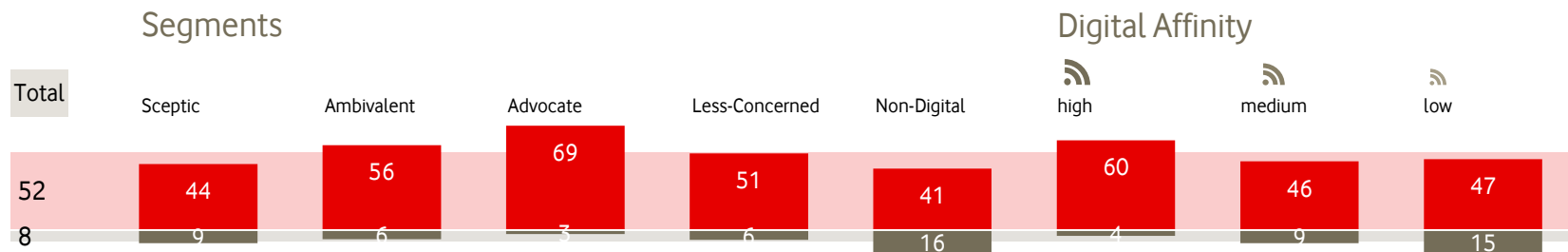
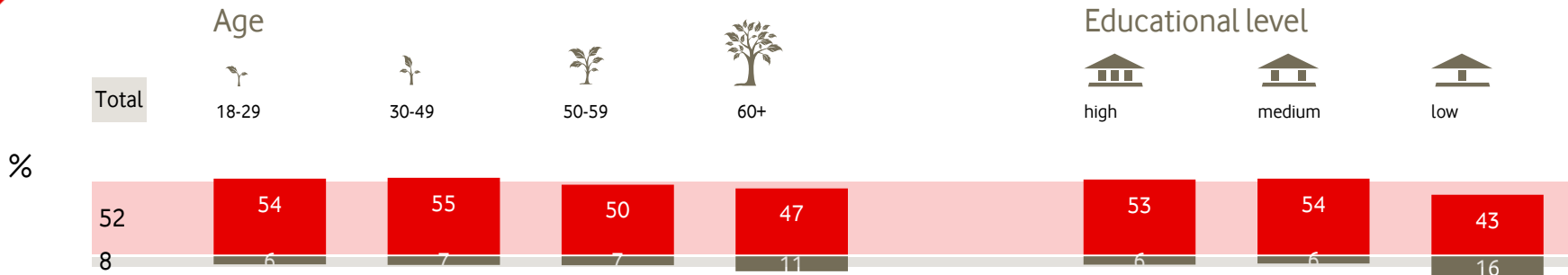


- Very comfortable or comfortable
- It should not be allowed

E02a: Many experts say that the collection and analysis of patients' data will fundamentally change and improve medical research leading to the development of new and improved treatments, and thus help thousands of patients, while others see risks and potential disadvantages for individuals. How comfortable are you with the following scenarios? Base: Respondents answering scenario (n= 2.650)



You would give these institutions access to your health data and trust that they would store and use it appropriately.



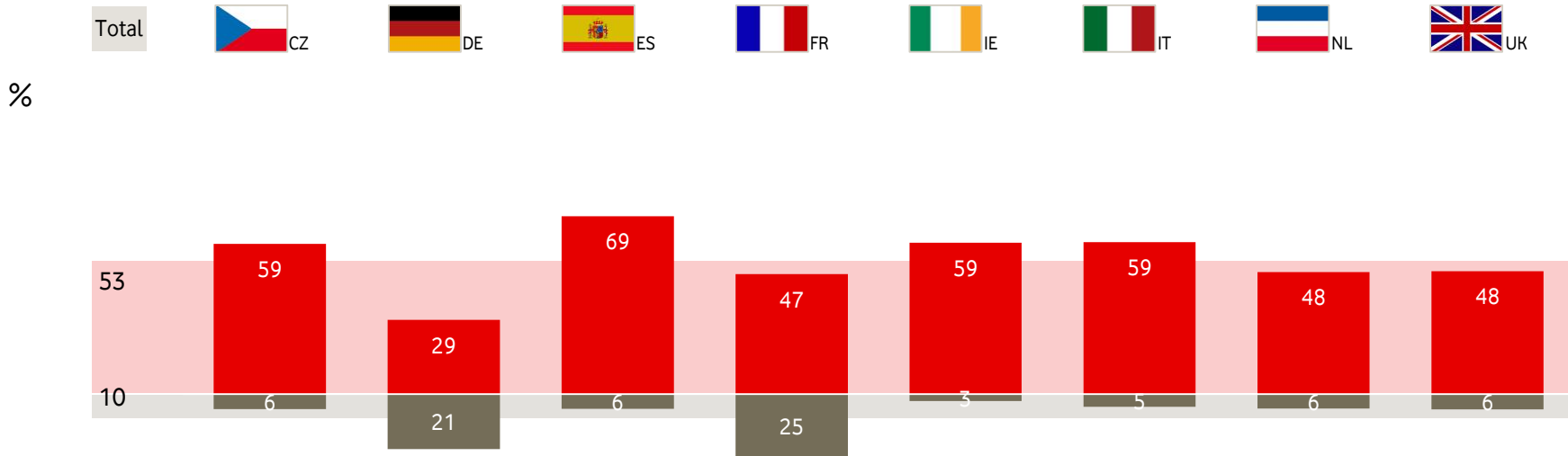
Very comfortable or comfortable
It should not be allowed

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You would give these institutions permission to store and analyse your data as personal and identifiable data as this could help to cure a disease you or others might have.

Countries

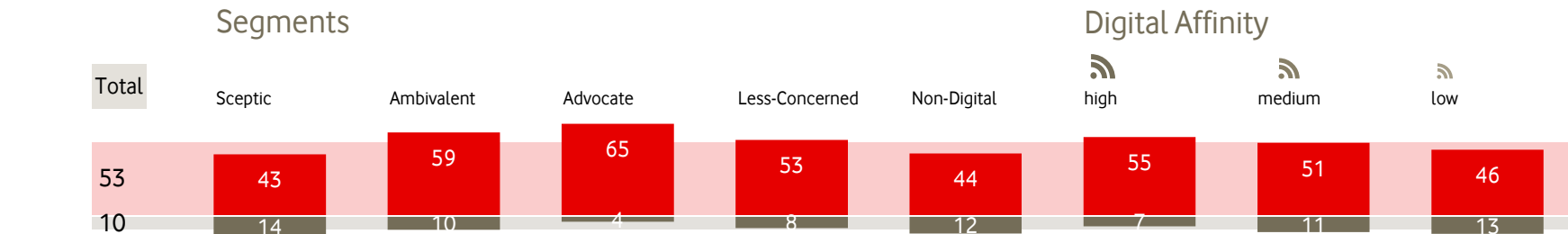
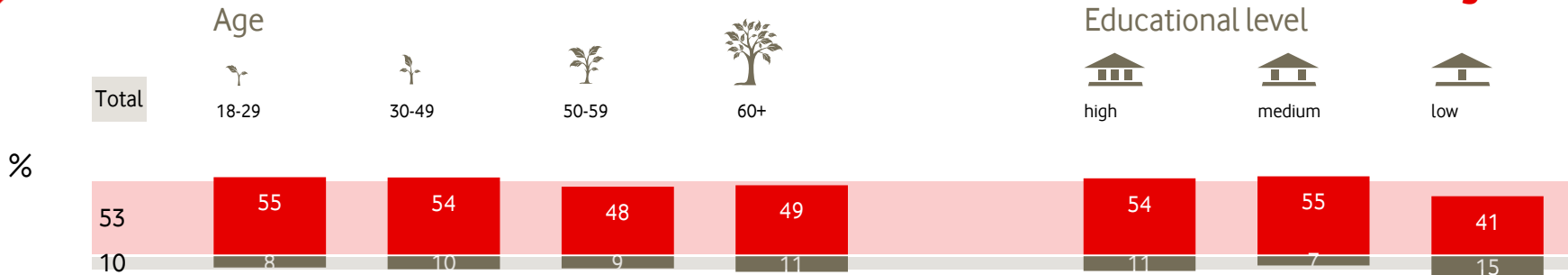


- Very comfortable or comfortable
- It should not be allowed

E02a: Many experts say that the collection and analysis of patients' data will fundamentally change and improve medical research leading to the development of new and improved treatments, and thus help thousands of patients, while others see risks and potential disadvantages for individuals. How comfortable are you with the following scenarios? Base: Respondents answering scenario (n= 2.650)



You would give these institutions permission to store and analyse your data as personal and identifiable data as this could help to cure a disease you or others might have.



Very comfortable or comfortable
It should not be allowed

E02a: Many experts say that the collection and analysis of patients' data will fundamentally change and improve medical research leading to the development of new and improved treatments, and thus help thousands of patients, while others see risks and potential disadvantages for individuals. How comfortable are you with the following scenarios? Base: Respondents answering scenario (n= 2.650)



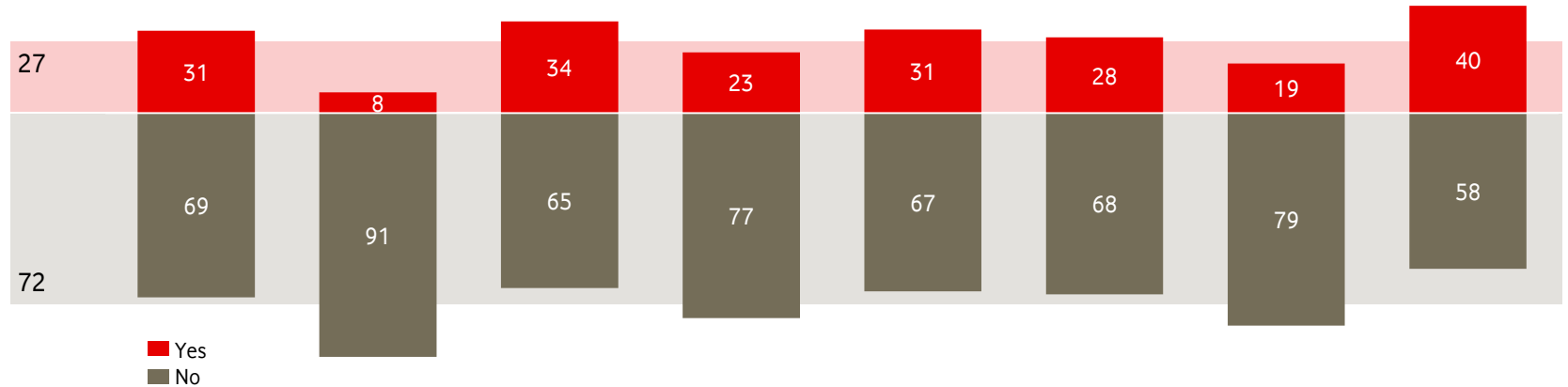
Would you give permission for your insurance to access your health and fitness data so they can adapt your insurance rate according to your health behaviour and fitness level, [...]?

Countries

Total



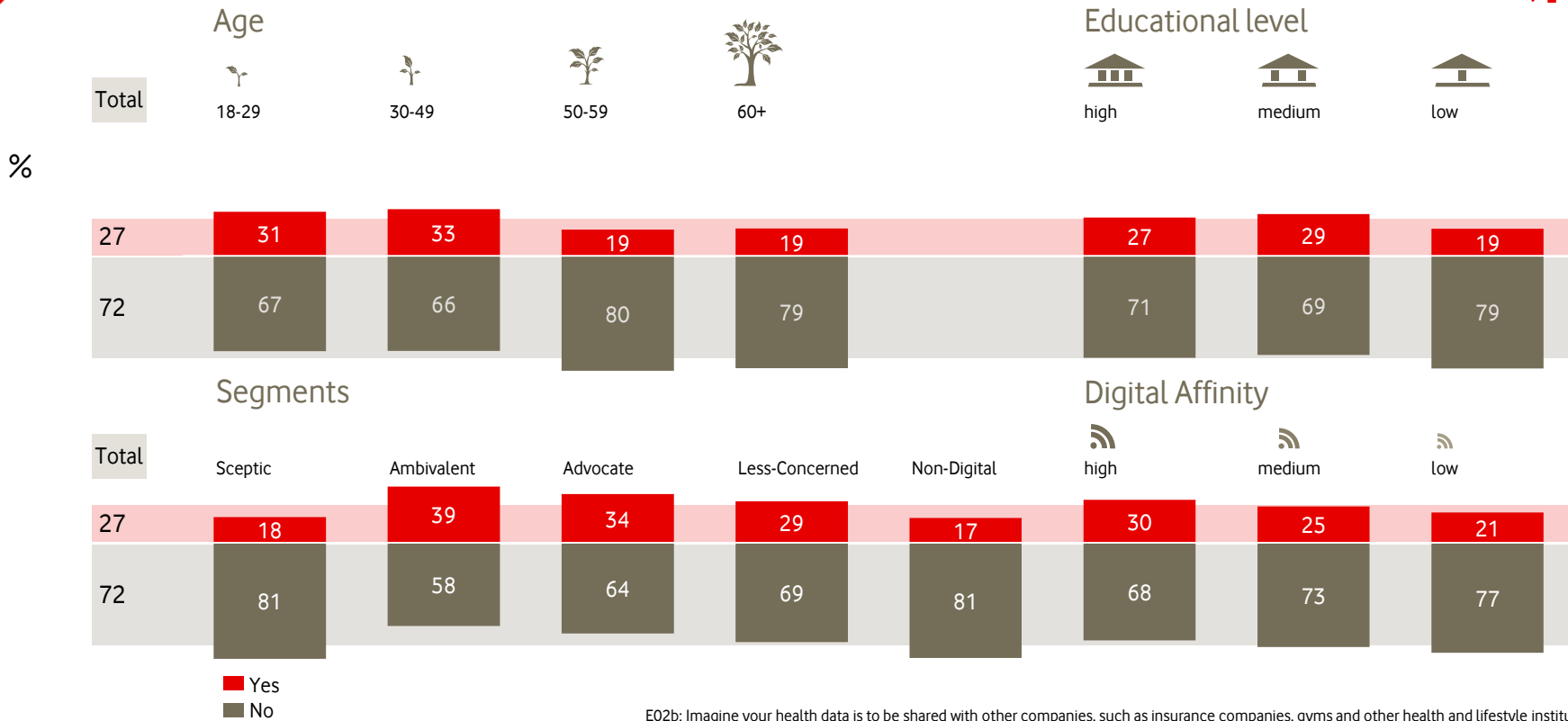
%



E02b: Imagine your health data is to be shared with other companies, such as insurance companies, gyms and other health and lifestyle institutions.
Base: Respondents answering scenario (n= 2.650)



Would you give permission for your insurance to access your health and fitness data so they can adapt your insurance rate according to your health behaviour and fitness level, [...]?

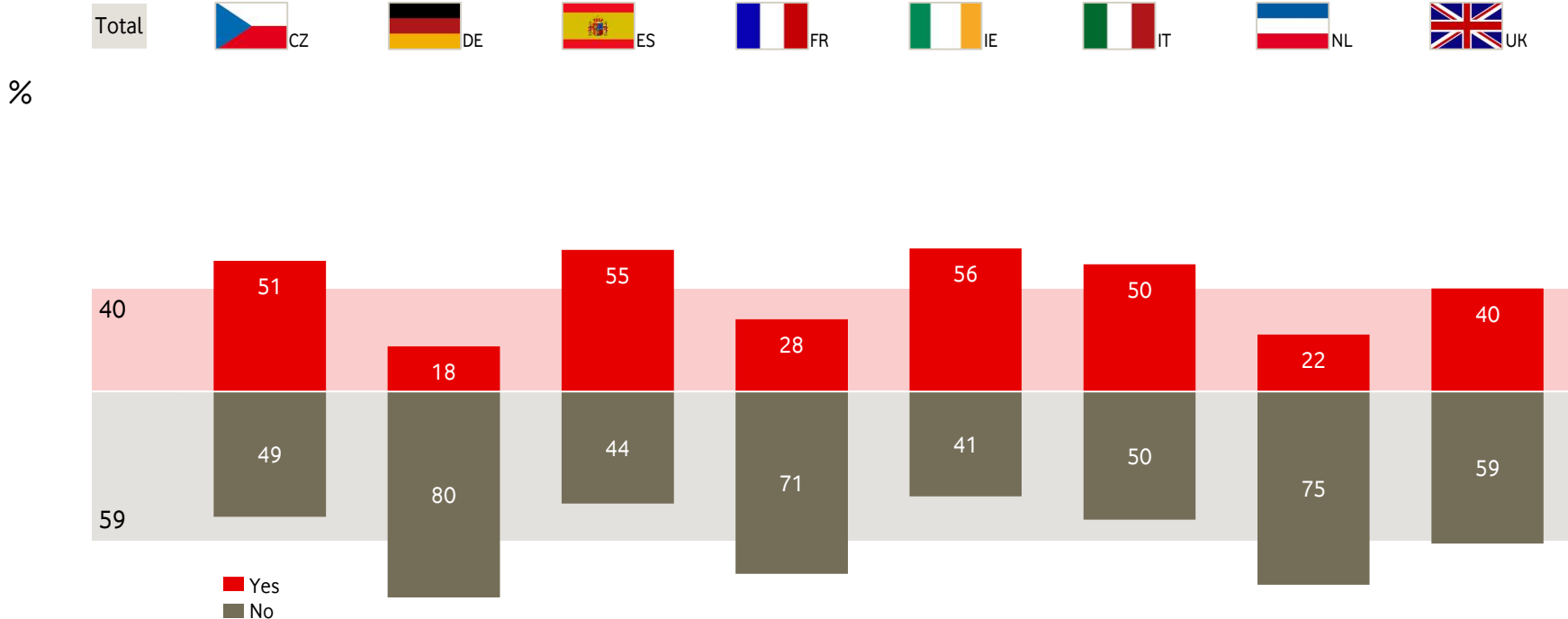


E02b: Imagine your health data is to be shared with other companies, such as insurance companies, gyms and other health and lifestyle institutions.
Base: Respondents answering scenario (n= 2.650)



Would you be happy for your health and fitness data to be analysed by a special health programme or smartphone app, and to receive recommendations on how to live a healthier life and prevent the onset of certain diseases?

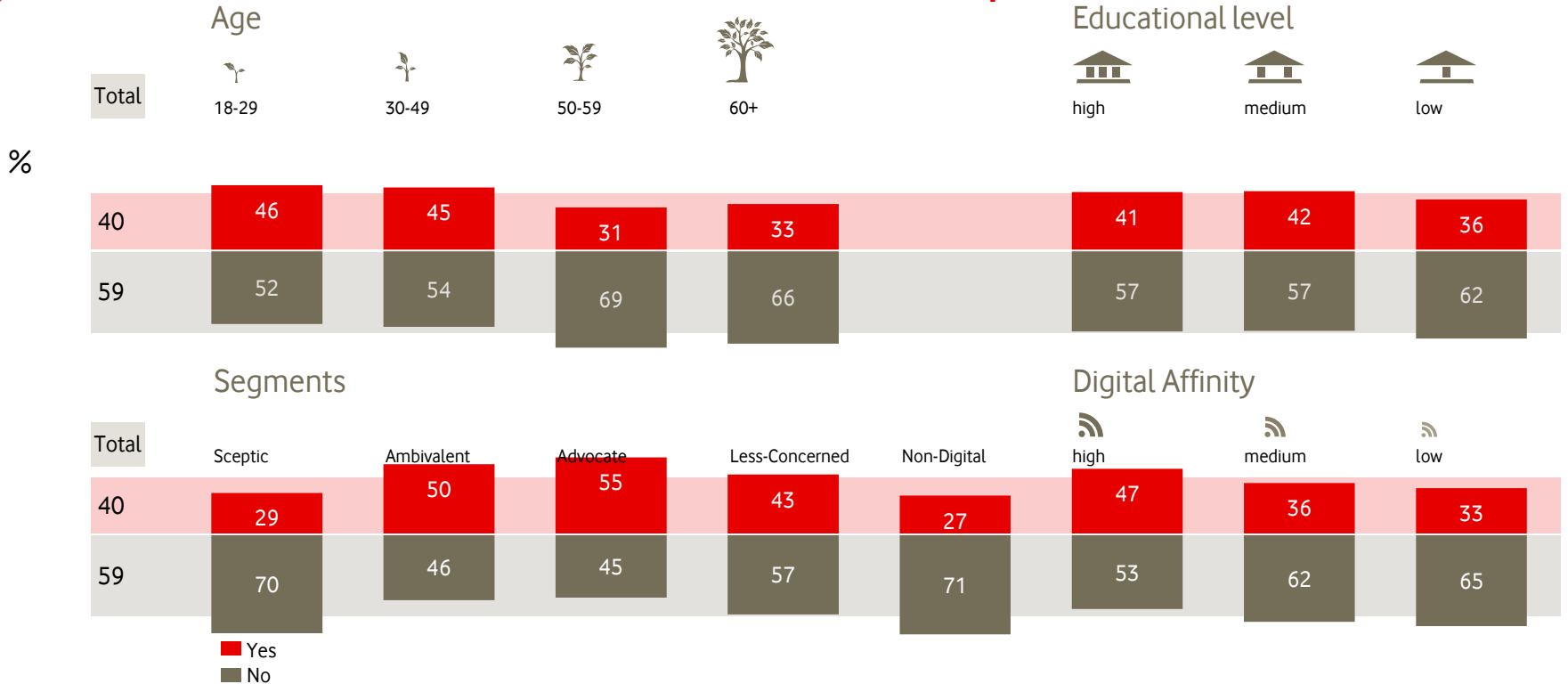
Countries



E02b: Imagine your health data is to be shared with other companies, such as insurance companies, gyms and other health and lifestyle institutions.
Base: Respondents answering scenario (n= 2.650)



Would you be happy for your health and fitness data to be analysed by a special health programme or smartphone app, and to receive recommendations on how to live a healthier life and prevent the onset of certain diseases?



E02b: Imagine your health data is to be shared with other companies, such as insurance companies, gyms and other health and lifestyle institutions.
Base: Respondents answering scenario (n= 2.650)



Scenario 4: Smart Meter, Smart Home



Smart Meter, Smart Home

In many countries smart meters have been installed in people's homes. They automatically send your energy company the amount of power you use. If such a device were installed in your home, to what extent would you be comfortable with the following scenarios?



Programmable thermostats are now also available along with other devices which can be used remotely to control the use of functions such as lighting, heating and the ability to turn appliances off and on.



"It's unsettling to know that someone may know my habits." (Qual-I)

"I think I'm from a different century. Imagining scanning my butter before I put it back into the fridge, and finding the supplier standing there when I come back from sports on Friday is just creepy." (Qual-D)

Main results

"It's a tangible use, for example you can turn the heating on in your mountain house." (Qual-I)

- Half of respondents are comfortable with smart meters measuring household consumption for bills (47%) and the offer of special rates and recommendations (50%).
- Over a third are comfortable with software that uses the data to know when they are home and adapt heating and lighting accordingly (37%) and tracking their location for it (37%).
- High drop in agreement levels when it comes to the possibility of having the personal data sold by the energy supplier: 38%: low comfort; 35%: should not be allowed.
- Almost 7 out of 10 (68%) welcome smart heaters as a good thing to reduce energy consumption and save the environment (highest UK: 75%, lowest France: 55%), while 44% would feel uncomfortable with a smart meter thermostat analysing their daily routine.
- Germans, people age 60+ and Non-Digitals are less comfortable with data collection and usage in this area.



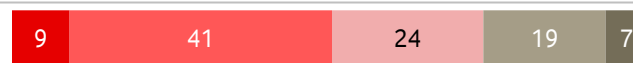
Smart Meter, Smart Home

%

The smart meter measures precisely your **daily household consumption and bills you accordingly.**



Your **energy supplier** uses the data generated to **offer you special rates** based on your individual consumption pattern and makes **recommendations** about your energy use.



Your energy supplier **sells your data to a third party on an anonymised** and aggregated basis.



Using the data generated by the use of these products, the **software knows when you are at home**, when you are up or **asleep** and when you are on **holiday** and **adapts your heating** and/or lighting accordingly.



The software of the thermostat is **tracking your location** and begins **warming your house** as soon as your car approaches.



■ very comfortable ■ comfortable ■ neutral ■ uncomfortable ■ it should not be allowed

Smart meters for heating are a good thing, because they help to **evaluate your energy consumption** and help to **save the environment** through reduction of the use of natural resources.



■ Yes

■ No

Highest rate of comfort-ability or share of Yes

Country	Age	Educat.
ES	50-59	High
ES	30-49	Medium/High
FR	18-29/30-49	Medium/High
ES	18-29	Medium
IE	30-49	Medium/High
UK	30-49	High

E04a: In many countries smart meters have been installed in people's homes. They automatically send your energy company the amount of power you use. [...], to what extent would you be comfortable with the following scenarios? E04b: Programmable thermostats are now also available along with other devices which can be used remotely to control the use of functions such as lighting, heating and the ability to turn appliances off and on. E04c: Smart meters for heating are a good thing, because they help to evaluate your energy consumption and help to save the environment through reduction of the use of natural resources.

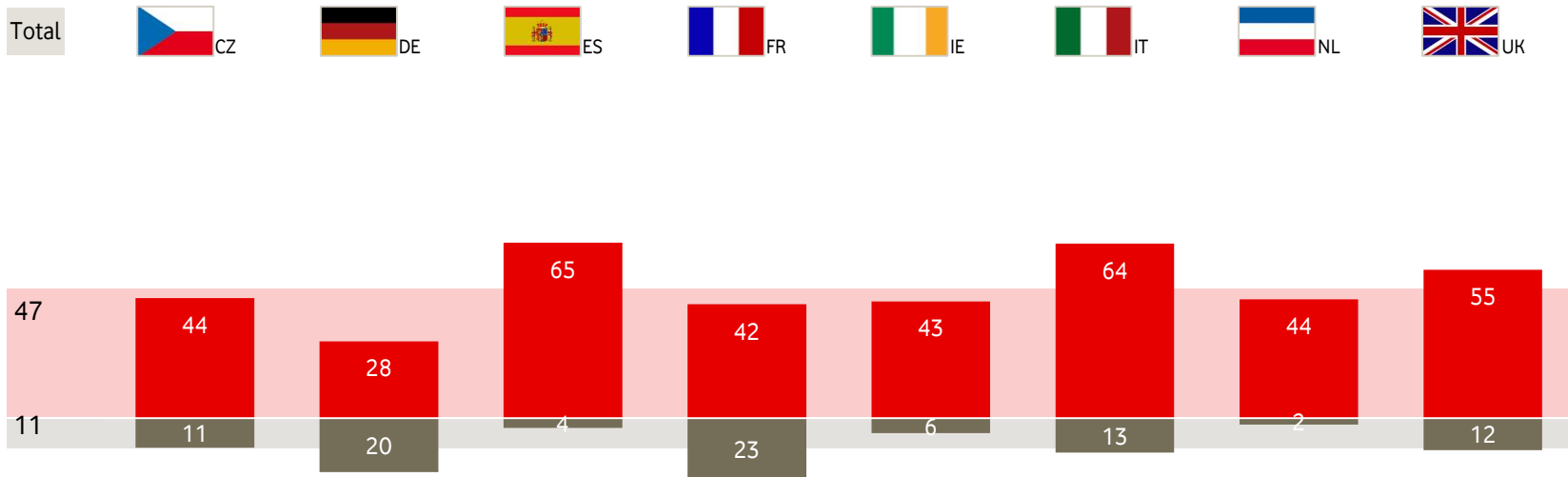
Missing values to 100%: no answer. Base: Respondents answering scenario (n= 2.653)



The smart meter measures precisely your daily household consumption and bills you accordingly.

Countries

%

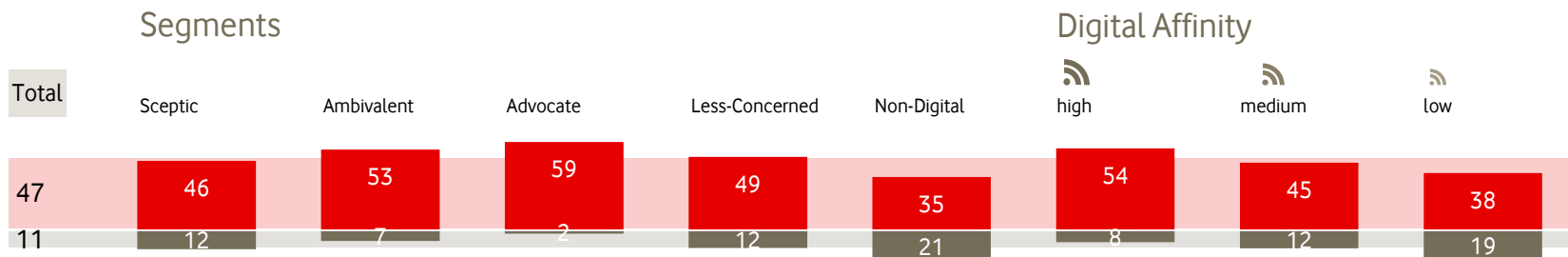
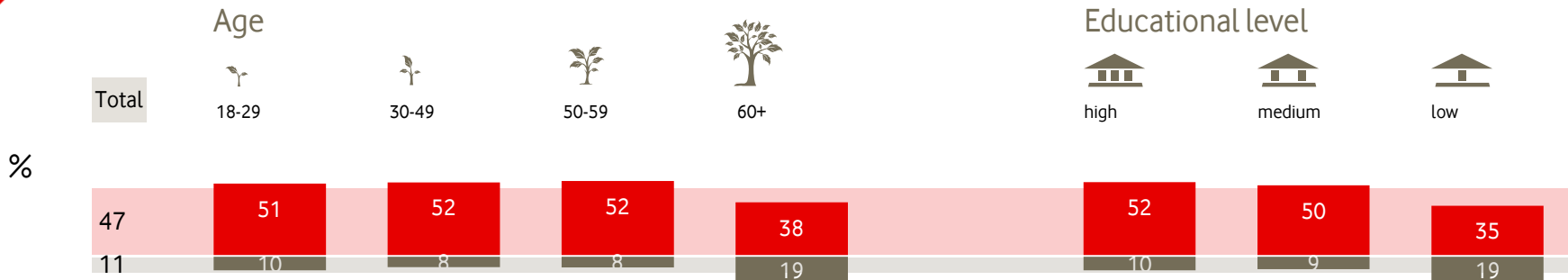


- Very comfortable or comfortable
- It should not be allowed

E04a: In many countries smart meters have been installed in people's homes. They automatically send your energy company the amount of power you use. If such a device were installed in your home, to what extent would you be comfortable with the following scenarios? Base: Respondents answering scenario (n= 2.653)



The smart meter measures precisely your daily household consumption and bills you accordingly.



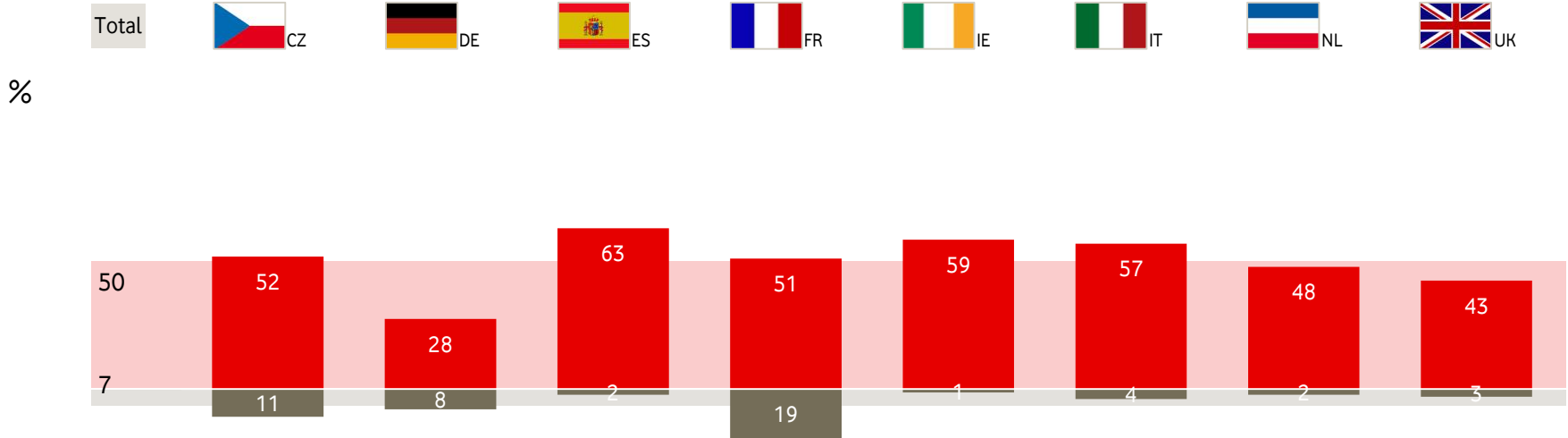
■ Very comfortable or comfortable
■ It should not be allowed

E04a: In many countries smart meters have been installed in people's homes. They automatically send your energy company the amount of power you use. If such a device were installed in your home, to what extent would you be comfortable with the following scenarios? Base: Respondents answering scenario (n= 2.653)



Your energy supplier uses the data generated to offer you special rates based on your individual consumption pattern and makes recommendations about your energy use.

Countries

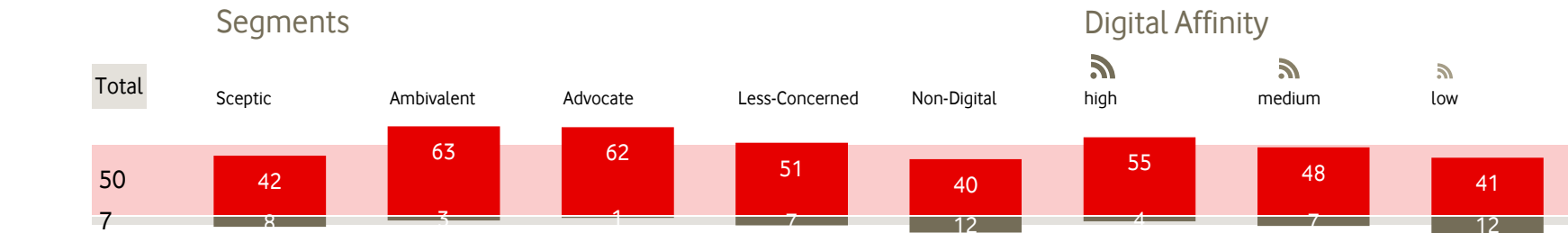
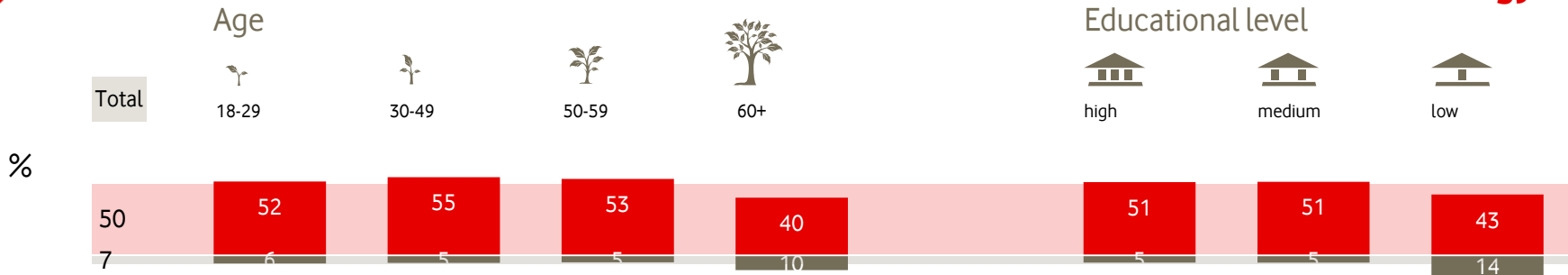


- Very comfortable or comfortable
- It should not be allowed

E04a: In many countries smart meters have been installed in people's homes. They automatically send your energy company the amount of power you use. If such a device were installed in your home, to what extent would you be comfortable with the following scenarios? Base: Respondents answering scenario (n= 2.653)



Your energy supplier uses the data generated to offer you special rates based on your individual consumption pattern and makes recommendations about your energy use.



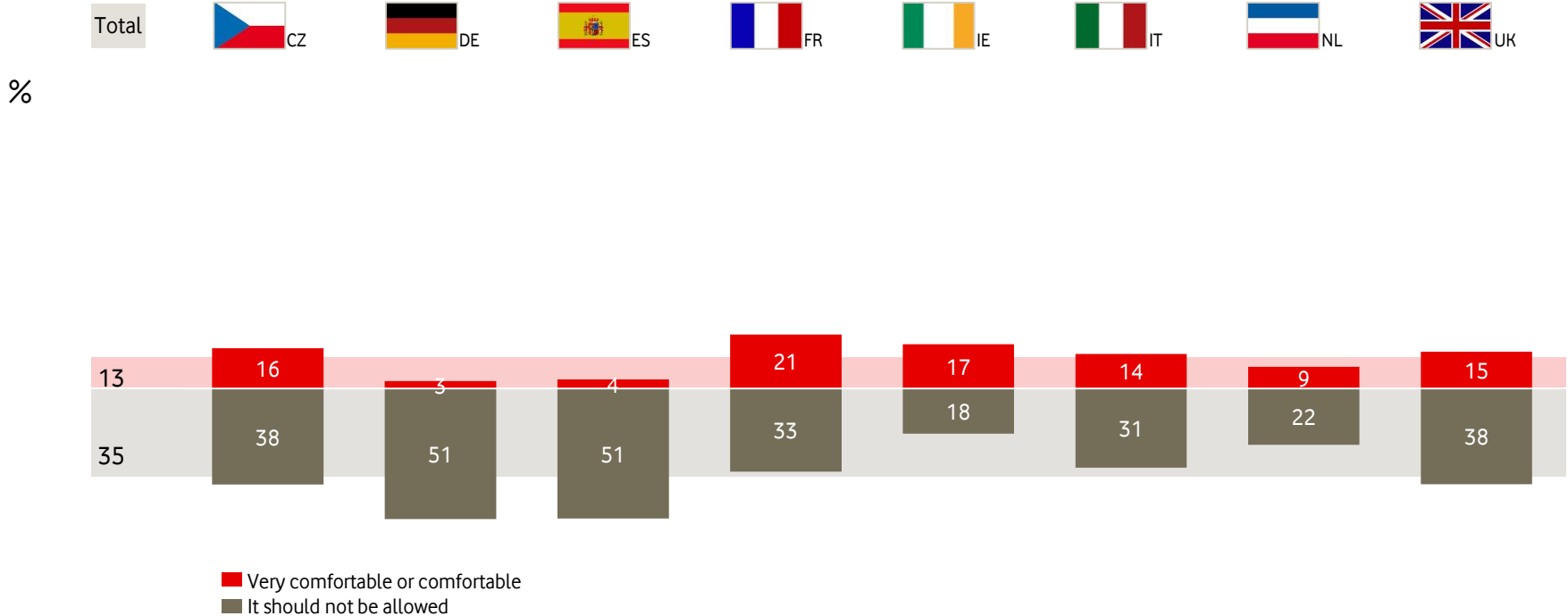
■ Very comfortable or comfortable
■ It should not be allowed

E04a: In many countries smart meters have been installed in people's homes. They automatically send your energy company the amount of power you use. If such a device were installed in your home, to what extent would you be comfortable with the following scenarios? Base: Respondents answering scenario (n= 2.653)



Your energy supplier sells your data to a third party on an anonymised and aggregated basis.

Countries

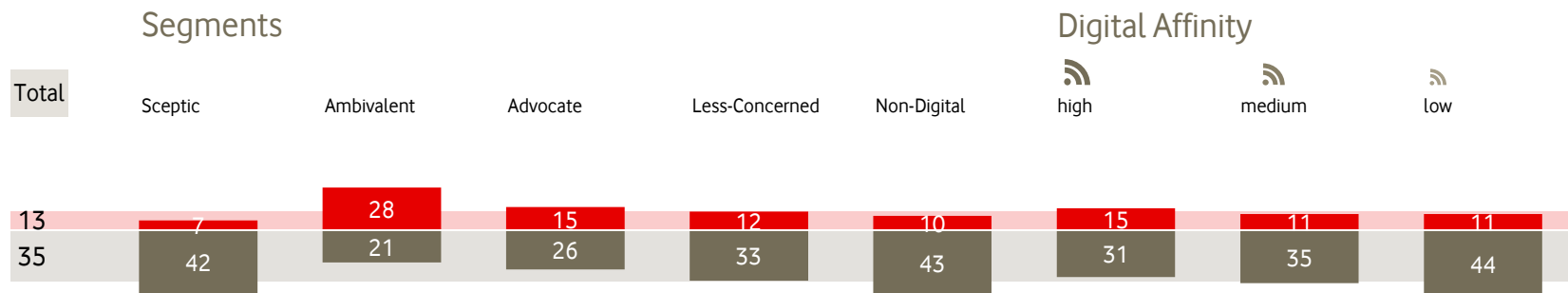
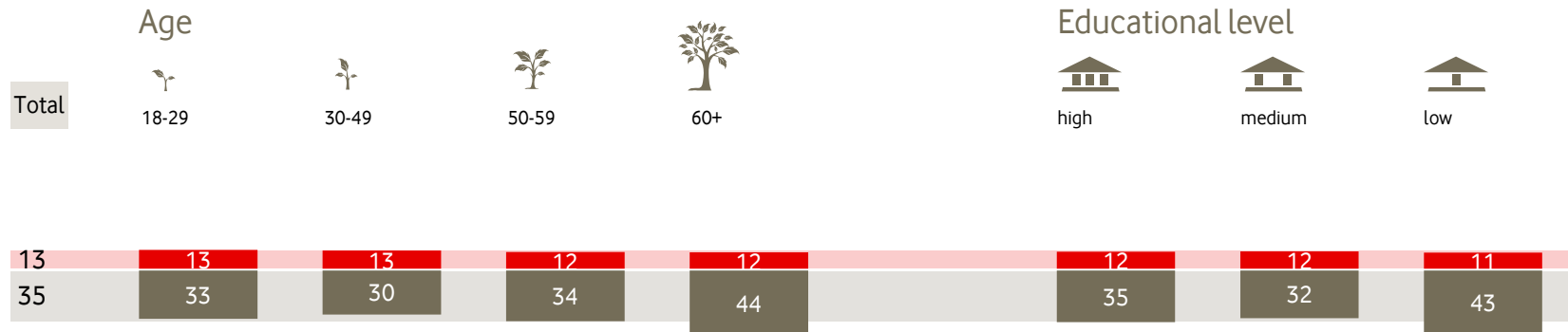


E04a: In many countries smart meters have been installed in people's homes. They automatically send your energy company the amount of power you use. If such a device were installed in your home, to what extent would you be comfortable with the following scenarios? Base: Respondents answering scenario (n= 2.653)



Your energy supplier sells your data to a third party on an anonymised and aggregated basis.

%



■ Very comfortable or comfortable
■ It should not be allowed

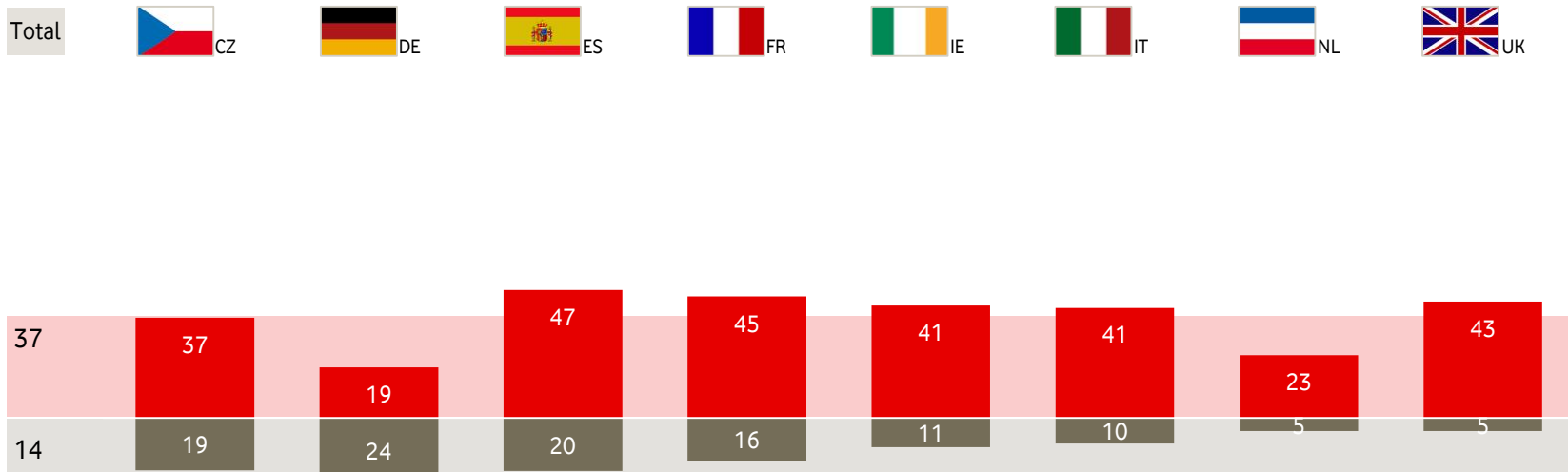
E04a: In many countries smart meters have been installed in people's homes. They automatically send your energy company the amount of power you use. If such a device were installed in your home, to what extent would you be comfortable with the following scenarios? Base: Respondents answering scenario (n= 2.653)



Using the data generated by the use of these products, the software knows when you are at home, when you are up or asleep and when you are on holiday and adapts your heating and/or lighting accordingly.

Countries

%

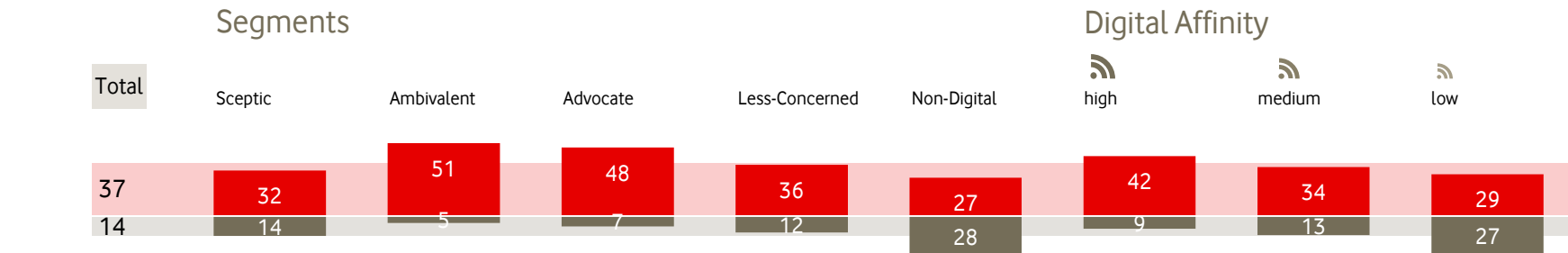
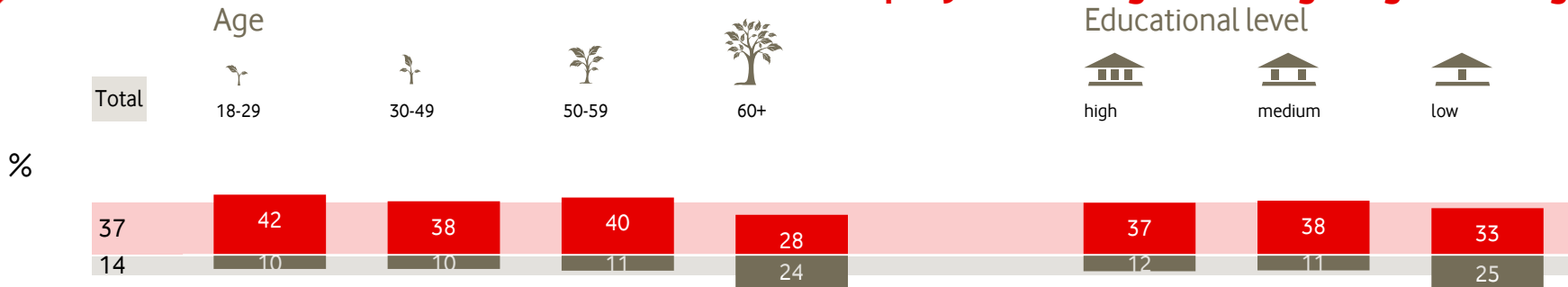


- Very comfortable or comfortable
- It should not be allowed

E04b: Programmable thermostats are now also available along with other devices which can be used remotely to control the use of functions such as lighting, heating and the ability to turn appliances off and on. Thinking about these kinds of products, how comfortable are you with the following scenarios? Base: Respondents answering scenario (n= 2.653)



Using the data generated by the use of these products, the software knows when you are at home, when you are up or asleep and when you are on holiday and adapts your heating and/or lighting accordingly.



Very comfortable or comfortable
It should not be allowed

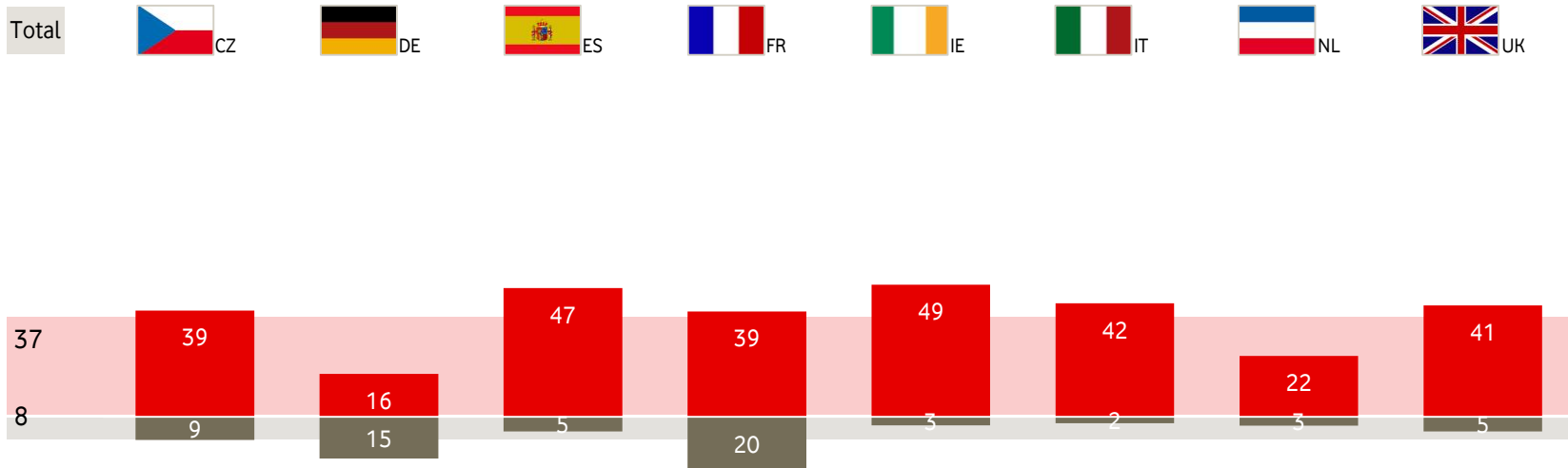
E04b: Programmable thermostats are now also available along with other devices which can be used remotely to control the use of functions such as lighting, heating and the ability to turn appliances off and on. Thinking about these kinds of products, how comfortable are you with the following scenarios? Base: Respondents answering scenario (n= 2.653)



The software of the thermostat is tracking your location and begins warming your house as soon as your car approaches.

Countries

%

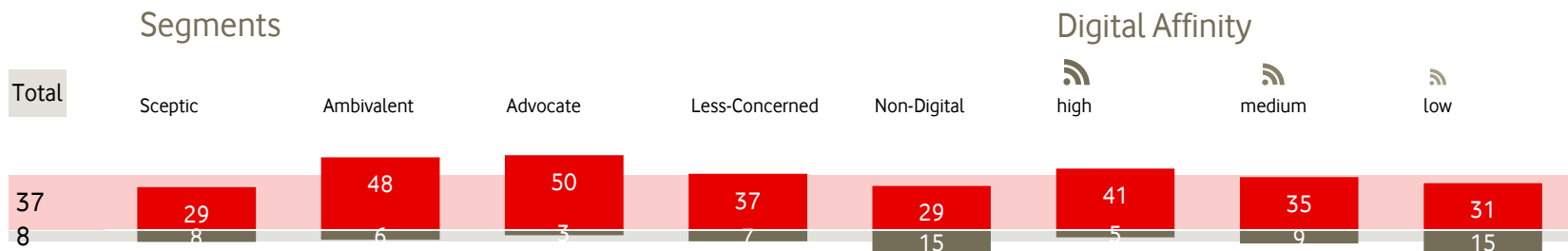
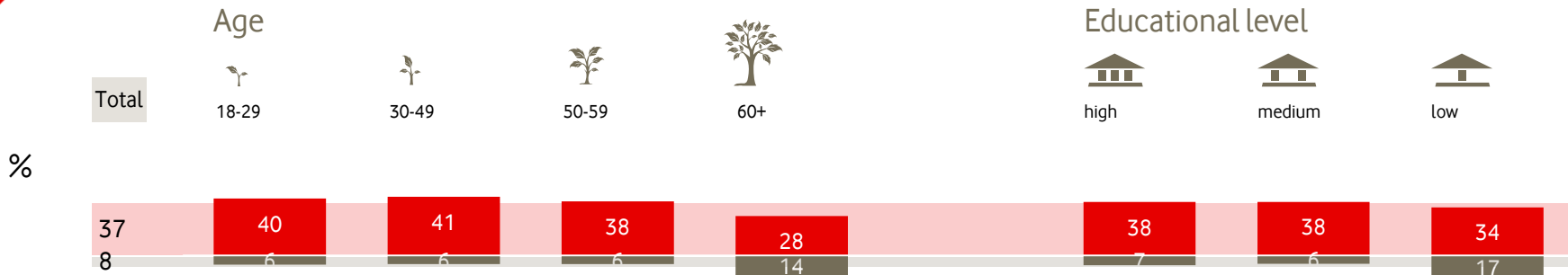


- Very comfortable or comfortable
- It should not be allowed

E04b: Programmable thermostats are now also available along with other devices which can be used remotely to control the use of functions such as lighting, heating and the ability to turn appliances off and on. Thinking about these kinds of products, how comfortable are you with the following scenarios? Base: Respondents answering scenario (n= 2.653)



The software of the thermostat is tracking your location and begins warming your house as soon as your car approaches.



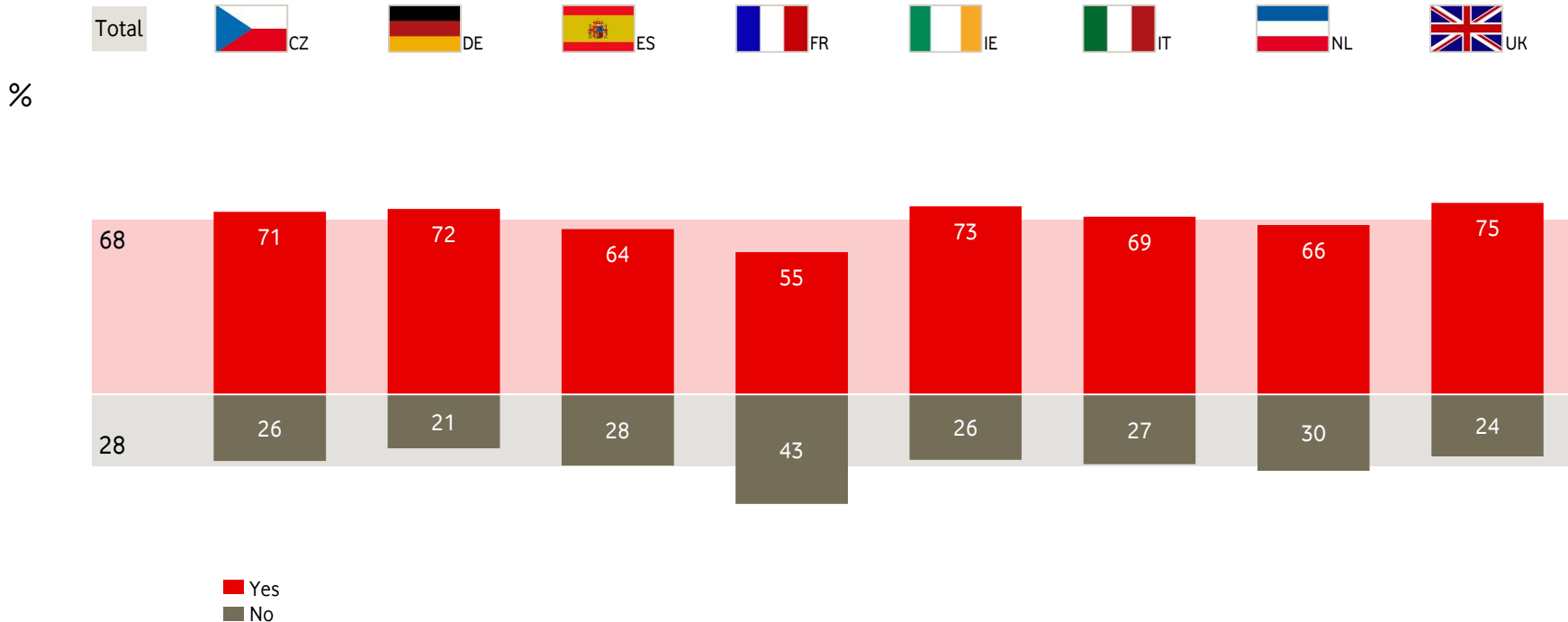
Very comfortable or comfortable
It should not be allowed

E04b: Programmable thermostats are now also available along with other devices which can be used remotely to control the use of functions such as lighting, heating and the ability to turn appliances off and on. Thinking about these kinds of products, how comfortable are you with the following scenarios? Base: Respondents answering scenario (n= 2.653)



Smart meters for heating are a good thing, because they help to evaluate your energy consumption and help to save the environment through reduction of the use of natural resources.

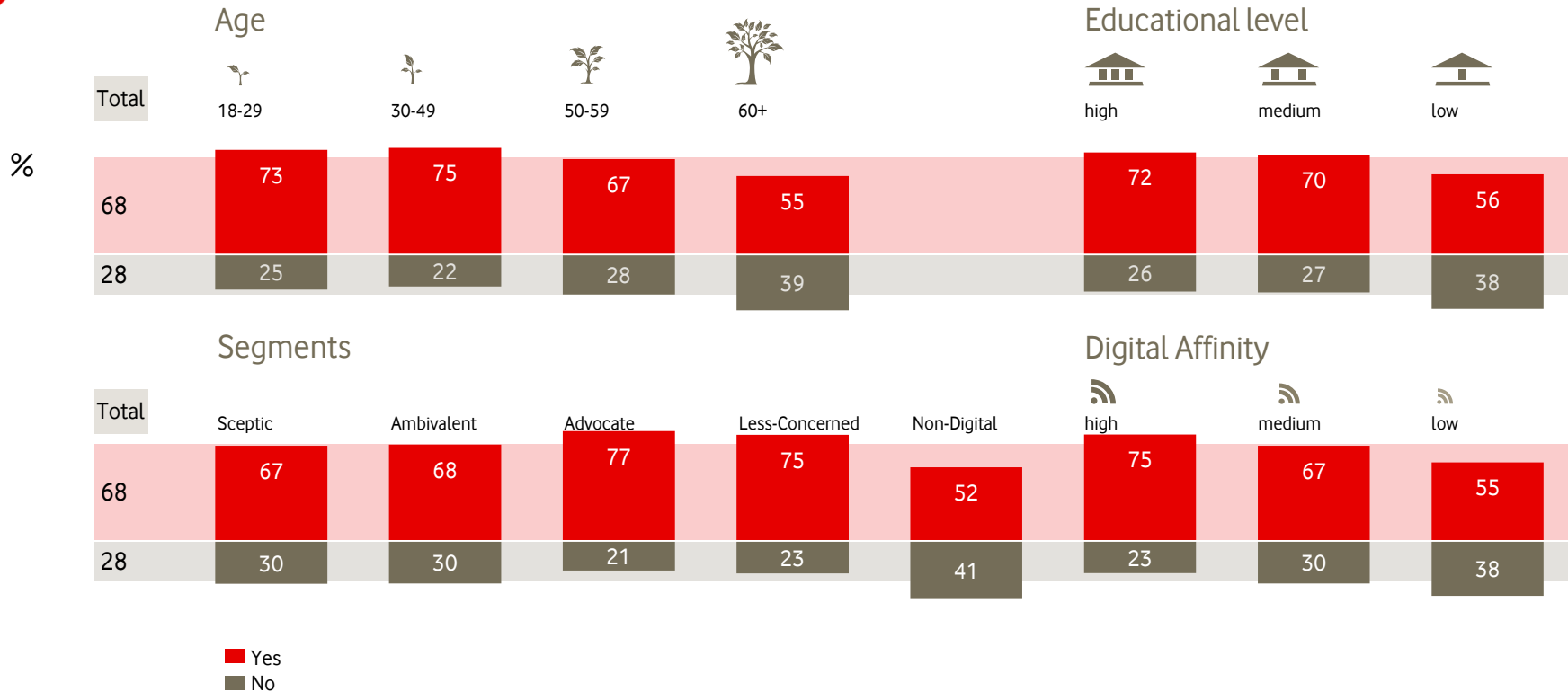
Countries



E04c: Smart meters for heating are a good thing, because they help to evaluate your energy consumption and help to save the environment through reduction of the use of natural resources.
Base: Respondents answering scenario (n= 2.653)



Smart meters for heating are a good thing, because they help to evaluate your energy consumption and help to save the environment through reduction of the use of natural resources.



E04c: Smart meters for heating are a good thing, because they help to evaluate your energy consumption and help to save the environment through reduction of the use of natural resources.
Base: Respondents answering scenario (n= 2.653)



Usage



"If an establishment knows I'm passing by that's intrusive. If I provide my position voluntarily that's one thing, but if they're keeping track of where I am that's totally different." (Qual-1)

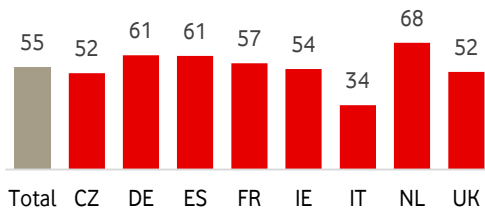
- The most used mobile device is the smartphone (63%, highest Netherlands: 81% and Spain: 71%), followed by laptops (55%, highest ranks in Netherlands, 68%).
- 80% of respondents use the internet, with a range between 93% in the Netherlands and 70% in Spain.
- Search engines are used by 97% of respondents, followed by 94% using email and 68% using chat.
- When using a smartphone, about three quarter of respondents activate their Wi-Fi (77%) and mobile data connection (73%), whilst only about a third activate their geo-location (38%) and Bluetooth (33%).



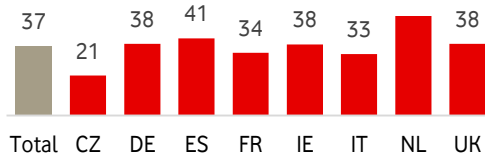
Which of the following mobile electronic devices do you use for private and/or work purposes?

%
Multiple
answers

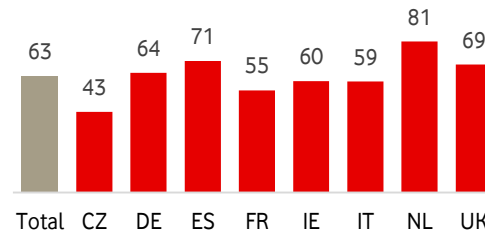
Laptop



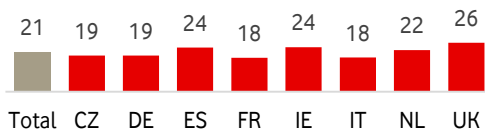
Tablet



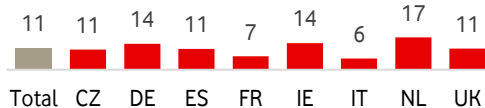
Smartphone



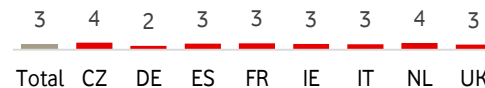
Music Player



E-Reader



Wearables

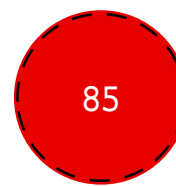
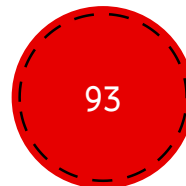
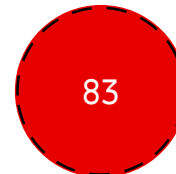
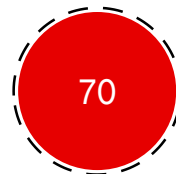
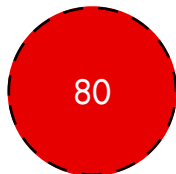


Q01: Which of the following mobile electronic devices do you use for private and/or work purposes? Multiple answers.
Base: All respondents (n= 8.256)



Do you use the internet?

%



Yes total = 80%
 Yes per country

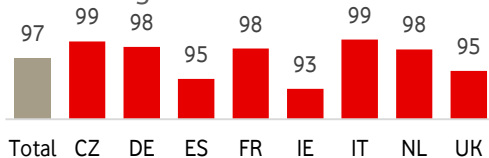
Q02: Do you use the internet? (Yes – no, no answer)
Base: All respondents (n= 8.256)



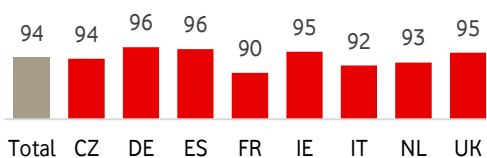
Which of the services and products do you use?

%
Multiple
answers

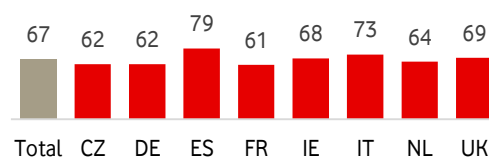
Search engines



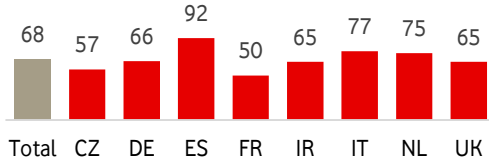
E-Mails



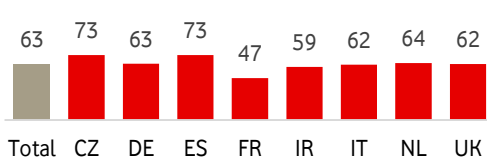
Social Media



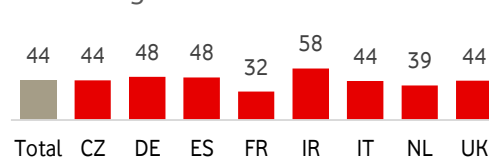
Chat



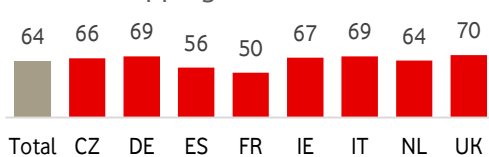
LBS



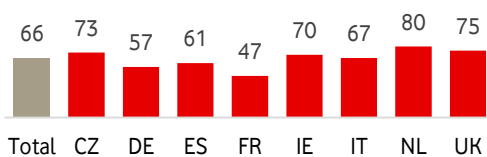
Streaming & Podcasts



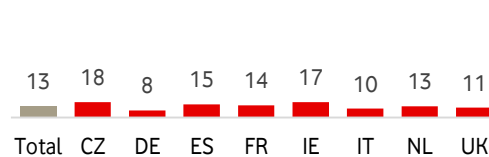
Online shopping



Online bank

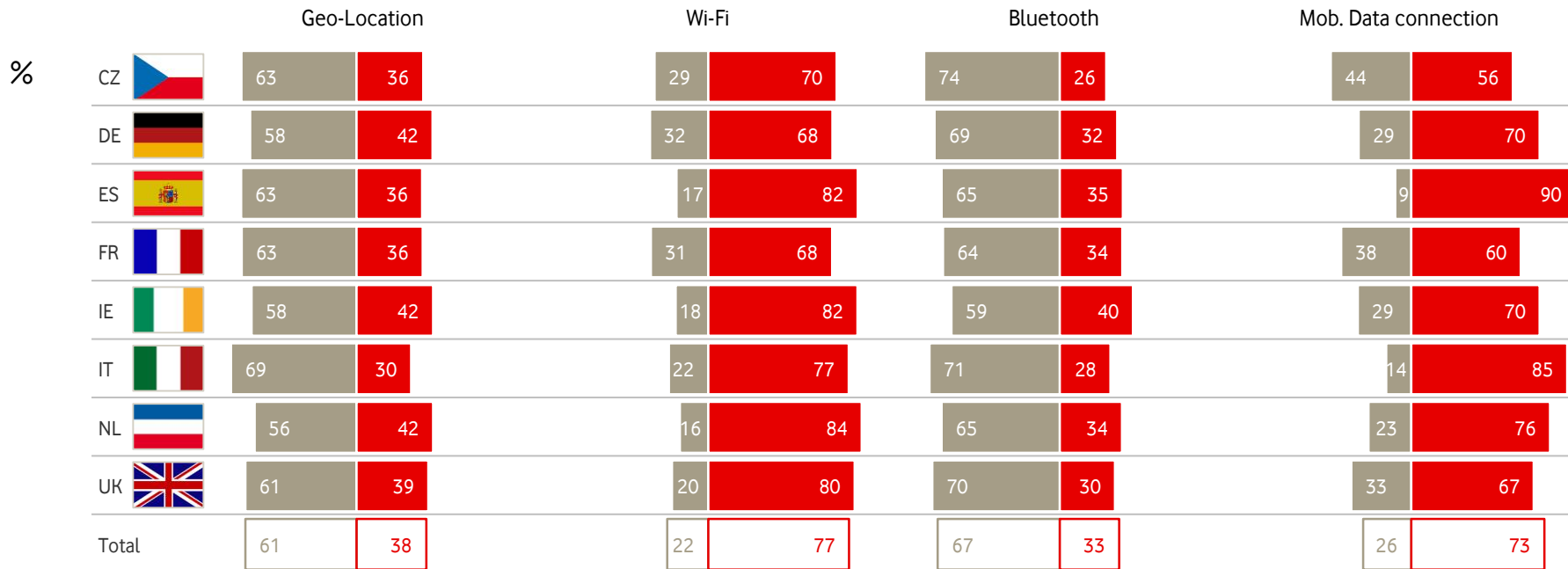


Fitness



Q03: Which of the services and products do you use? Multiple answers.
Base: Internet users (n= 6.979)

Which of the following functions are normally activated or deactivated?



■ Activated
■ Deactivated

Q04: When using your smartphone, which of the following functions are normally activated or deactivated? Missing values to 100%: no answer.
Base: All smartphone users (n= 5.411)



Questionnaire



Age & Gender:

S01: INT: Please record/code the gender of the respondent [INT: DO NOT READ OUT]

- a. Male
- b. Female
- c. N. A.

S02: How old are you? [18-99 is allowed; No answer: Screen out]

USAGE:

Q01: Which of the following mobile electronic devices do you use for private and/or work purposes?

[multiple answers possible]

- a. Laptop
- b. Tablet [INT: portable computer mainly consisting of a flat screen]
- c. Smartphone [INT: all-in-one mobile device with some typical features: In addition to the equipment of a regular mobile phone, it also includes functions like installable programmes, Internet access, media player, camera, GPS and a touch-sensitive screen.]
- d. E-Reader [INT: electronic reading device to read books, magazines, newspapers or other text documents]
- e. Music player (e. g. iPod)
- f. Wearables (e. g. Smart Watch, Smart Glasses)
- g. N. A.

Q02: Do you use the internet? [INT: DO NOT READ OUT]

- a. Yes
- b. No
- c. N. A.



Q03: [FILTER: Internet users, Q01=a]

Which of the following services and products do you use? (Yes, No, N. A.)

- a. Search Engines
- b. E-Mails
- c. Social media (e. g. Facebook, Google+, Xing, LinkedIn)
- d. Chat/instant messaging (e. g. WhatsApp, Threema)
- e. Location-based services, maps and navigation
- f. Online shopping and ordering of goods (e. g. Amazon,)
- g. Online banking and payment for goods
- h. Fitness-/health apps/wearables (e. g. via Smart Watch)
- i. Streaming and Podcasts (e.g. Music/Video/TV/Radio)

Q04: [FILTER: Smartphone users, Q01=a]

When using your smartphone, which of the following functions are normally activated or deactivated? (Normally activated, Normally deactivated, N. A.)

- a. Geo-location, GPS
- b. Wi-Fi [INT: local area wireless computer networking technology, e. g. used to connect computers, mobile phones or other devices with the internet; synonym: WLAN]
- c. Bluetooth [INT: wireless technology for exchanging data over short distances, e. g. used to connect the mobile phone with the hands-free module in the car]
- d. Mobile data connection [INT: 3G/UMTS or 4G/LTE]



SCENARIOS:

[Each respondent aged 30 years or older evaluates 1 scenario out of 4. Respondents ≤ 29 years evaluate 2 scenarios out of 4. In each group, the scenarios are equally distributed. Scale for all scenarios: Very comfortable, Comfortable, Neutral, Uncomfortable, It should not be allowed, N. A.]

Example 1: E-Commerce, Shopping, Loyalty cards

E01: Please imagine that you regularly visit a shop or use loyalty cards of a store. You have accepted to be contacted by the company. To what extent are you comfortable with the following scenarios?

E01.1: The shop uses the data they collect to improve their service or product portfolio and adapt it to the customers' preferences.

E01.2: The shop uses the data they collect to send you personalised offers or special deals on products that would be interesting to you based on your shopping patterns in the past. [INT: Please only read out the scale if necessary.]

E01.3: The shop sells your data for advertising and marketing purposes to a third party. [INT: Please only read out the scale if necessary.]

E01.4: The shop uses the data they collect and is able to realise that a change in your life has occurred (e. g. a child is born) and offers you special products based on this data. [INT: Please only read out the scale if necessary.]

E01.5: The shop uses the data they collect from your shopping habits to estimate your income and offers you suitable products based on that estimation. [INT: Please only read out scale if necessary.]

E01.6: [FILTER: Smartphone users, Q01=a] You use the smartphone app of a shop, e. g. a supermarket chain. The app has access to your location and sends you special offers or information when you get close to a branch of the chain. [INT: Please only read out the scale if necessary.]

Example 2: Health, Clinical Diagnostics

E02a: Many experts say that the collection and analysis of patients' data will fundamentally change and improve medical research leading to the development of new and improved treatments, and thus help thousands of patients, while others see risks and potential disadvantages for individuals. How comfortable are you with the following scenarios?

E02a.1: Large amounts of people's health data should be collected and analysed on an anonymous basis by health institutions, such as hospitals, universities and medical research centres, to enable improvements in the detection and treatment of diseases.

E02a.2: You would give these institutions access to your health data as long as it is amalgamated, anonymised and only used for statistical/research purposes. [INT: Please only read out the scale if necessary.]

E02a.3: You would give these institutions access to your health data and trust that they would store and use it appropriately. [INT: Please only read out the scale if necessary.]

E02a.5: You would give these institutions permission to store and analyse your data as personal and identifiable data as this could help to cure a disease you or others might have. [INT: Please only read out the scale if necessary.]

E02b: Imagine your health data is to be shared with other companies, such as insurance companies, gyms and other health and lifestyle institutions.

E02b.1: Would you give permission for your insurance to access your health and fitness data so they can adapt your insurance rate according to your health behaviour and fitness level, i.e. you pay more or less depending on your lifestyle? (Yes, No, N. A.)

E02b.2: Would you be happy for your health and fitness data to be analysed by a special health programme or smartphone app, and to receive recommendations on how to live a healthier life and prevent the onset of certain diseases? (Yes, No, N. A.)



Example 3: Mobility, Connected Cars, GPS

E03: Cars generate a huge amount of data today thanks to their sophisticated electronic systems, much of which is used for diagnostic purposes in order to ensure the car is performing correctly, or can be repaired. Given the amount of data that is generated [INT: from location information from the GPS, and call data from the phone, to engine use and speeds travelled] how comfortable would you be with this data being used in any of the following way?

E03.1: The car manufacturer uses data such as the overall-status of the car and your driving behaviour in order to optimise the service they offer and to improve the running of your car.

E03.2: The suppliers of navigation systems use your data generated to analyse traffic in real time and provide you with individualised traffic advice. [INT: Please only read out the scale if necessary.]

E03.3: Your data is shared with the local authority or relevant government department in order to enable them to improve the road network, flow of traffic and public transport infrastructure. [INT: Please only read out the scale if necessary.]

E03.4: Your data is shared with the police which use it to identify traffic violations. [INT: Please only read out the scale if necessary.]

E03.5: Your data is used by your insurance company to make individual offers or premiums based on your driving behaviour. [INT: Please only read out the scale if necessary.]

E03.6: Your data is sold by one of the companies mentioned above to a third party on an anonymised and aggregated basis. [INT: Please only read out the scale if necessary.]

Example 4: Smart Meter, Smart Home

E04a: In many countries smart meters have been installed in people's homes. They automatically send your energy company the amount of power you use. If such a device were installed in your home, to what extent would you be comfortable with the following scenarios?

E04a.1: The smart meter measures precisely your daily household consumption and bills you accordingly.

E04a.2: Your energy supplier uses the data generated to offer you special rates based on your individual consumption pattern and makes recommendations about your energy use. [INT: Please only read out the scale if necessary.]

E04a.3: Your energy supplier sells your data to a third party on an anonymised and aggregated basis. [INT: Please only read out the scale if necessary.]

E04b: Programmable thermostats are now also available along with other devices which can be used remotely to control the use of functions such as lighting, heating and the ability to turn appliances off and on. Thinking about these kinds of products, how comfortable are you with the following scenarios?

E04b.1: Using the data generated by the use of these products, the software knows when you are at home, when you are up or asleep and when you are on holiday and adapts your heating and/or lighting accordingly.

E04b.2: The software of the thermostat is tracking your location and begins warming your house as soon as your car approaches. [INT: Please only read out the scale if necessary.]

E04c: Smart meters for heating are a good thing, because they help to evaluate your energy consumption and help to save the environment through reduction of the use of natural resources. (Yes, No, N. A.)

E04d: You would feel uncomfortable having a smart thermostat in your home which is analysing your daily routine. (Yes, No, N. A.)



GENERAL KNOWLEDGE (BIG DATA, DATA COLLECTION):

GK01: Some organisations or institutions collect, store and analyse personal data for various purposes. How much do you know about the data collection and usage of the following institutions?
Please use the scale from 1 “a great deal” to 5 “nothing”. You can use the numbers in between to grade your answer. (A great deal to Nothing, N. A.) [randomise items]

- a. State/Government
- b. Health institutions (GP surgeries, hospitals, research facilities etc.)
- c. Banks and credit card companies
- d. Insurance companies
- e. Providers of loyalty programs (e.g. Payback, Miles & More)
- f. Online payment services (e.g. Paypal)
- g. Online shops (e.g. Amazon, Zalando)
- h. other shops with an online presence
- i. Social media companies (e.g. Facebook, LinkedIn)
- j. Search engine companies (e.g. Google, Bing)
- k. Telecommunication companies/mobile network providers (e.g. O2, Telekom, Vodafone)
- l. Chat/instant messaging apps (e.g. WhatsApp)
- m. My employer

GK02: Where do you get your knowledge about their collection of data from?

[INT: DO NOT READ OUT] [multiple answers possible; Please ask only 50% of all respondents. Please set up a random selection.]

- a. Own experience
- b. Friends and family
- c. Colleagues
- d. News (INT: TV, Radio, Print, Online)
- e. Internet research
- f. Reading terms and conditions
- g. Other
- h. N.A.



GENERAL ATTITUDES (TRUST, PRIVACY, DATA PROTECTION, TRANSPARENCY, CONTROL):

GA01: To what extent do you trust the following organisations or institutions with regard to the use of your personal data? Please use the scale from 1 “very strong” to 5 “not at all”. You can use the numbers in between to grade your answer. (Very strong to Not at all, N. A.) [randomise items]

- a. State/Government
- b. Health institutions (GP surgeries, hospitals, research institutions etc.)
- c. Banks and credit card companies
- d. Insurance companies
- e. Providers of loyalty programs (e.g. Payback, Miles & More)
- f. Online payment services (e.g. Paypal)
- g. Online shops (e.g. Amazon, Zalando)
- h. other shops with an online presence
- i. Social media companies (e.g. Facebook, LinkedIn)
- j. search engines (e.g. Google, Bing)
- k. Telecommunication companies/mobile network provides (e.g. O2, Telekom, Vodafone)
- l. Chat/instant messaging apps (e.g. WhatsApp)
- m. My employer

GA02: In your opinion, how should an organisation or a company gain your trust with regard to the use of your personal data? [multiple answers possible, randomise items; Please ask only 50% of all respondents. Please set up a random selection.]

- a. Be transparent about what data is collected and how it could be used
- b. Use simple, clear language and short terms and conditions which I can understand
- c. Avoid of small print
- d. Be a well-known brand
- e. Be certified by an independent testing institute
- f. Encourage public user feedback (e.g. user reviews)
- g. Offer the potential for me to change the personal privacy settings [INT: usage of personal data from the company, opt-in/opt-out]
- h. N.A.



GA03: To what extent do you agree with the following statements? Please use the scale from 1 “completely agree” to 5 “completely disagree”. You can use the numbers in between to grade your answer. [INT: Please only read out the scale if necessary.] (Completely agree to Completely disagree, N. A.) [Randomise items, please program a random selection. Single items are filtered corresponding on the group they belong. Some items are asked to all respondents, some only to group 1 and some to group 2.]

- a. I know where and by whom my personal data is collected and stored. [Only group 1]
- b. Through my online behaviour and the privacy settings that I chose, I feel in control of what information is collected about me. [Only group 2]
- c. I read the terms and conditions when using online services. [Only group 1]
- d. I read the terms and conditions before downloading apps or programmes. [All respondents]
- e. I trust that the existing laws and government regulations with regard to the protection of my privacy are appropriate and proportionate. [Only group 1]
- f. I am aware that my emails or messages may be read or analysed by my service provider (e.g. email account provider). [Only group 2]
- g. I avoid writing about very personal matters in emails or text messages because I fear that third parties might access them. [All respondents]
- h. I understand that companies who offer free services, such as search engines or free email addresses or free apps, will use my data in order to market/advertise other companies' products and services to me. [Only group 1]
- i. The government of my country respects the privacy of my personal data. [All respondents]
- j. Companies respect the privacy of my personal data. [All respondents]
- k. Nowadays, more and more companies try to give their customers more control over data by informing them about the privacy settings and how they can adjust them. [Only group 2]
- l. Governments have a legitimate requirement to request access to people's data in order to keep the country safe from crime or terrorism. [All respondents]
- m. Even though I normally do not read all the terms and conditions, I often tick the box and use an online service without knowing exactly what the privacy protections are in place. [Only group 2]

GA04: [FILTER: Internet users, Q02=a] If you use a digital service (e.g. email, apps), which of the following options do you prefer?

- a. In general, I would rather prefer to pay for the service than allowing the supplier to use some of my personal data for commercial purposes.
- b. In general, I would rather prefer to pay nothing for the service – but understand that in return the supplier is going to collect and use some of my personal data for commercial purposes.
- c. N.A.



GA05: Would you grant access to the following kind of data about your person? (scale: I would never grant access to the data, I would grant access to the data for a service or product in exchange [INT: e. g. e-mail account, WIFI access], I would always grant access to the data [INT: at no charge], N. A.) [randomise items]

- a. Health/medical data (personal records, diseases etc.)
- b. Financial data (bank account, income etc.)
- c. Telecommunications data (connections, calls)
- d. E-Commerce data (shopping behaviour, payment details etc.)
- e. Social media data (private photos, contact lists, comments etc.)
- f. Personal communication (mails, messages etc.)
- g. Location data
- h. Shopping data
- i. Work/business data (communication, files etc.)

GA06: What measures do you undertake in order to protect your personal data? [INT: Please read out and rate the statements individually] [multiple answers possible, randomise items]

- a. I avoid using my real name and other personal details (address, date of birth etc.)
- b. I use search engines that have high security standards
- c. I use special e-mail accounts that encrypt my messages
- d. I avoid online banking
- e. I don't shop online
- f. I cover the microphone or camera of my computer
- g. I deactivate the location function of my phone or use it only in certain situations
- h. I use VPN channels and/or different IP addresses
- i. I delete or block cookies from my computer
- j. I avoid using social media
- k. I use social media, but share only a minimum of personal information
- l. I have started to download an app or online game/quiz but stopped when I realised I would be required to give access to my personal data such as contacts and photos
- m. N.A.



GA07: New ways of collecting, analysing and comparing data that result from peoples' usage of the internet and mobile phones – a phenomenon called big data – can help to improve products and services, boost academic research, help curing diseases or solve social problems. On the other hand, it is argued that the massive collection analysis of personal data bring risks. What do you think about the big data phenomenon?

- a. Overall, I see more advantages to big data than disadvantages
- b. Overall, I see more disadvantages to big data than advantages
- c. I don't know

STATISTICS/DEMOGRAPHICS (important for weighting and data analysis):

S03: What is the highest level of education you have completed? [INT: DO NOT READ OUT]

[PROG: To be adapted for each country! The following categories are only placeholders.]

- a. Left school before completing or completed lower secondary education
- b. Upper secondary level, general education
- c. Upper secondary level, general vocational education and training including apprenticeships
- d. Post-secondary, non-higher education
- e. Higher education
- f. N. A.

S04: Which of the following best describes your current working status?

- a. Working full-time (over 30 hours per week)
- b. Working part-time
- c. Temporarily unemployed/looking for work
- d. Retired
- e. Not working for other reasons (looking after family, ill etc.)
- f. At school/college/university
- g. N.A.



S05: Including yourself how many people are there altogether in your household?

- a. 1 person
- b. 2 persons
- c. 3 persons
- d. 4 persons
- e. 5 persons or more
- f. N. A.

S06: Including yourself, how many adults aged 18 or over live in your household?

- a. 1 person
- b. 2 persons
- c. 3 persons
- d. 4 persons
- e. 5 persons or more
- f. N. A.

S07: How many fixed-line phone numbers do exist in your household?

- a. 0 numbers
- b. 1 number
- c. 2 numbers
- d. 3 numbers or more
- e. N. A.

S09: Do you use a mobile phone? If so, how many do you use?

- a. I don't use a mobile phone.
- b. 1 mobile phone
- c. 2 mobile phones
- d. 3 or more mobile phones
- e. N.A.

S08: [Region, No answer => to be inserted from address information; only if respondent is called via mobile number]



Imprint



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