The use of digital services 2021

Summary report

15 April 2021 | Taloustutkimus Oy | Tuomo Turja & Sakari Sandqvist

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How the research was done

Implementation of the research 1/2

- The research was carried out by Taloustutkimus Oy on commission of The Finnish Innovation Fund Sitra (later Sitra).
- The study examines citizens' attitudes and activities towards the data collected of them and the digital services used. The study is conducted in four countries: In Finland, the Netherlands, France and Germany.
- The target group of the study was citizens aged 18-65 in the four countries mentioned above.
- A total of 8004 respondents answered the questions of the survey. The number of respondents by country was as follows:
- Finland: 2004 respondents
- The Netherlands: 2000 respondents
- France: 2000 respondents
- Germany: 2000 respondents
- The sample of each country was weighted to correspond to the country's population aged 18-65.

Implementation of the research 2/2

- The study has been carried out in the Internet panel of Taloustutkimus for Finland and in the Internet panel of Dynata for Germany, France and the Netherlands. Data collection was carried out from 23 March 2021 to 31 March 2021
- A separate report on the study was prepared for each country. In addition, the results of all respondents were compiled into a summary report.
- This report is a summary report of all four countries. At Taloustutkimus, the researchers in charge of the research project are Tuomo Turja and Sakari Sandqvist. Contact information: firstname.lastname@taloustutkimus.fi / 010 7585 11.
- The quality control of Taloustutkimus is described in the appendix.

Summary

SUMMARY - GDPR RIGHTS, APPLICATION TERMS

- 55% of all respondents consider that they have a fairly good knowledge of the content of the GDPR Regulation. The Finns, in their estimation, have the best level of information is for Finns (63% are aware and know the regulation at least by outlines) The weakest knowledge in their own estimation is that of the French (the corresponding proportion is 43%). Those with high education and senior executives clearly estimate awareness of GDPR issues the highest.
- Utilization of GRPR rights is low and has not increased significantly since 2018. Less than half of respondents have utilized them. The lowest utilization is in Finland and the most common in the Netherlands.
- 42% of respondents understand the terms of use of applications well. The lowest understanding of the terms of use is in Finland, and the largest in Germany.
- The reason for the incomprehension is, in particular, that the terms are too long and their language difficult.

SUMMARY - DATA PROTECTION 1/2

- More than half of the respondents have changed the settings of at least some applications or services, such as location or private settings, to suit their needs in usage. This is most often done in Finland, less often in France. In France, a third and in Germany just over a quarter have not changed the settings at all.
- If the settings have not been changed, it is because it has not been considered important or is not considered to have an effect. It is emphasized, particularly in the case of young respondents, that amending the regulations is not considered important. In the Netherlands and Finland, it is emphasized that change has no effect, in Germany it is not considered important and in France it is considered too difficult.
- More than half of the respondents believe that data protection is too much of an individual's own responsibility. 57% at least somewhat agree with this statement. There are hardly any differences between countries in this respect.
- About one-fifth would always, or in most cases, allow their own anonymized location data to be collected and used for commercial purposes. Six out of ten responded that granting permission depends on the application or company. Finland has the largest number of those who would definitely not give permission. In other countries, there are more of those that I always or mostly give their permission to have their data collected.

SUMMARY - DATA PROTECTION 2/2

- For the respondents, of the three questions related to data protection, what is done with one's own data is clearly the most important. This was chosen by 56% of respondents. For a third, the most important thing is who has their information, and for a tenth, the most important thing is where the information is located. For Finns, what is done with information is clearly more important than in other countries. German respondents emphasize who owns the information.
- About a third of respondents agree, at least somewhat, that data privacy is a thing of the past and should only be accepted. 42 percent disagree. Finns have somewhat more respondents than other countries to believe that privacy is not a thing of the past.
- Opinions are divided when asked about the use of data for profiling. 48% of respondents would not want the data to be used for profiling, 53% would give permission to the applications or services of their choice and 3% would give permission to all services. There are no major differences between countries.
- When asked what worries about human rights online, it clearly becomes the most important issue for personal data to fall into the wrong hands (60%); The safety of children on the internet also worries many (37%). Concerns about personal information are greater in Finland than elsewhere.

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SUMMARY - TRUST IN THE SERVICE PROVIDER

- Lack of trust in the service provider prevents 37% from using digital services, at least to some extent. Concerns have eased slightly since 2018. Trust is highest in Finland and lowest in France.
- Of the questions asked, the most likely to be trusted by the service provider is the possibility of deleting all the service provider's self-collected information, the possibility of accepting or refusing to sell the information to a third party, and the fact that the service clearly states how the customer's information will be used.
- In Finland, all three of the above inspire more trust than in other countries. Otherwise, the differences between countries are not very significant. In France and Germany, the provision of additional services against disclosure inspires more trust than in the Netherlands and especially in Finland.

SUMMARY – PROVIDING OF DATA 1/2

- Respondents would prefer the most to provide **health information or heredity information** about themselves or their families for scientific research (29% would agree) and for a public beneficial purpose (24%).
- Under no circumstances would 32% of respondents disclose **personal data** to the service provider. 19% of respondents would provide information for scientific research and 15% for public beneficial non-profit purposes.
- Information on **values or beliefs** would preferably be disclosed for scientific research (21% would agree) and for public benefit purposes (16%).
- Respondents are most commonly willing to give up information on **consumption or purchasing behavior** if it is paid for (22%) or some personalized service is to be expected from it (22%).

SUMMARY – PROVIDING OF DATA 2/2

- Under no circumstances would 27% of respondents provide **spatial information or information about the devices they use** to the service provider. 16 percent would provide their data against additional services, and the same amount would provide information for data scientific research.
- As for the information on **wealth or spending their money** , 38 % would not disclose it under any circumstances. For scientific research, data could be given by 15 percent and for a fee by 13 %.
- Selling data divides opinions. 57% would never be willing to sell data about themselves, 43% could sell, if the price is right. The older the respondent, the more reluctant they are to sell their data.

SUMMARY – PROVIDING OF DATA

- When asked how permission to use and manage information collected from users should be organized, the option that the authority regulates the use of data more strongly is the most supported by respondents with 30% of respondents agreeing. About one-fifth believe that more active and informed management of their own data would be the best way for users, and 14% are in favor of organizations taking more responsibility for the ethical use of data being collected and managed by those organizations.
- Strengthening the regulation of the authorities is clearly the most supported in Finland, and clearly the least in Germany. More active user management is the most popular option in Germany, while strengthening of the regulation by the authorities is the most popular option in other countries.

SUMMARY – FAIR DATA LABEL

- When asked about the importance of the feature of different digital applications and services, the most important were the information security of the service (63% consider it very important), the reliability of the service provider (57%) and the clear and transparent indication of the purpose of user information (51%).
- The Fair Data Label for applications and services is considered important. 26% of respondents consider it very important and 45% quite important. The label is considered slightly more important than in 2018. There are no major differences in results between countries.

SUMMARY – CLUSTER ANALYSIS

- Using cluster analysis tool, four respondent profiles were created from the material to identify the attitudes of different groups towards data economy and data protection rights.
- The groups were identified by creating three sub-materials from the data on the following questions:
- Tietosuoja-asetuksen ja käyttöehtojen tietämykseen/ymmärrykseen liittyvät kysymykset (Q1 ja Q3)
    1. Data Protection Regulation and the terms of knowledge / understanding of related issues (Q1 and Q3)
    2. Questions related to behavior and operational issues (Q2 and Q5)
    3. Questions related to attitudes (Q7, Q8, Q10, Q11, Q13, Q14, Q18)
  – Knowledge about the terms of use and rights vs. ignorance of them.
  – Passivity vs. activity on actions
  – Caring for personal information vs. indifference
  – Protecting privacy vs. the value generated by services

SUMMARY – RESPONDENT PROFILES

- Following respondent profiles were created using cluster analysis – tool:
  1. Service-oriented nonchalants

     - Are aware of the terms of use and based on the data protection regulations concerning the rights, but are willing to surrender their privacy against the services.
  2. Uninformed & cautious
     – Care about their own information and what is done with it, but are not very aware of the terms of use and of their rights under the data protection regulations.
  3. Guardians of privacy
     – Value their privacy strongly, but are still relatively passive users of rights under the data protection regulation.
  4. Net citizens knowing their rights
     – Familiar with the Terms of Use and the Privacy Policy and the rights based on it very well. Are also very active users of rights.

Research Graphics

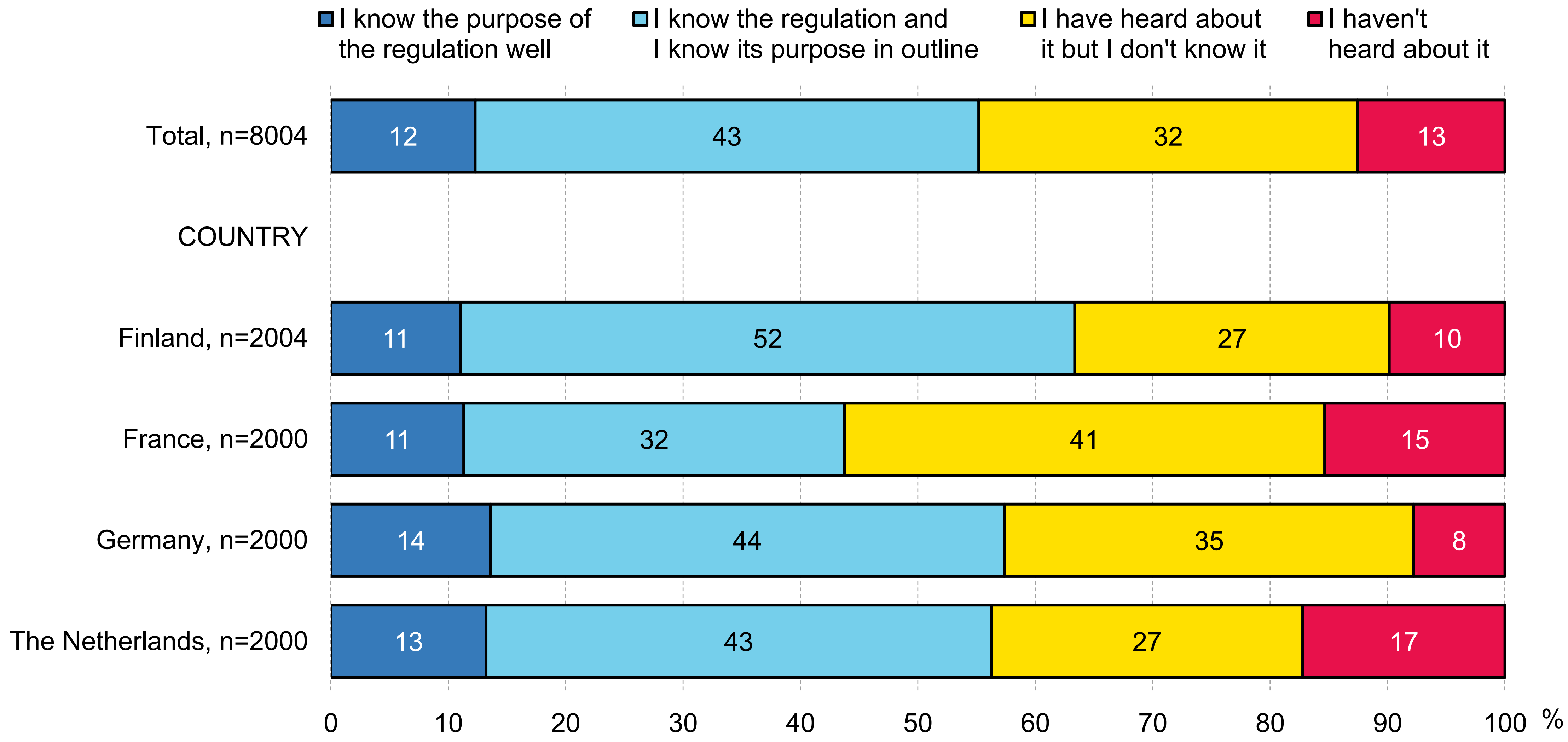
DEMOGRAPHICS

%	Total n=8004	Finland n=2004	France n=2000	Germany n=2000	The Netherlands n=2000
Gender					
Male	50	51	49	50	52
Female	49	49	51	49	48
Other	0	0	0	0	0
Do not wish to say	0	0	1	0	0
Age					
18-24 years	13	13	15	12	14
25-34 years	21	21	21	21	21
35-44 years	23	21	25	24	24
45-54 years	22	20	21	24	22
55-65 years	20	24	18	20	19
Place of residence					
City	34	47	21	12	57
Town/Urban area	47	37	52	61	38
Countryside	18	15	27	27	4

%	Total n=8004	Finland n=2004	France n=2000	Germany n=2000	The Netherlands n=2000
Education					
Compulsory/Vocational education	6	6	9	8	3
Other education	54	47	52	63	52
Advanced higher education level	22	24	19	15	29
Masters degree or higher	17	22	19	12	15
Occupational group					
Managerial position / Senior white collar	29	18	39	28	30
Junior white collar	15	12	16	25	5
Worker	19	26	11	14	26
Self-employed/ Sole trader	6	6	5	7	8
At school or student	9	17	7	5	7
Pensioner	6	8	5	8	2
Other	15	11	16	11	22

n=all respondents

AWARENESS OF GDPR RIGHTS IS HIGHEST IN FINLAND AND POOREST IN FRANCE



How well do you know the EU data protection regulation?(GDPR)

n=All respondents

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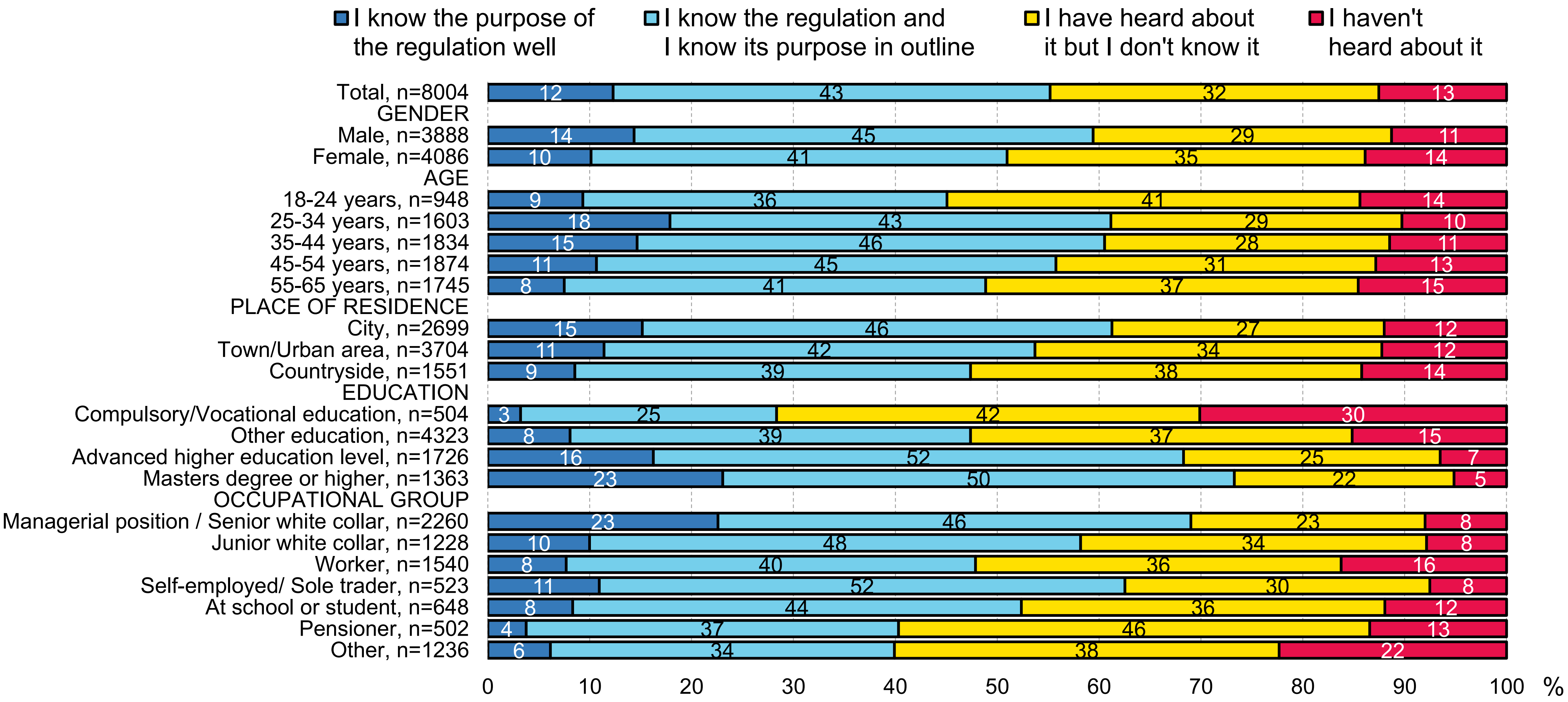
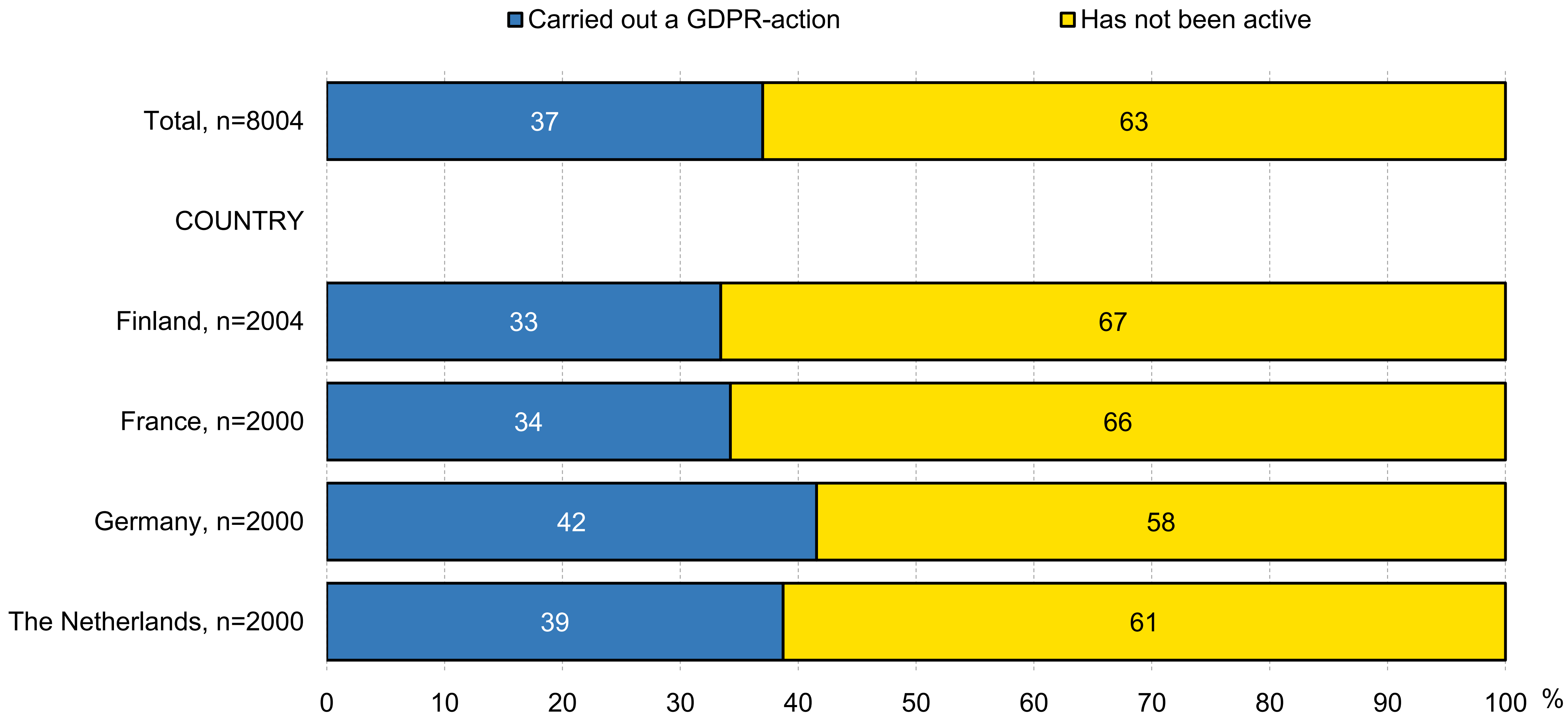
AWARENESS OF GDPR RIGHTS VARIES ACCORDING TO THE BACKGROUND: THOSE WITH HIGHER EDUCATION AND THOSE WITH LEADING POSITION HAVE HIGHER AWARENESS



How well do you know the EU data protection regulation?(GDPR)

n=all respondents

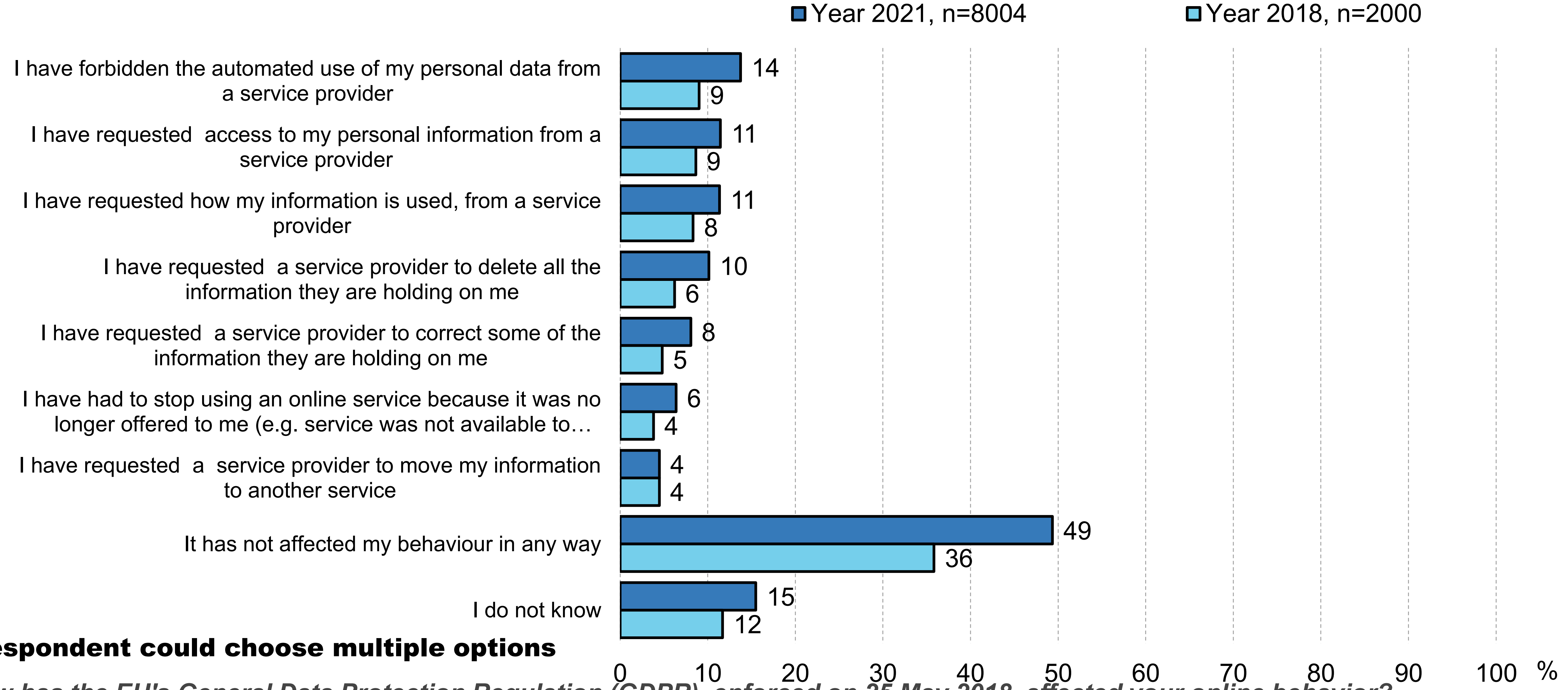
LESS THAN HALF OF THE RESPONDENTS HAVE CARRIED OUT GDPR-ACTIONS



How has the EU's General Data Protection Regulation (GDPR), enforced on 25 May 2018, affected your online behaviour?

n=all respondents

LESS THAN HALF OF RESPONDENTS HAVE EXERCISED THEIR GDPR RIGHTS, AUTOMATIC PROCESSING OF DATA IS MOST COMMONLY PROHIBITED



Respondent could choose multiple options

How has the EU's General Data Protection Regulation (GDPR), enforced on 25 May 2018, affected your online behavior?

n=All respondents

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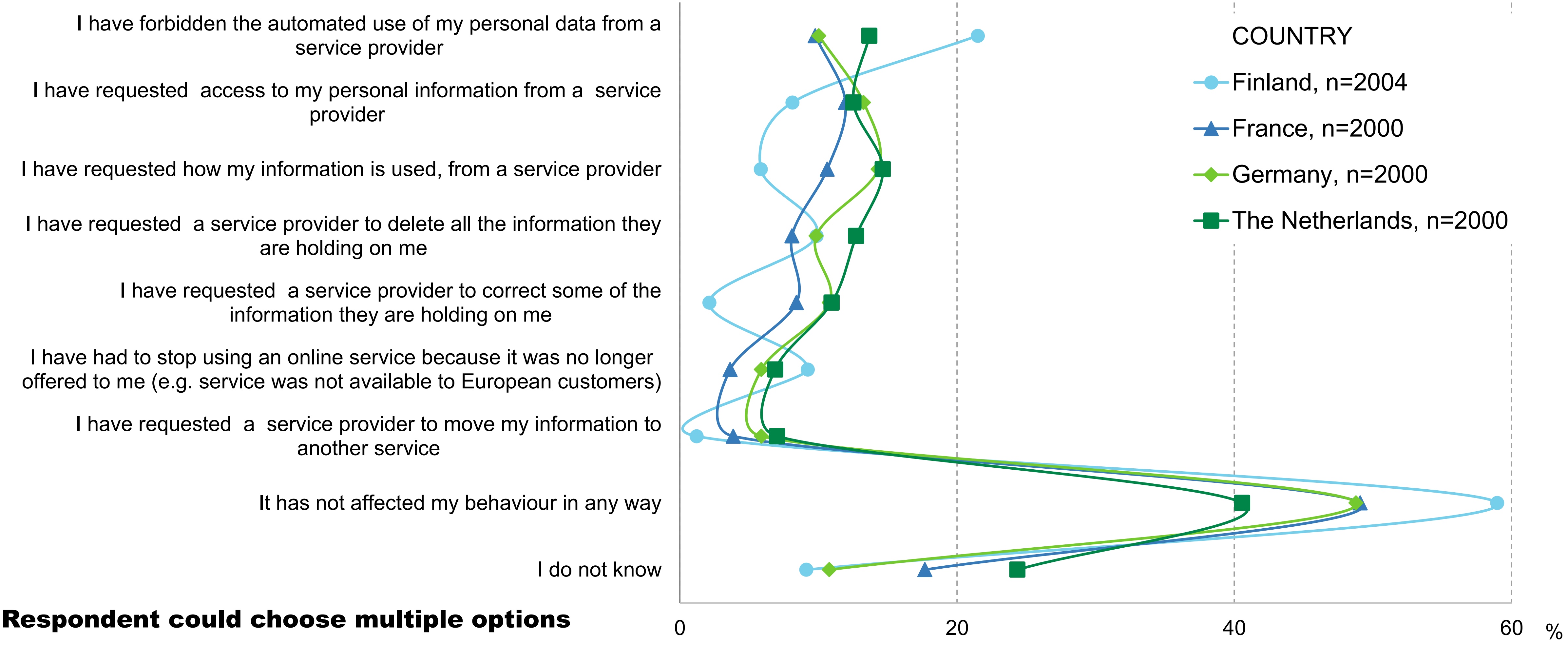
EXERCISE OF GDPR RIGHTS IS LOWEST IN FINLAND AND MOST COMMON IN THE NETHERLANDS



Respondent could choose multiple options

How has the EU's General Data Protection Regulation (GDPR), enforced on 25 May 2018, affected your online behavior?

n=kaikki vastaajat

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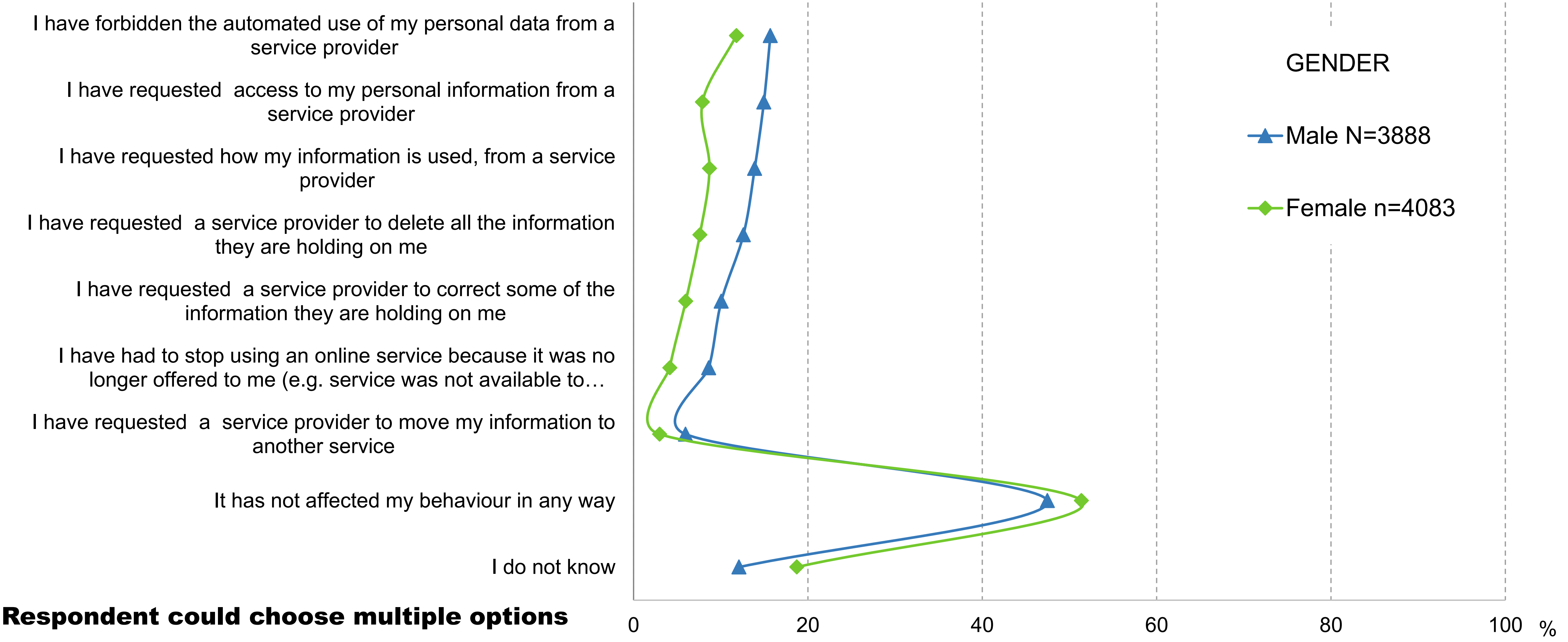
MEN HAVE EXERCISED THEIR GDPR RIGHTS SOMEWHAT MORE THAN WOMEN



Respondent could choose multiple options

How has the EU's General Data Protection Regulation (GDPR), enforced on 25 May 2018, affected your online behavior?

n=All respondents

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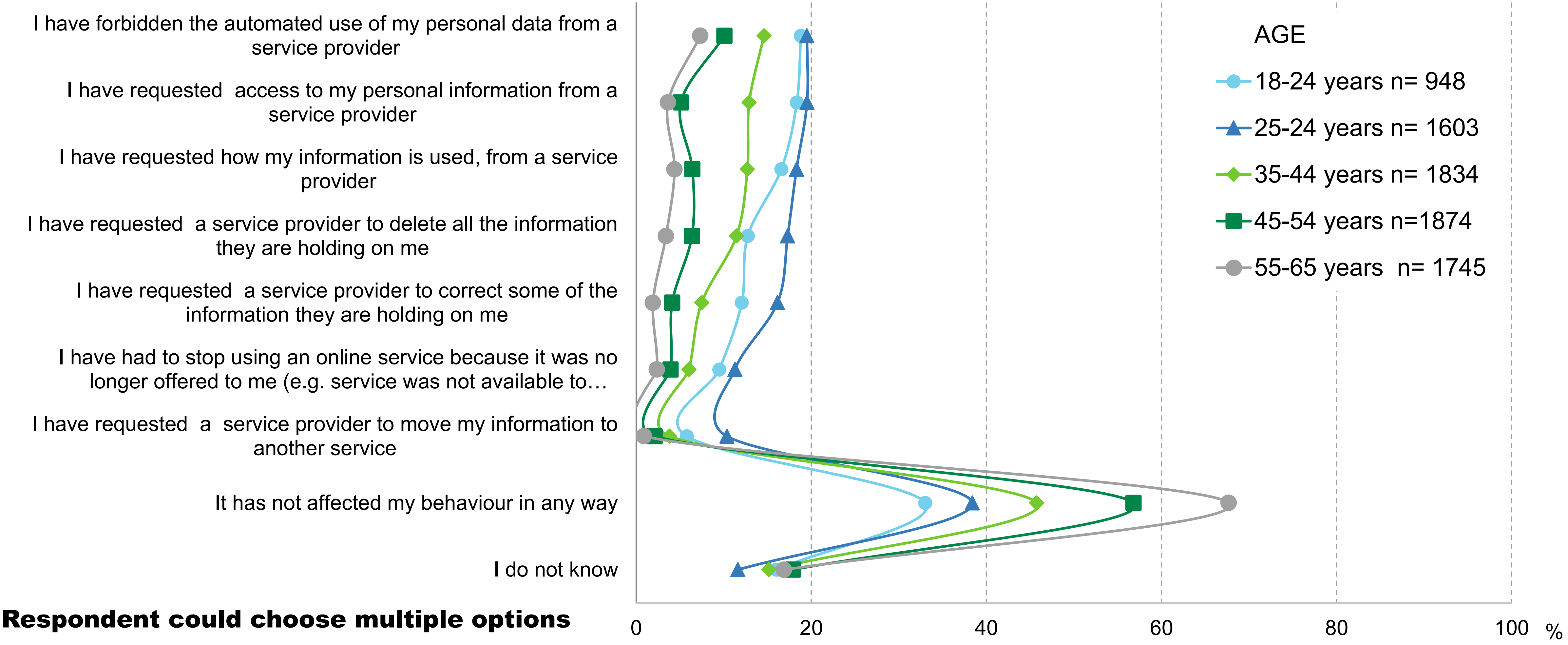
EXERCISING OF GDPR RIGHTS IS MOST COMMON IN YOUNG PEOPLE'S AGE GROUPS AND RAREST AMONG OLDER GROUPS



Respondent could choose multiple options

How has the EU's General Data Protection Regulation (GDPR), enforced on 25 May 2018, affected your online behavior?

n=All respondents

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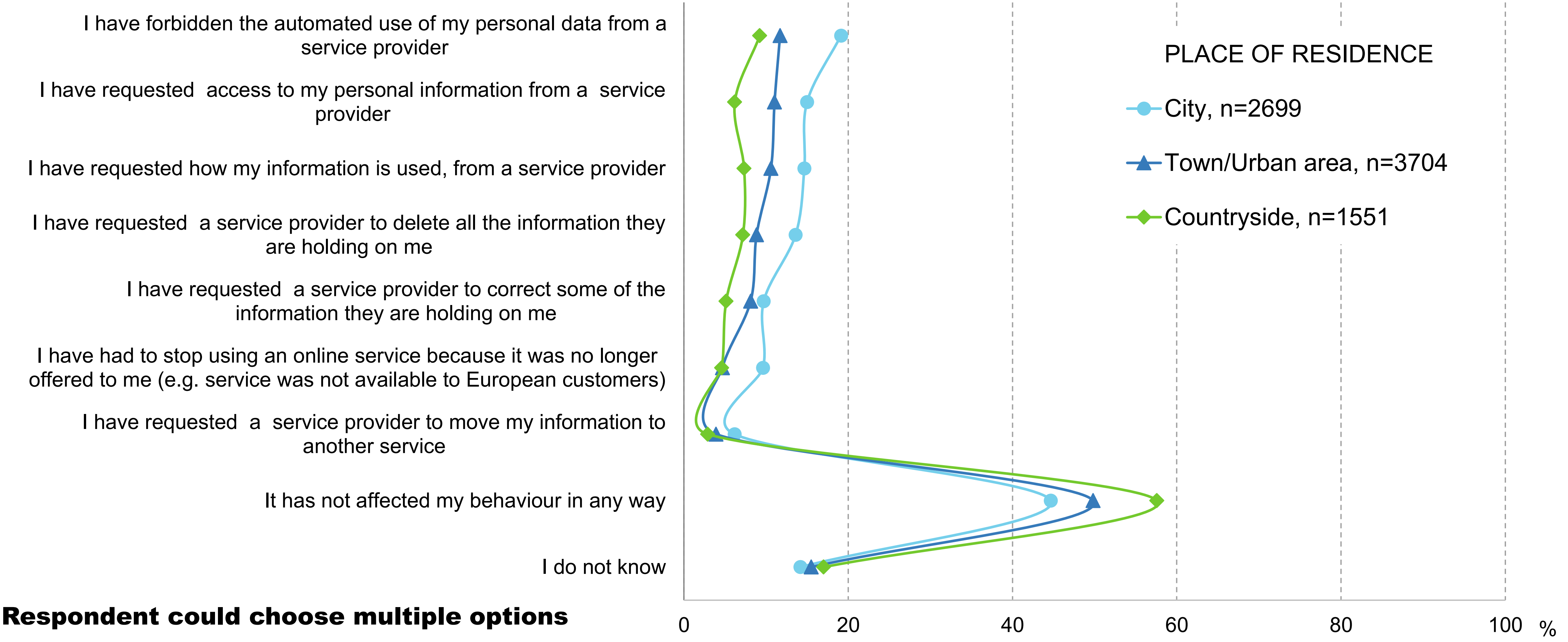
EXERCISING OF GDPR RIGHTS IS MORE COMMON AMONG THOSE LIVING IN CITIES THAN AMONG RESIDENTS OF RURAL AREAS



Respondent could choose multiple options

How has the EU's General Data Protection Regulation (GDPR), enforced on 25 May 2018, affected your online behavior?

n=All respondents

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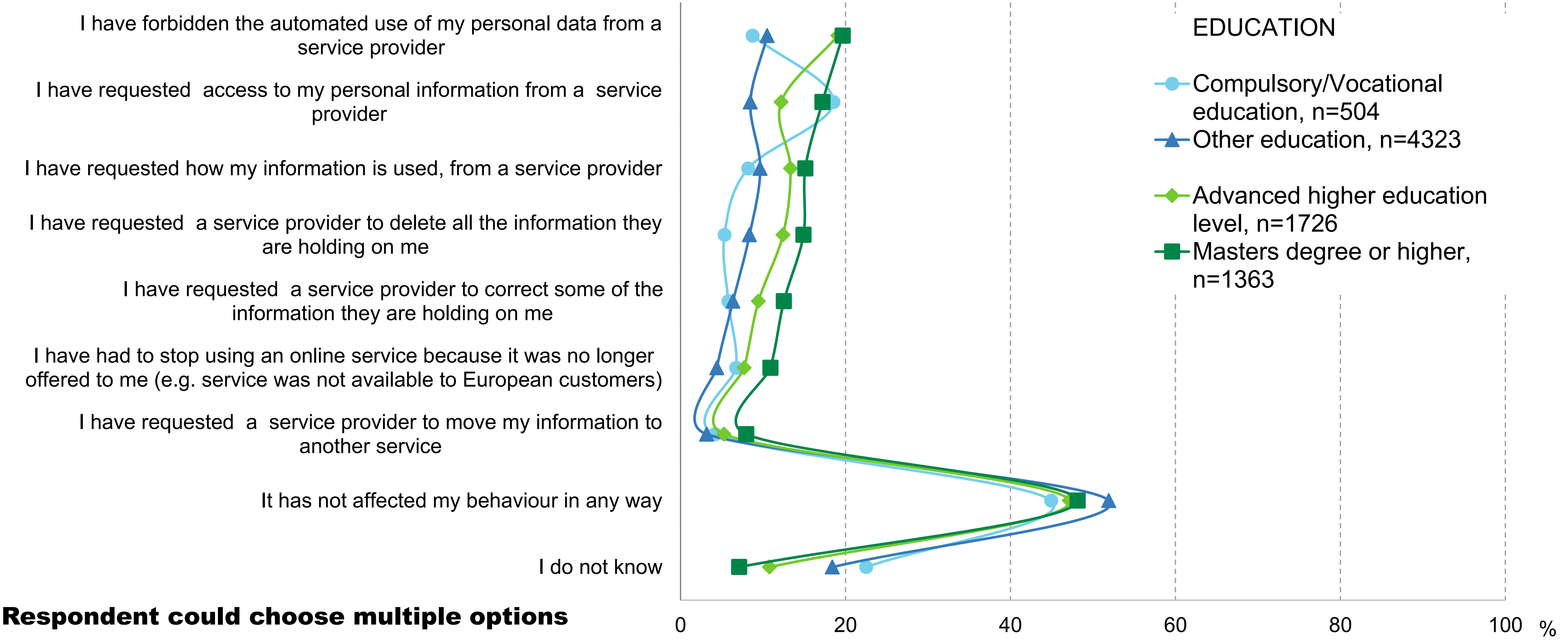
PEOPLE WITH HIGHER EDUCATION EXERCISE THEIR GDPR RIGHTS MORE THAN THOSE WITH LOWER EDUCATION



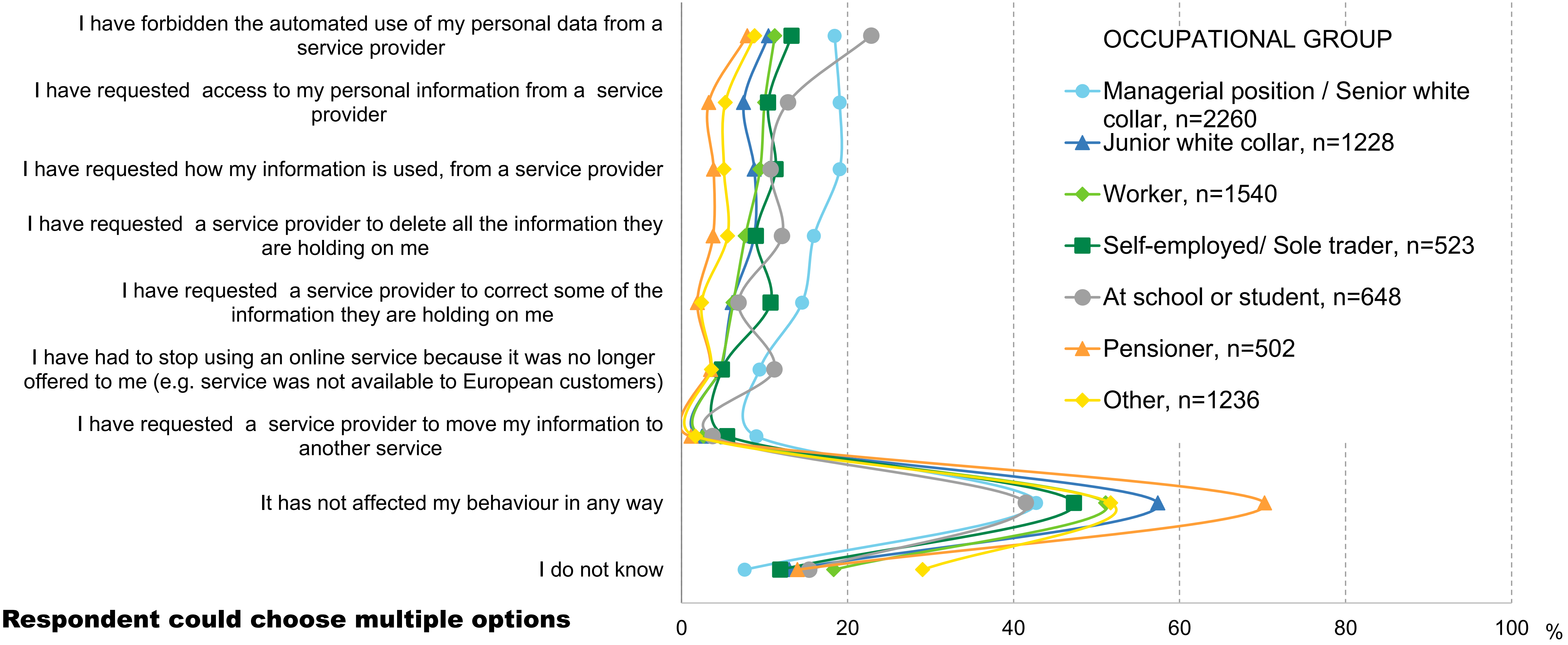
Respondent could choose multiple options

How has the EU's General Data Protection Regulation (GDPR), enforced on 25 May 2018, affected your online behavior?

n=kaikki vastaajat

SITRA

PEOPLE IN MANAGERIAL POSITIONS / WHITE COLLAR OFFICIALS EXERCISE THEIR GDPR RIGHTS MORE THAN PEOPLE IN OTHER PROFESSIONAL POSITIONS

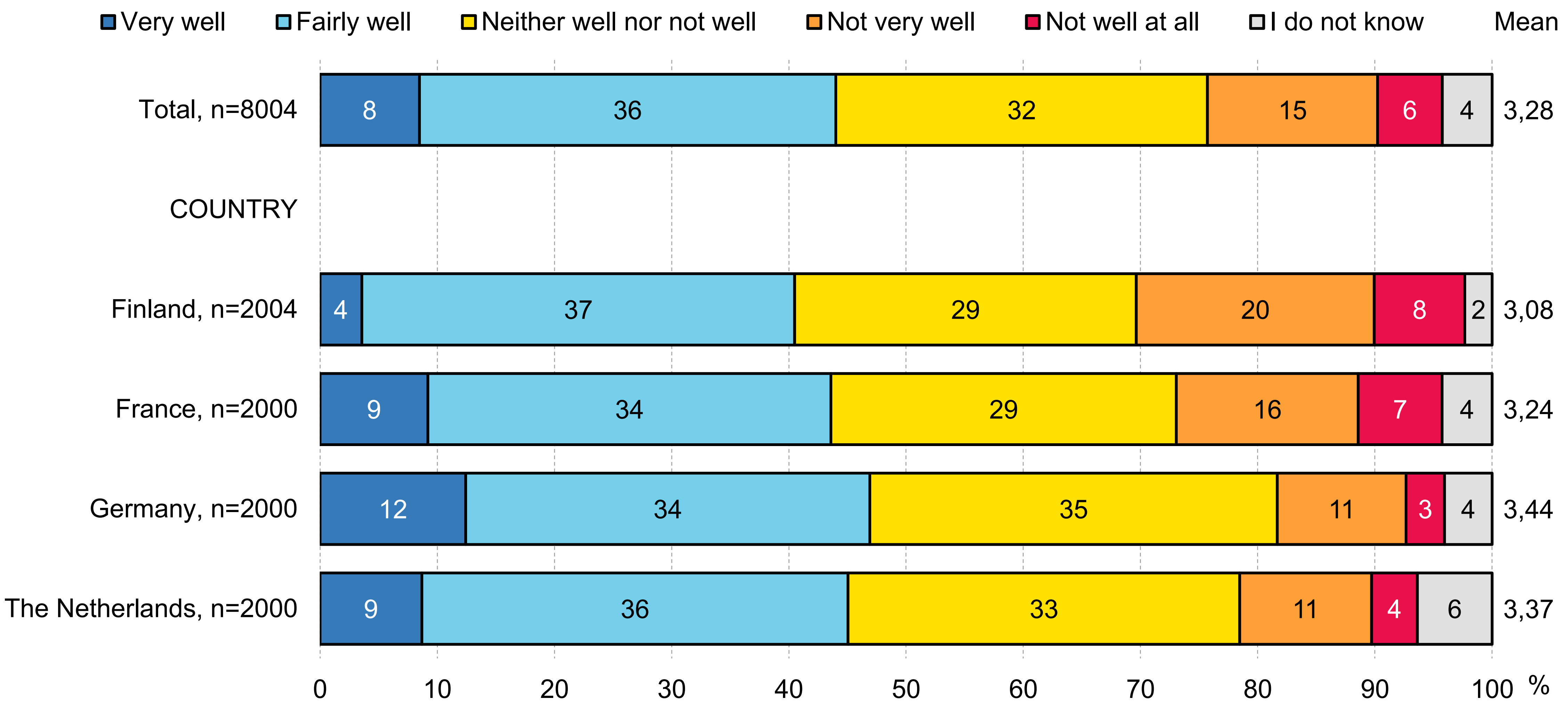


Respondent could choose multiple options

How has the EU's General Data Protection Regulation (GDPR), enforced on 25 May 2018, affected your online behavior?

n=All respondents

THE TERMS AND CONDITIONS OF APPLICATIONS / SERVICES ARE WELL KNOWN BY LESS THAN HALF OF THE RESPONDENTS, BEST IN GERMANY AND POOREST IN FINLAND



How well do you think you understand the terms and conditions of different applications/services?

n=All respondents

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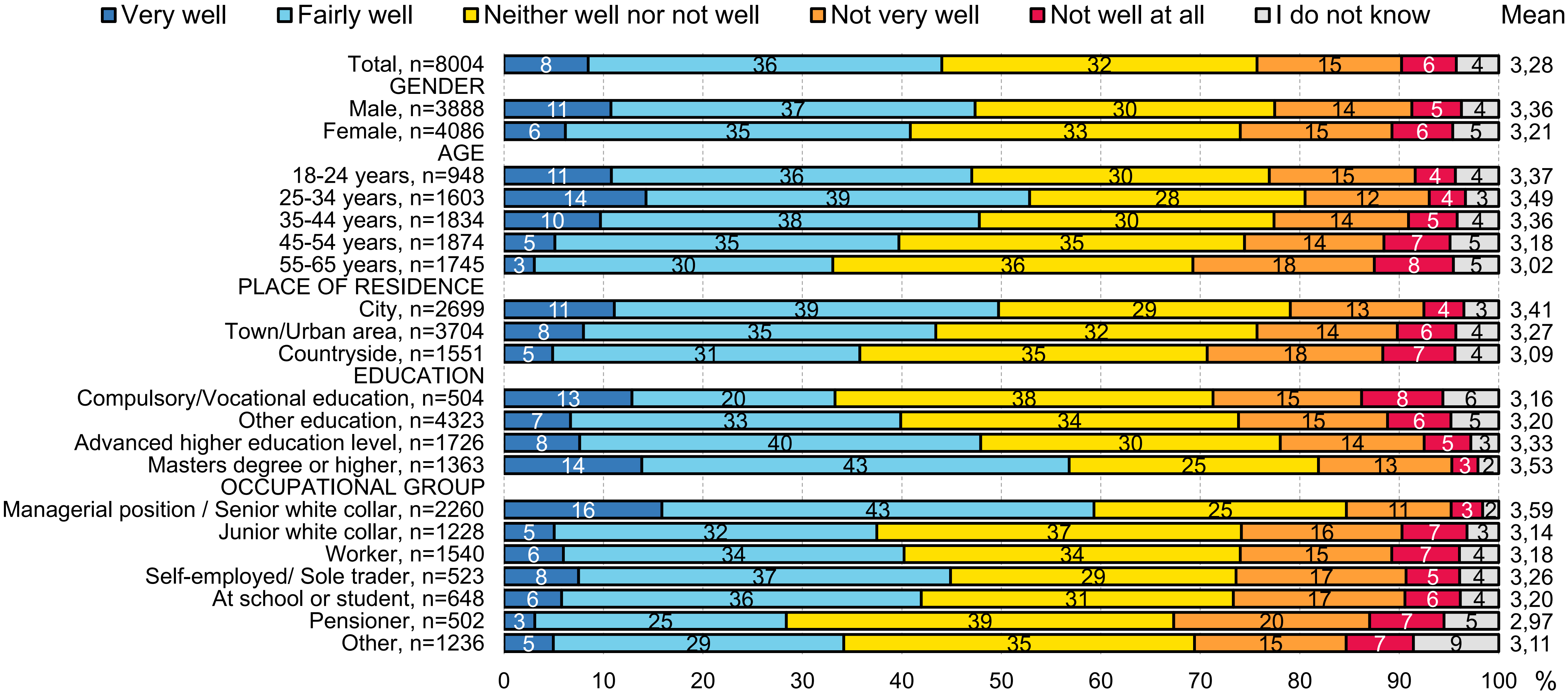
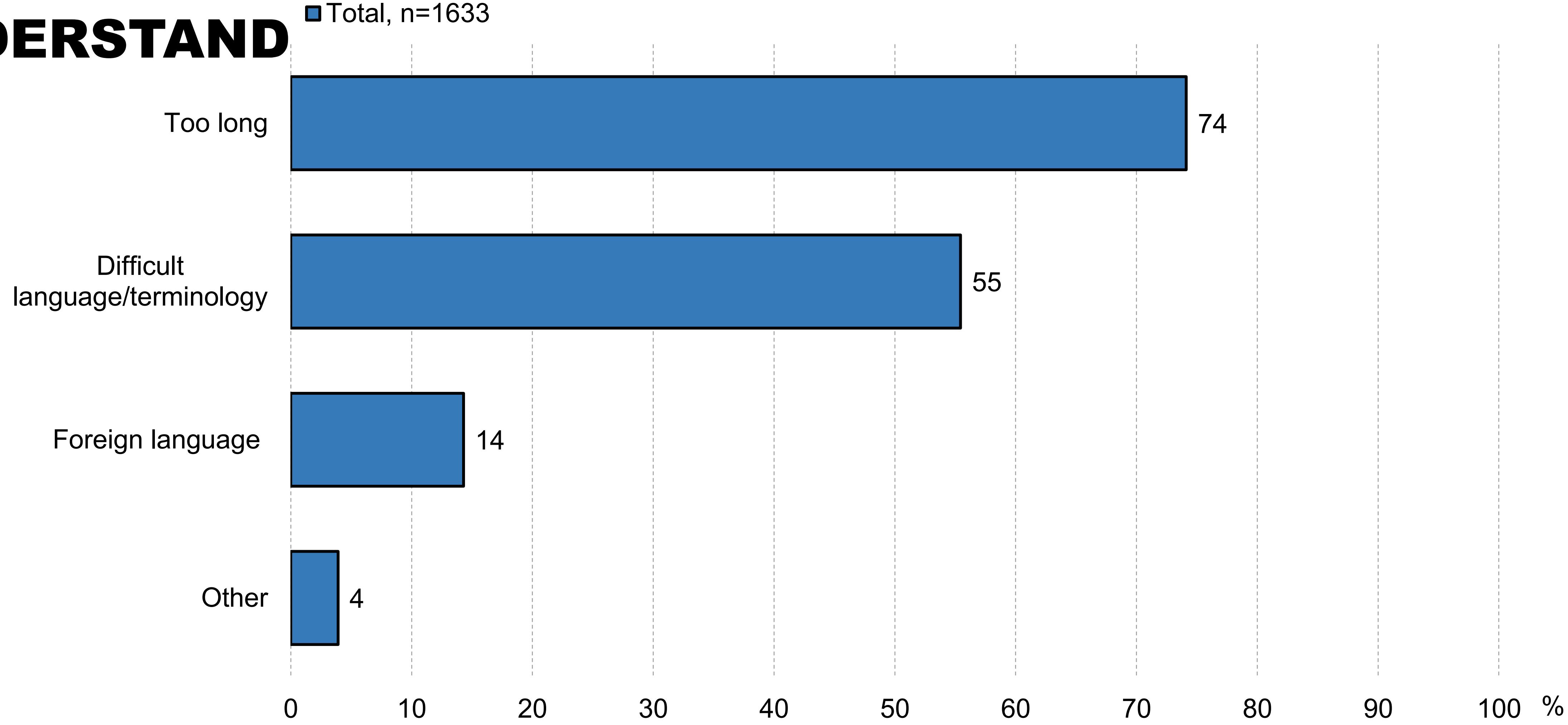
THE RESPONDENT'S BACKGROUND HAS AN IMPACT ON KNOWLEDGE OF THE TERMS AND CONDITIONS: PEOPLE WITH HIGHER EDUCATION AND PEOPLE IN MANAGERIAL POSITIONS KNOW THEM BETTER



How well do you think you understand the terms and conditions of different applications/services?

n=All respondents

LENGTH AND DIFFICULT LANGUAGE ARE THE MOST COMMON REASONS WHY THE TERMS OF USE OF APPLICATIONS / SERVICES ARE DIFFICULT TO UNDERSTAND



Respondent could choose multiple options

Why it is difficult to understand terms and conditions?

n=Has difficulties in understanding the terms and conditions.

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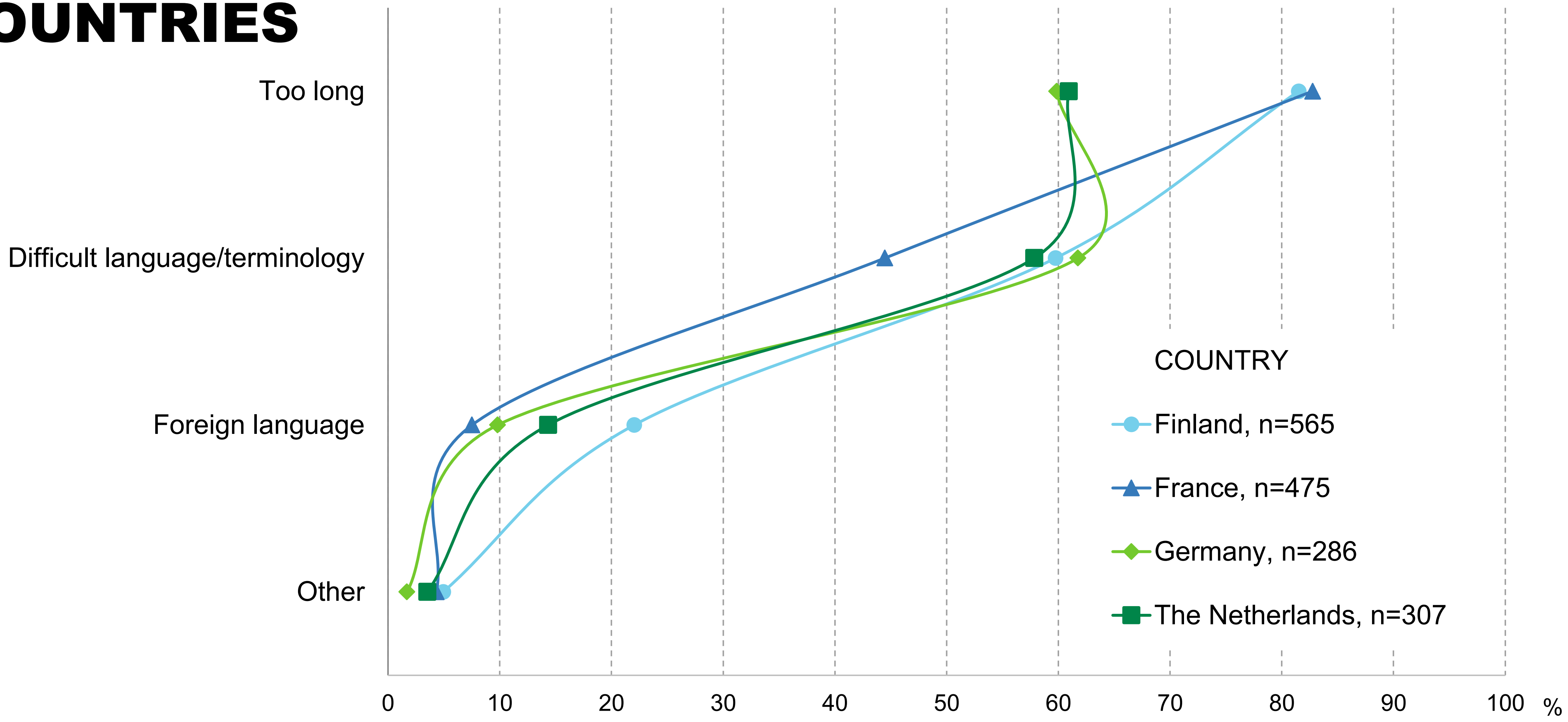
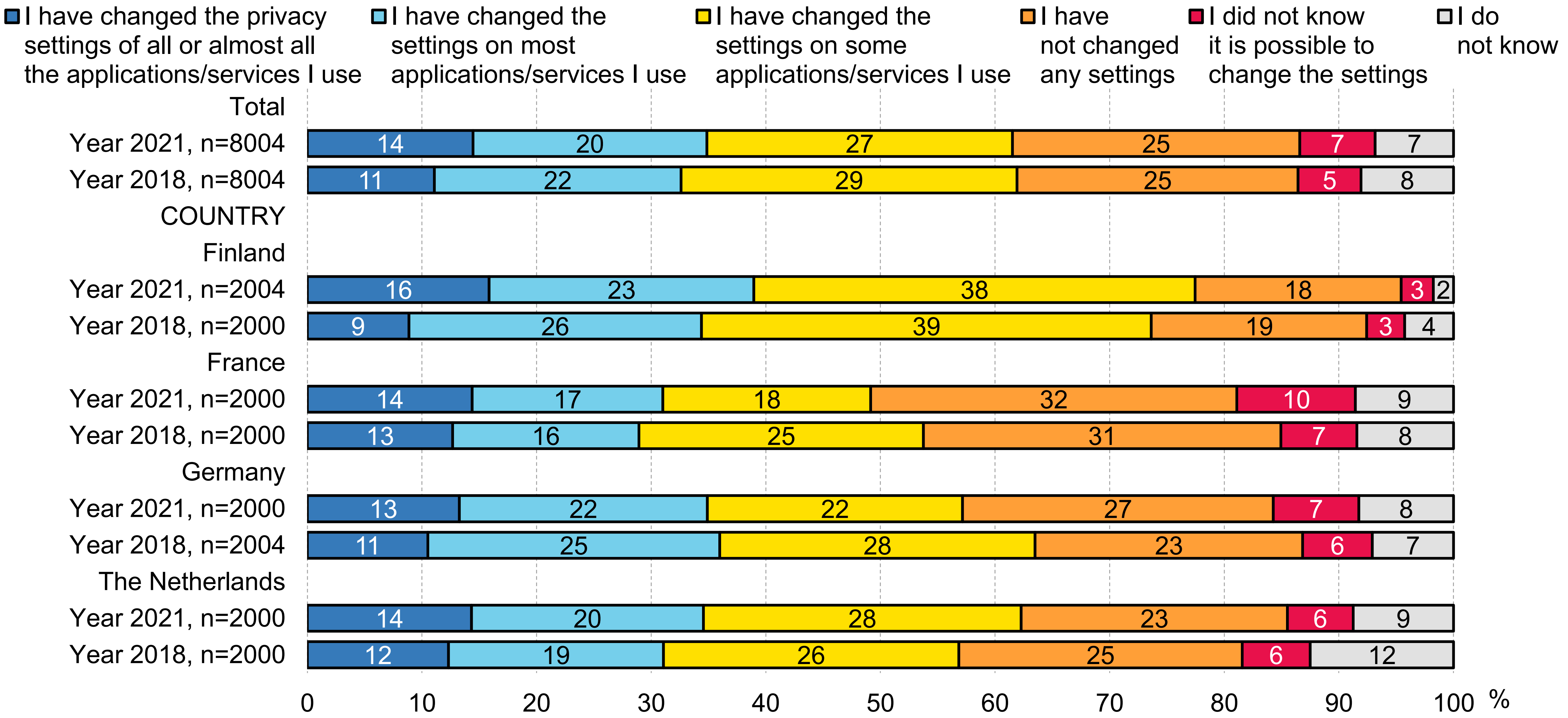
LENGTH AND DIFFICULT LANGUAGE ARE THE MOST COMMON REASONS WHY TERMS OF USE ARE DIFFICULT TO UNDERSTAND IN ALL COUNTRIES



Why it is difficult to understand terms and conditions?

n=Has difficulties in understanding the terms and conditions

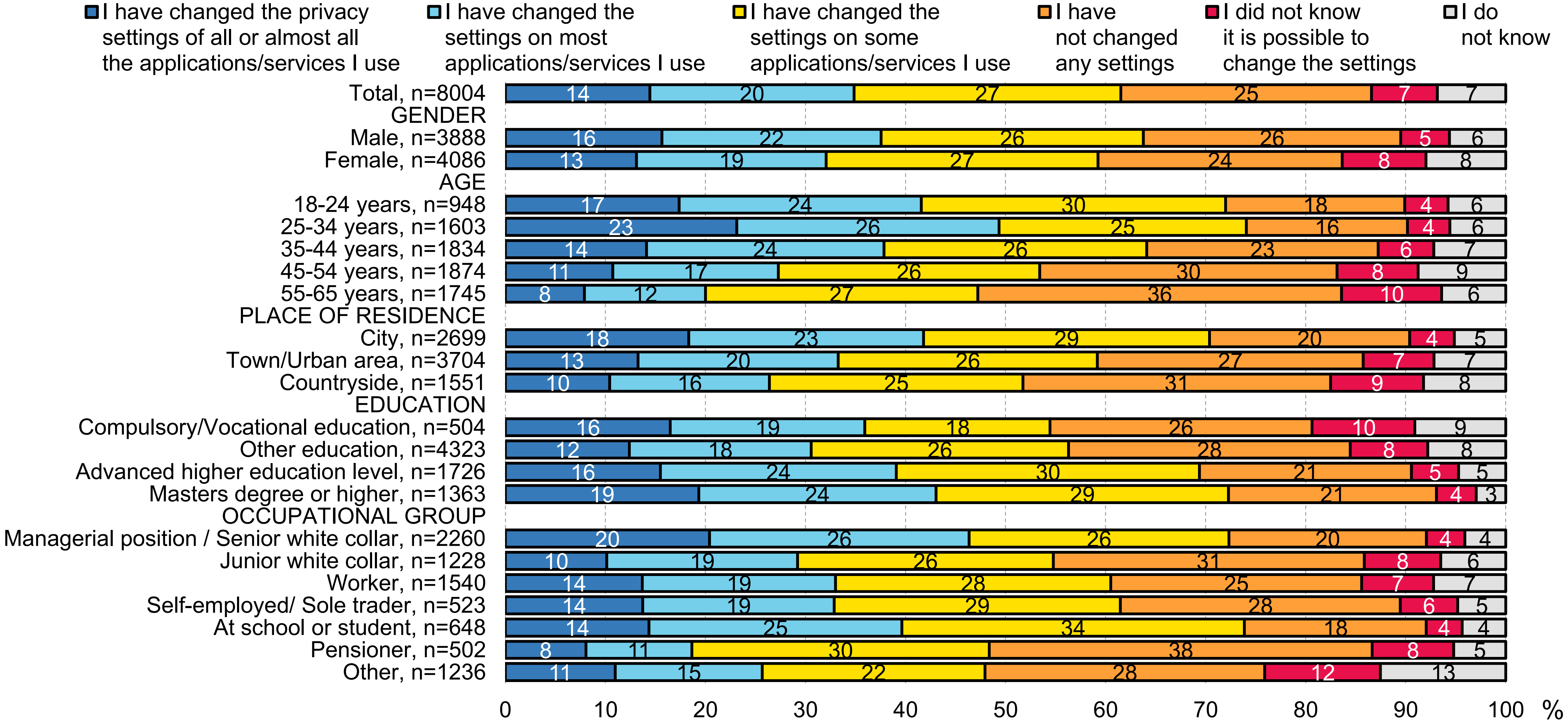
OVER HALF OF RESPONDENTS HAVE CHANGED SETTINGS OF APPLICATIONS / SERVICES



Have you changed the settings for different applications / services to meet your usage needs (eg location, privacy)?

n=All respondents

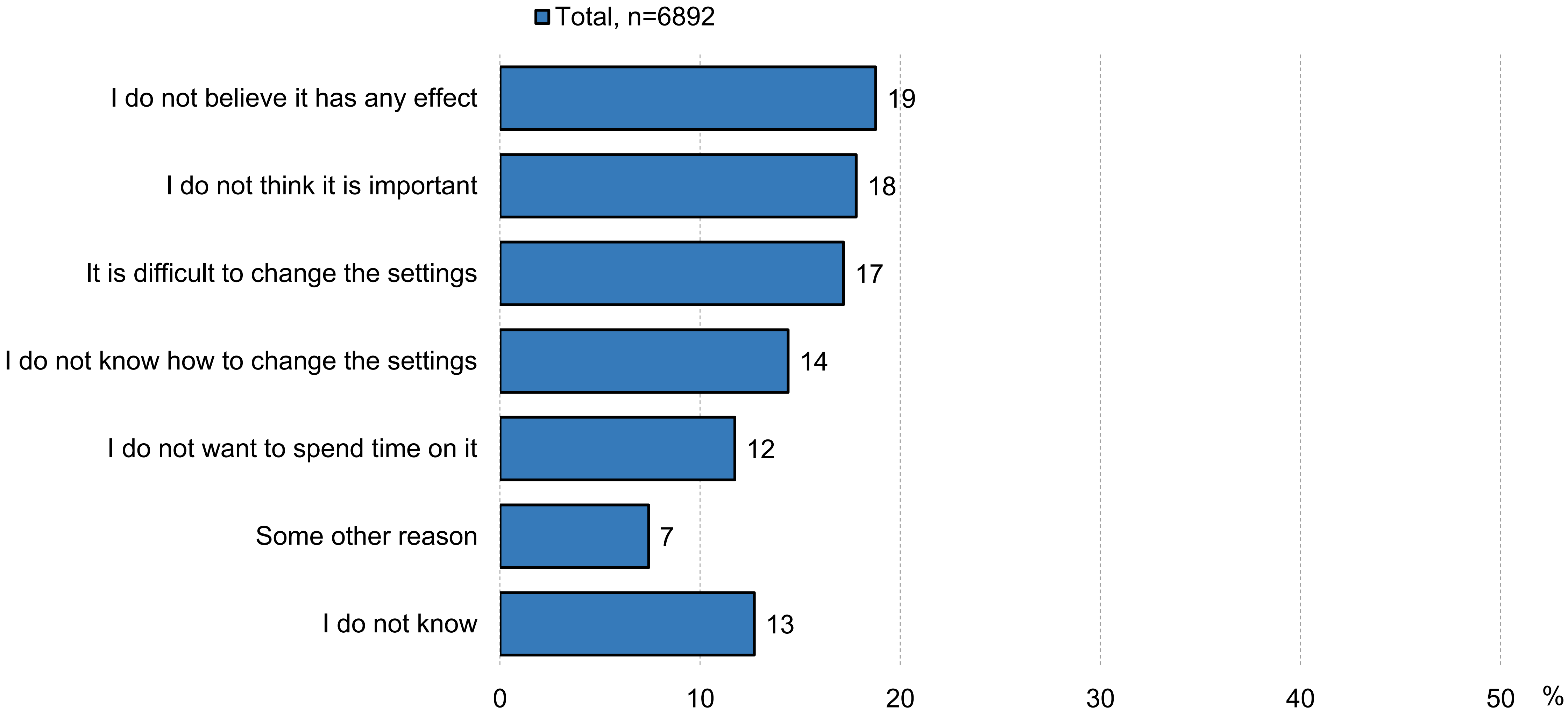
AGE AND PROFESSIONAL POSITION HAVE AN EFFECT ON CHANGING SETTINGS: YOUNGER PEOPLE, STUDENTS AND PEOPLE IN MANAGEMENT/ WHITE COLLAR POSITIONS HAVE CHANGED TERMS OF USE MORE THAN OTHER GROUPS



Have you changed the settings for different applications / services to meet your usage needs (eg location, privacy)?

n=All respondents

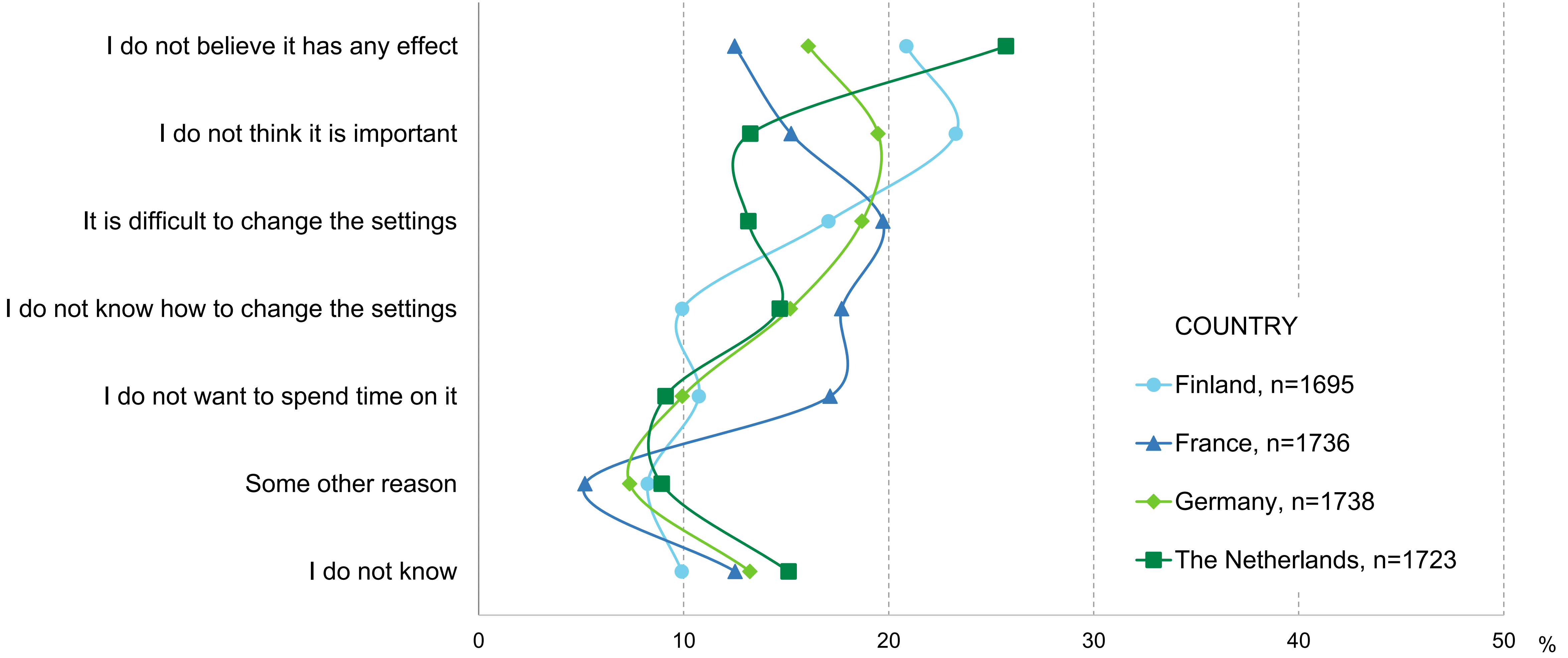
SETTINGS HAVE NOT BEEN CHANGED BECAUSE IT IS NOT BELIEVED TO HAVE ANY EFFECT OR IS NOT CONSIDERED IMPORTANT, CHANGING IT MAY ALSO BE DIFFICULT



Why haven't you changed privacy settings on applications/services? *Choose the most important reason for you.*

n=have not changed / have not changed to all

THE MAIN REASONS FOR NOT CHANGING THE SETTIINGS VARY LITTLE BY COUNTRY: THE NETHERLANDS AND FINLAND DO NOT BELIEVE ITS EFFECT, GERMANY IS NOT CONSIDERED IMPORTANT AND IN FRANCE



Why haven't you changed privacy settings on applications/services? *Choose the most important reason for you.*

n=have not changed / have not changed to all

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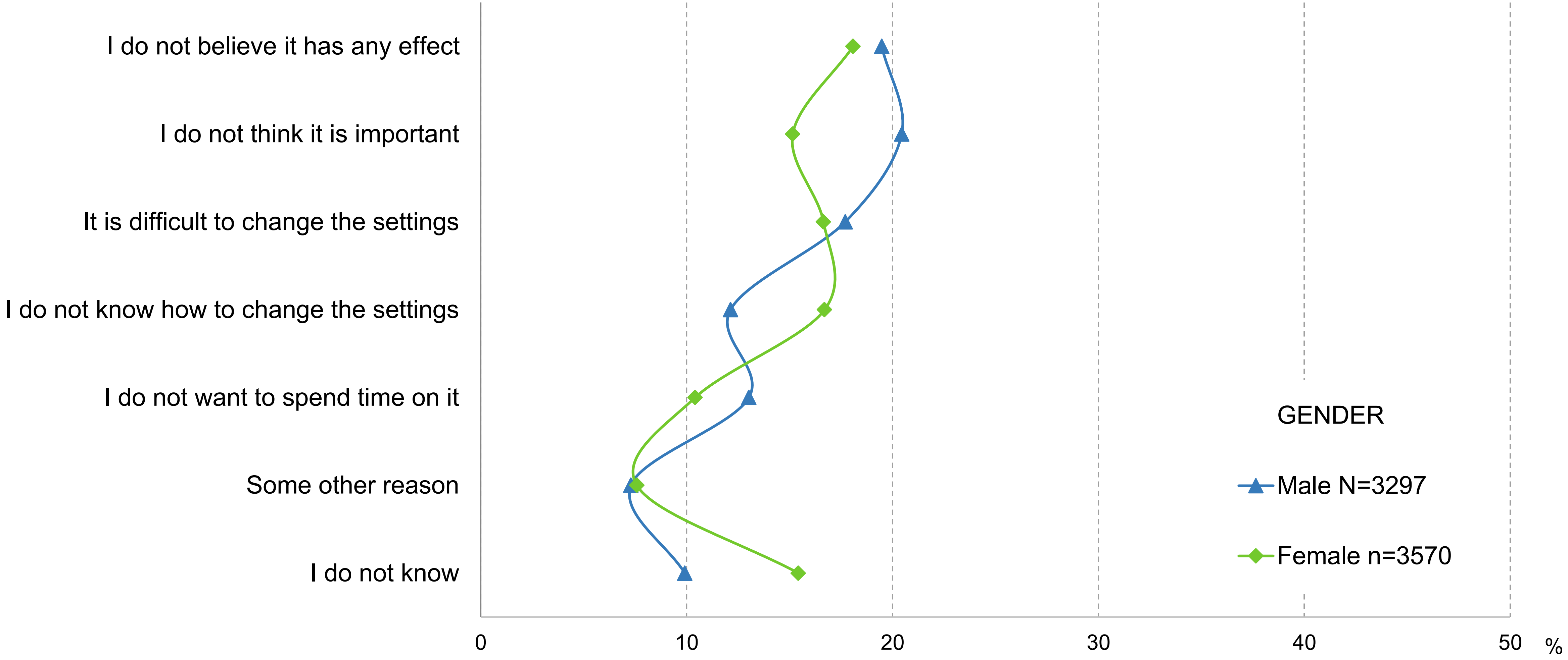
CHANGING SETTINGS IS CONSIDERED A LITTLE LESS IMPORTANT AMONG MEN THAN WOMEN



Why haven't you changed privacy settings on applications/services? *Choose the most important reason for you.*

n=have not changed / have not changed to all

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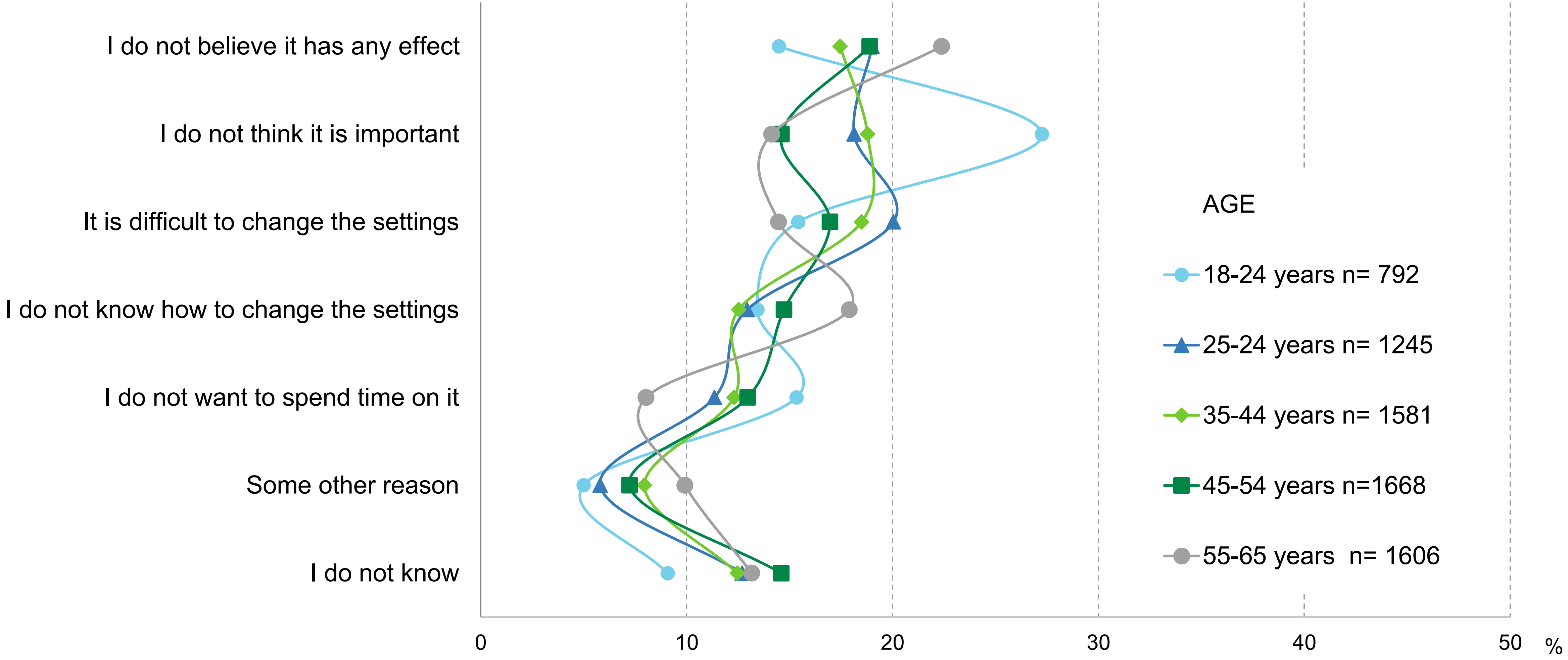
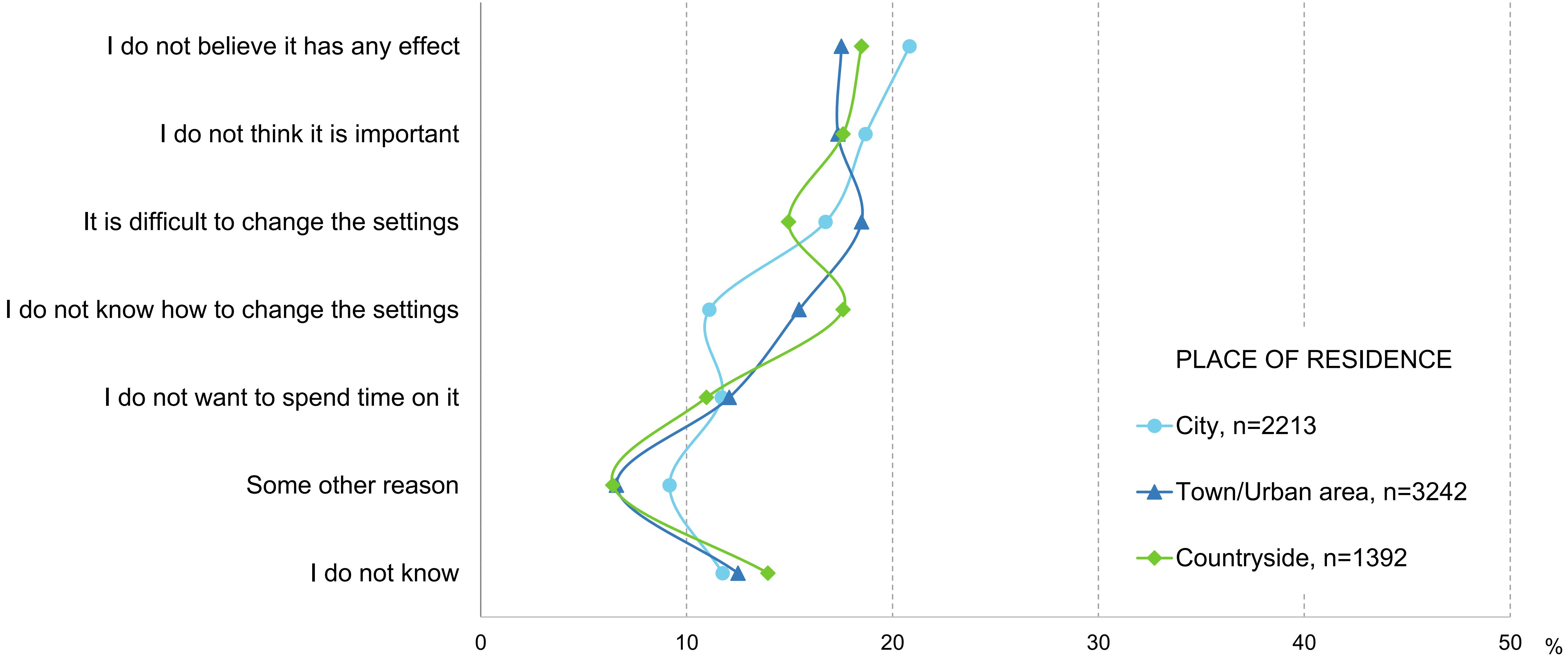
YOUNG PEOPLE CONSIDER CHANGING SETTINGS LESS IMPORTANT THAN PEOPLE IN THE OLDER AGE GROUPS



Why haven't you changed privacy settings on applications/services? *Choose the most important reason for you.*

n=have not changed / have not changed to all

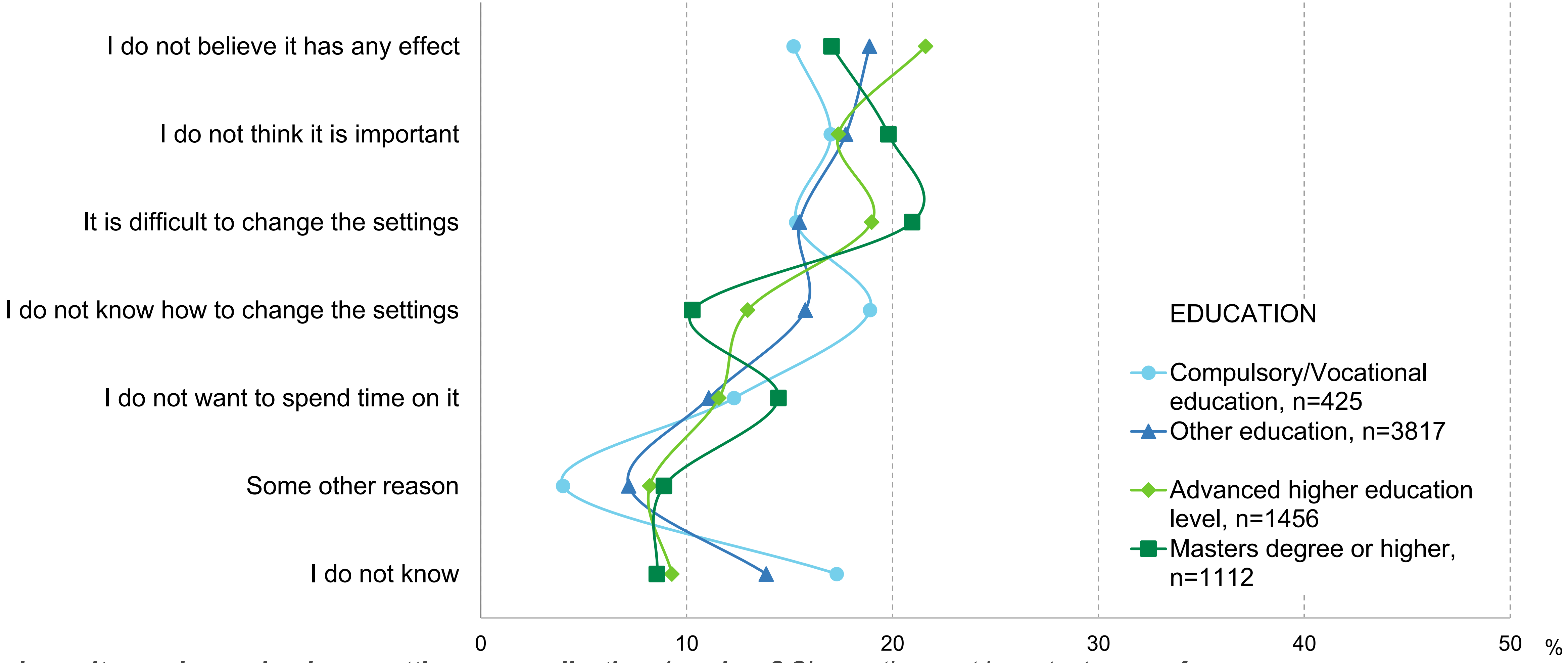
PLACE OF RESIDENCE HAS LITTLE EFFECT ON THE REASONS FOR NOT CHANGING THE SETTINGS



Why haven't you changed privacy settings on applications/services? *Choose the most important reason for you.*

n=have not changed / have not changed to all

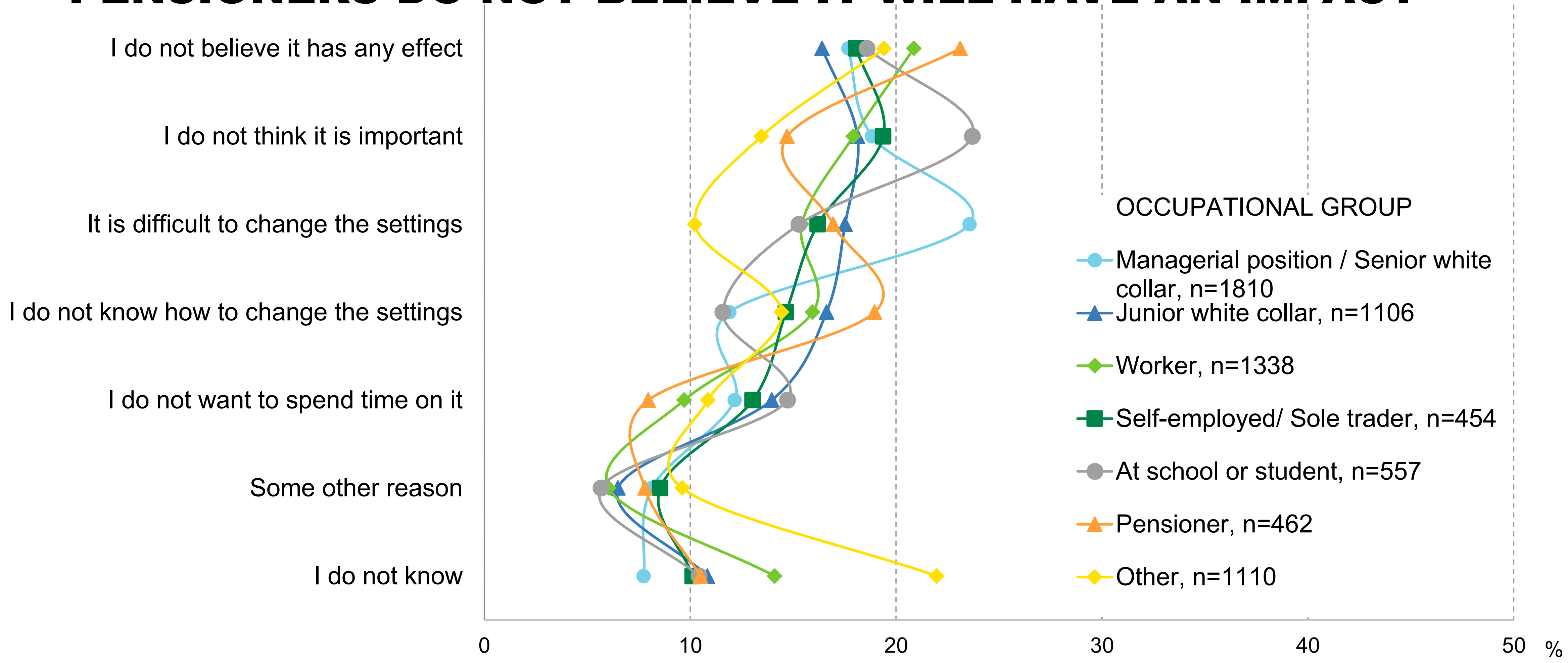
EDUCATION HAS SOME IMPACT ON THE REASONS FOR NOT CHANGING THE SETTINGS



Why haven't you changed privacy settings on applications/services? *Choose the most important reason for you.*

n=have not changed / have not changed to all

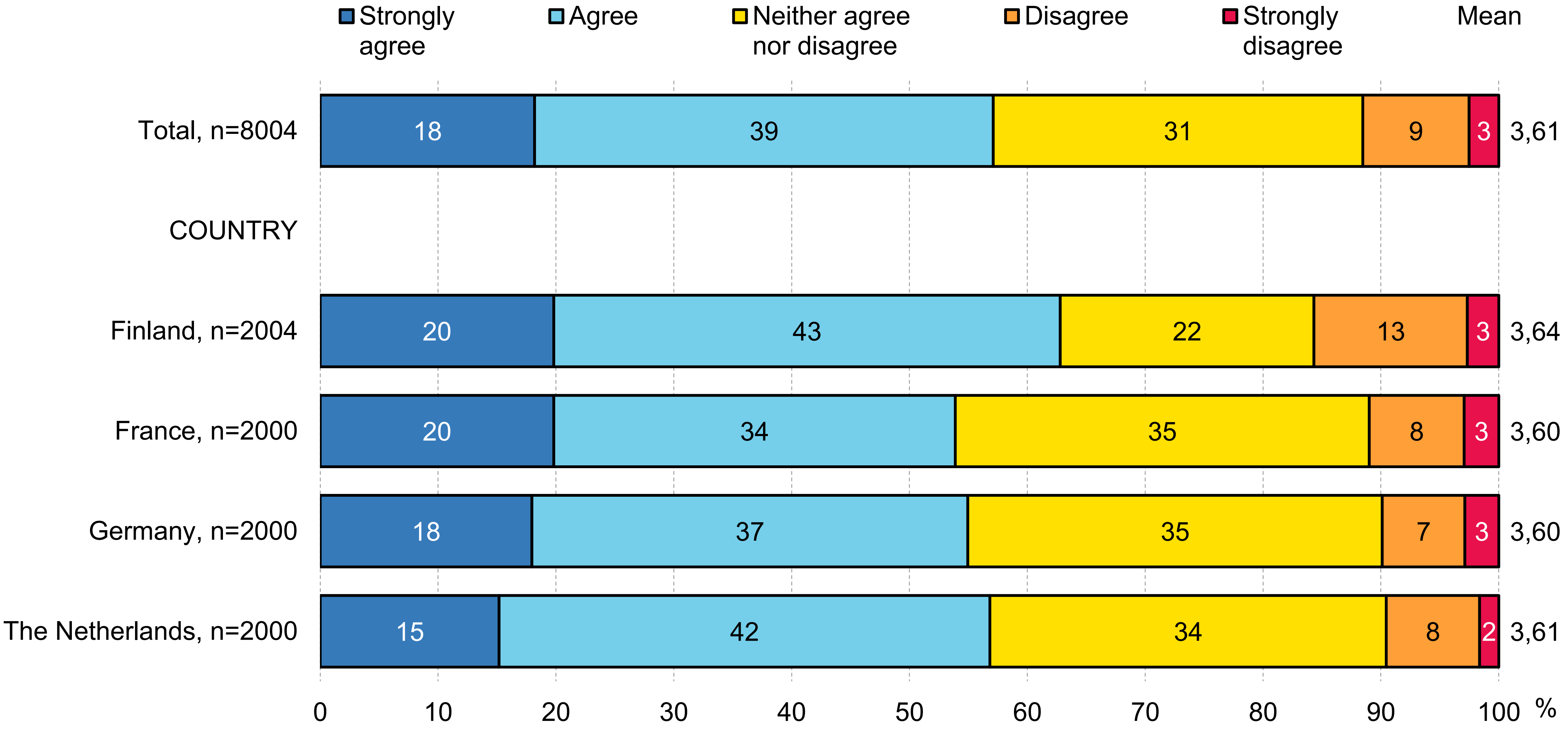
PROFESSIONAL POSITION AFFECTS SOME REASONS TO NOT CHANGE SETTINGS: STUDENTS DO NOT CONSIDER IMPORTANT, MANAGERS CONSIDER DIFFICULT AND PENSIONERS DO NOT BELIEVE IT WILL HAVE AN IMPACT



Why haven't you changed privacy settings on applications/services? *Choose the most important reason for you.*

n=have not changed / have not changed to all

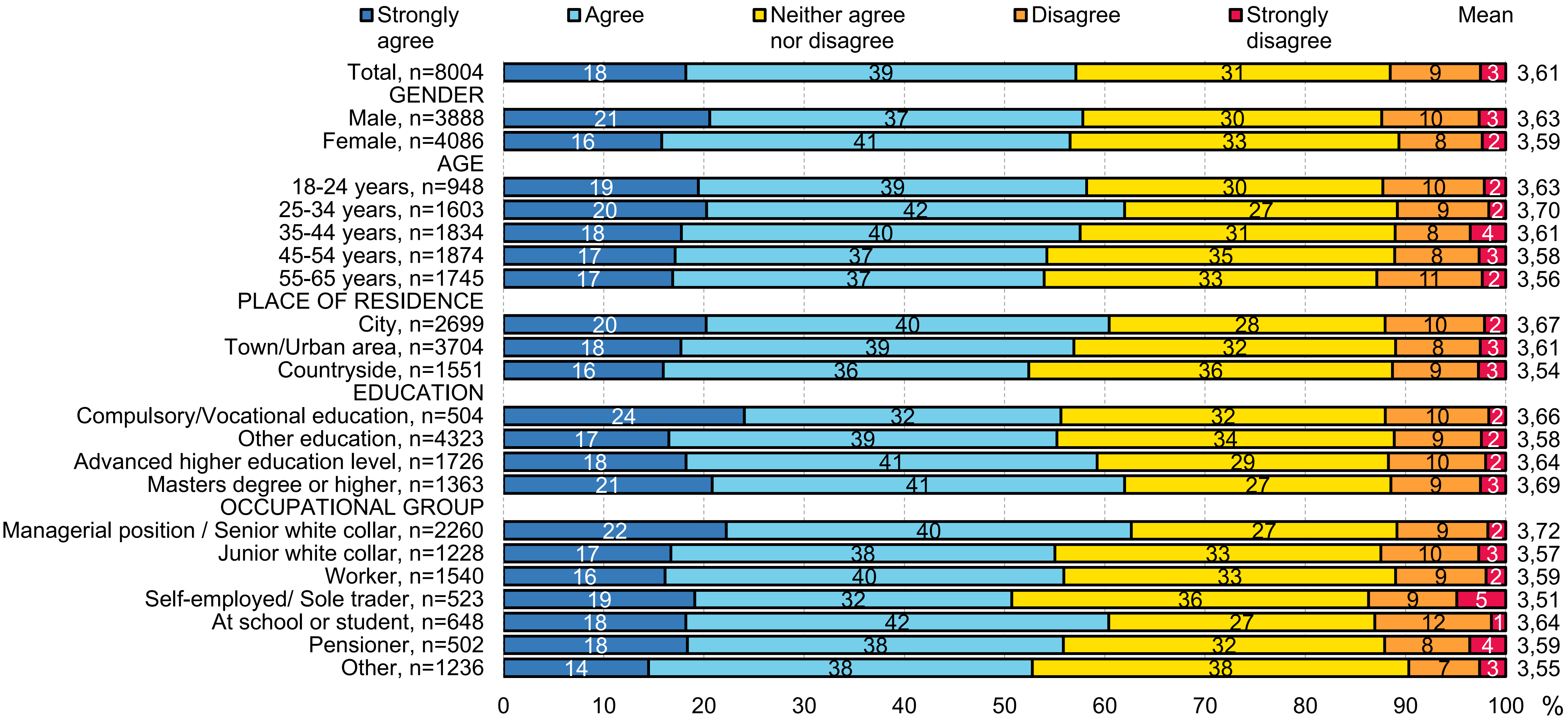
OVER HALF OF RESPONDENTS CONSIDERS THAT PROTECTION OF PRIVACY IS TOO MUCH ON THE RESPONSIBILITY OF AN INDIVIDUAL



Protection of privacy is too much on your responsibility.

n=All respondents

IN ALL RESPONDENT GROUPS, AT LEAST HALF CONSIDERS PRIVACY IS TOO EXCLUSIVE ON THE RESPONSIBILITY OF THE INDIVIDUAL



To what extent do you agree or disagree with the following statement? Protection of privacy is too much on your responsibility.

n=All respondents

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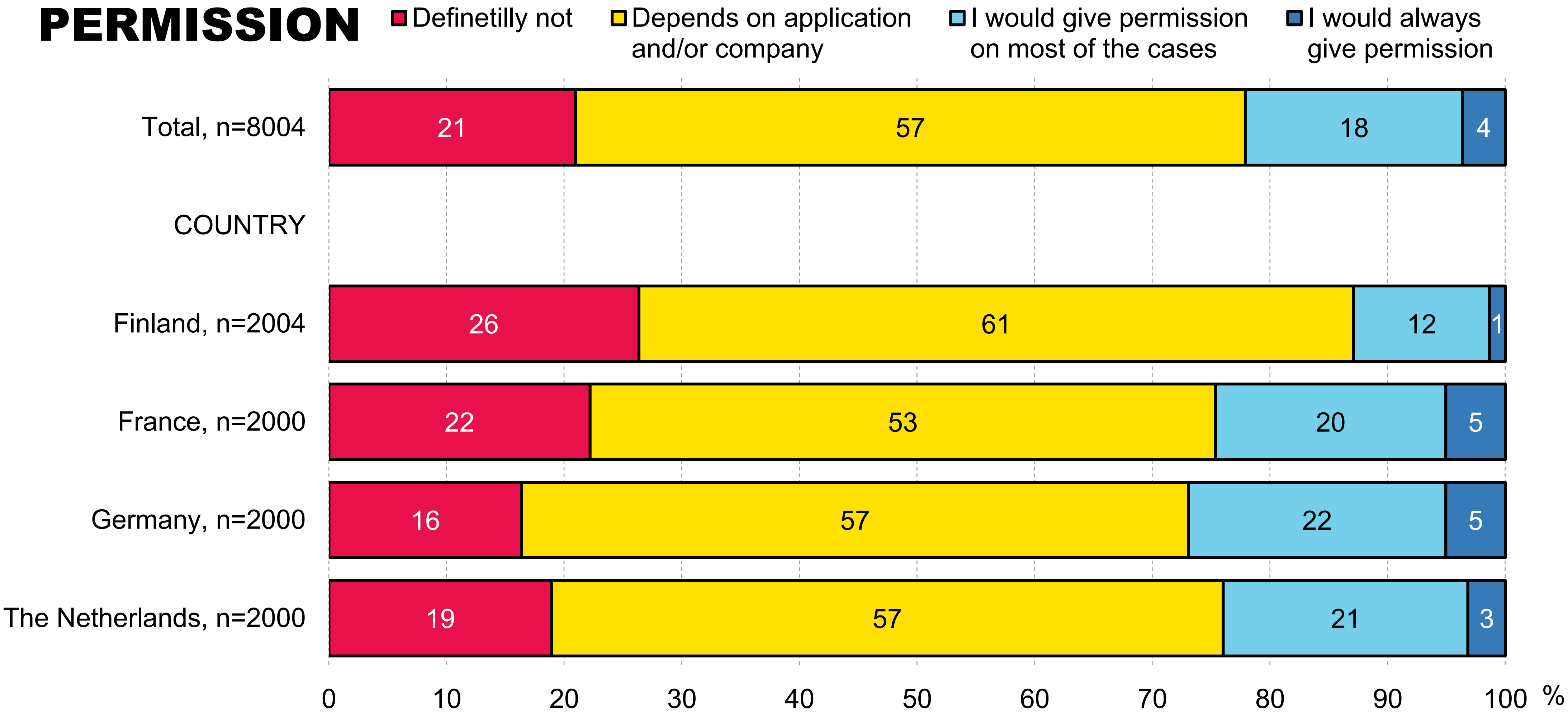
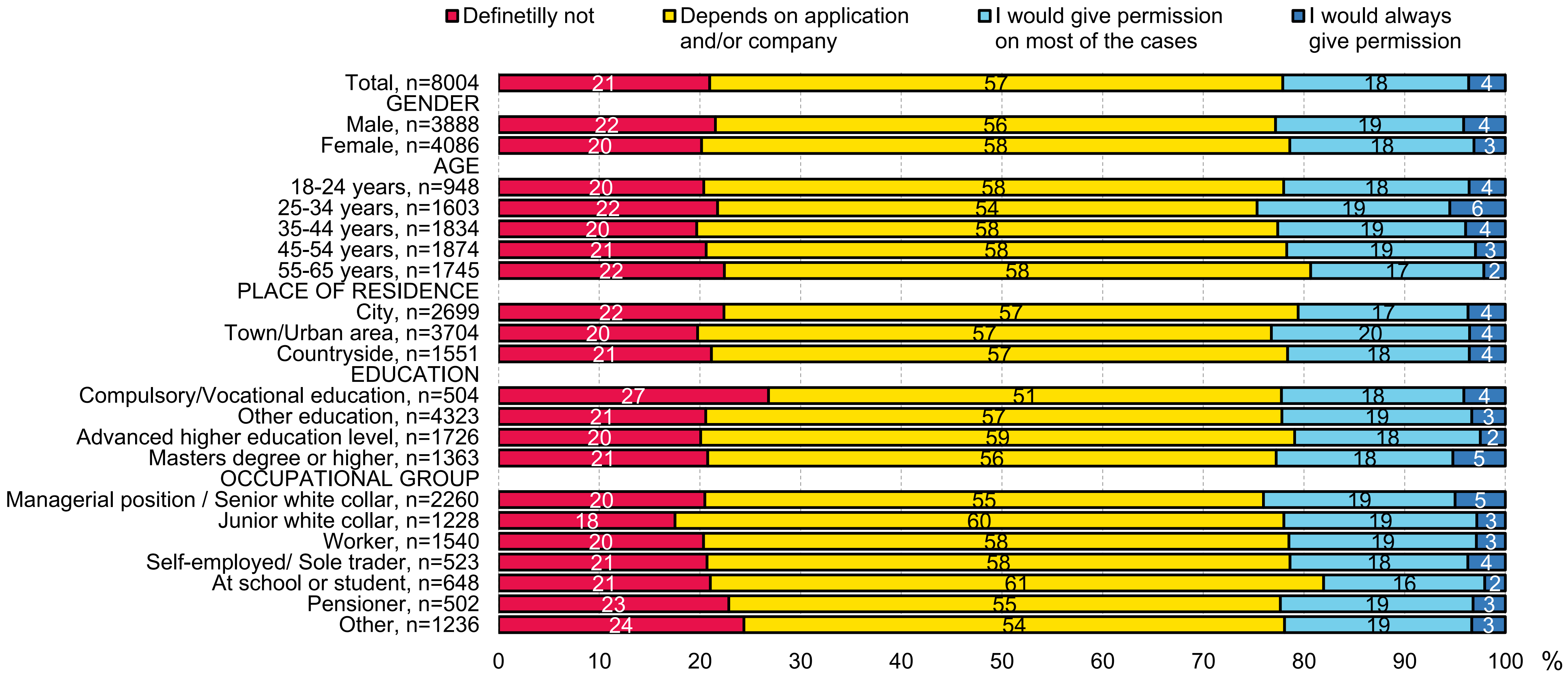
MANY WOULD GIVE PERMISSION FOR COMMERCIAL USE OF ANONYMOUS LOCATION DATA IN SELECTED SPPLICATIONS, FIFTH WOULD DEFINETILLY NOT GIVE PERMISSION



Would you give a permission that your anonymized location data is collected and used for commercial purposes (anonymization is on high level and you are asked for permission to use the data. Anonymization means that the data cannot be linked with personal information)

n=All respondents

THE RESPONDENT GROUP DOES NOT HAVE A SIGNIFICANT IMPACT ON ATTITUDE ON AUTHORIZING THE COMMERCIAL USE OF LOCATION DATA



Would you give a permission that your anonymized location data is collected and used for commercial purposes (anonymization is on high level and you are asked for permission to use the data. Anonymization means that the data cannot be linked with personal information)

n=All respondents

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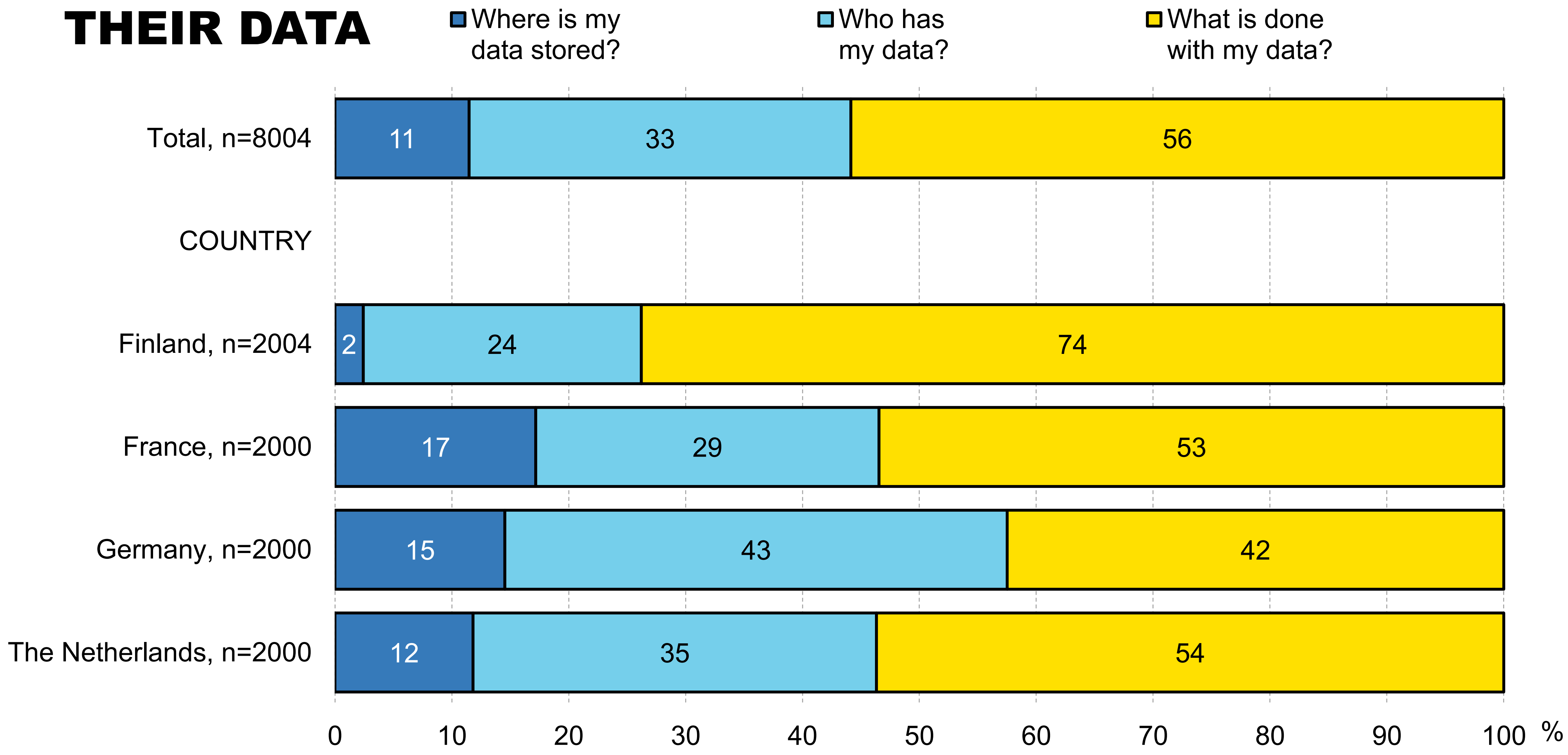
OVER HALF OF ALL RESPONDENTS ARE MOST INTERESTED ON WHAT THEIR DATA IS DONE WITH, GERMAN RESPONDENTS ARE INTERESTED WHO HAS THEIR DATA



Which of the following matters to you the most?

n=All respondents

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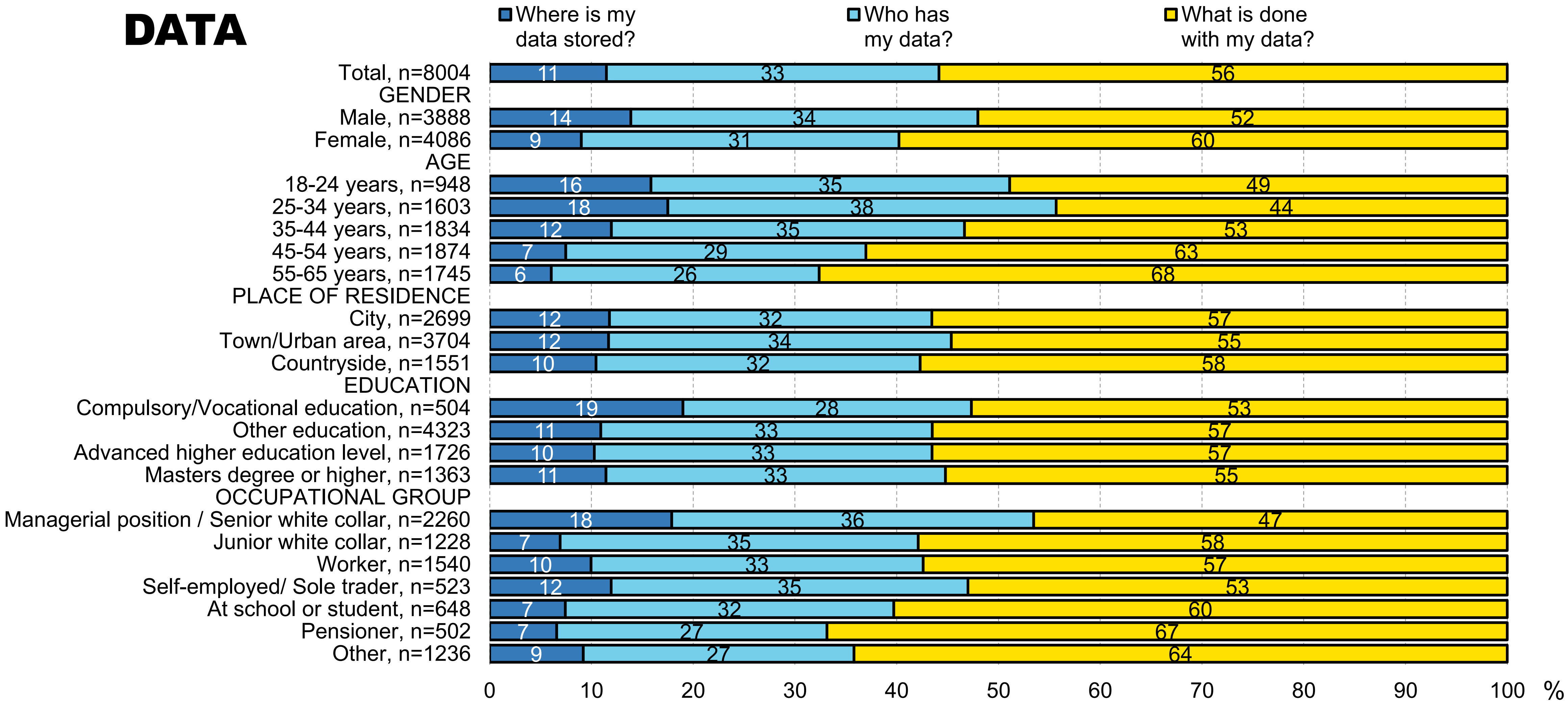
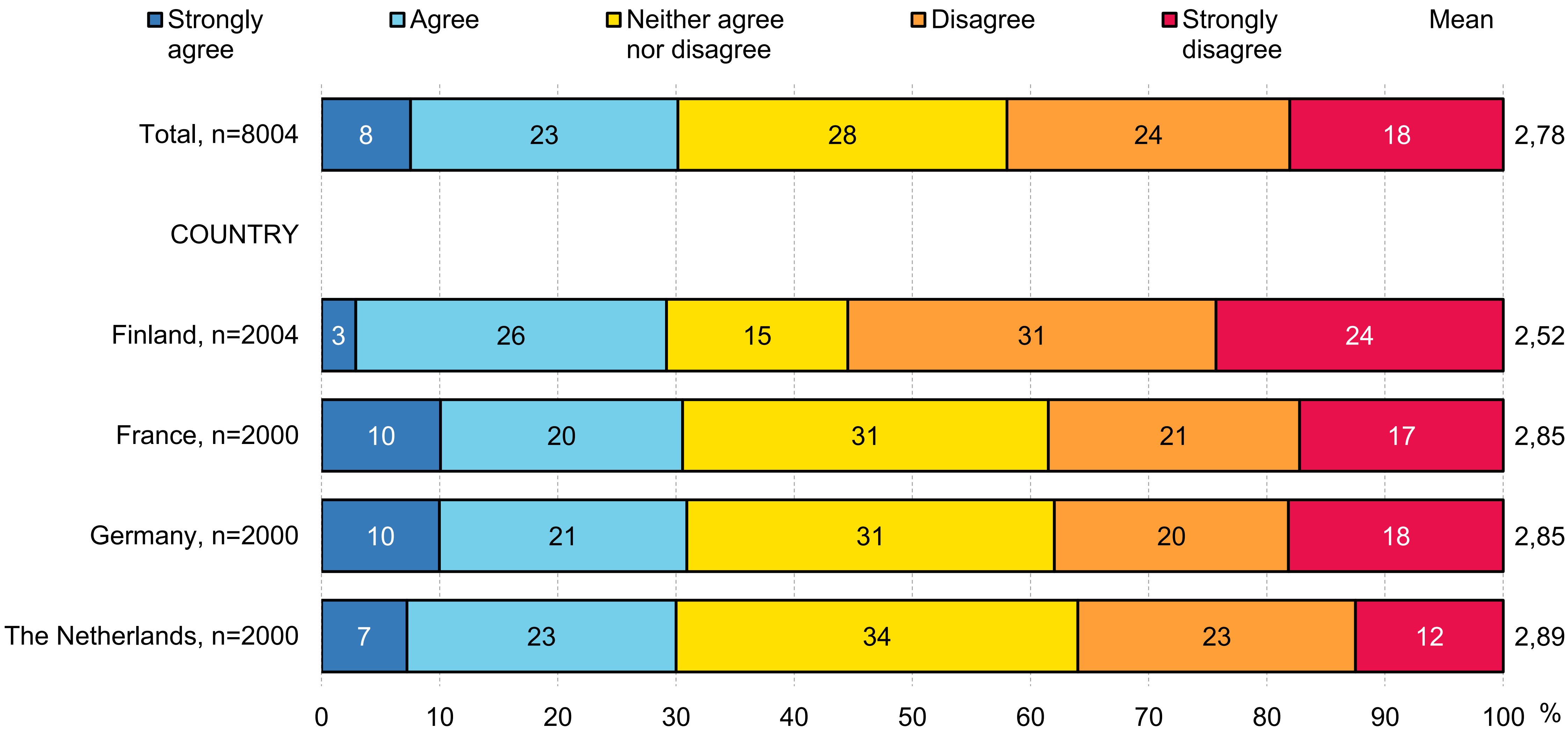
THE RESPONDENT GROUP HAS SOME IMPORTANCE ON WHAT IS CONSIDERED AS THE MOST IMPORTANT ISSUE IN THE PROCESSING AND MANAGEMENT OF ONE'S OWN DATA



Which of the following matters to you the most?

n=All respondents

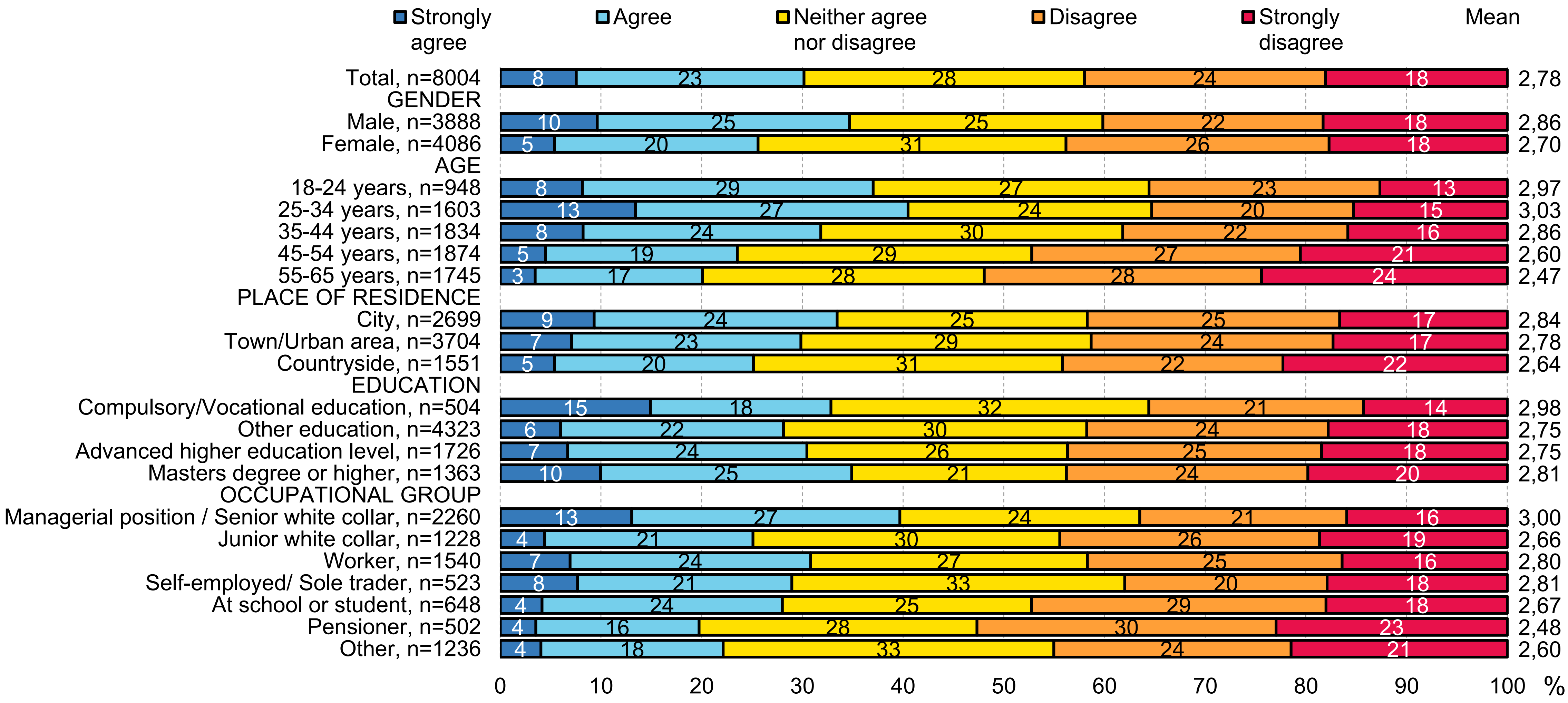
ABOUT THIRD CONSIDER THAT PRIVACY IS A THING OF THE PAST



To what extent do you agree or disagree with the following statement: privacy of personal data is gone and you should just accept it?

n=All respondents

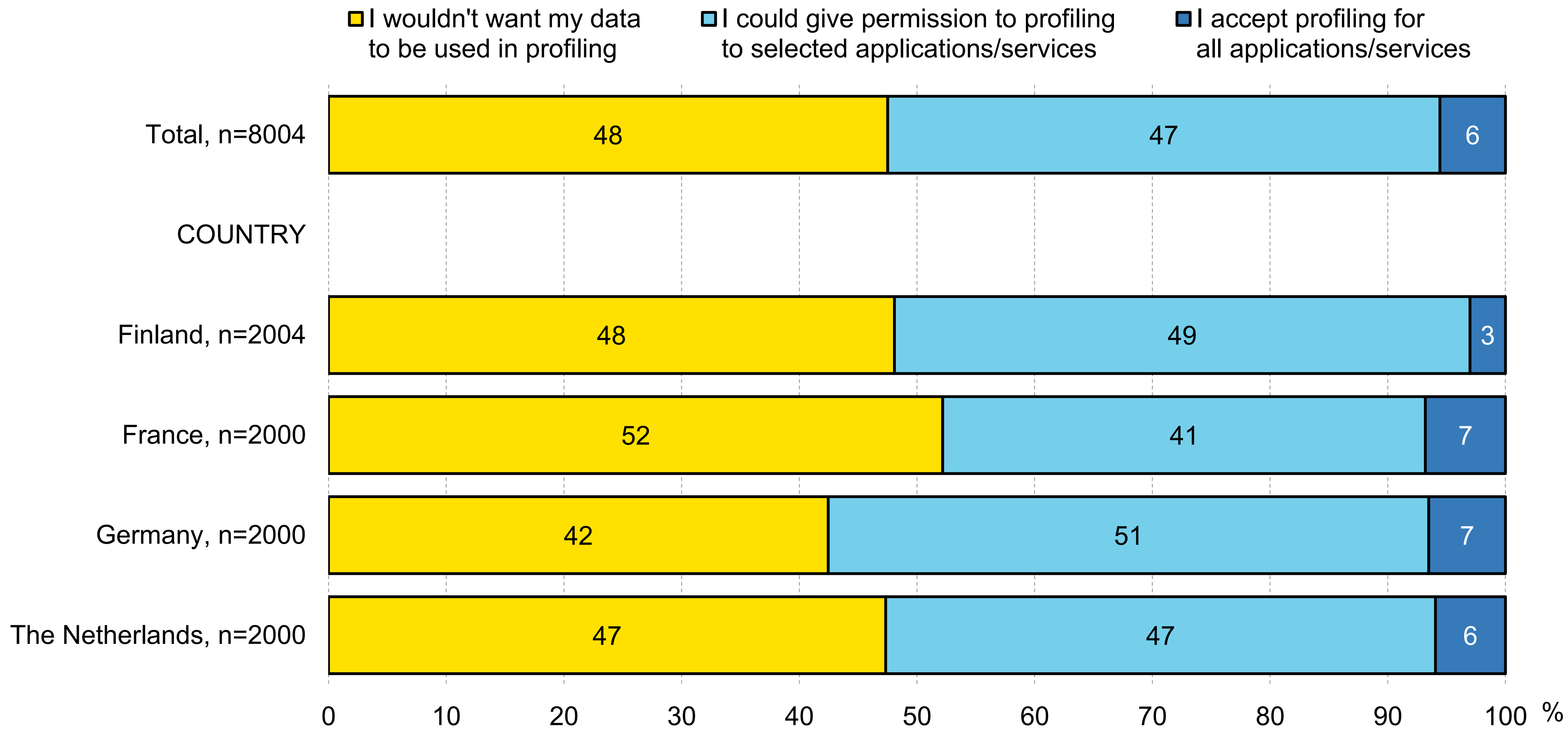
YOUNGER PEOPLE AND MANAGERS/PEOPLE IN SENIOR WHITE COLLAR POSITION THINK THAT PRIVACY IS THING OF THE PAST A LITTLE MORE OFTEN THAN OTHER GROUPS



To what extent do you agree or disagree with the following statement: privacy of personal data is gone and you should just accept it?

n= All respondents

SLIGHTLY OVER HALF OF THE RESPONDENTS ACCEPT PROFILING, BUT MOSTLY FOR THE APPLICATIONS / SERVICES OF THEIR CHOICE

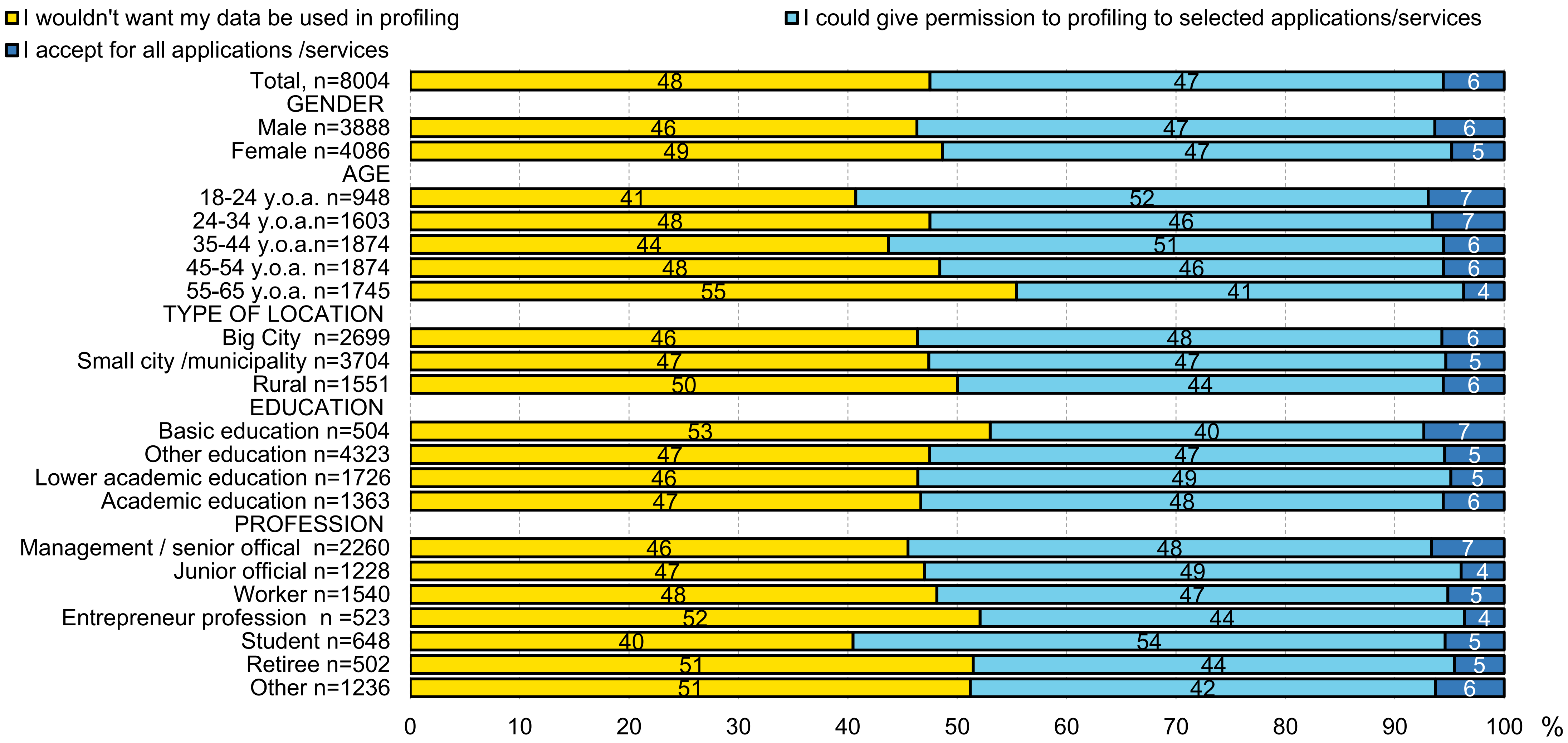


Some service providers use application user data to create profiles according which users are presented content and news feed related to behavior and location. What is your opinion on digital profiling?

n=kaikki vastaajat

SITRA

YOUNGER PEOPLE AND STUDENTS ARE MORE LIKELY TO GIVE PERMIT FOR PROFILING THAN OLDER PEOPLE.

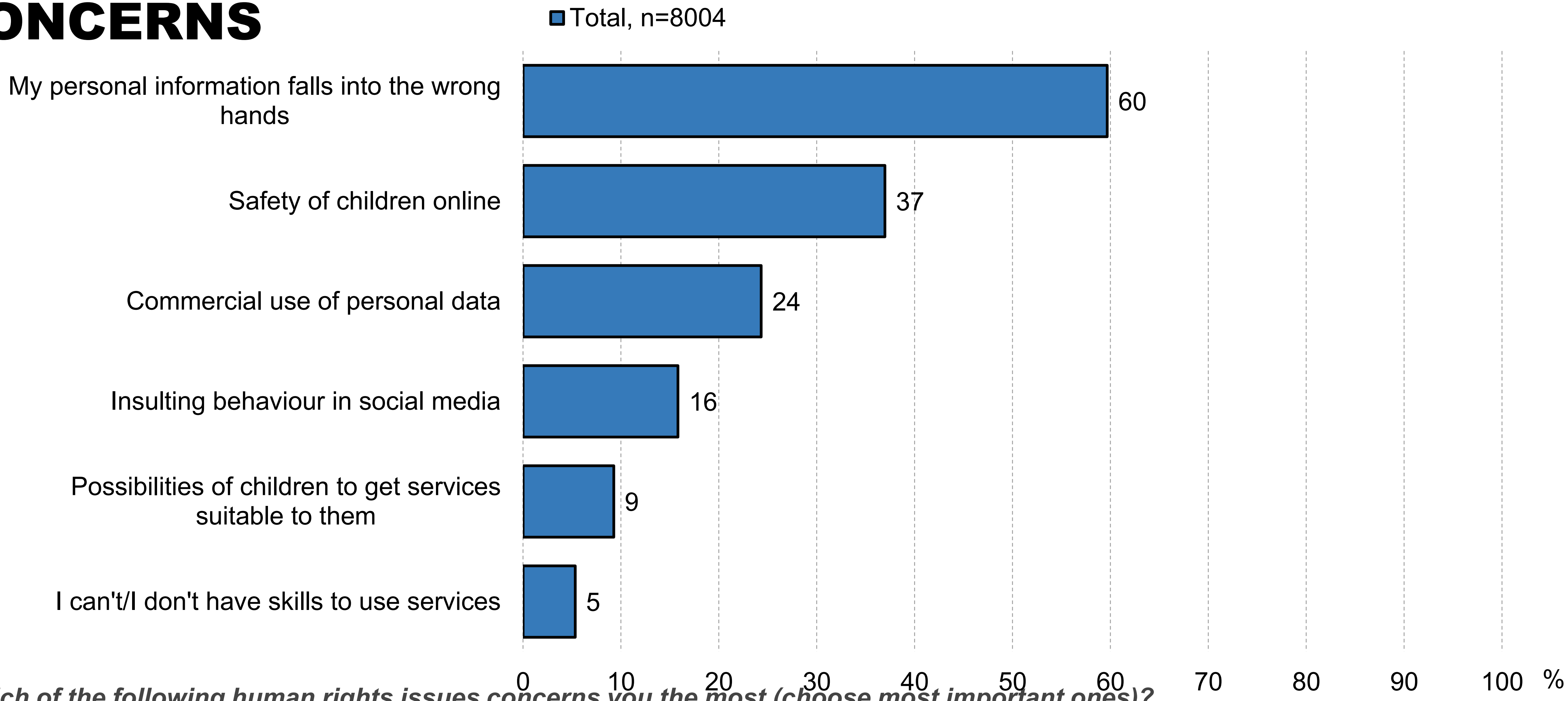


Some service providers use application user data to create profiles according which users are presented content and news feed related to behavior and location. What is your opinion on digital profiling?

n=All respondents

SITRA

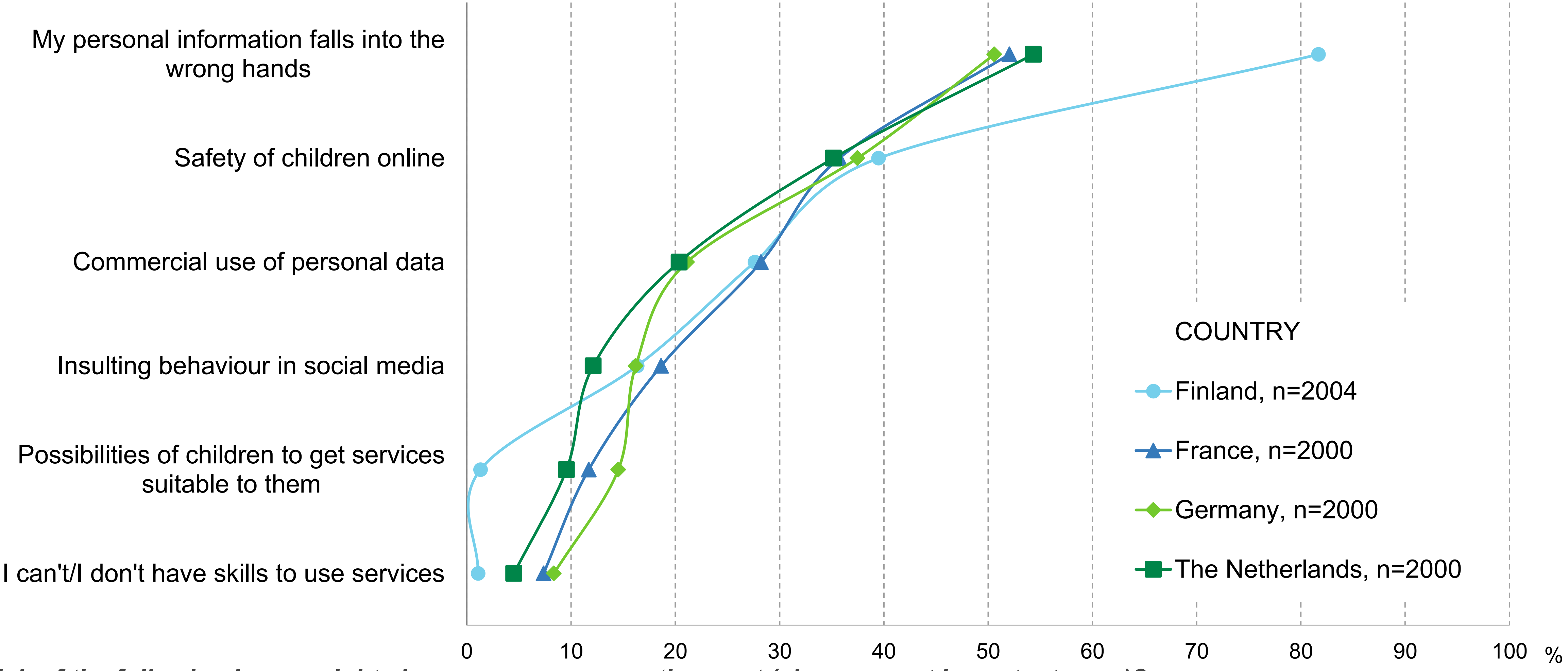
RESPONDENTS ARE MOST CONCERNED ABOUT THEIR PERSONAL INFORMATION FALLS INTO WRONG HANDS, SAFETY OF THE CHILDREN ALSO RAISES CONCERNS



Which of the following human rights issues concerns you the most (choose most important ones)?

n=All respondents

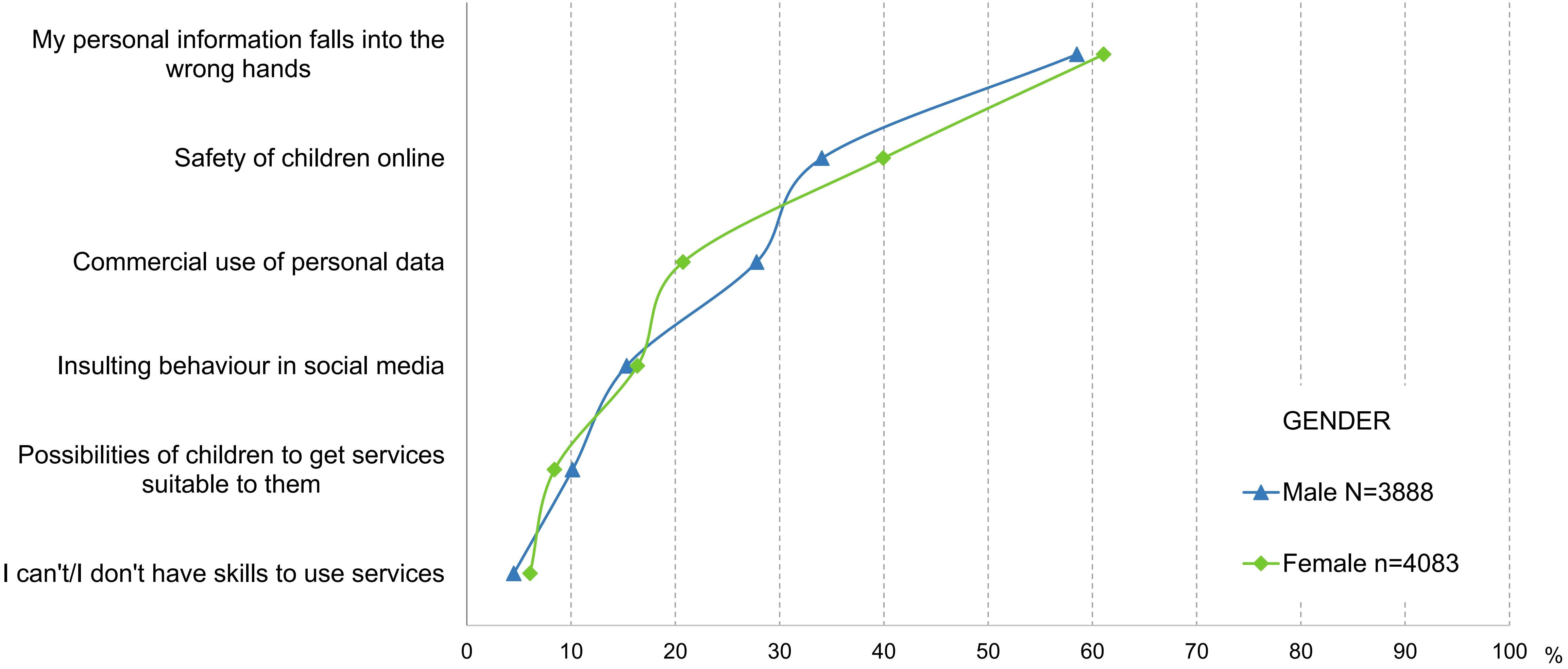
FINNISH ARE MORE CONCERNED ON THEIR PERSONAL INFORMATION FALLING INTO WRONG HANDS THAN OTHERS



Which of the following human rights issues concerns you the most (choose most important ones)?

n=All respondents

PERSONAL INFORMATION FALLING INTO WRONG HANDS CONCERNS BOTH GENDERS THE MOST

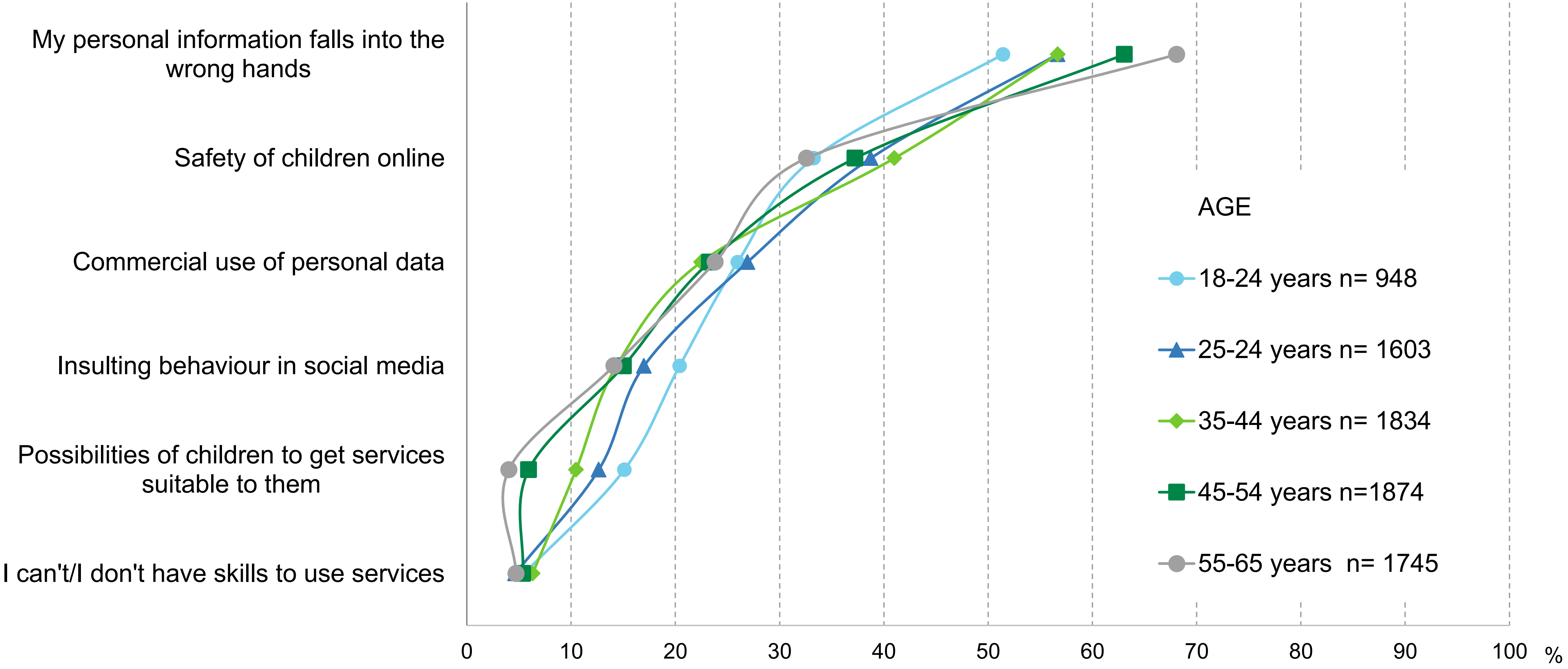


Which of the following human rights issues concerns you the most (choose most important ones)?

n=All respondents

SITRA

PERSONAL INFORMATION FALLING INTO WRONG HANDS CONCERNS PEOPLE THE MOST IN ALL AGE GROUPS

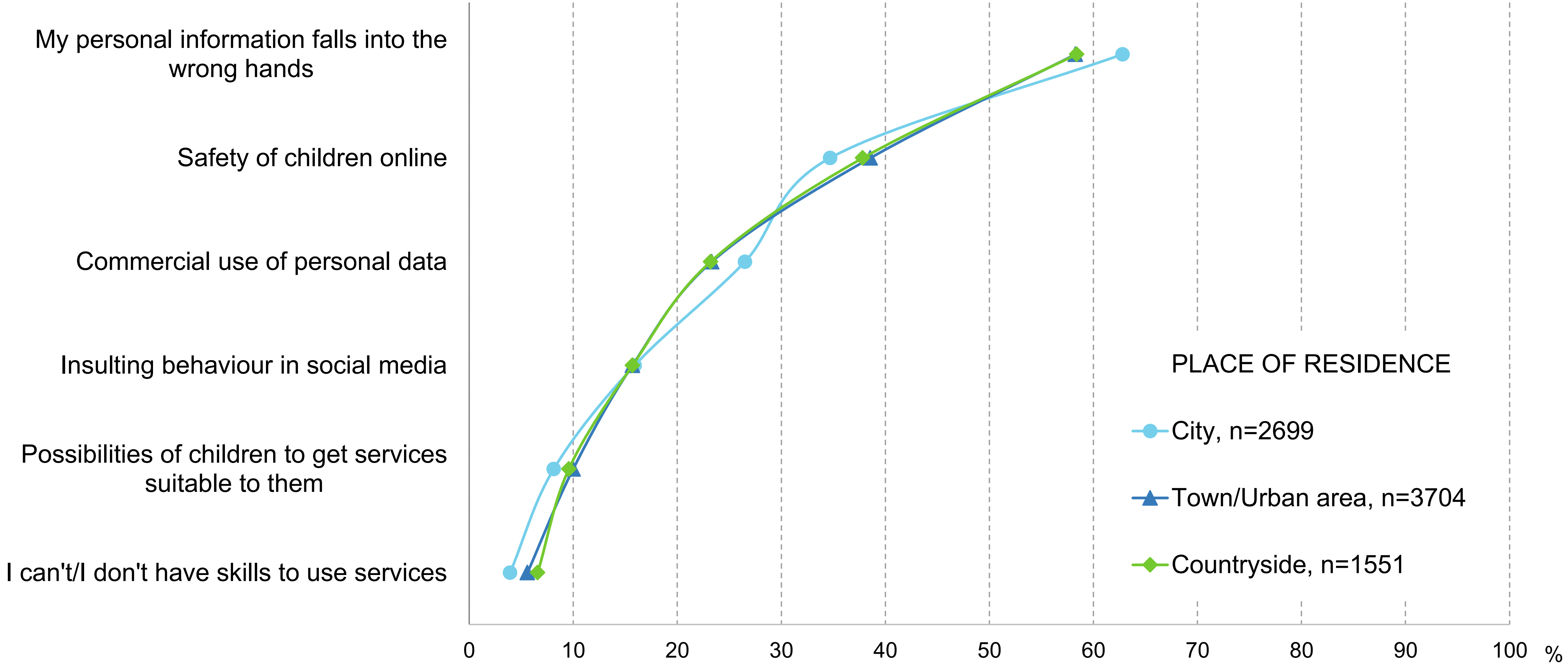


Which of the following human rights issues concerns you the most (choose most important ones)?

n=All respondents

SITRA

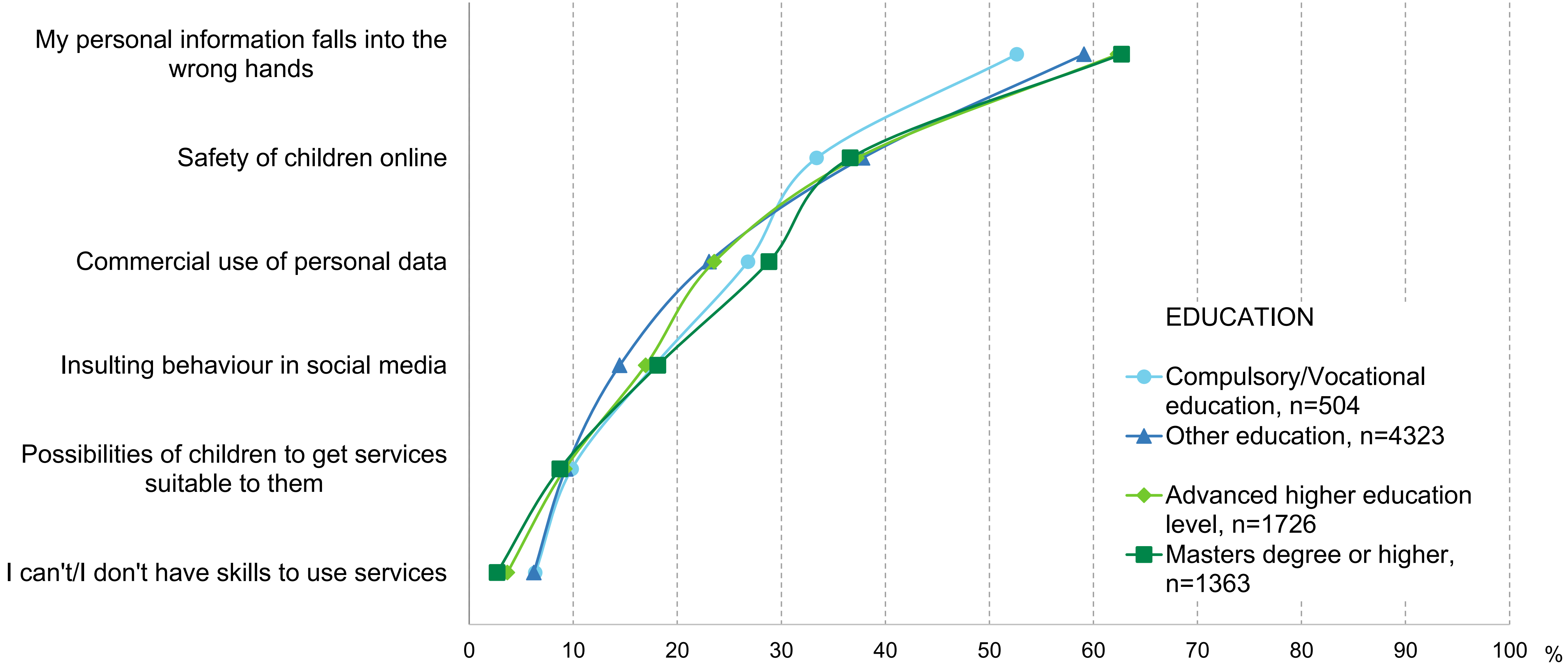
PERSONAL INFORMATION FALLING INTO WRONG HANDS CONCERNS PEOPLE THE MOST REGARDLESS THE PLACE OF RESIDENCE



Which of the following human rights issues concerns you the most (choose most important ones)?

n=All respondents

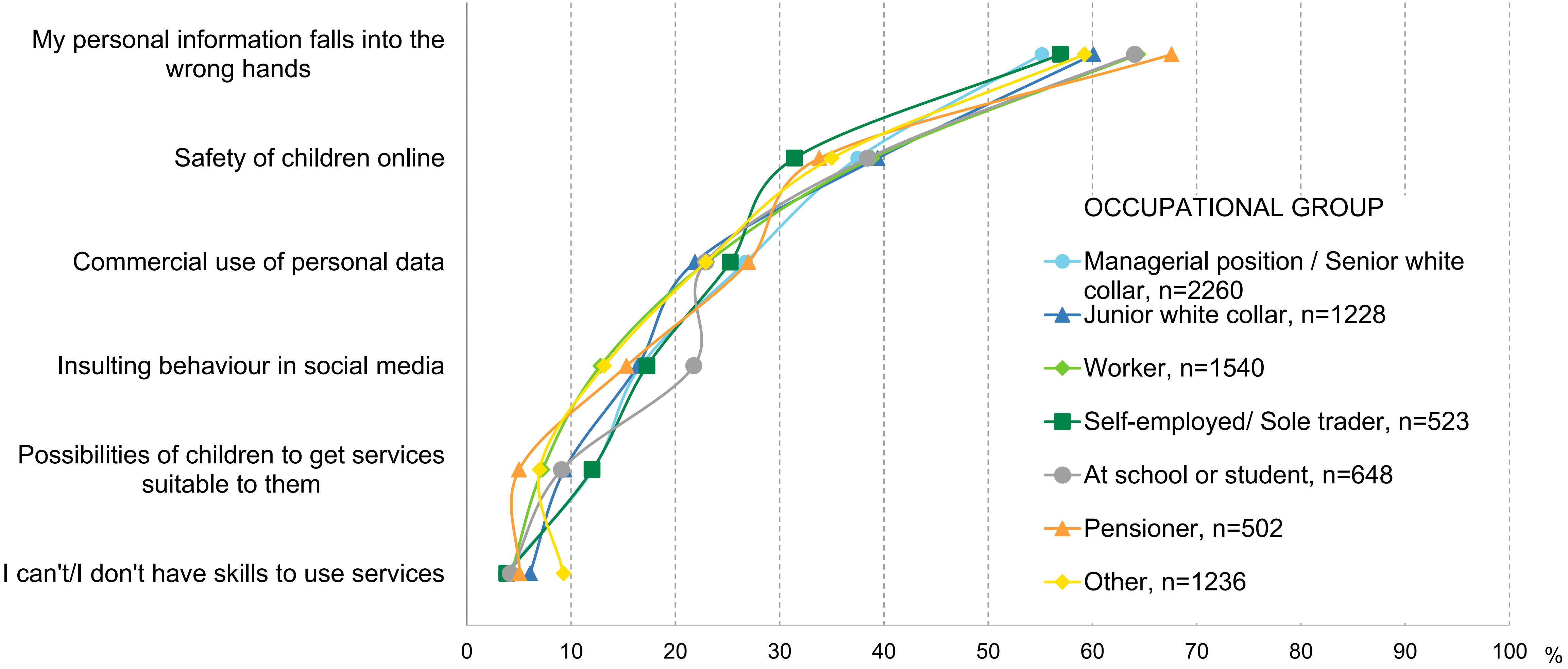
EDUCATION HAS ONLY SMALL IMPACT ON CONCERNS: IDEA OF PERSONAL INFORMATION FALLING INTO WRONG HANDS CONCERNS THE MOST



Which of the following human rights issues concerns you the most (choose most important ones)?

n=All respondents

PROFESSION HAS ONLY SMALL IMPACT ON CONCERNS: IDEA OF PERSONAL INFORMATION FALLING INTO WRONG HANDS CONCERNS THE MOST

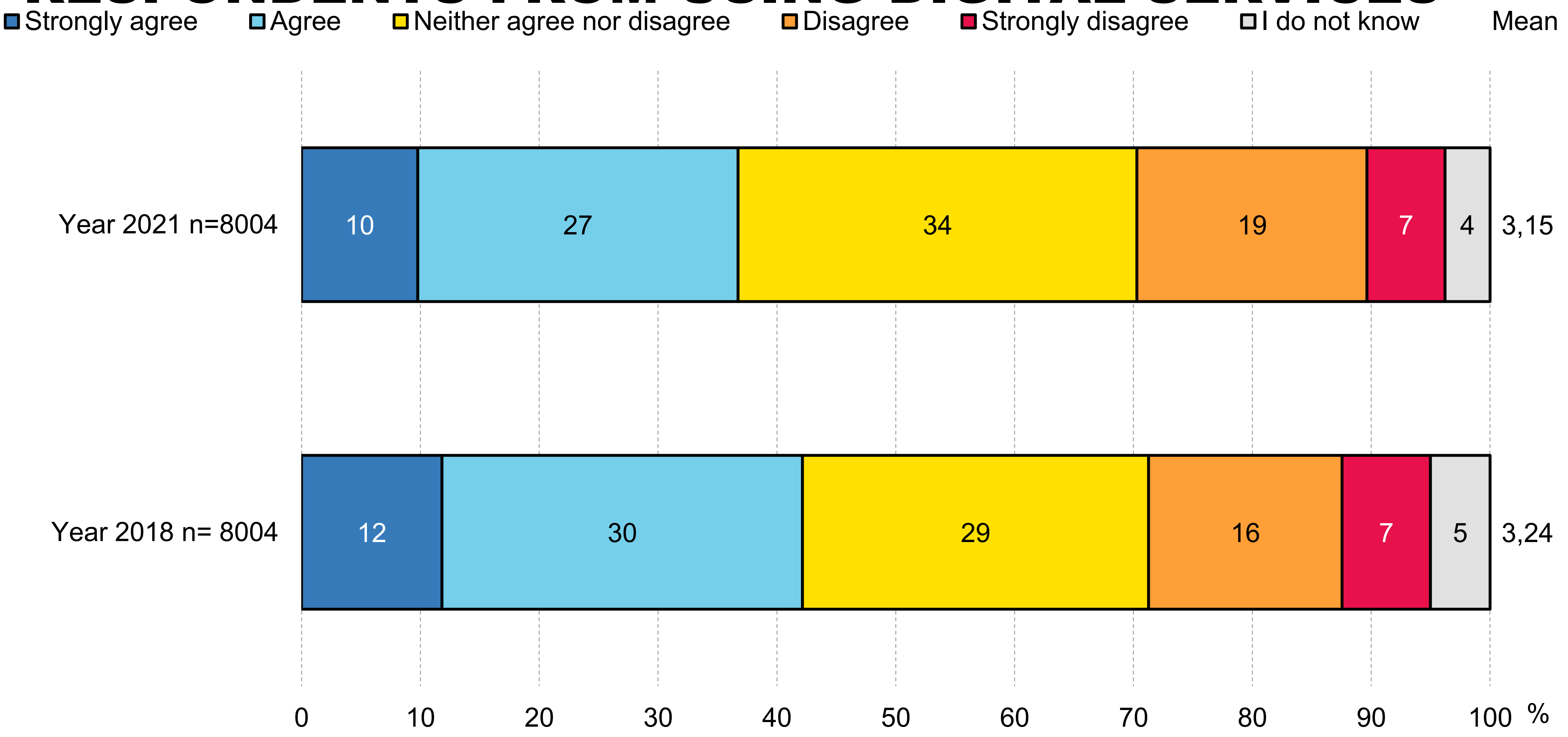


Which of the following human rights issues concerns you the most (choose most important ones)?

n=All respondents

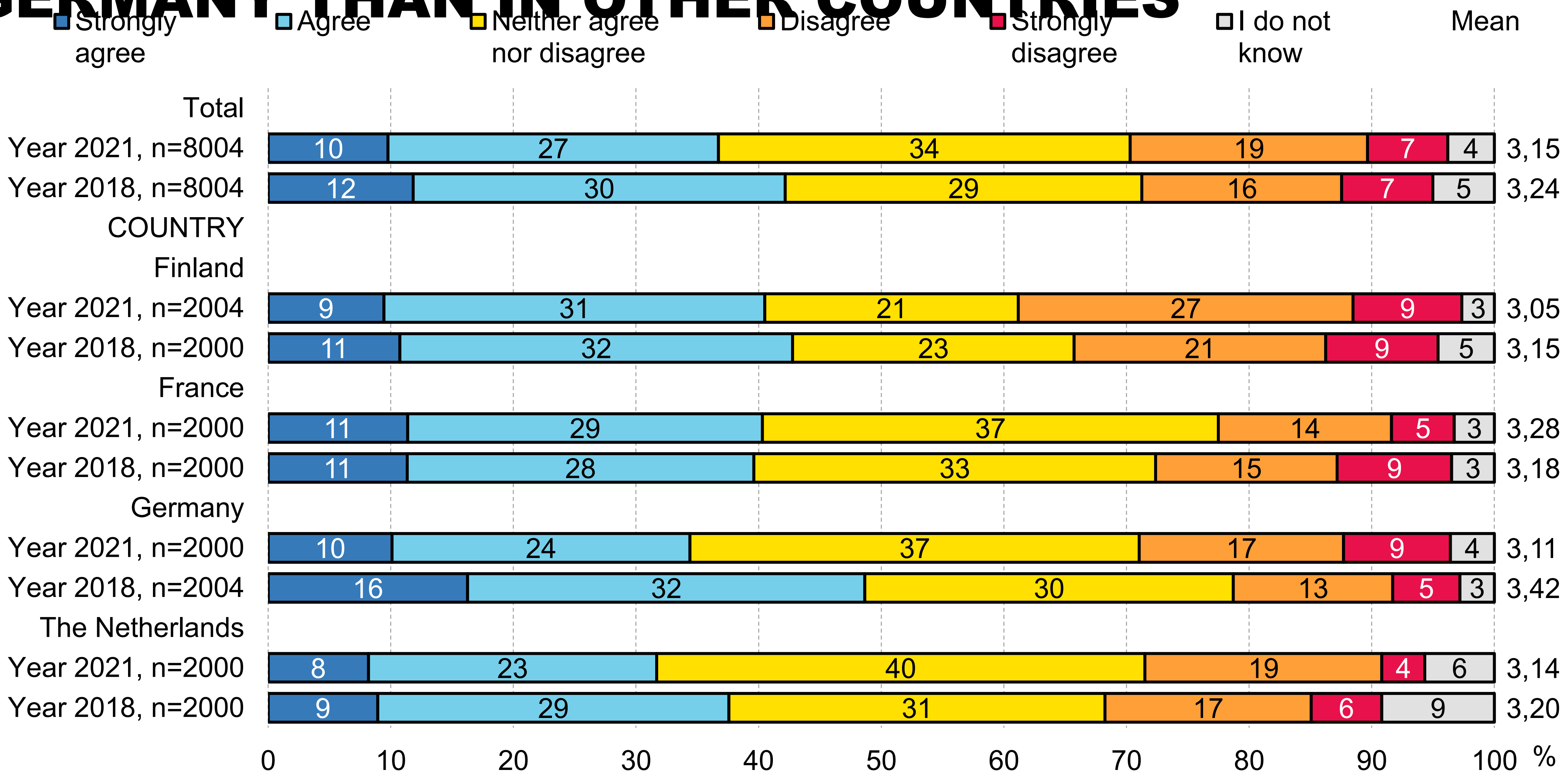
SITRA

LACK OF TRUST TOWARDS SERVICE PROVIDERS PREVENTS ABOUT ONE THIRDS OF THE RESPONDENTS FROM USING DIGITAL SERVICES



To what extent do you agree or disagree with the following statement?
Lack of trust towards service providers prevents me from using digital services
n=All respondents

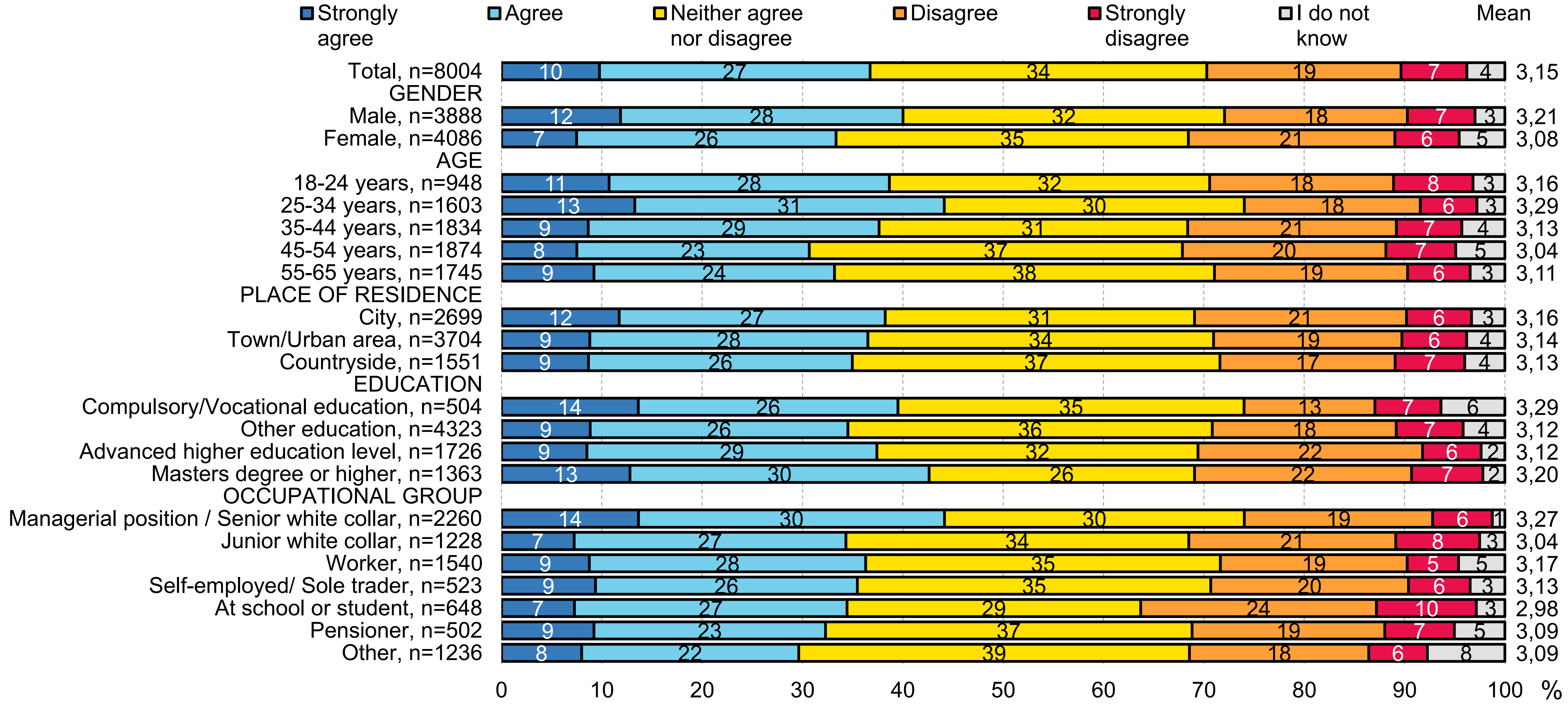
USE OF DIGITAL SERVICES HAS BEEN PREVENTED DUE TO LACK OF TRUST MORE IN GERMANY THAN IN OTHER COUNTRIES



To what extent do you agree or disagree with the following statement?
Lack of trust towards service providers prevents me from using digital services
n=All respondents

SITRA

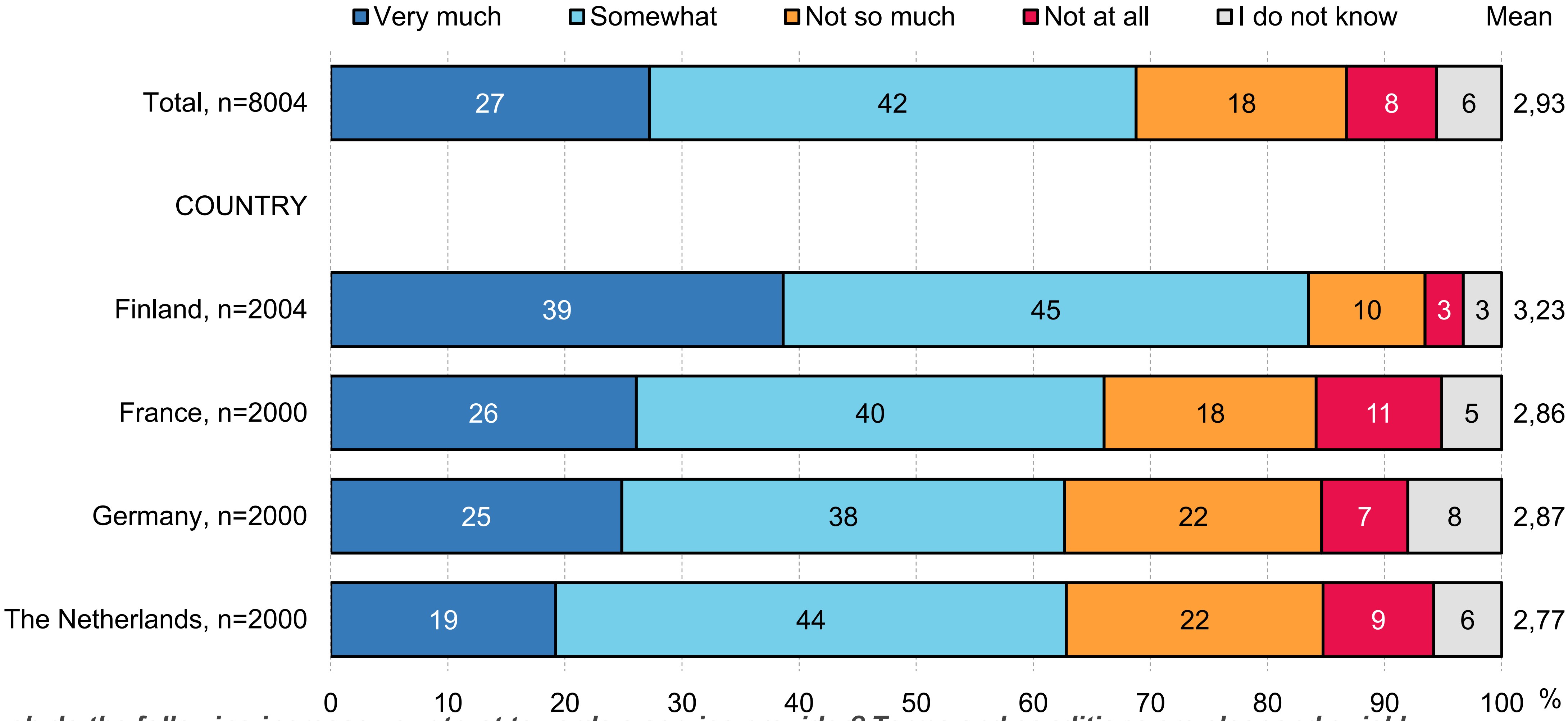
CONFIDENCE IN SERVICE PROVIDERS IS SOMEWHAT POORER IN THE YOUNGER AGE GROUPS AND IN MANGERS'/ WHITE COLLAR WORKER'S GROUP



To what extent do you agree or disagree with the following statement?
Lack of trust towards service providers prevents me from using digital services
n=All respondents

SITRA

CLEAR TERMS AND CONDITIONS OF USE INCREASE A LOT OF TRUST TOWARDS THE SERVICE PROVIDER, ESPECIALLY IN FINLAND

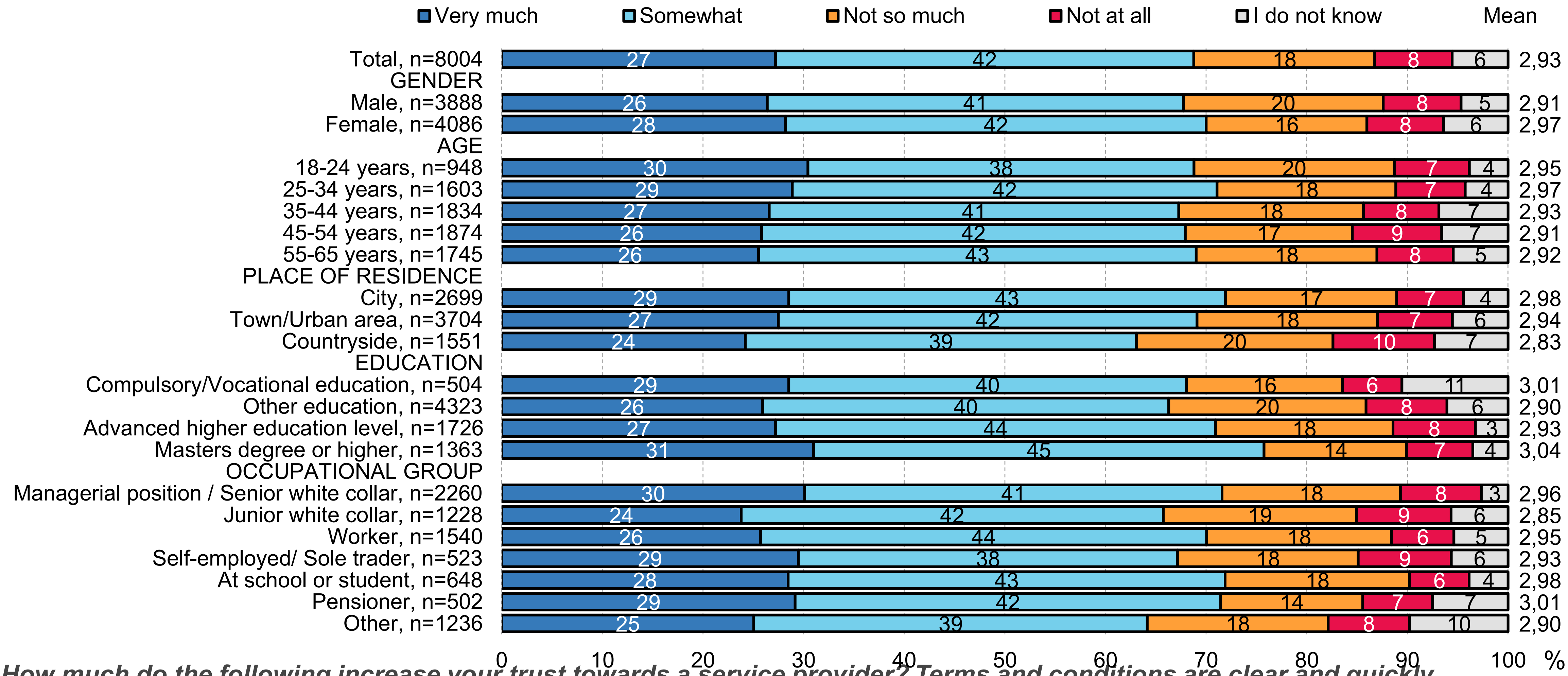


How much do the following increase your trust towards a service provider? Terms and conditions are clear and quickly absorbed

n=All respondents

SITRA

CLEAR TERMS AND CONDITIONS OF USE INCREASE TRUST IN SERVICE PROVIDERS IN ALL RESPONDENT GROUPS

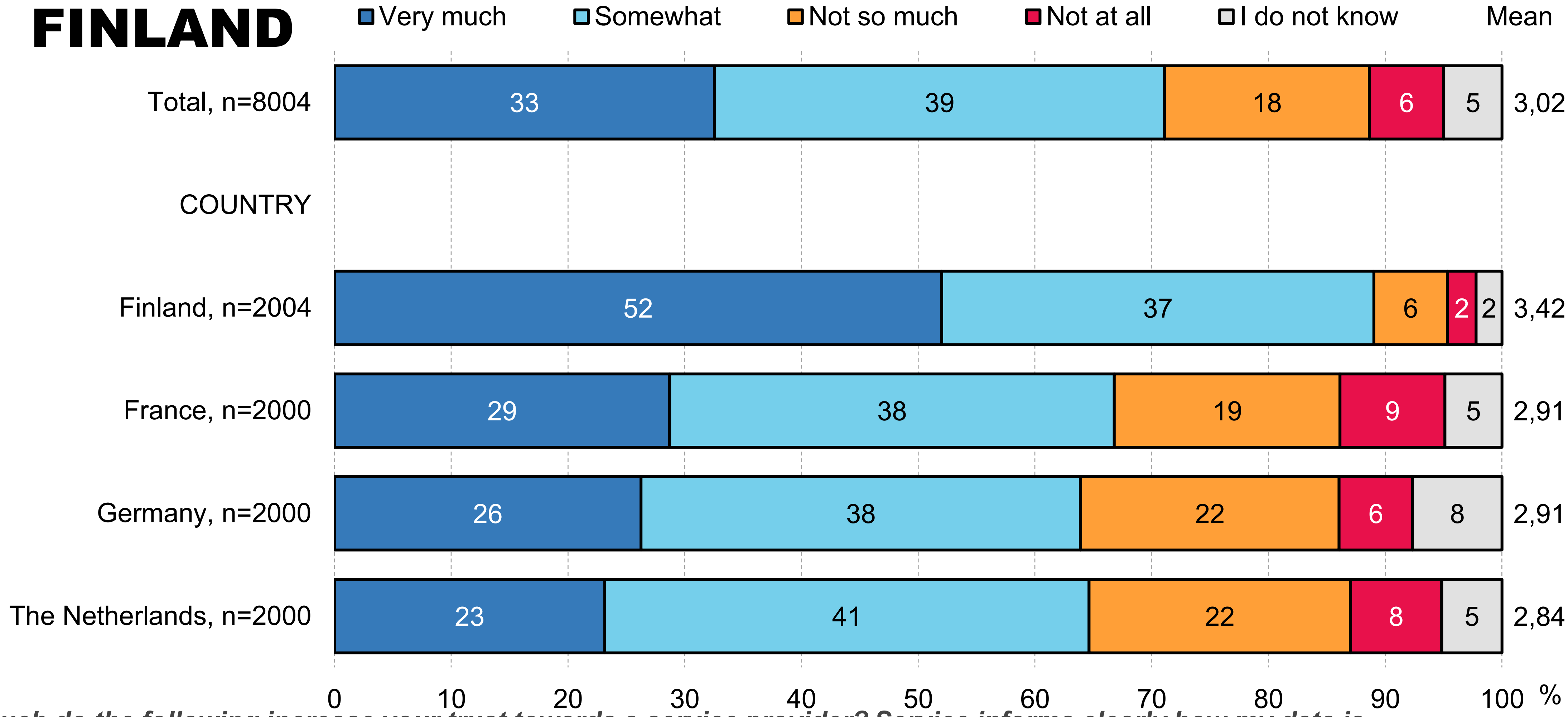


How much do the following increase your trust towards a service provider? Terms and conditions are clear and quickly absorbed

n=All respondents

SITRA

INFORMING CLEARLY OF HOW THE DATA IS GOING TO BE USED INCREASES TRUST TOWARDS THE SERVICE PROVIDER, ESPECIALLY IN FINLAND

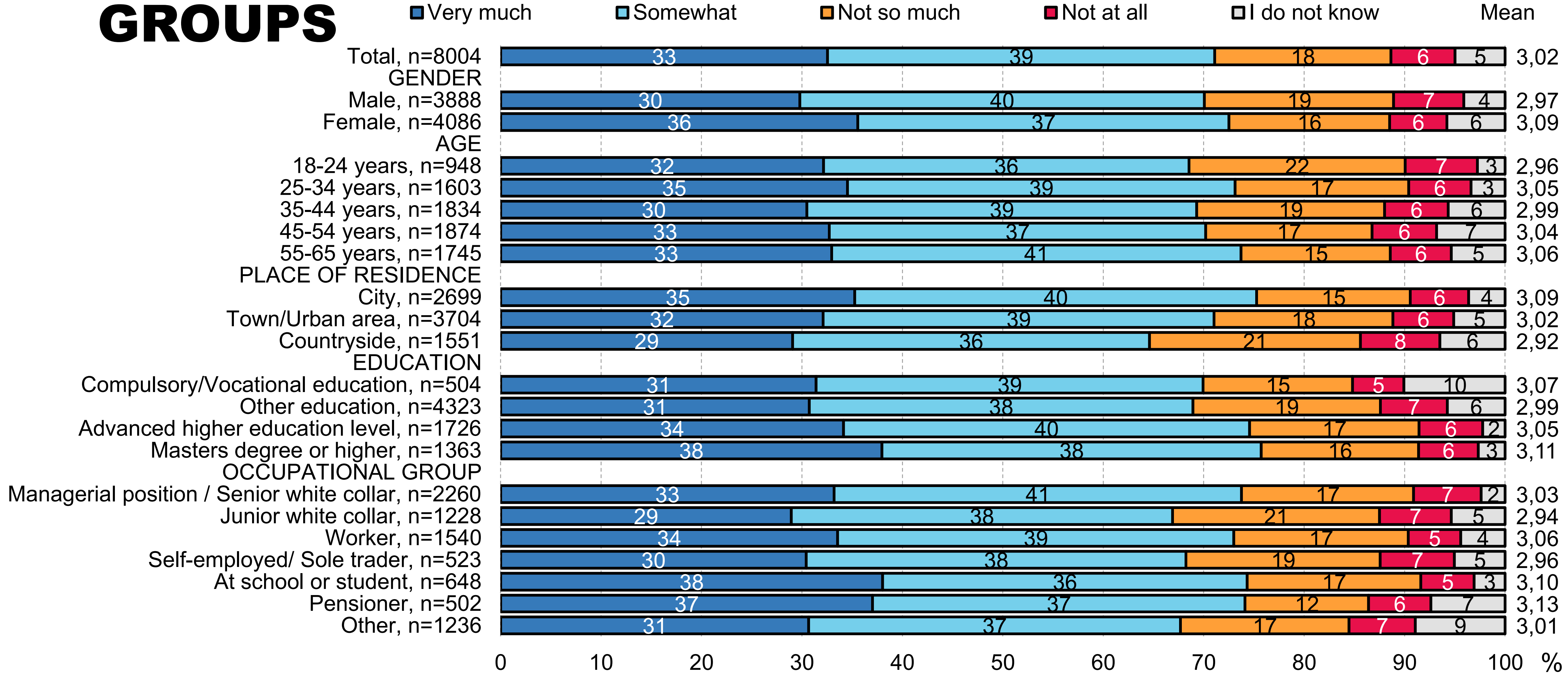


How much do the following increase your trust towards a service provider? Service informs clearly how my data is going to be used

n=All respondents

SITRA

INFORMING CLEARLY OF HOW THE DATA IS GOING TO BE USED INCREASES CONFIDENCE IN THE SERVICE PROVIDER IN ALL RESPONDENT GROUPS

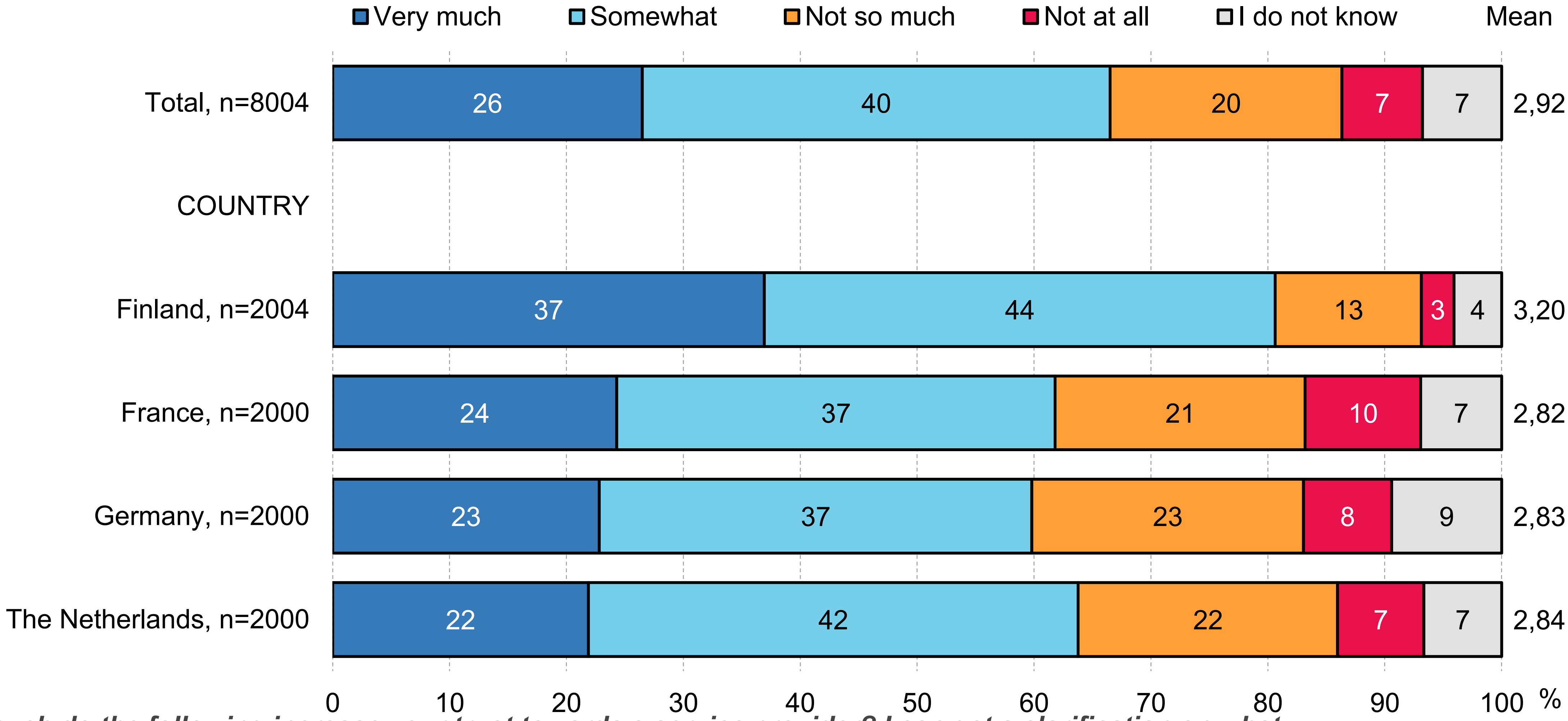


How much do the following increase your trust towards a service provider? Service informs clearly how my data is going to be used

n=All respondents

SITRA

GETTING A CLARIFICATION ON WHAT INFORMATION SERVICE PROVIDER HAS INCREASES TRUST, ESPECIALLY IN FINLAND

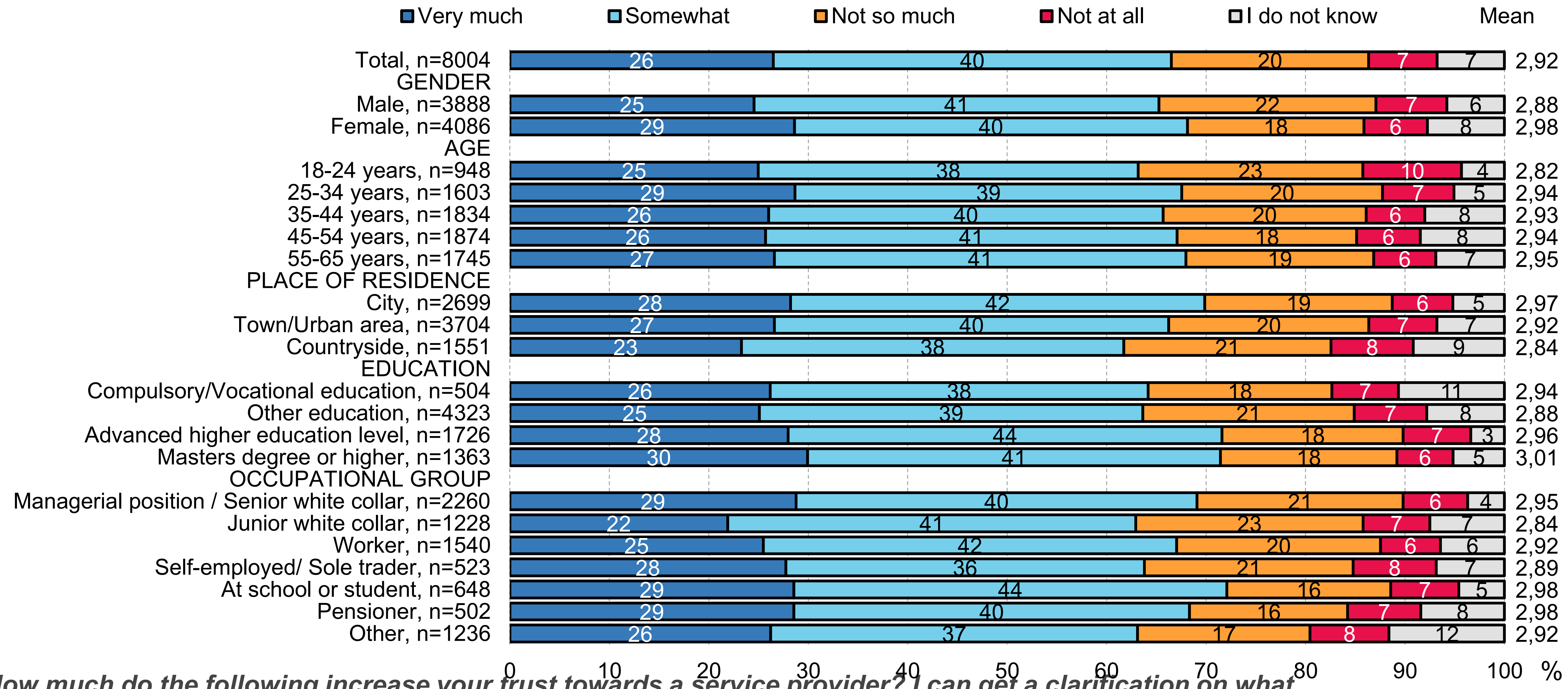


"How much do the following increase your trust towards a service provider? I can get a clarification on what information the service provider has about me

n=All respondents

SITRA

GETTING A CLARIFICATION ON WHAT INFORMATION SERVICE PROVIDER HAS INCREASES TRUST IN ALL GROUPS

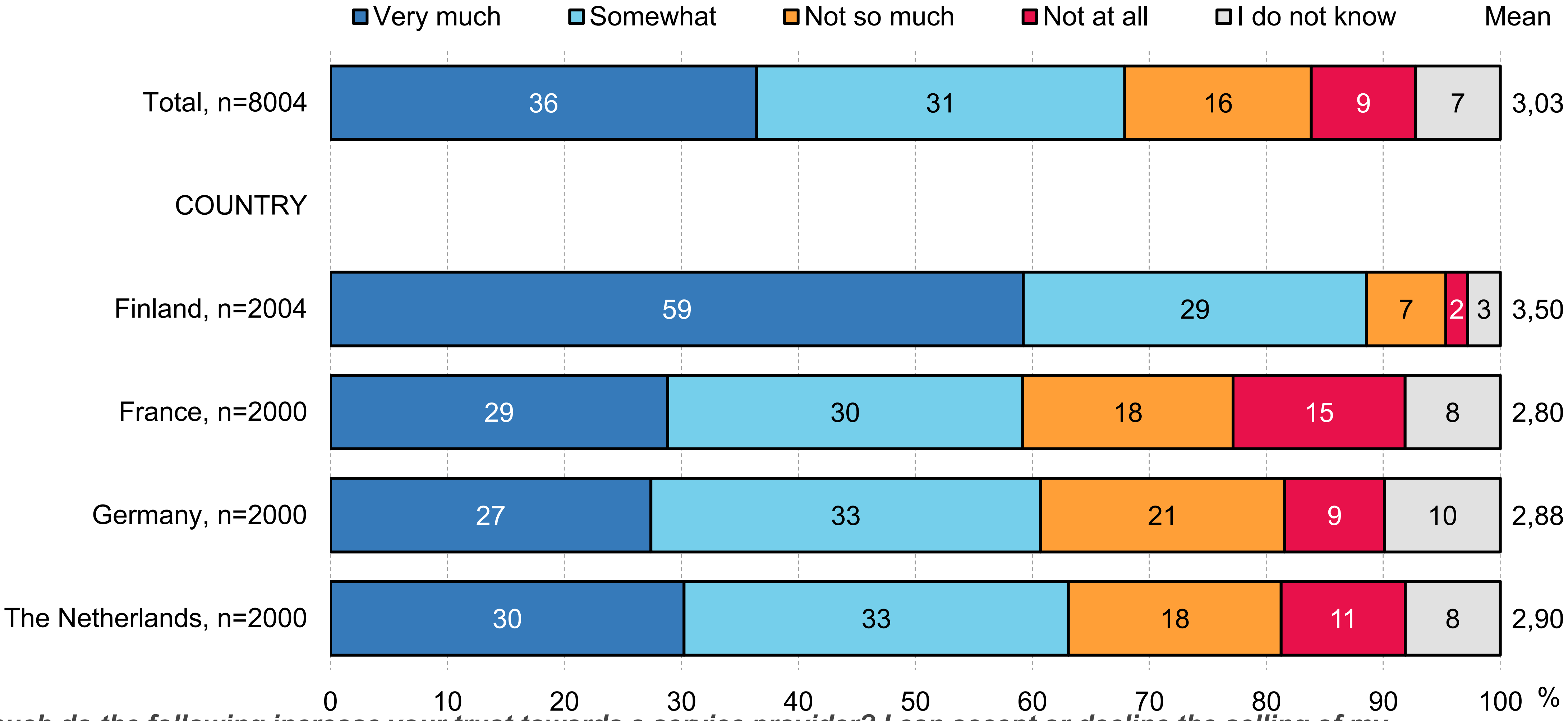


"How much do the following increase your trust towards a service provider? I can get a clarification on what information the service provider has about me

n=All respondents

SITRA

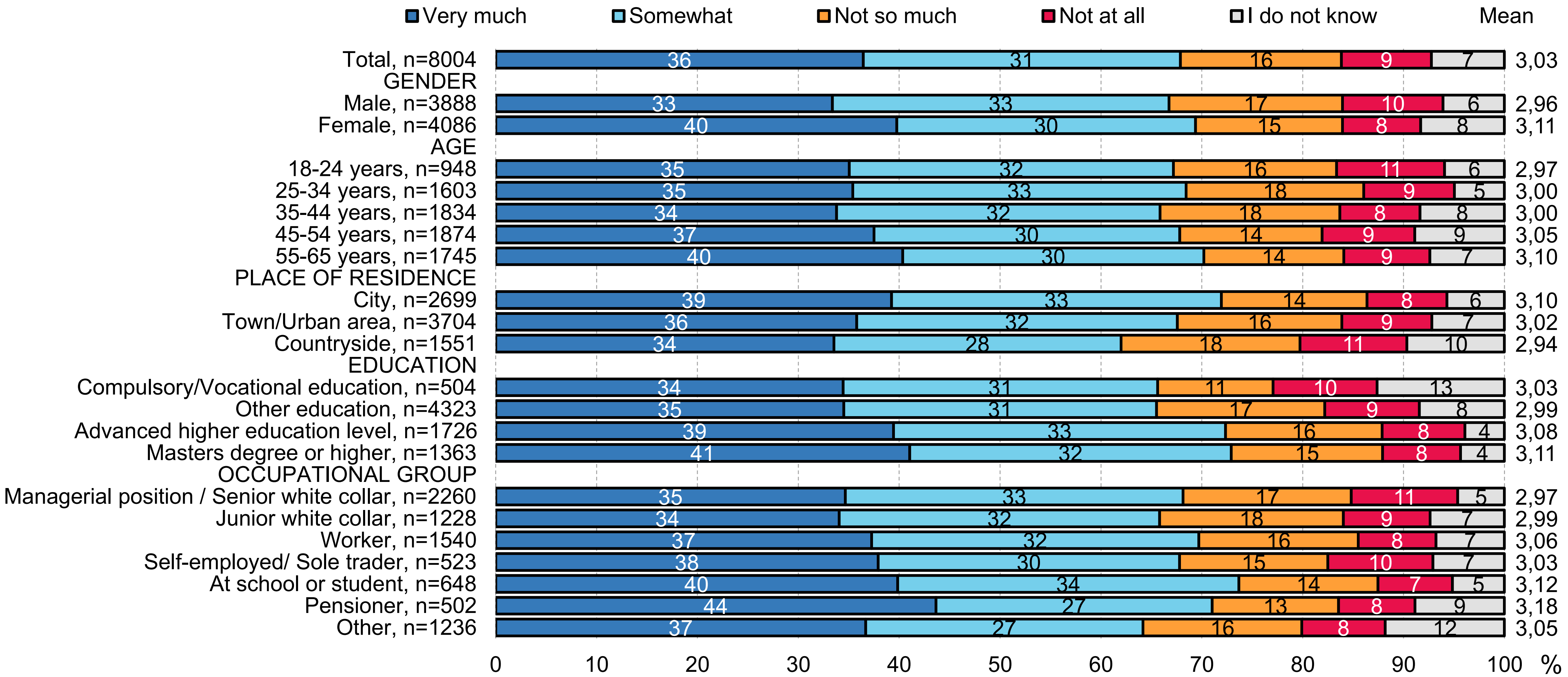
ACCEPTING OR DECLINING THE SALE OF OWN INFORMATION INCREASES TRUST, ESPECIALLY IN FINLAND



"How much do the following increase your trust towards a service provider? I can accept or decline the selling of my data to a third party

n=All respondents

ACCEPTING OR DECLINING THE SALE OF OWN INFORMATION INCREASES TRUST IN ALL GROUPS

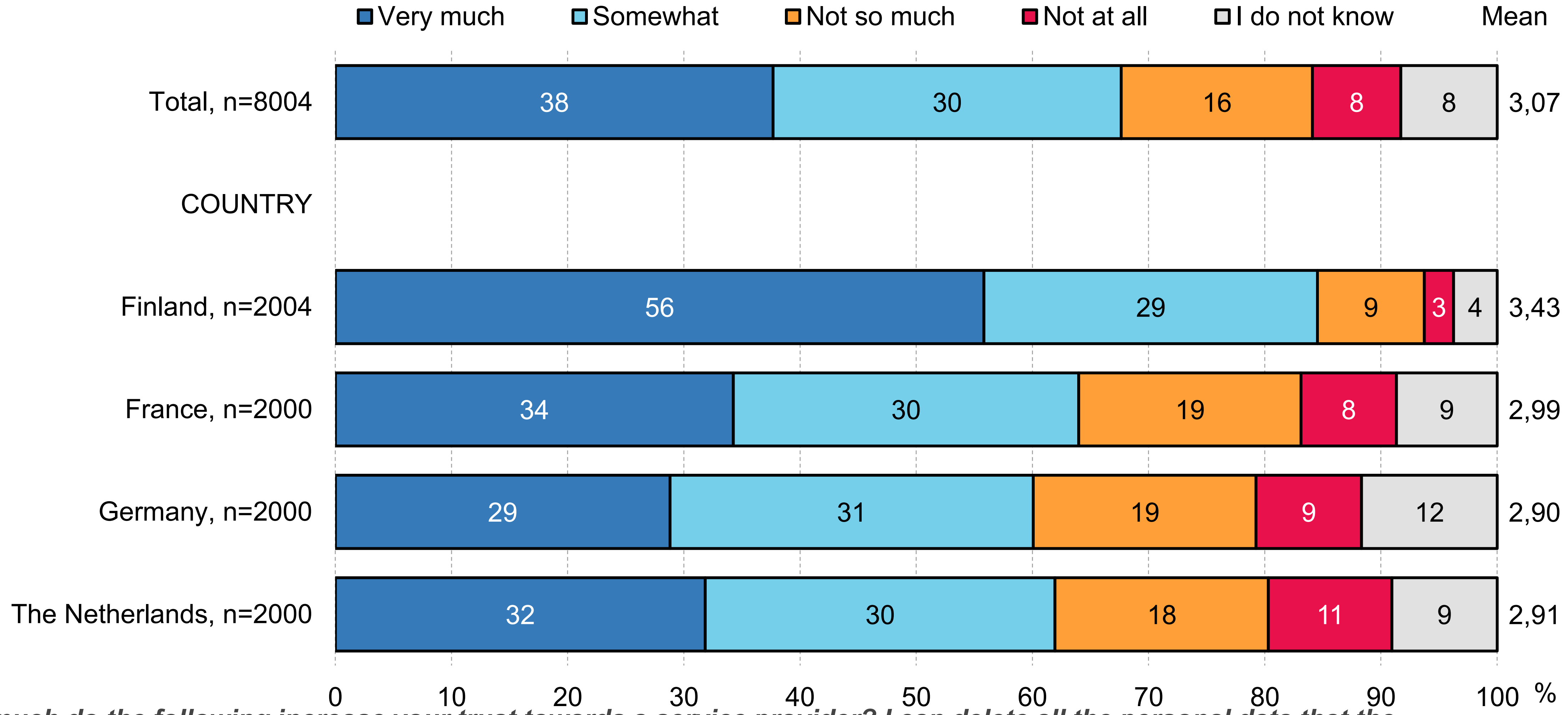


"How much do the following increase your trust towards a service provider? I can accept or decline the selling of my data to a third party

n=All respondents

SITRA

POSSIBILITY TO DESTROY COLLECTED PERSONAL INFORMATION INCREASES TRUST, ESPECIALLY IN FINLAND

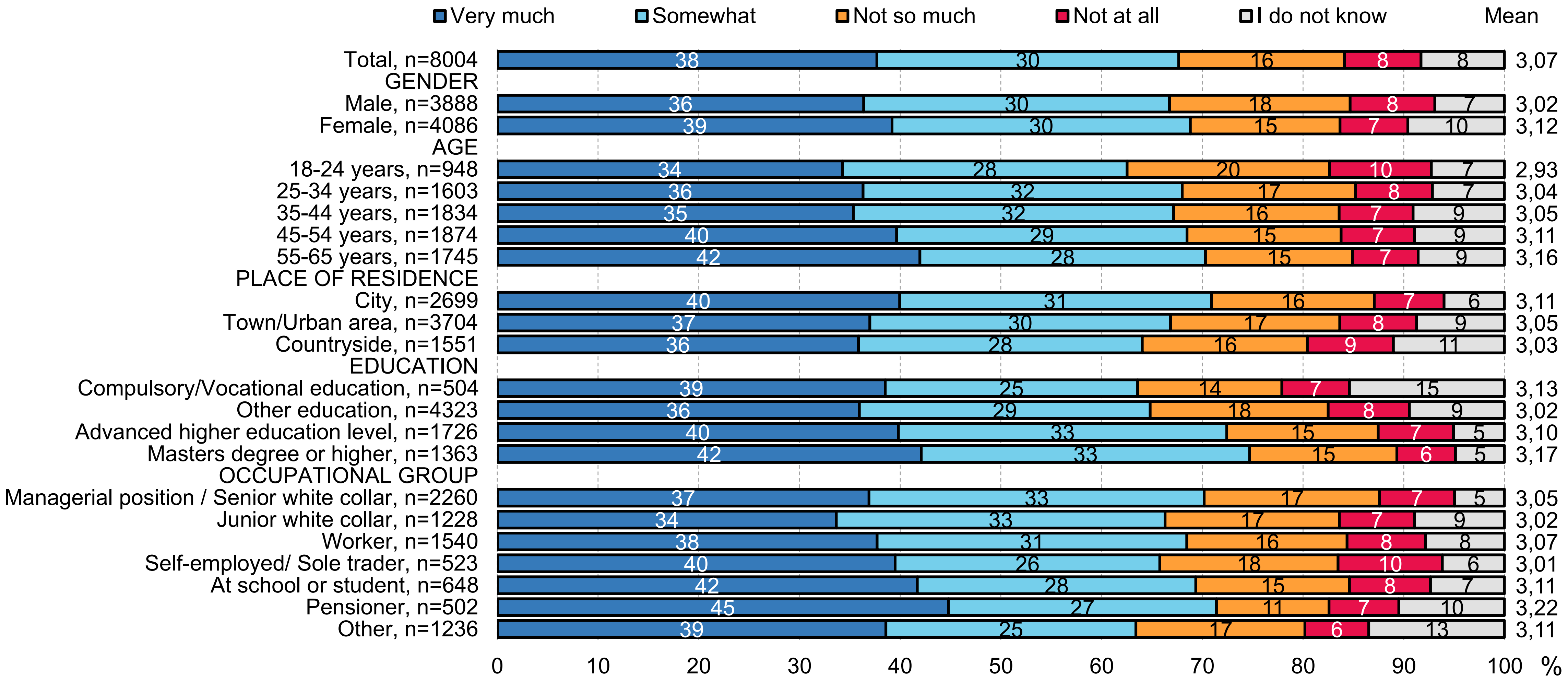


"How much do the following increase your trust towards a service provider? I can delete all the personal data that the service provider has collected of me

n=All respondents

SITRA

POSSIBILITY TO DESTROY COLLECTED INFORMATION INCREASES TRUST IN ALL GROUPS

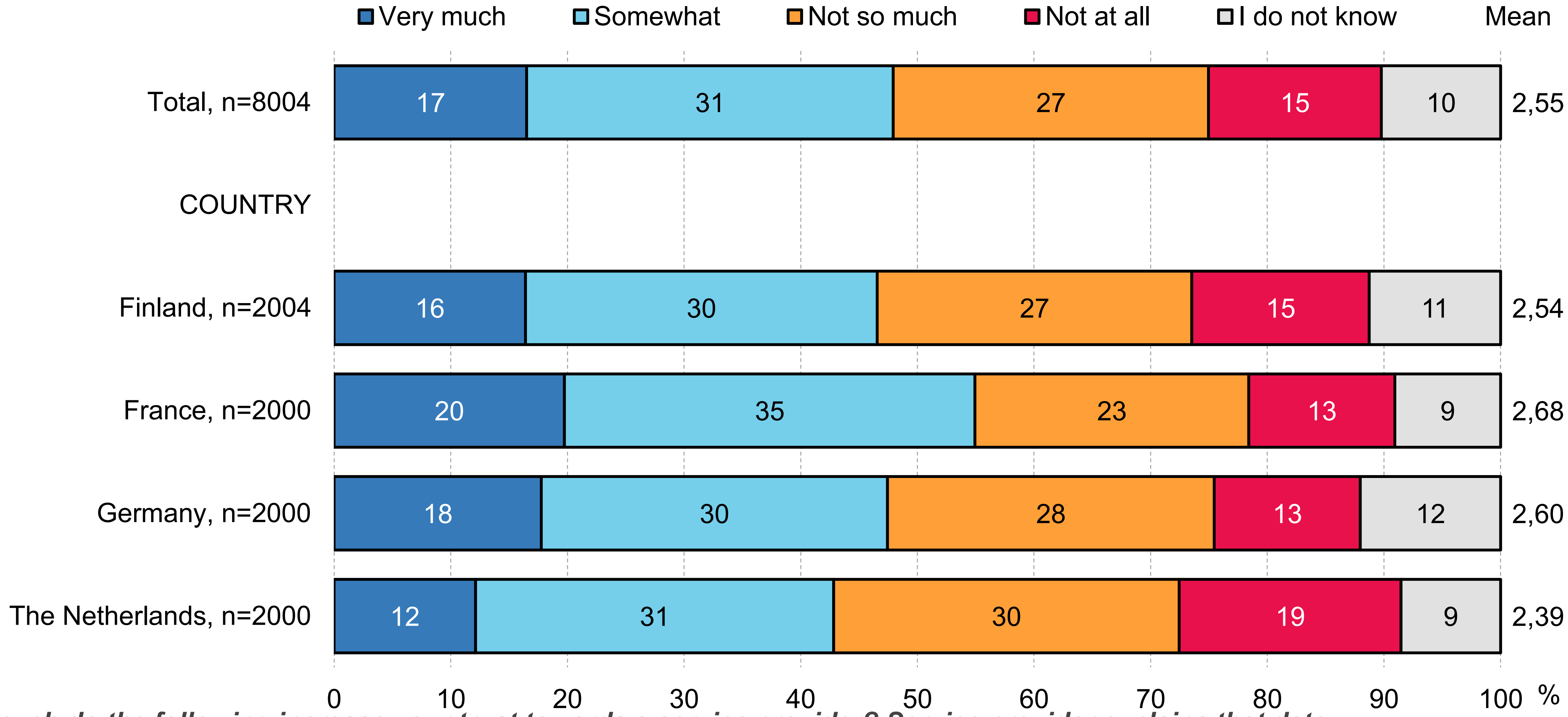


"How much do the following increase your trust towards a service provider? I can delete all the personal data that the service provider has collected of me

n=All respondents

SITRA

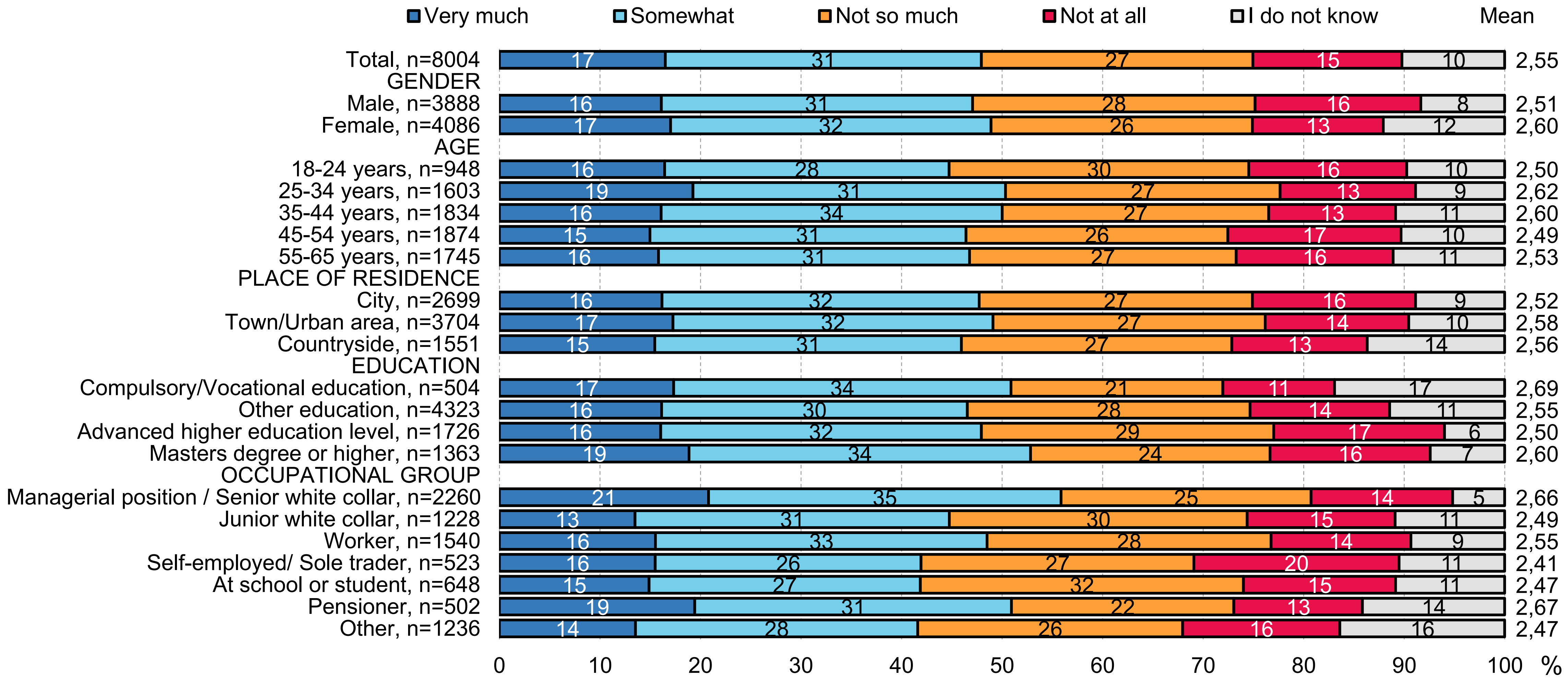
DATA COLLECTION AND PROCESSING AS PART OF CORPORATE RESPONSIBILITY BUILD LESS CONFIDENCE THAN OTHER FACTORS



"How much do the following increase your trust towards a service provider? Service provider explains that data collection is part of corporate responsibility

n=All respondents

DATA COLLECTION AND PROCESSING AS PART OF CORPORATE RESPONSIBILITY BUILDS A LITTLE MORE TRUST IN MANAGERS / SENIOR WHITE COLLAR POSITIONS

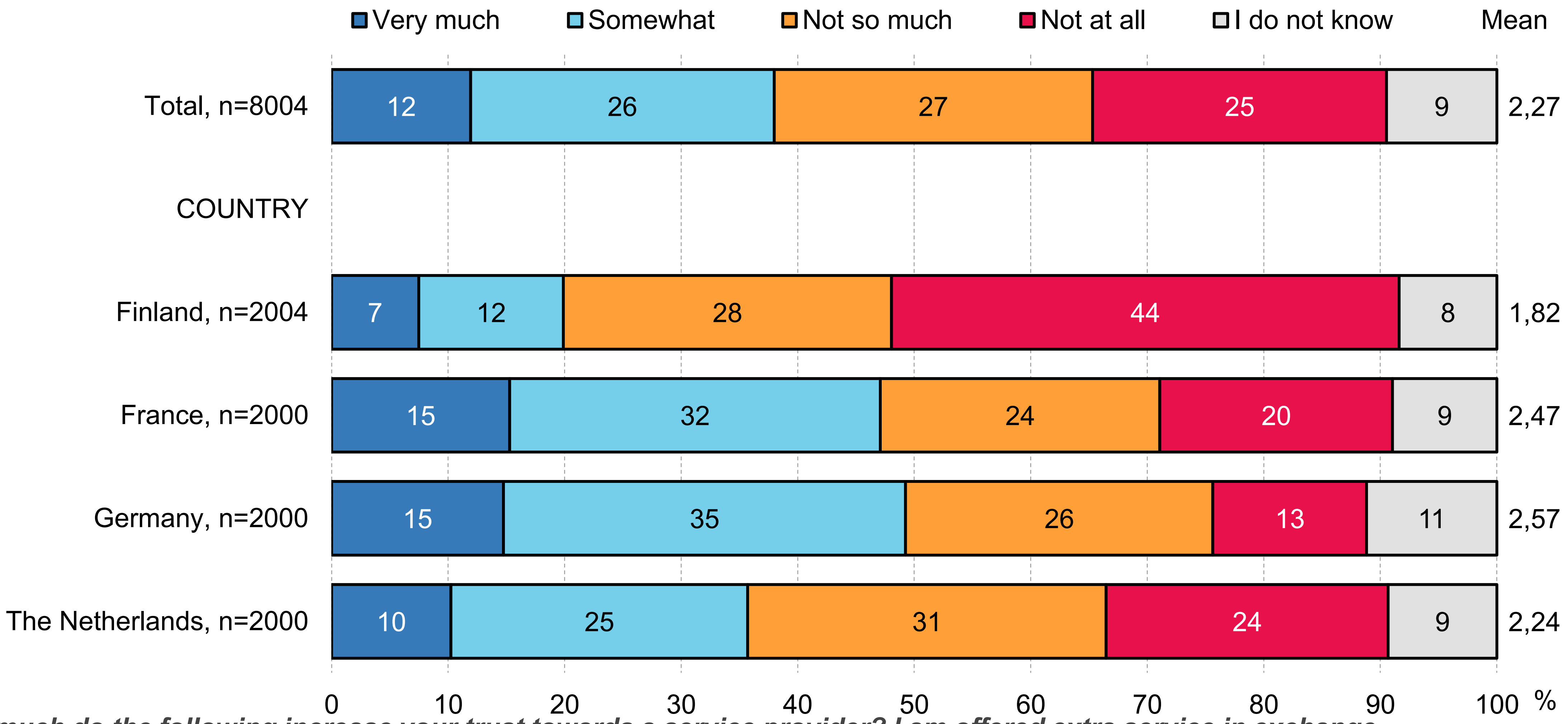


"How much do the following increase your trust towards a service provider? Service provider explains that data collection is part of corporate responsibility

n=All respondents

SITRA

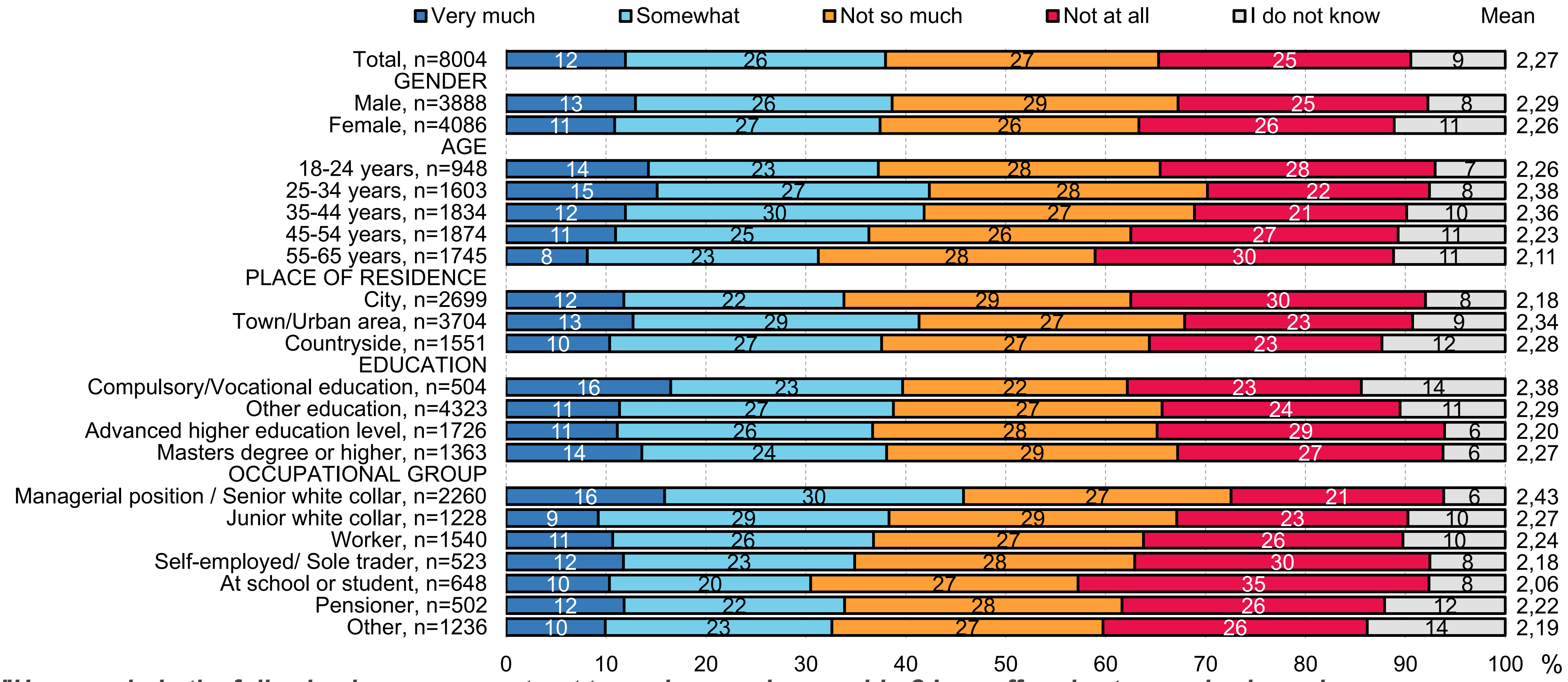
OFFERING ADDITIONAL SERVICES ON THE DISCLOSURE OF INFORMATION INSPIRES LESS TRUST, ESPECIALLY IN FINLAND; IN GERMANY AND FRANCE THIS INSPIRES A LITTLE MORE TRUST



""How much do the following increase your trust towards a service provider? I am offered extra service in exchange for permitting the use of my personal data

n=All respondents

OFFERINC EXTRA SERVICES INSPIRES RELATIVELY LITTLE TRUST: MANAGERS AND SENIOR WHITE COLLAR WORKERS IT GIVE A BIT MORE TRUST

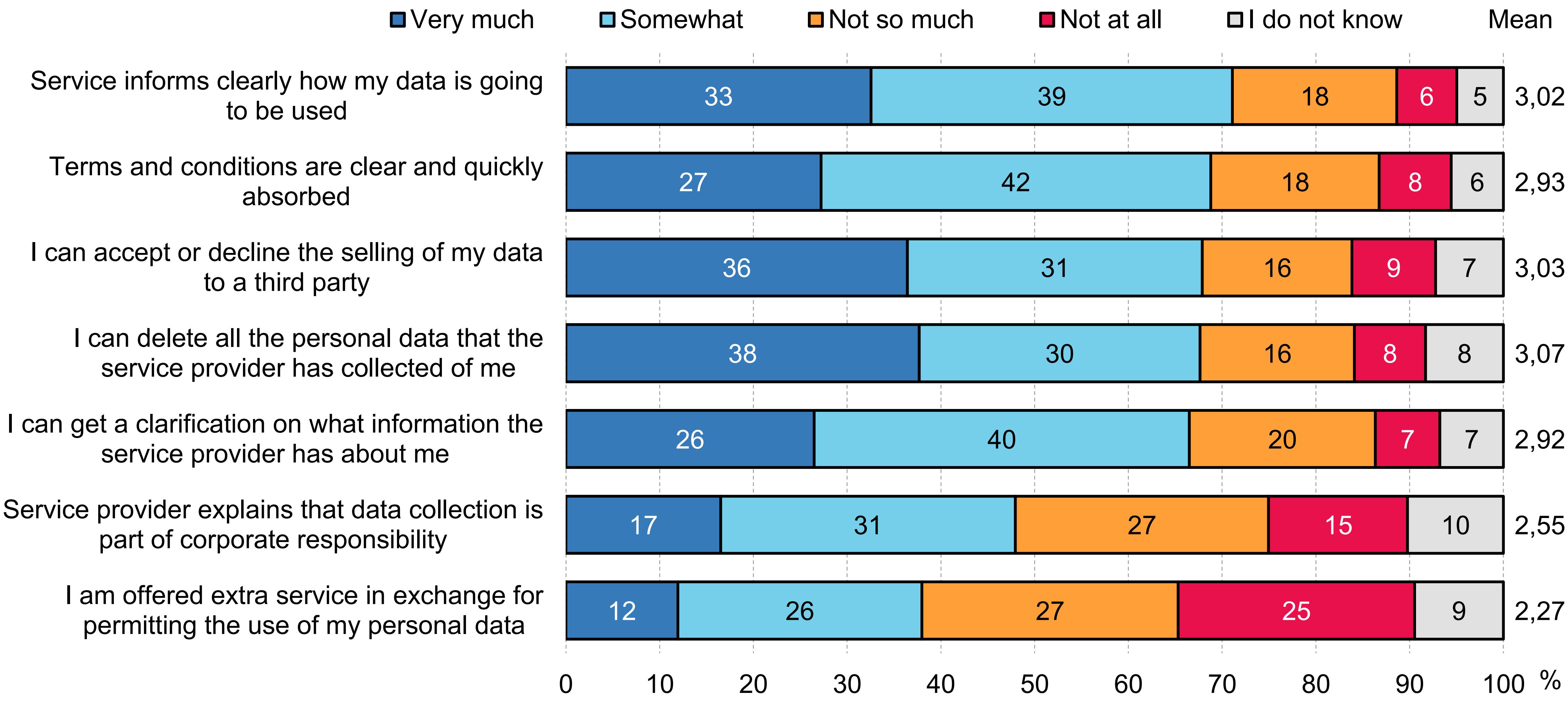


""How much do the following increase your trust towards a service provider? I am offered extra service in exchange for permitting the use of my personal data

n=All respondents

SITRA

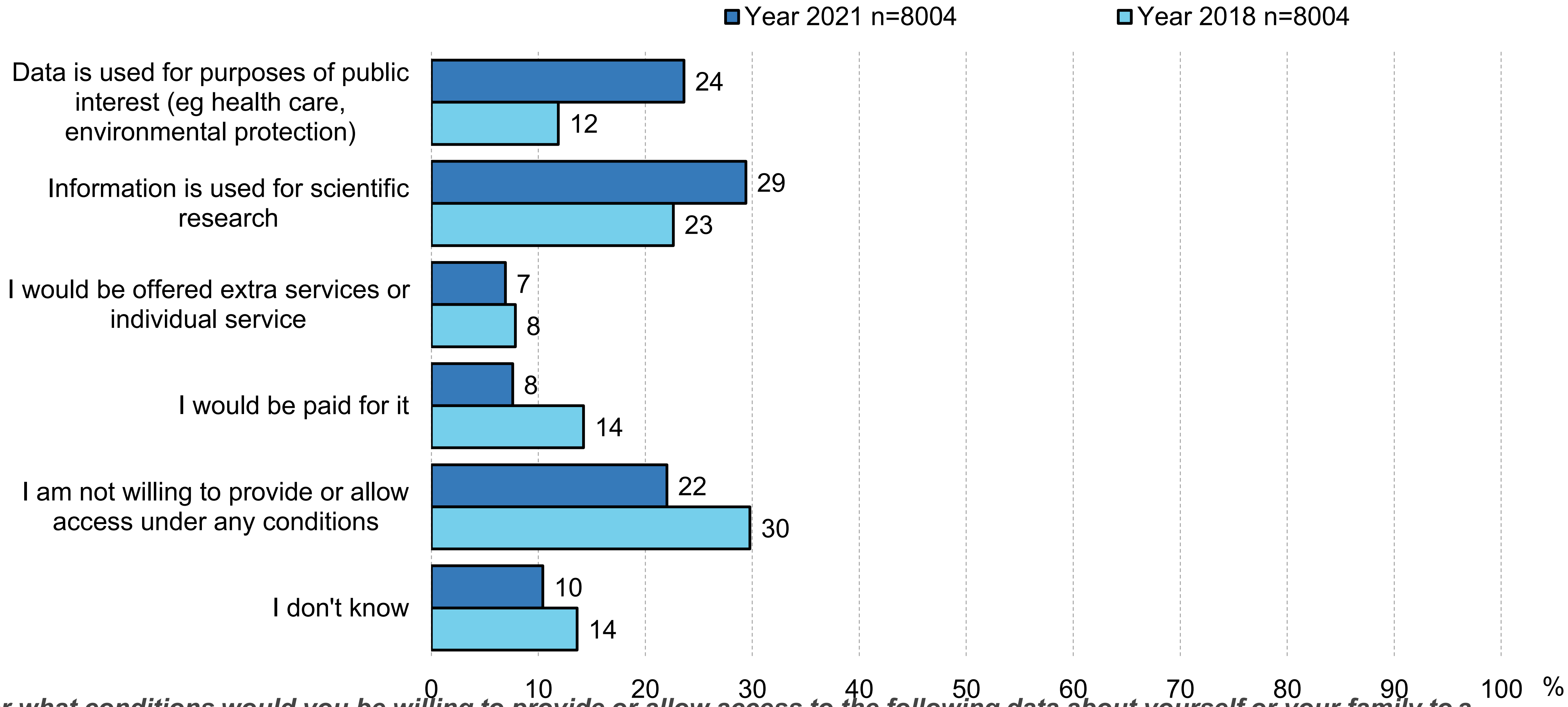
FACTORS WHICH INCREASE TRUST TOWARDS SERVICE PROVIDERS



How much do the following increase your trust towards a service provider?

Total, n=8004

TWO-THIRDS OF THE RESPONDENTS ARE READY TO PROVIDE THEIR OWN HEALTH OR HEREDITY INFORMATION, MOSTLY FOR SCIENTIFIC RESEARCH

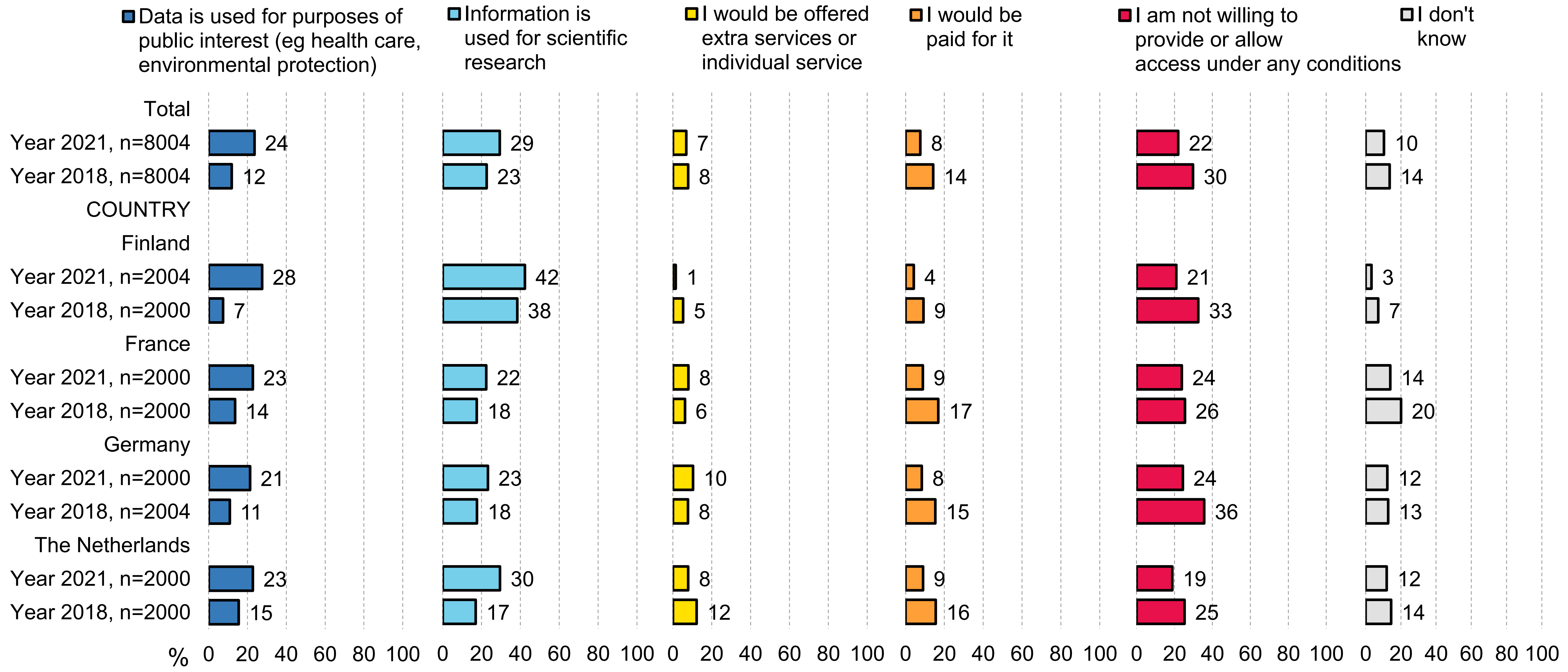


Under what conditions would you be willing to provide or allow access to the following data about yourself or your family to a service provider? (Primary service provider) Information about your health or heredity

n=All respondents

SITRA

THE TRANSFER OF HEALTH AND HEREDITY INFORMATION IS MORE POSSIBLE IN ALL COUNTRIES THAN WHAT IT WAS IN 2018, RESPONDENTS ARE THE MOST WILLING TO ALLOW ACCESS TO THEIR DATA FOR SCIENTIFIC RESEARCH OR FOR REASONS OF PUBLIC INTEREST

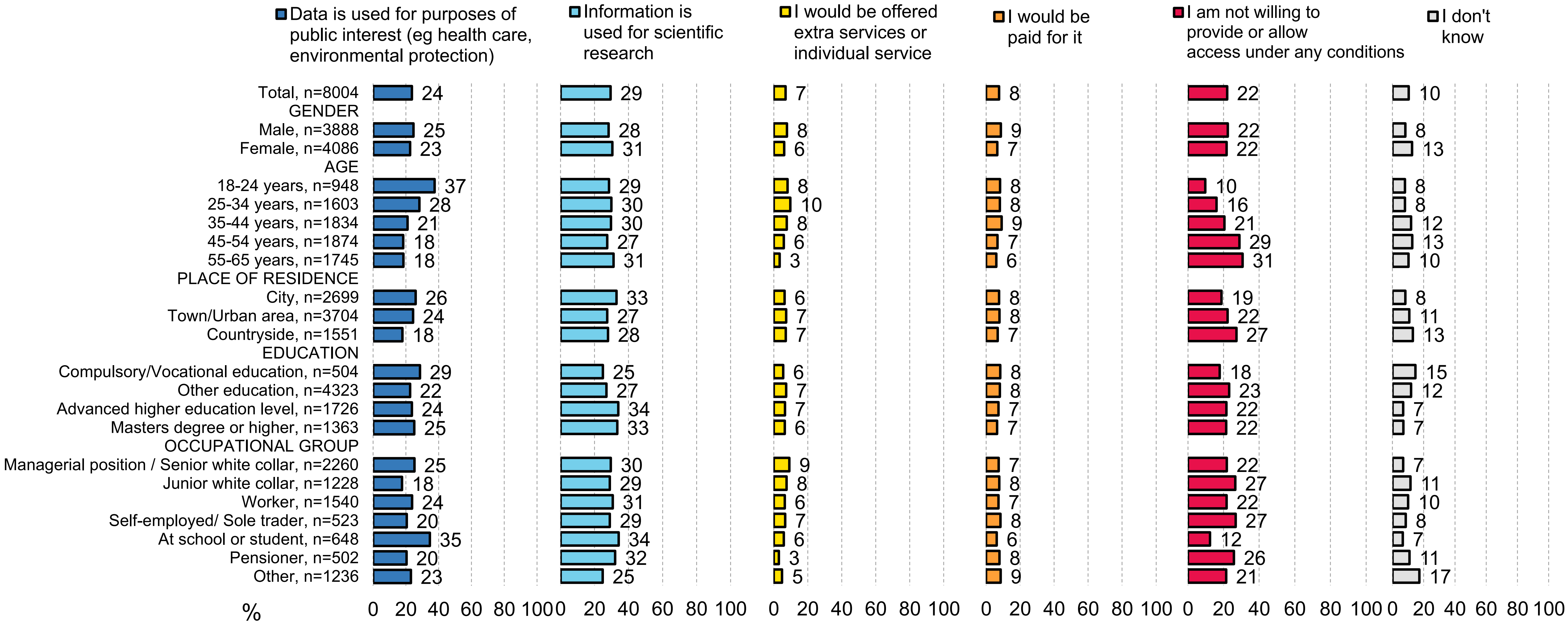


Under what conditions would you be willing to provide or allow access to the following data about yourself or your family to a service provider? (Primary service provider)

n=all respondents

SITRA

YOUNGER AGE GROUPS ARE MORE READY TO PROVIDE THEIR HEALTH AND HEREDITY INFORMATION

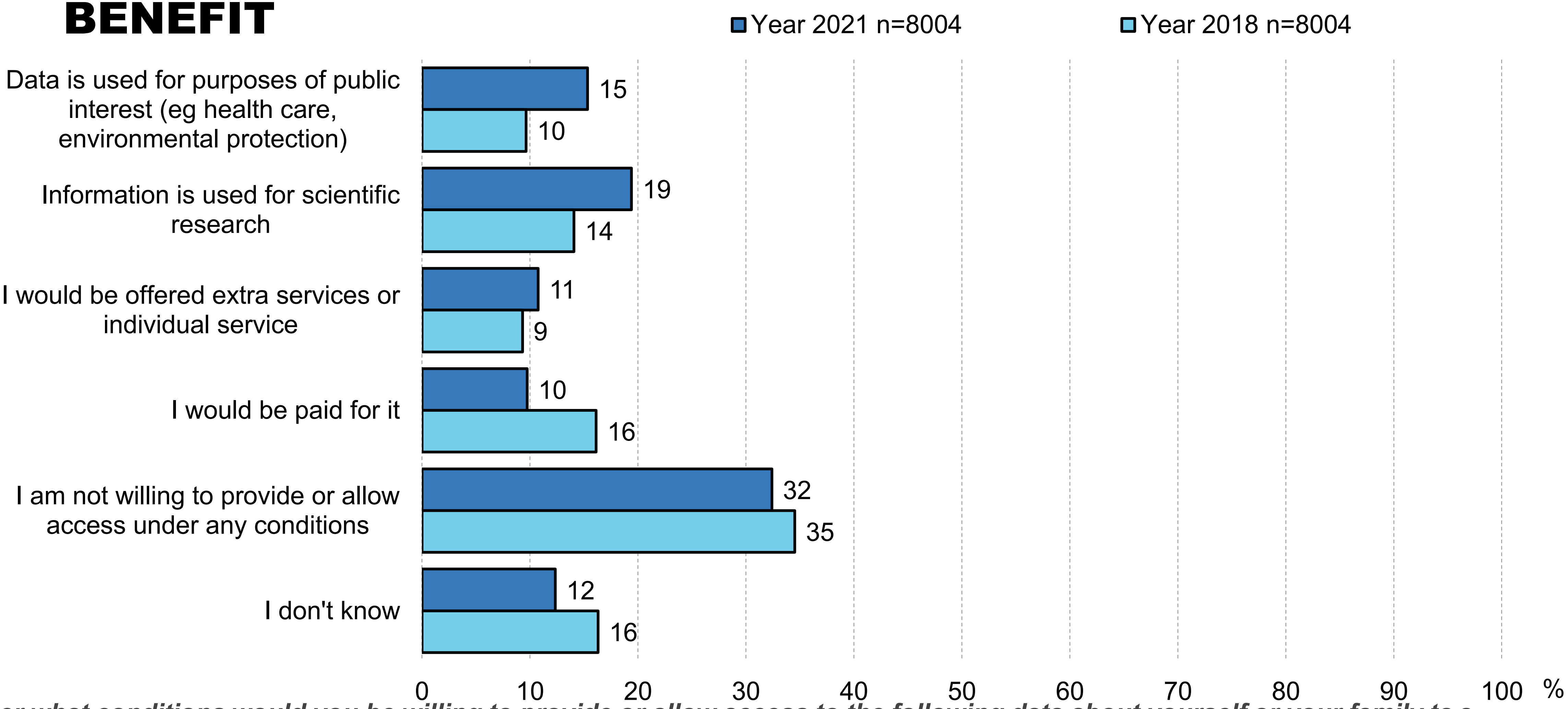


Under what conditions would you be willing to provide or allow access to the following data about yourself or your family to a service provider? (Primary service provider)

n=all respondents

SITRA

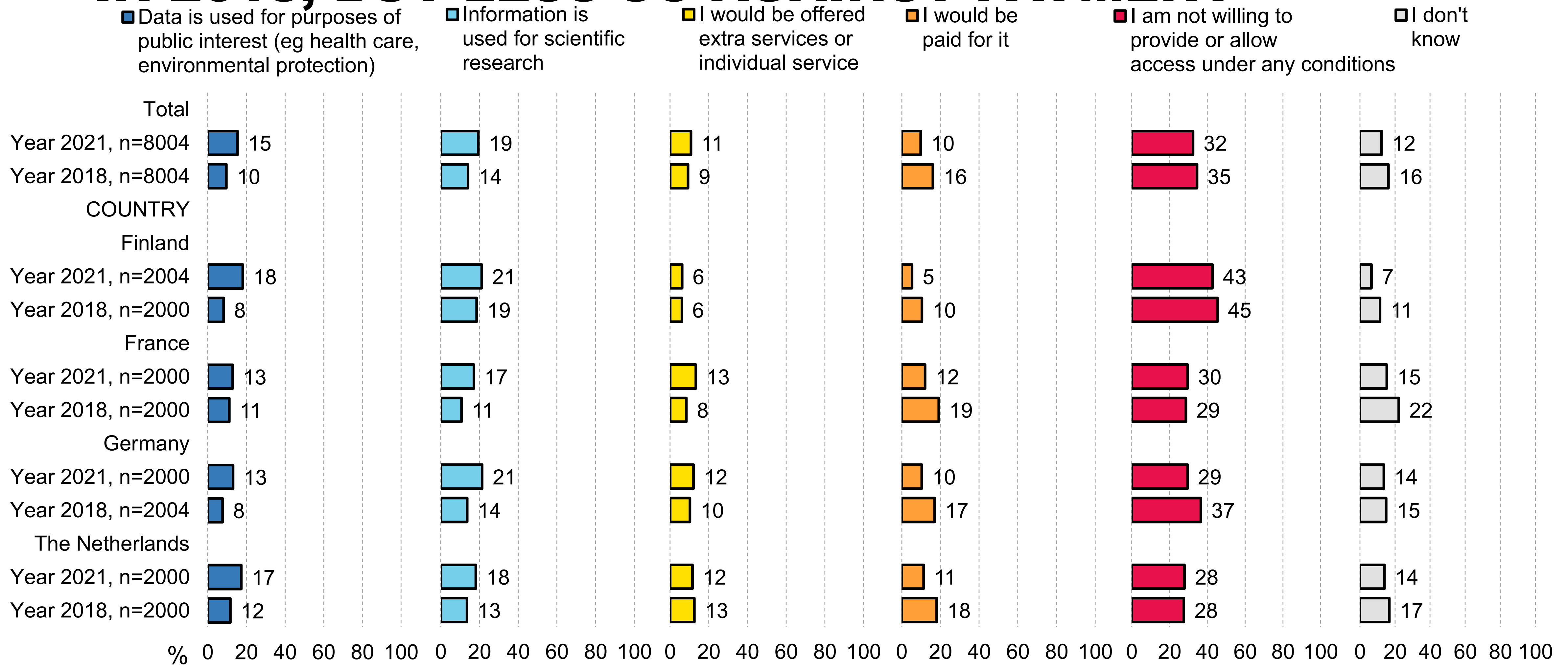
OVER HALF OF THE RESPONDENTS WOULD BE READY TO PROVIDE PERSONAL DATA ON PERSONAL HISTORY, MOST COMMONLY FOR SCIENTIFIC RESEARCH OR PUBLIC BENEFIT



Under what conditions would you be willing to provide or allow access to the following data about yourself or your family to a service provider? (Primary service provider) Personal data or data about your personal history

n=All respondents

PEOPLE ARE MORE WILLING TO PROVIDE PERSONAL DATA ON PERSONAL HISTORY THAN IN 2018, BUT LESS SO AGAINST PAYMENT

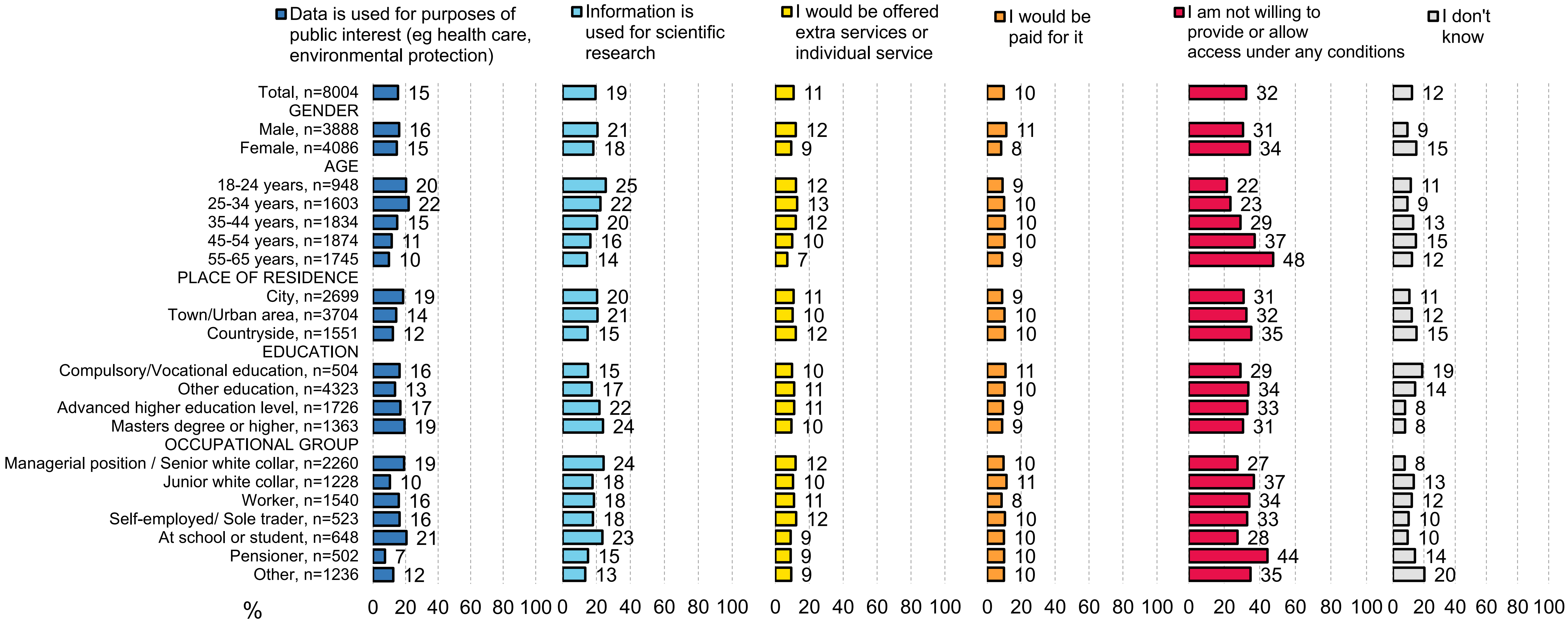


Under what conditions would you be willing to provide or allow access to the following data about yourself or your family to a service provider? (Primary service provider)

n=all respondents

SITRA

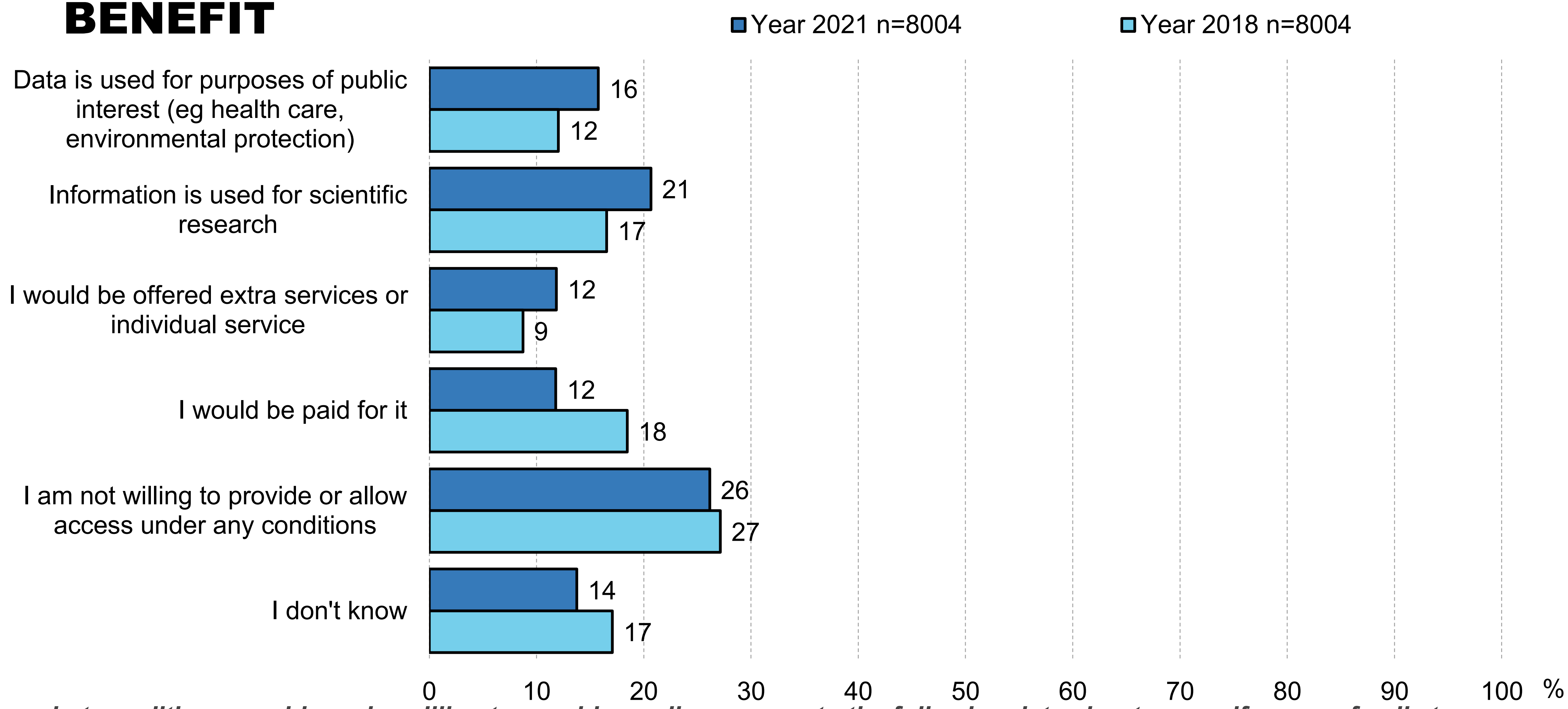
YOUNGER AGE GROUPS ARE MORE READY TO DISCLOSE PERSONAL DATA AND DATA ON PERSONAL HISTORY



Under what conditions would you be willing to provide or allow access to the following data about yourself or your family to a service provider? (Primary service provider)

n=all respondents

OVER HALF OF THE RESPONDENTS WOULD BE READY TO PROVIDE PERSONAL DATA ON VALUES AND BELIEFS; MOST COMMONLY FOR SCIENTIFIC RESEARCH OR PUBLIC BENEFIT

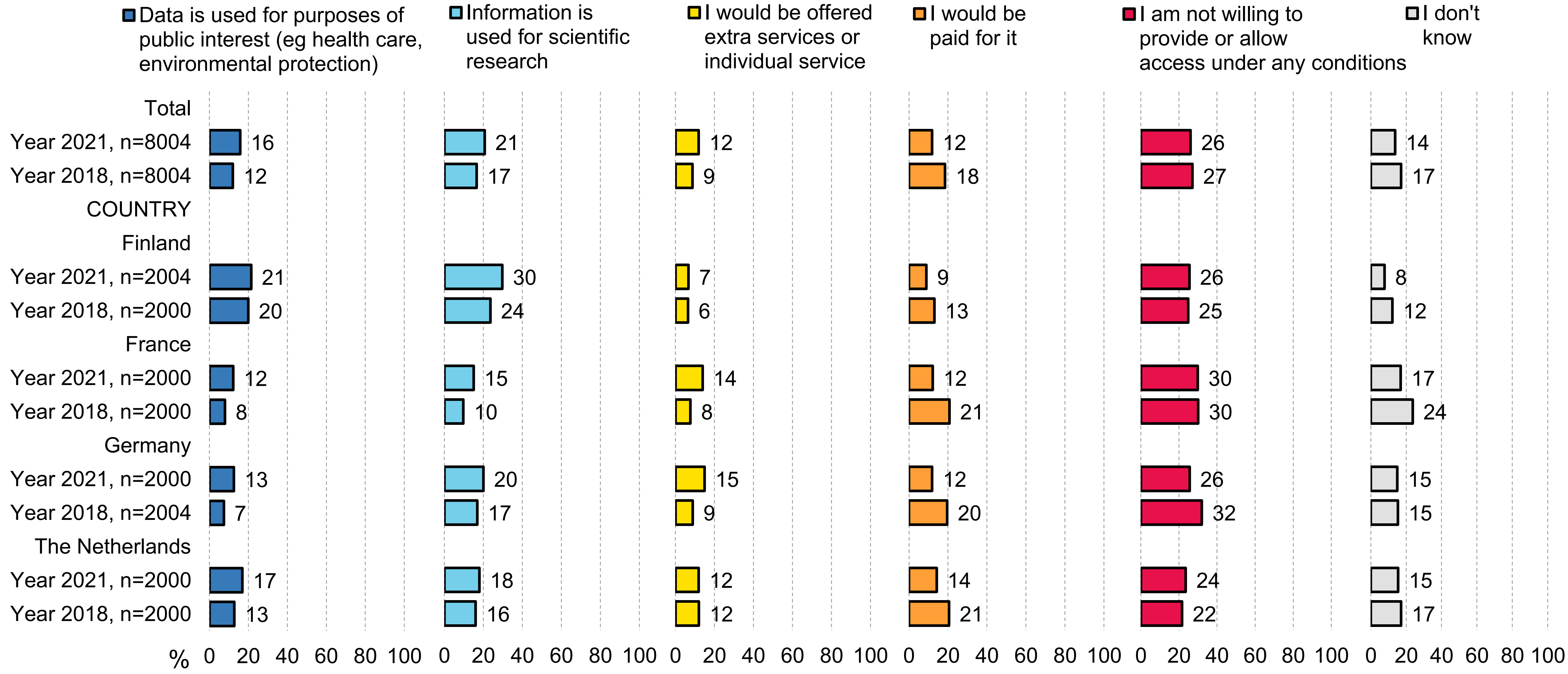


Under what conditions would you be willing to provide or allow access to the following data about yourself or your family to a service provider? (Primary service provider) Information about your values or belief

n=All respondents

SITRA

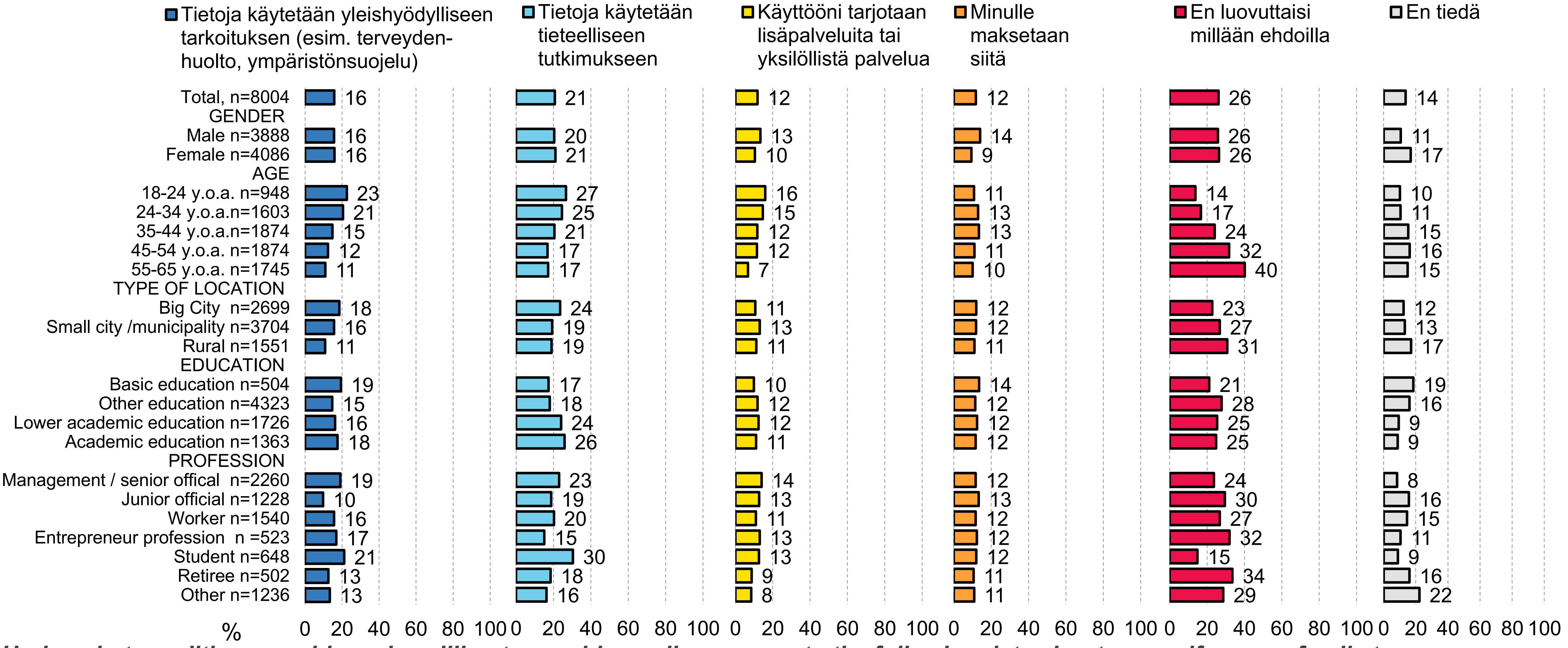
IN ALL COUNTRIES STUDIED, INFORMATION ON VALUES OR BELIEF COULD BE PROVIDED MOST LIKELY FOR SCIENTIFIC RESEACH AND PUBLIC BENEFICIAL PURPOSES. LESS PEOPLE THAN IN 2018 WOULD PROVIDING INFORMATION FOR PAYMENT



Under what conditions would you be willing to provide or allow access to the following data about yourself or your family to a service provider? (Primary service provider)

n=all respondents

YOUNGER AGE GROUPS ARE MORE READY TO DISCLOSE PERSONAL DATA ON VALUES OR BELIEFS

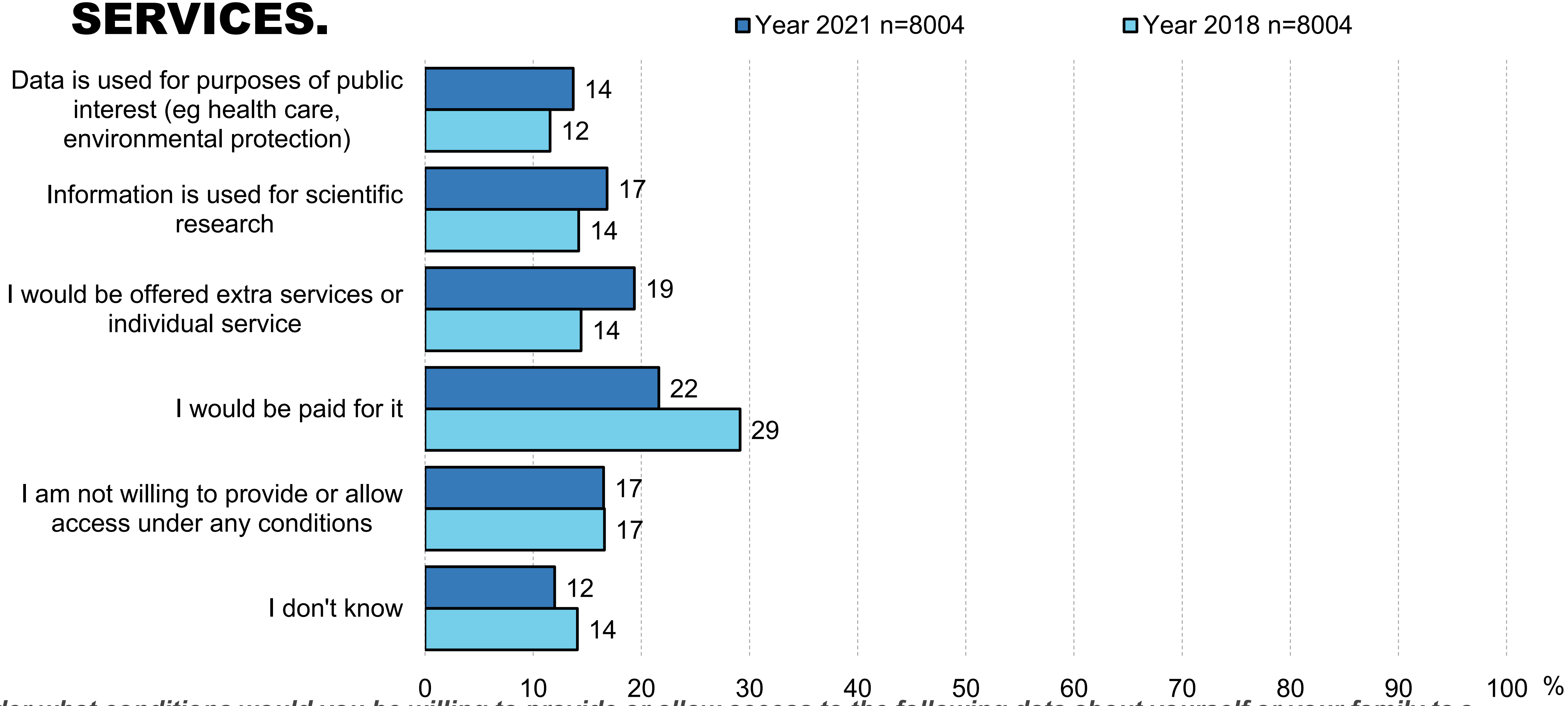


Under what conditions would you be willing to provide or allow access to the following data about yourself or your family to a service provider? (Primary service provider) Information about your values or belief

n=All respondents

SITRA

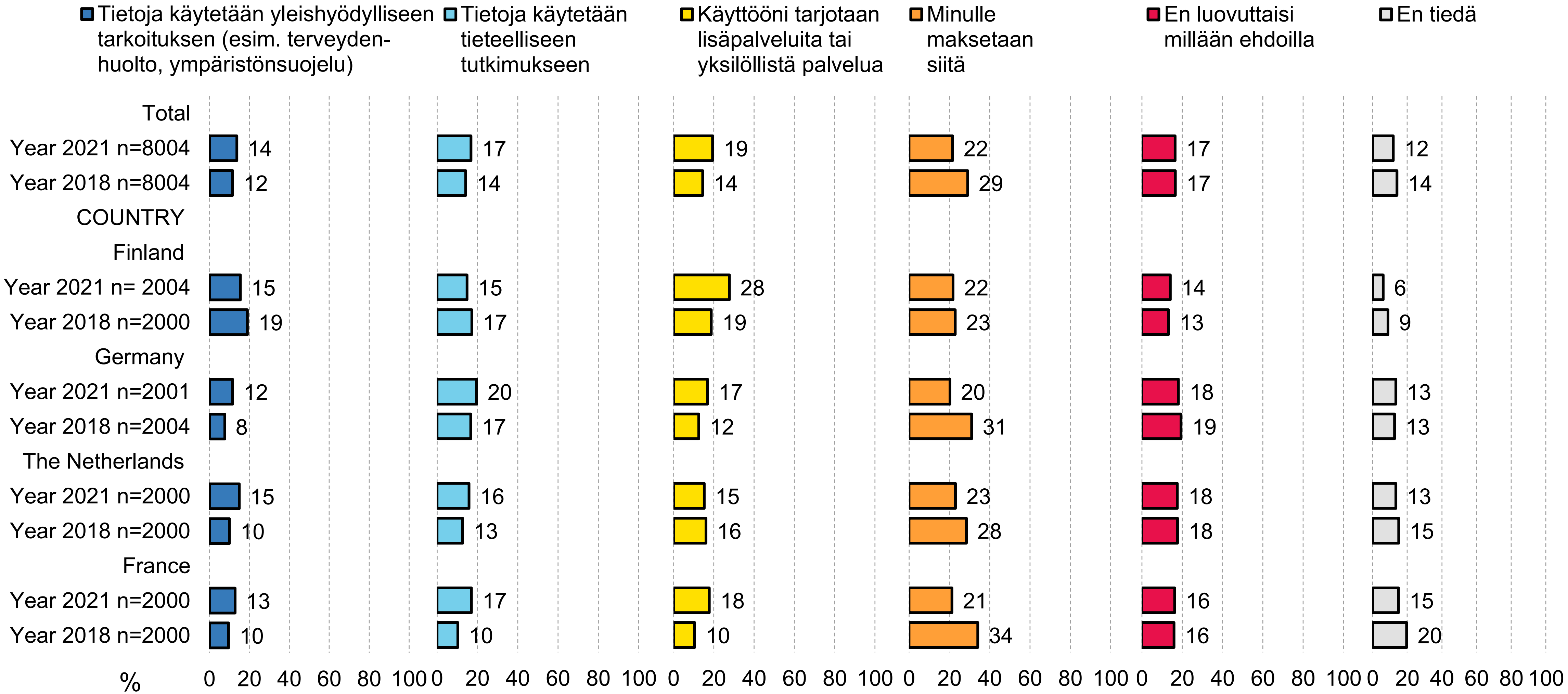
TWO OUT OF THREE ARE READY TO GIVE OUT INFORMATION ON THEIR CONSUMING AND PURCHASE BEHAVIOR, MOST COMMONLY FOR PAYMENT OR SERVICES.



Under what conditions would you be willing to provide or allow access to the following data about yourself or your family to a service provider? (Primary service provider) Information about your consumption habits or your purchases

n=All respondents

MORE PEOPLE THAN IN 2018 IN ALL COUNTRIES STUDIED,WOULD BE WILLING TO PROVIDE INFORMATION ON CONSUMPTION AND PURCHASE BEHAVIOR, BUT LESS FOR PAYMENT

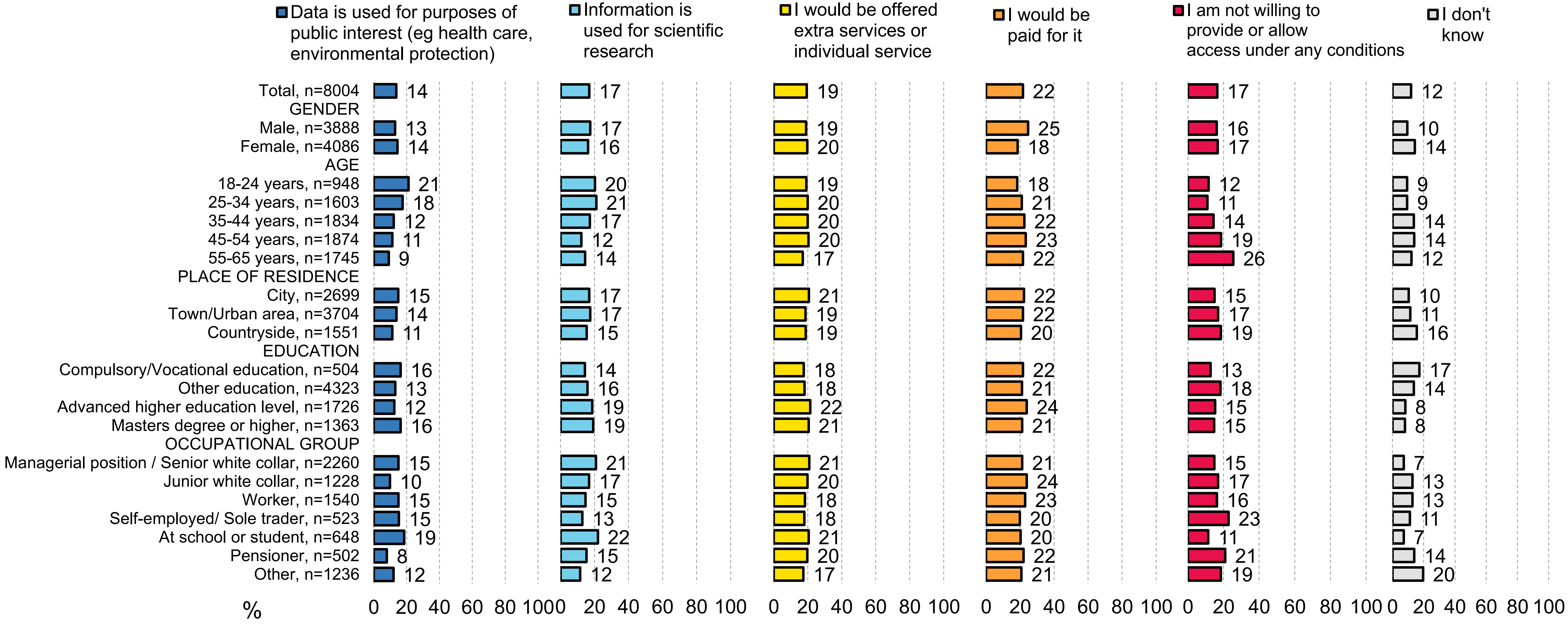


Under what conditions would you be willing to provide or allow access to the following data about yourself or your family to a service provider? (Primary service provider) Information about your consumption habits or your purchases

n=All respondents

SITRA

YOUNGER AGE GROUPS ARE MORE READY TO PROVIDE INFORMATION ON THEIR PERSONAL CONSUMPTION AND PURCHASING BEHAVIOR

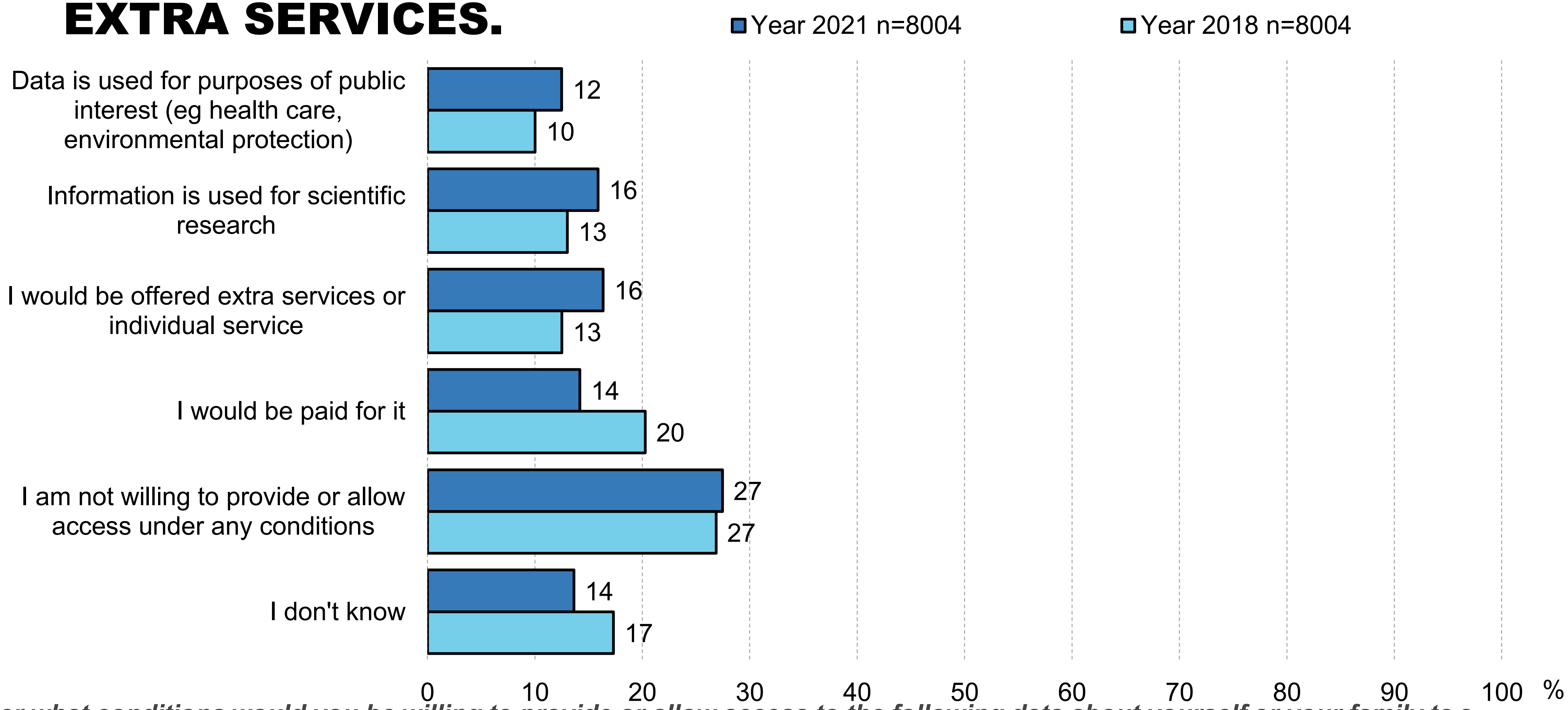


Under what conditions would you be willing to provide or allow access to the following data about yourself or your family to a service provider? (Primary service provider)

n=all respondents

SITRA

OVER HALF OF RESPONDENTS ARE READY TO PROVIDE INFORMATON ON SPATIAL DATA, DEVICES AND USE OF DEVICES; MOST LIKELY FOR SCIENTIFIC RESEARCH AND EXTRA SERVICES.

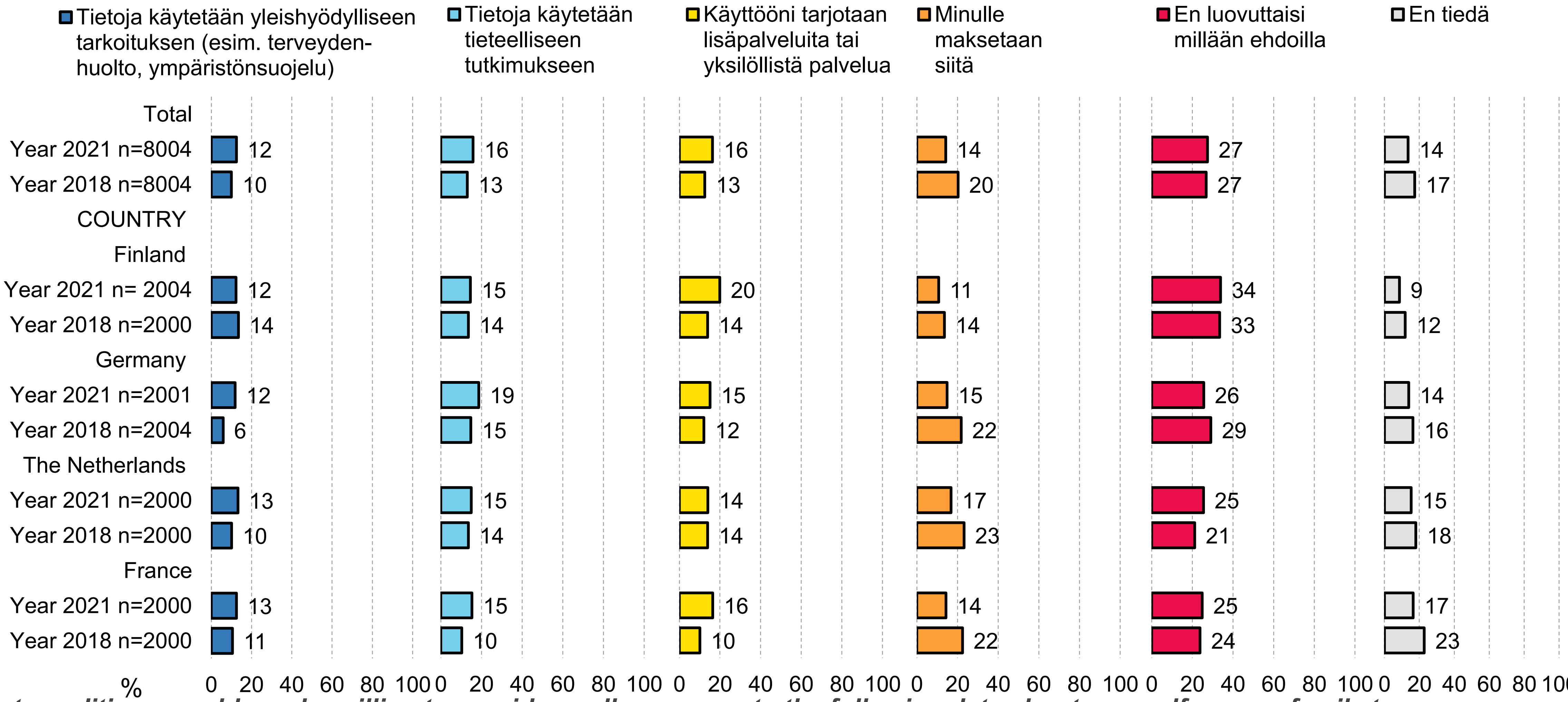


Under what conditions would you be willing to provide or allow access to the following data about yourself or your family to a service provider? (Primary service provider) Your spatial data, devices you use or the way you use devices

n=All respondents

SITRA

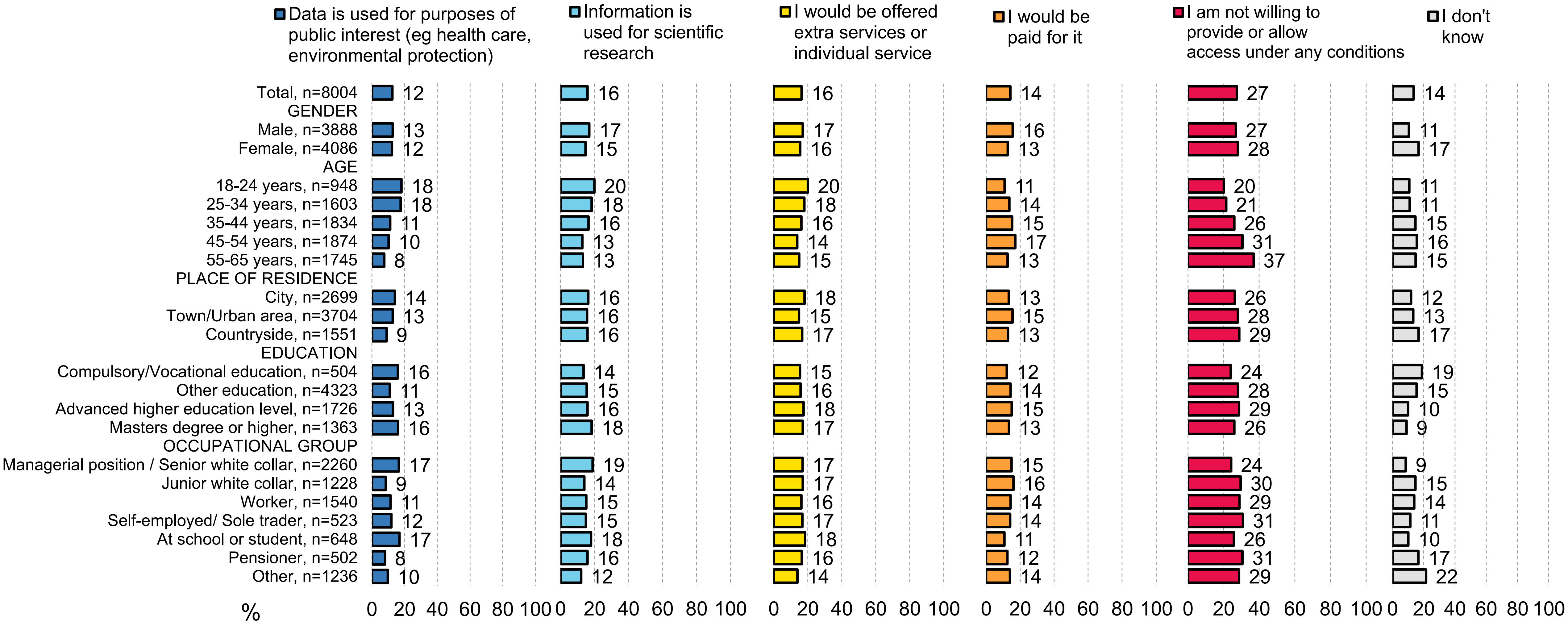
SPATIAL INFORMATION AND INFORMATION ON DEVICES ARE MORE LIKELY TO BE PROVIDED IN ALL COUNTRIES; MORE AND MORE FOR EXTRA SERVICES



Under what conditions would you be willing to provide or allow access to the following data about yourself or your family to a service provider? (Primary service provider) Your spatial data, devices you use or the way you use devices

n=All respondents

YOUNGER AGE GROUPS ARE MORE READY TO PROVIDE SPATIAL DATA AND INFORMATION ON DEVICES AND USE OF DEVICES

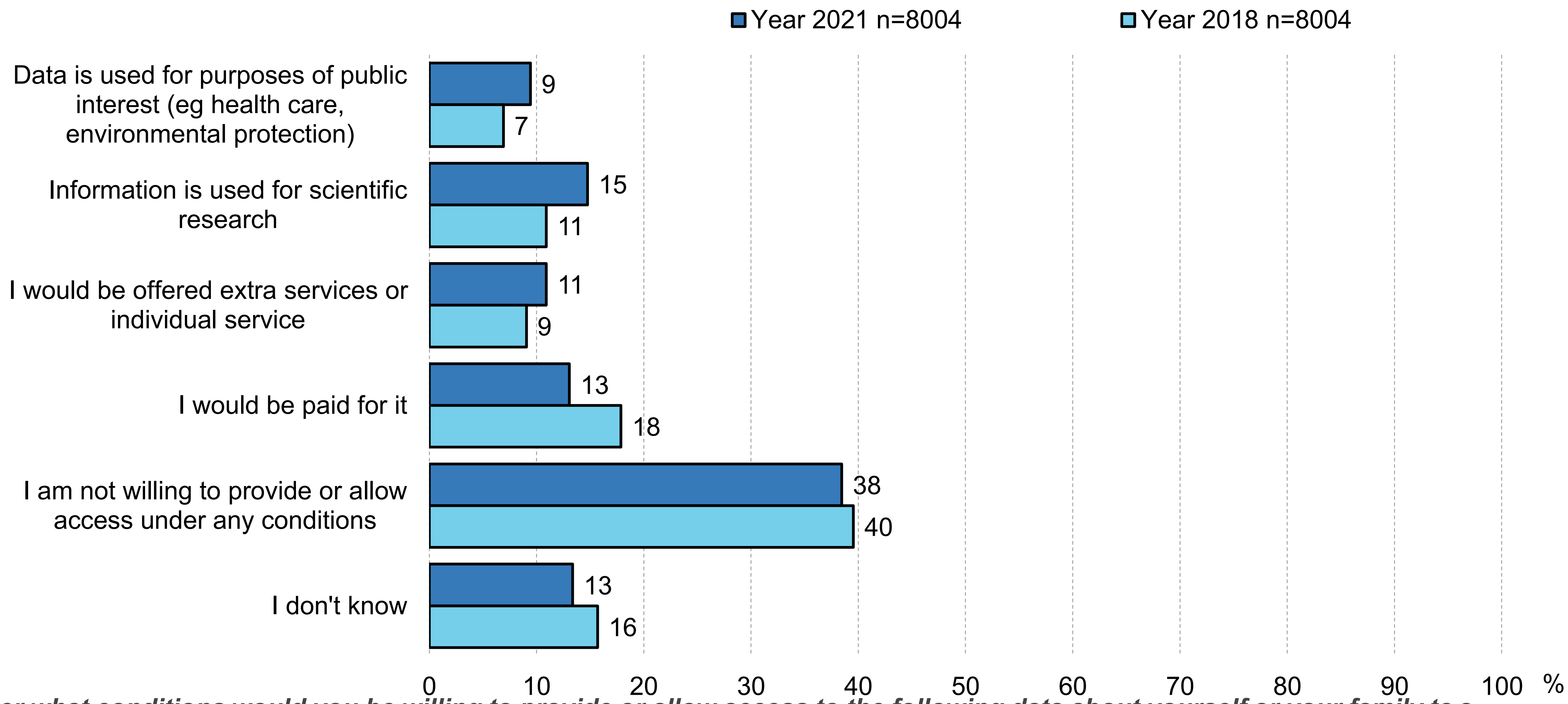


Under what conditions would you be willing to provide or allow access to the following data about yourself or your family to a service provider? (Primary service provider)

n=all respondents

SITRA

LESS THAN HALF IS READY TO PROVIDE INFORMATION ON WEALTH AND SPENDING

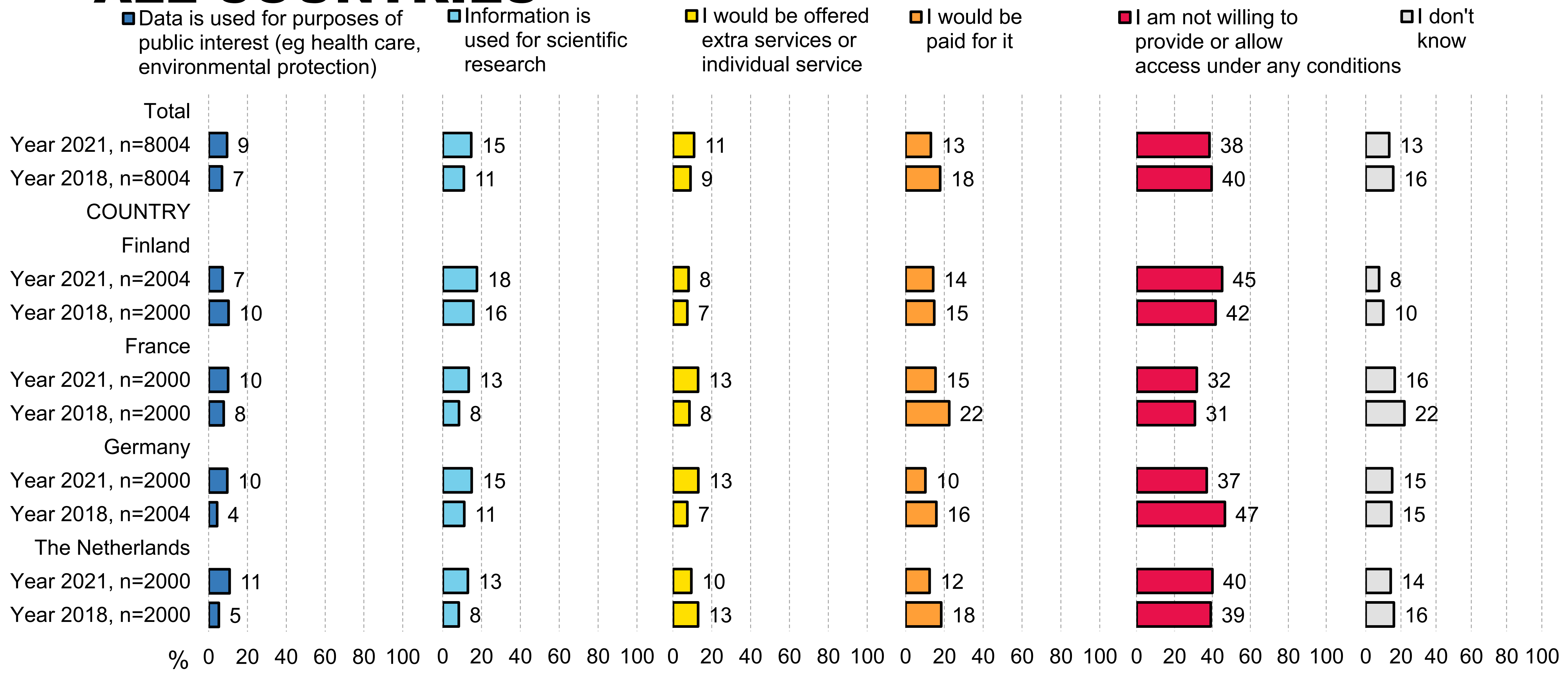


Under what conditions would you be willing to provide or allow access to the following data about yourself or your family to a service provider? (Primary service provider) Information about your wealth and spending

n=All respondents

SITRA

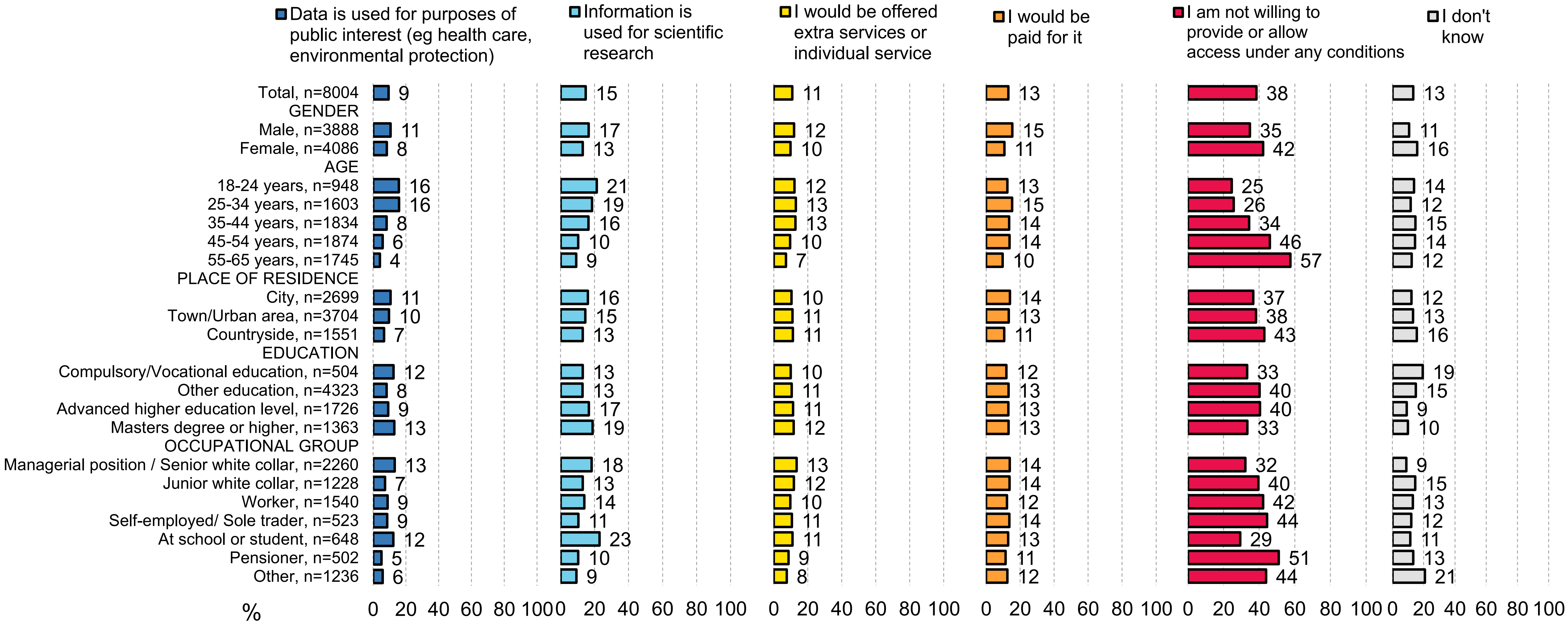
LESS THAN HALF IS READY TO PROVIDE INFORMATION ON WEALTH AND SPENDING IN ALL COUNTRIES



Under what conditions would you be willing to provide or allow access to the following data about yourself or your family to a service provider? (Primary service provider)

n=all respondents

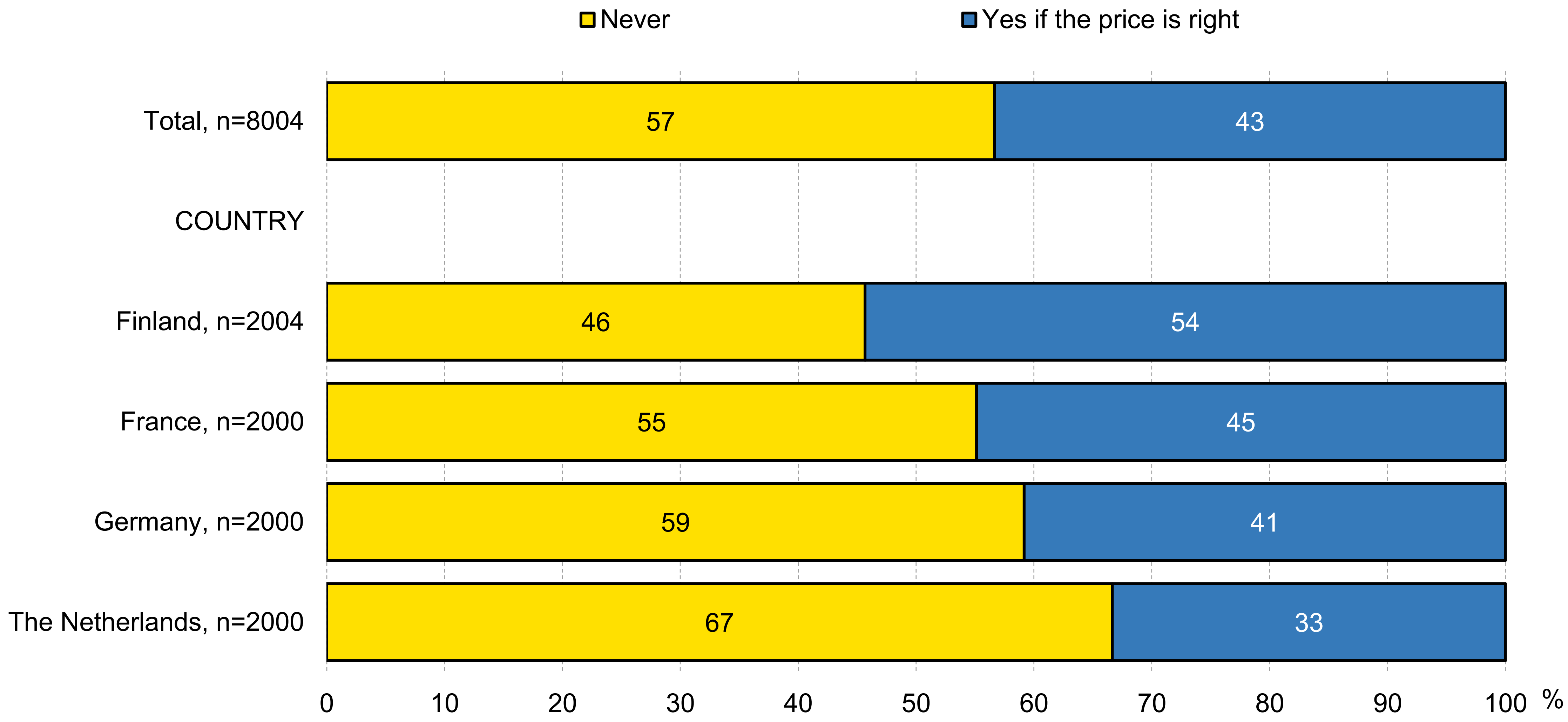
YOUNGER AGE GROUPS ARE MORE WILLING TO PROVIDE INFORMATION ON THEIR WEALTH AND SPENDING



Under what conditions would you be willing to provide or allow access to the following data about yourself or your family to a service provider? (Primary service provider)

n=all respondents

THE FINNS ARE MORE WILLING TO SELL THEIR PERSONAL DATA THAN OTHERS. OVER HALF OF THE RESPONDENST COULD NOT THINK OF SELLING THEIR PERSONAL DATA



Could you consider selling your personal data?

n=All respondents

SITRA

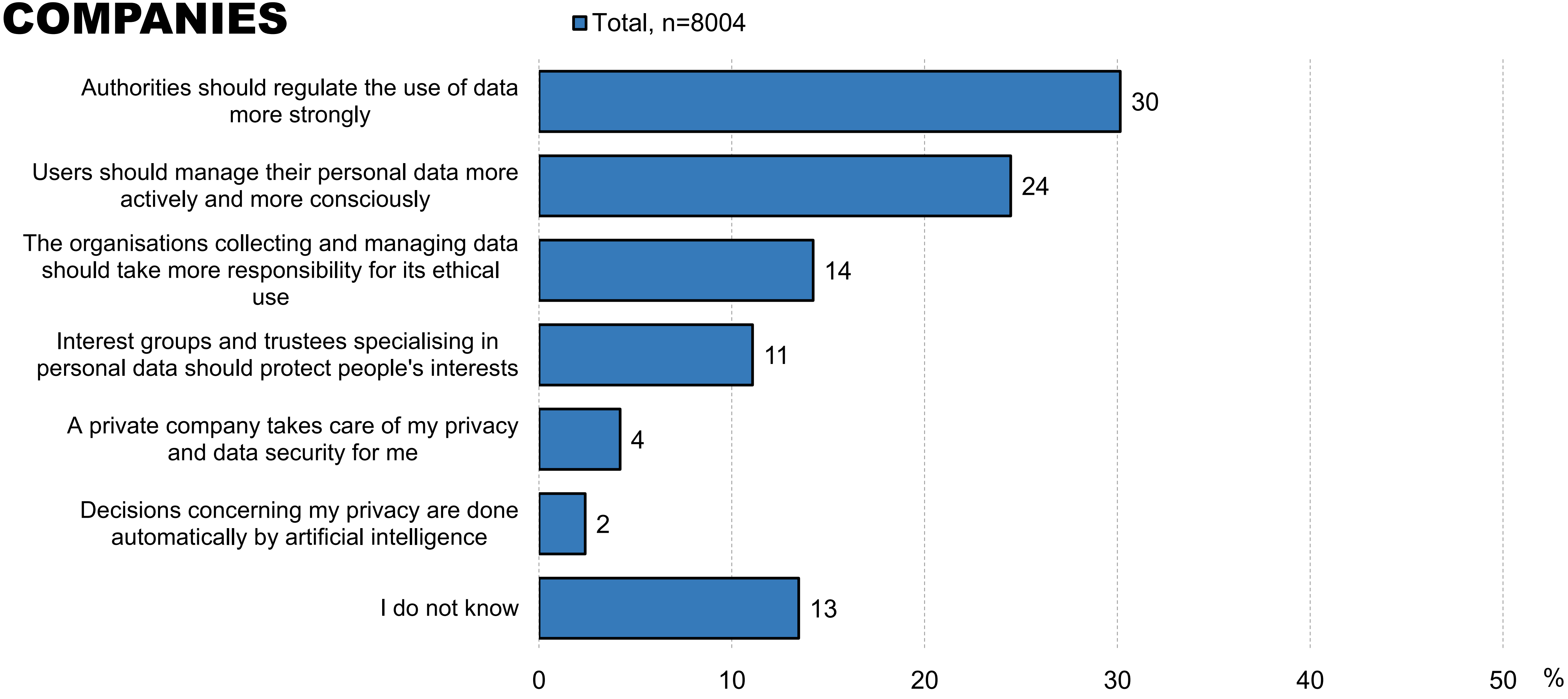
MEN, YOUNGER PEOPLE, STUDENTS AND THOSE WITH HIGHER EDUCATION ARE MORE WILLING TO SELL DATA ON THEMSELVES

Could you consider selling your personal data?

n=All respondents

SITRA

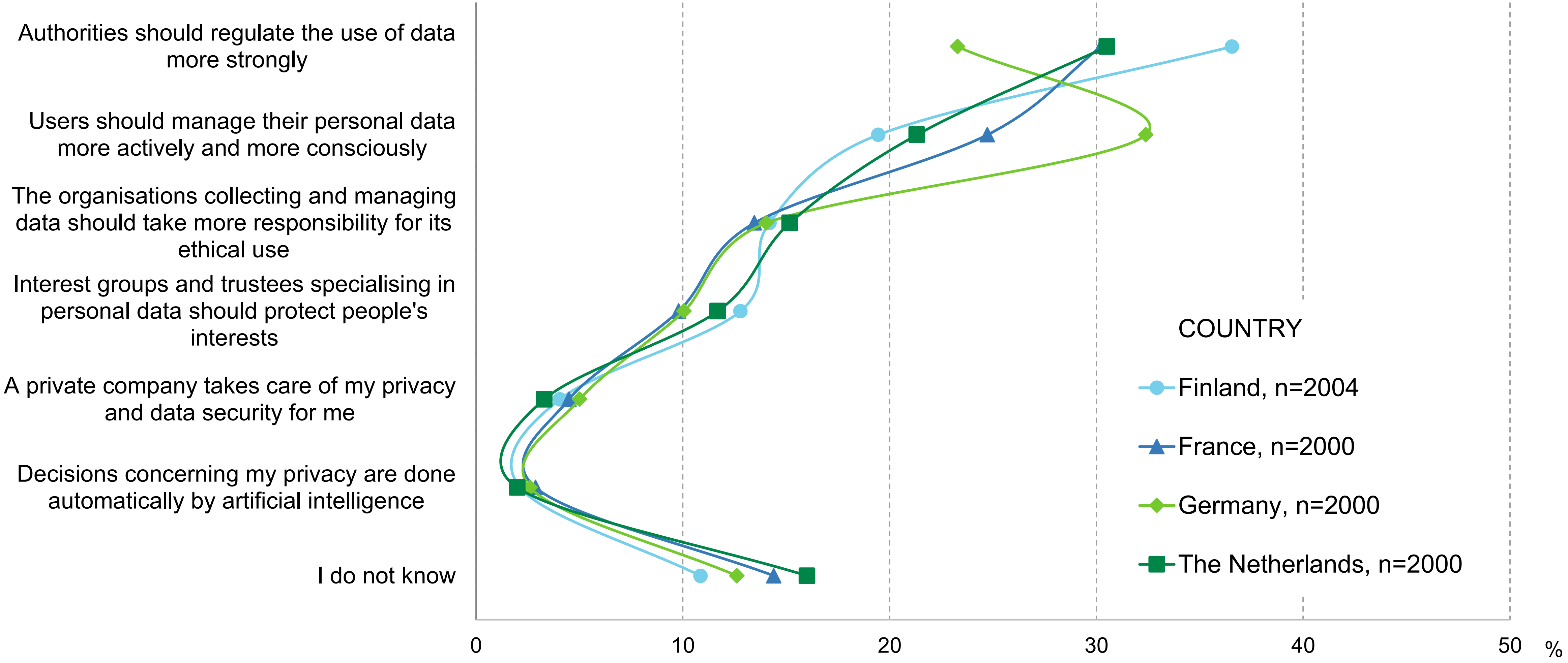
AUTHORIZATION TO USE AND MANAGE USER DATA IS ASSUMED TO BE UNDER THE CONTROL OF AUTHORITIES AND USERS THEMSELVES, ONLY FEW TRUSTS IN A.I. OR PRIVATE COMPANIES



In your opinion, how should allowances for using and managing data be arranged?

n=All respondents

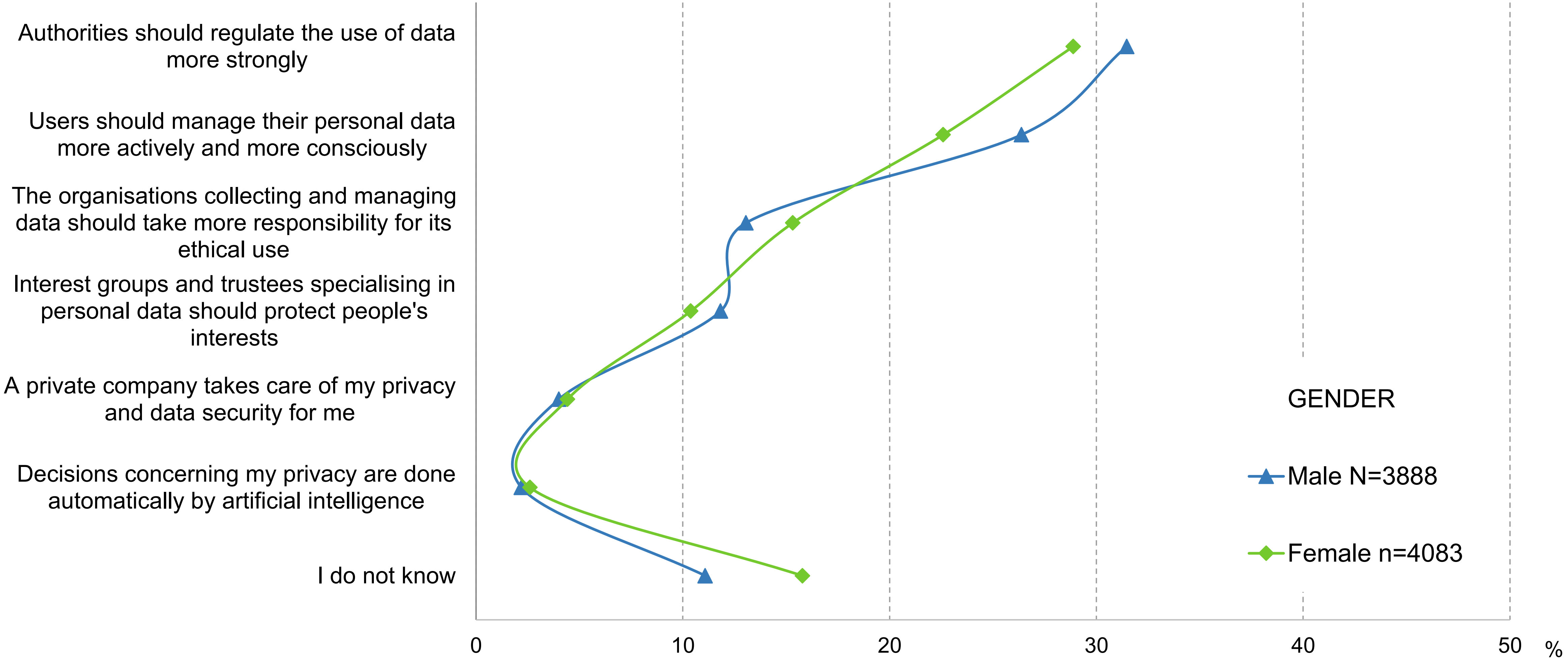
GERMAN RESPONDENTS HAVE LESS CONFIDENCE IN THE AUTHORITIES AND EXPECT USERS TO MANAGE THEIR OWN INFORMATION MORE



In your opinion, how should allowances for using and managing data be arranged?

n=All respondents

BOTH MEN AND WOMEN EXPECT AUTHORITIES AND USERS THEMSELVES REGULATE THE USE OF DATA

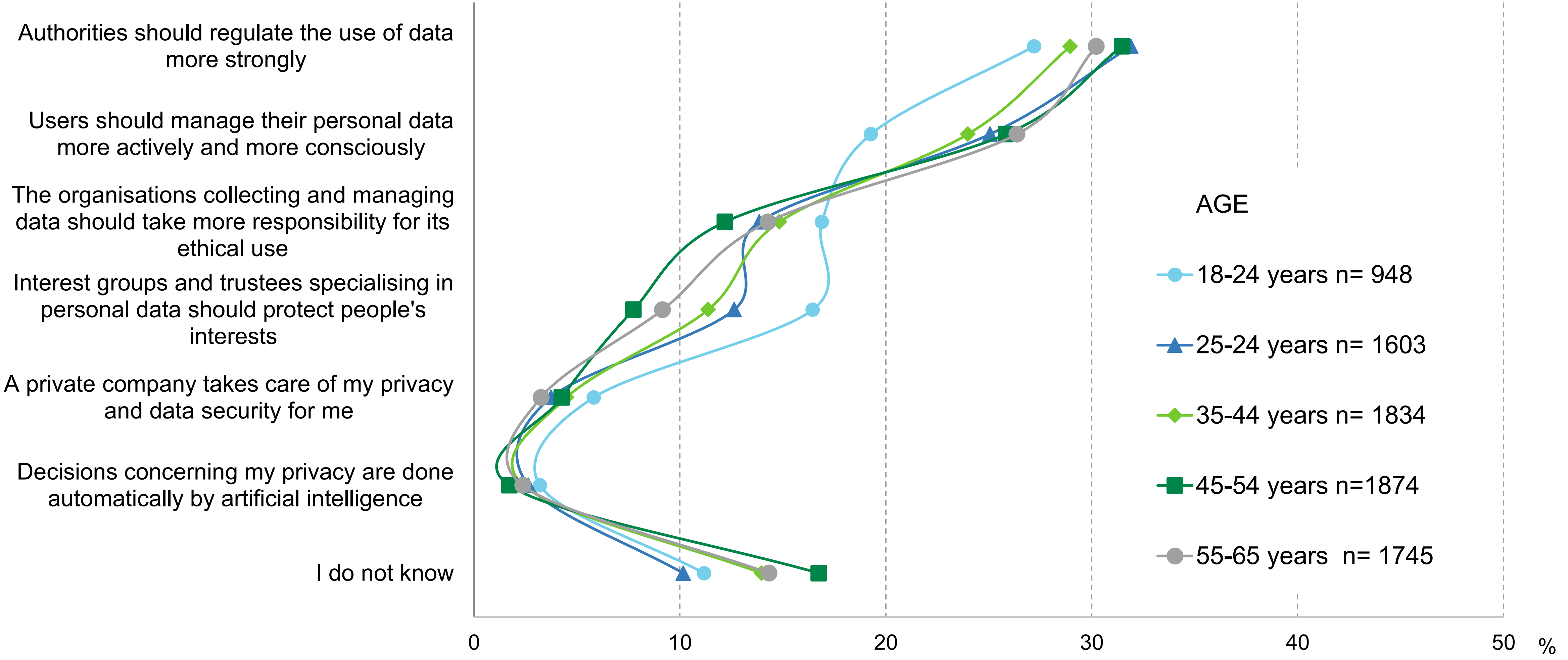


In your opinion, how should allowances for using and managing data be arranged?

n=All respondents

SITRA

ALL AGE GROUPS EXPECT AUTHORITIES AND USERS THEMSELVES REGULATE THE USE OF DATA

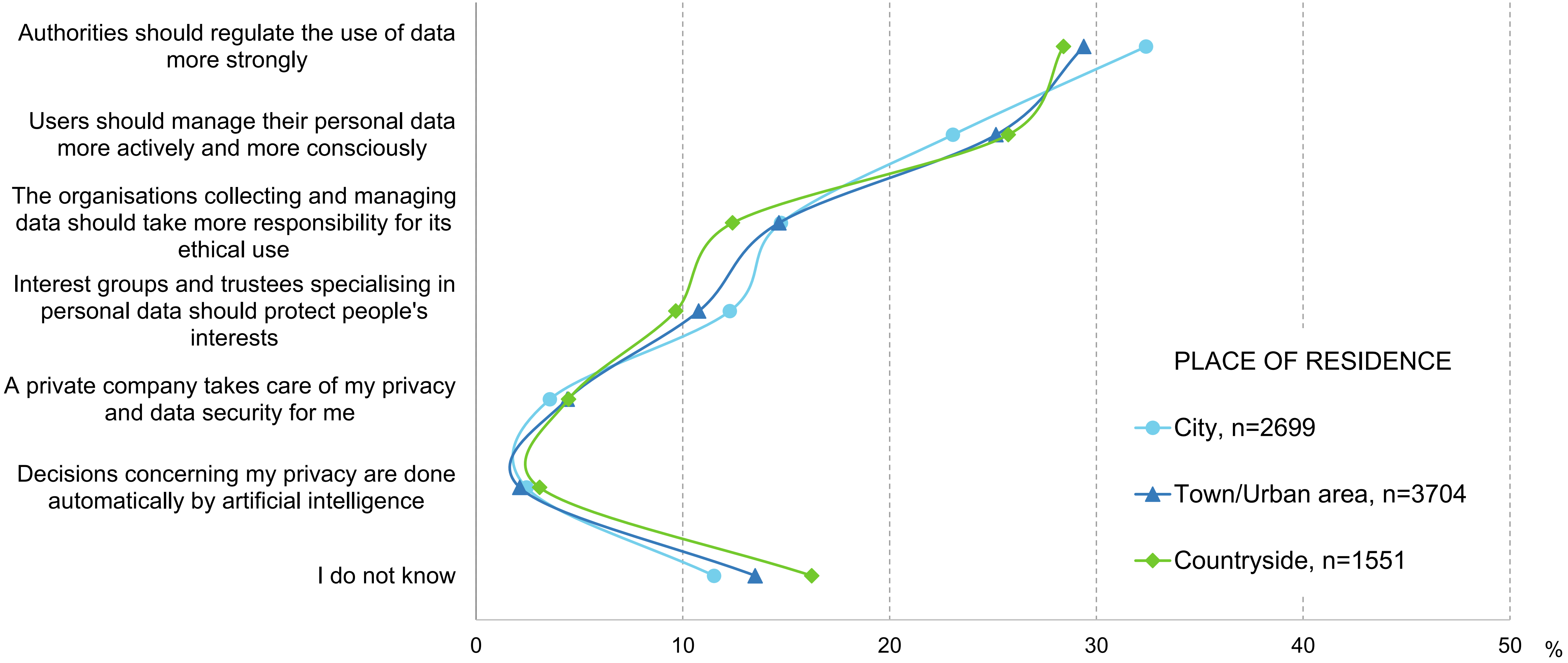


In your opinion, how should allowances for using and managing data be arranged?

n=All respondents

SITRA

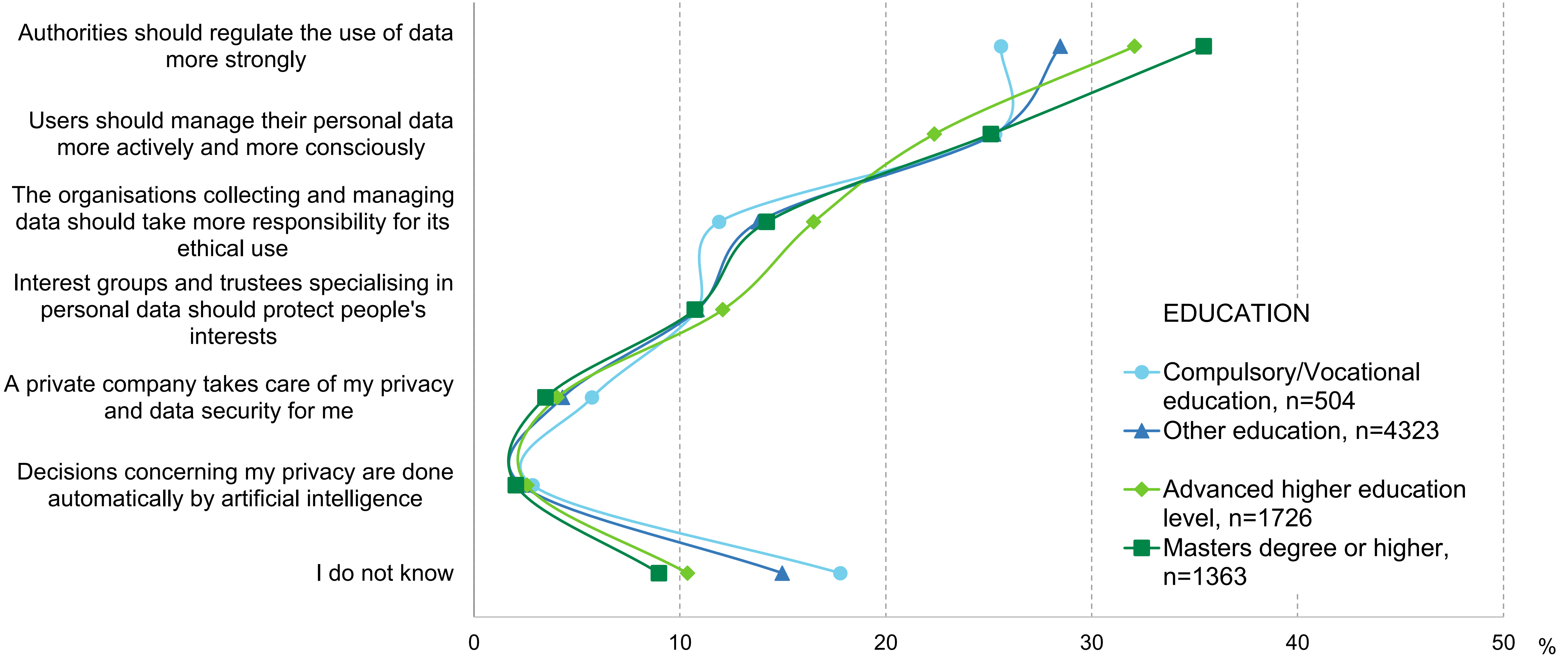
PEOPLE IN DIFFERENT LOCATIONS EXPECT AUTHORITIES AND USERS THEMSELVES REGULATE THE USE OF DATA



In your opinion, how should allowances for using and managing data be arranged?

n=All respondents

IN ALL LEVELS ON EDUCATION PEOPLE EXPECT AUTHORITIES AND USERS THEMSELVES REGULATE THE USE OF DATA

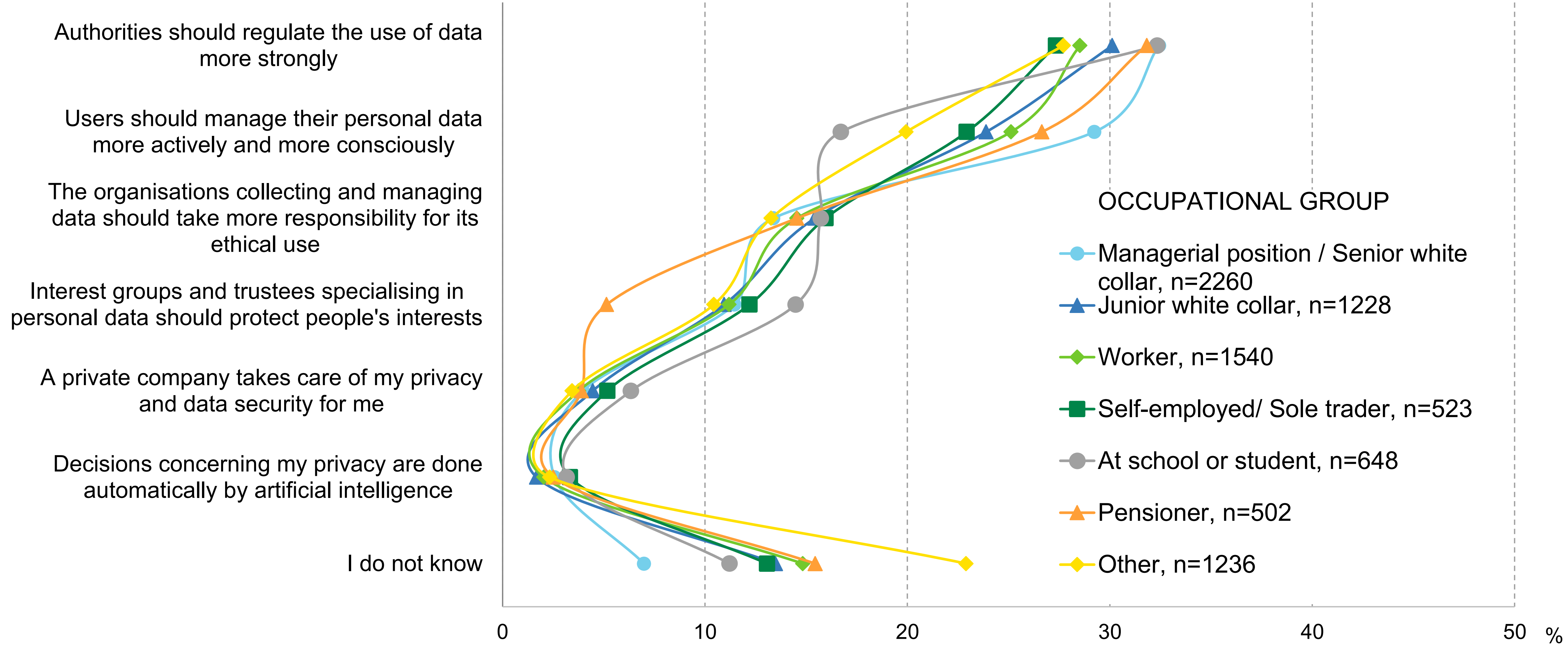


In your opinion, how should allowances for using and managing data be arranged?

n=All respondents

SITRA

IN ALL PROFESSIONAL GROUPS PEOPLE EXPECT AUTHORITIES AND USERS THEMSELVES REGULATE THE USE OF DATA

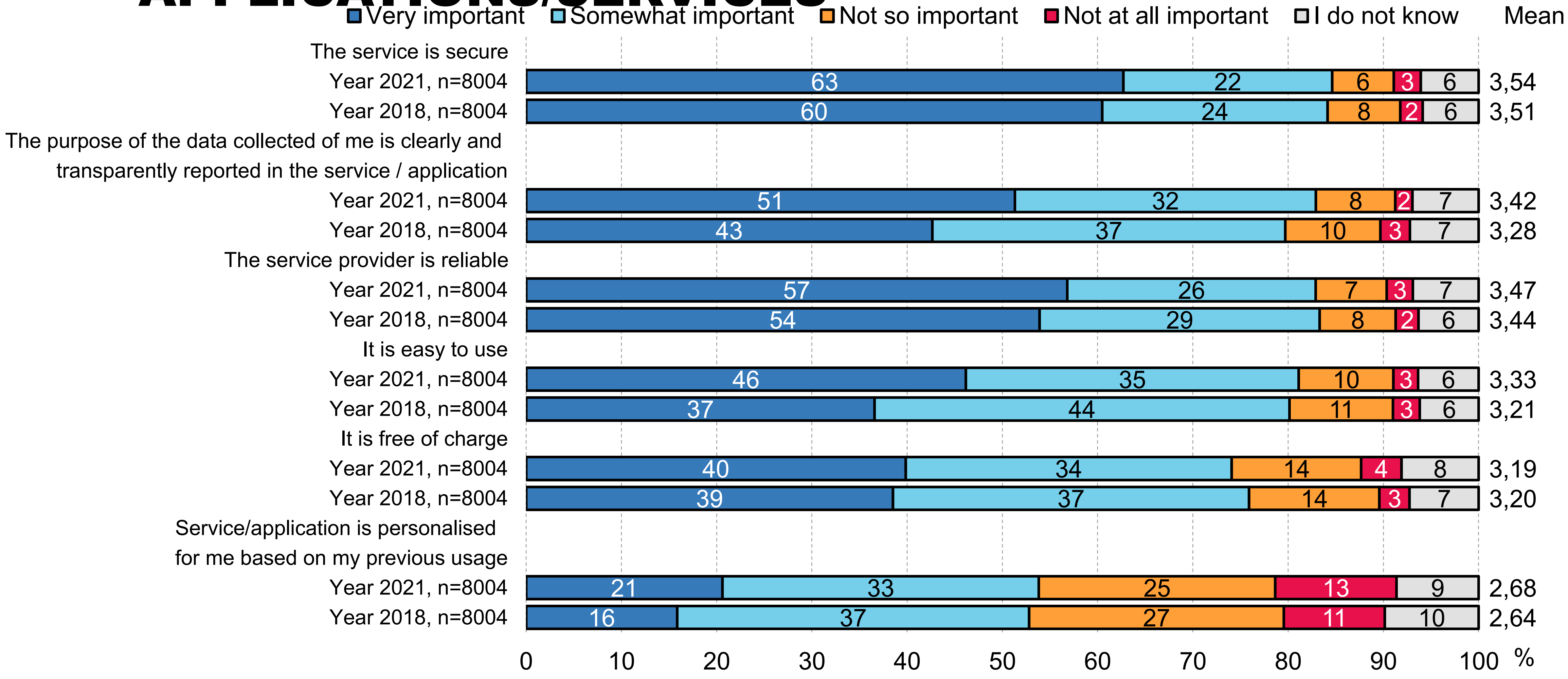


In your opinion, how should allowances for using and managing data be arranged?

n=All respondents

SITRA

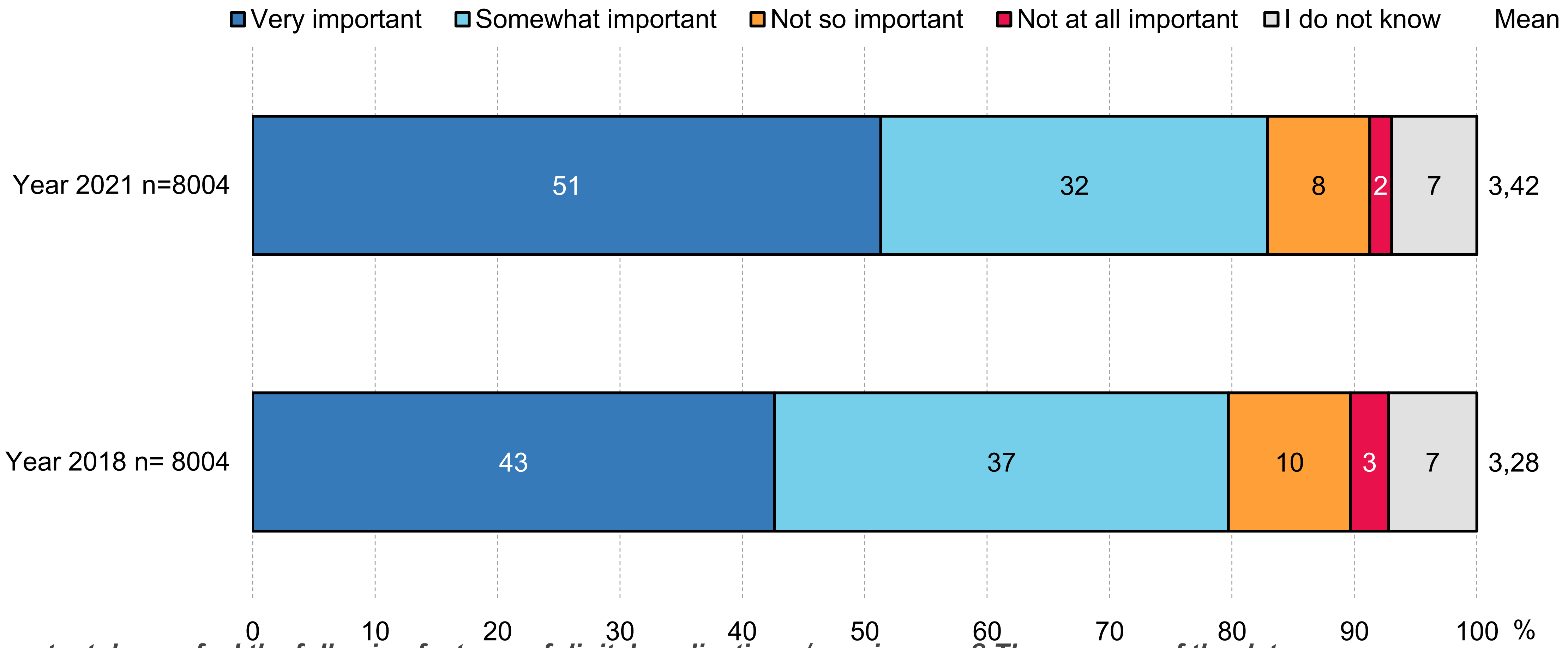
SECURITY OF THE SERVICE IS CONSIDERED TO BE THE MOST IMPORTANT FEATURE OF DIGITAL APPLICATIONS/SERVICES



How important do you feel the following features of digital applications / services are?

n=all respondents

REPORTING THE PURPOSE OF USER DATA COLLECTION IS MORE IMPORTANT THAN IN 2018 TO RESPONDENTS

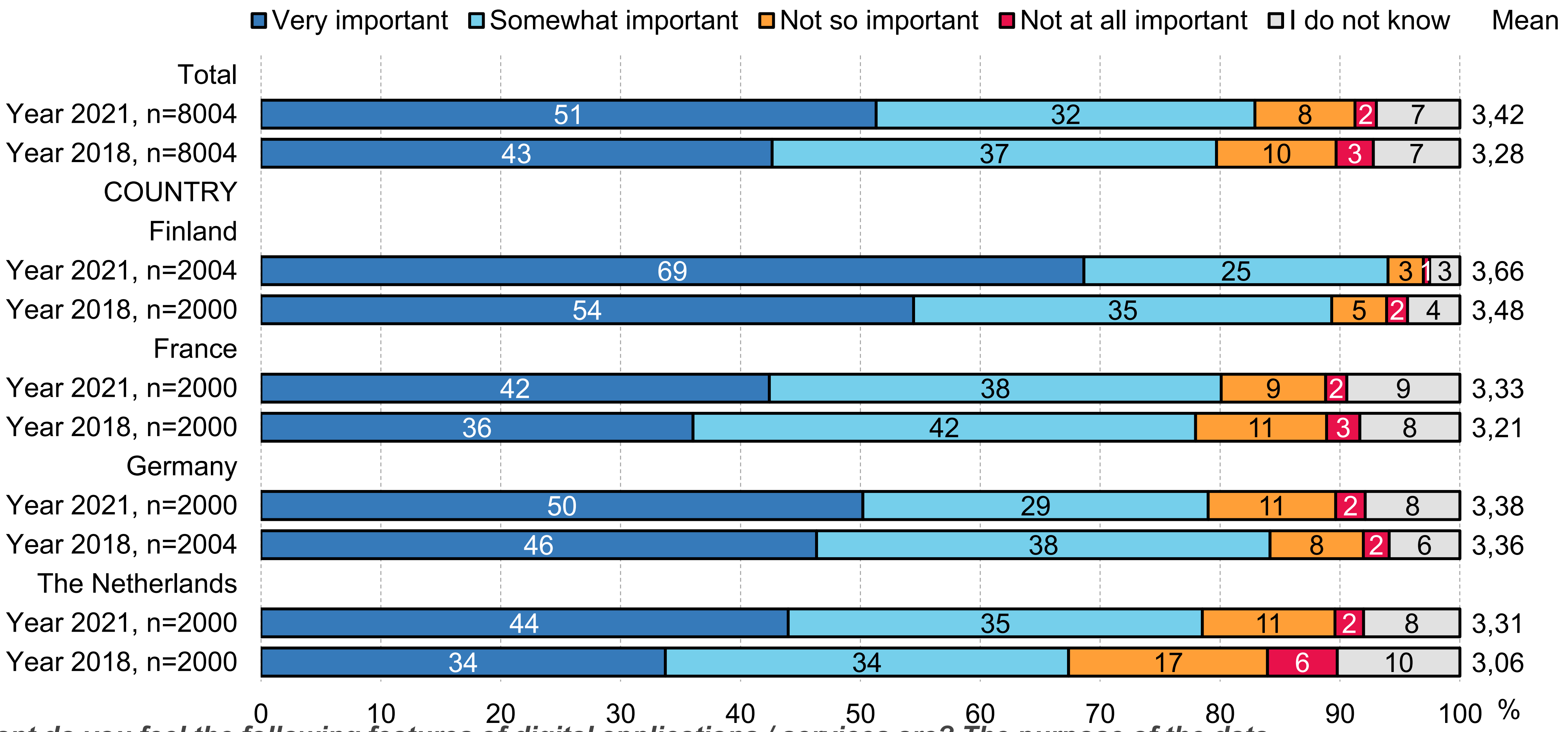


How important do you feel the following features of digital applications / services are? The purpose of the data collected of me is clearly and transparently reported in the service / application

n=All respondents

SITRA

REPORTING THE PURPOSE OF USER DATA COLLECTION IS MORE IMPORTANT THAN IN 2018 IN ALL COUNTRIES EXCLUDING GERMANY

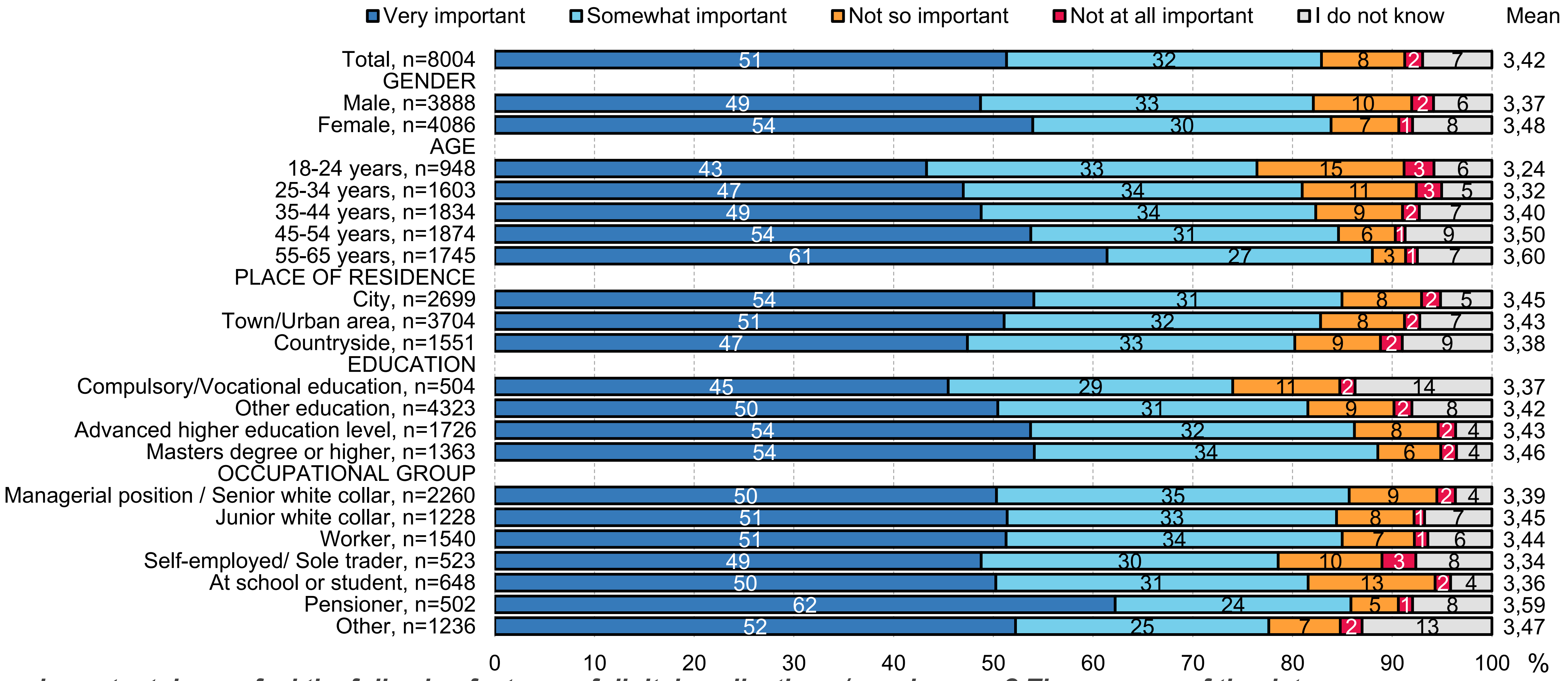


How important do you feel the following features of digital applications / services are? The purpose of the data collected of me is clearly and transparently reported in the service / application

n=All respondents

SITRA

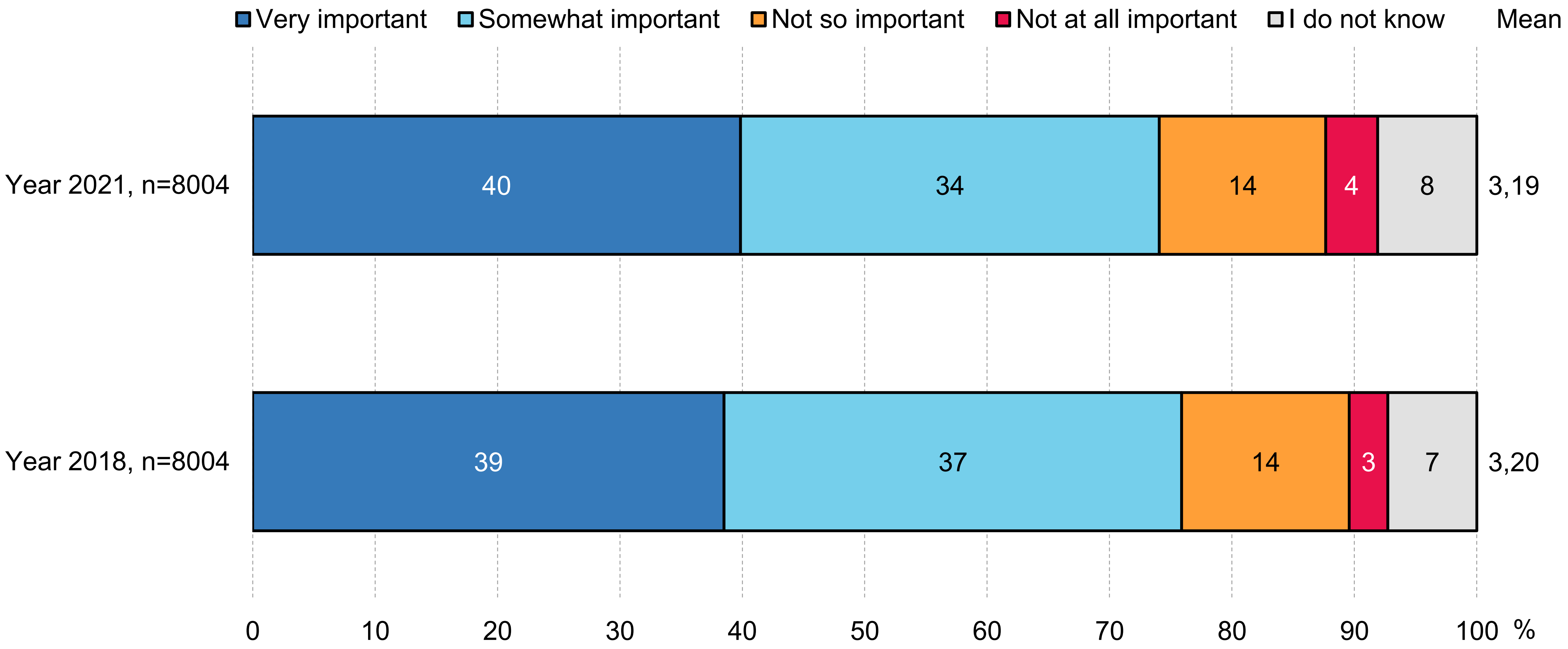
REPORTING THE PURPOSE OF USER DATA COLLECTION IS MORE IMPORTANT TO OLDER AGE GROUPS AND TO PEOPLE WITH HIGHER EDUCATION



How important do you feel the following features of digital applications / services are? The purpose of the data collected of me is clearly and transparently reported in the service / application

n=All respondents

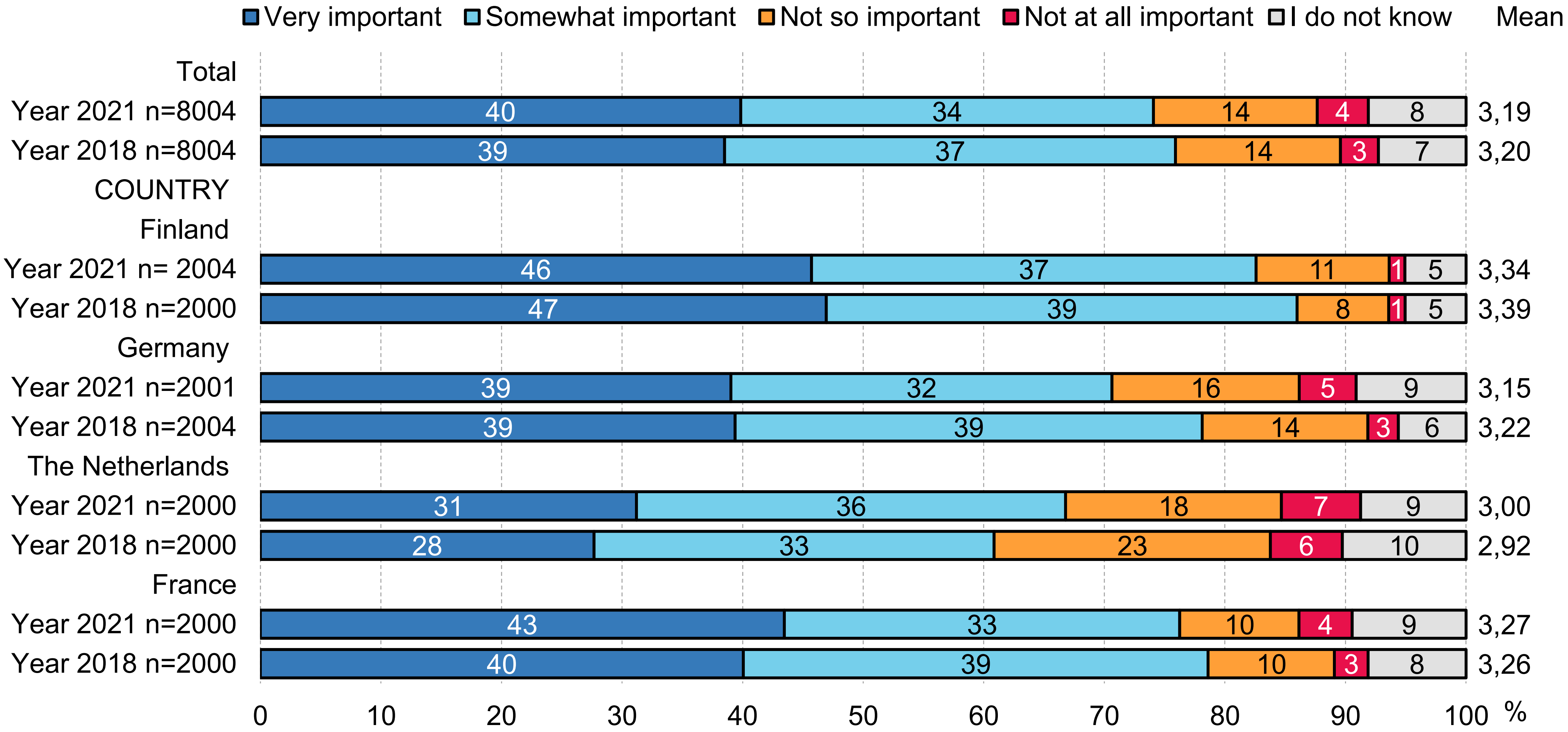
FREE APPLICATIONS / SERVICES ARE IMPORTANT TO THREE OUT OF FOUR, WHICH IS ABOUT THE SAME THAN IN 2018



How important do you feel the following features of digital applications / services are? It is free of charge

n=All respondents

SERVICES AND APPLICATIONS BEING FREE IS MOST IMPORTANT IN FINLAND AND THE LEAST IMPORTANT IN THE NETHERLANDS

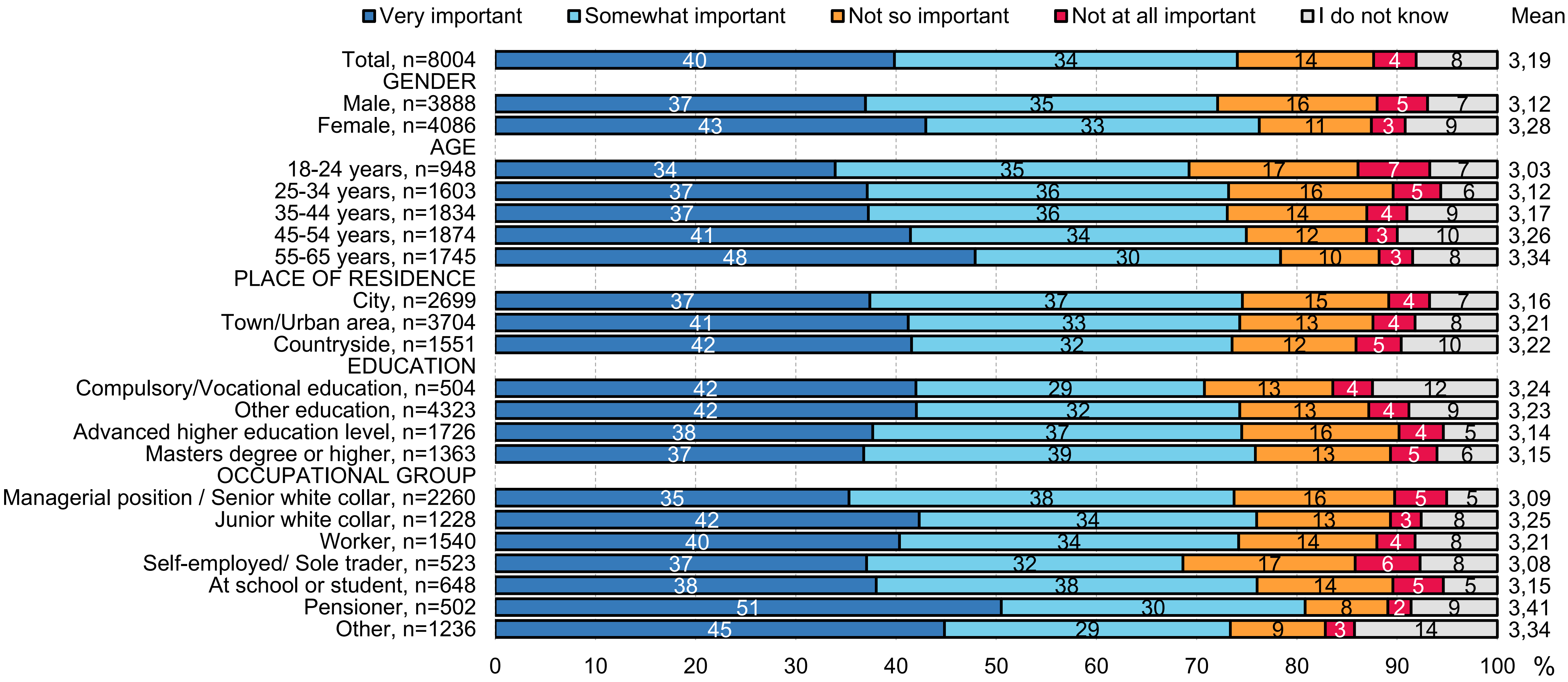


How important do you feel the following features of digital applications / services are? It is free of charge

n=All respondents

SITRA

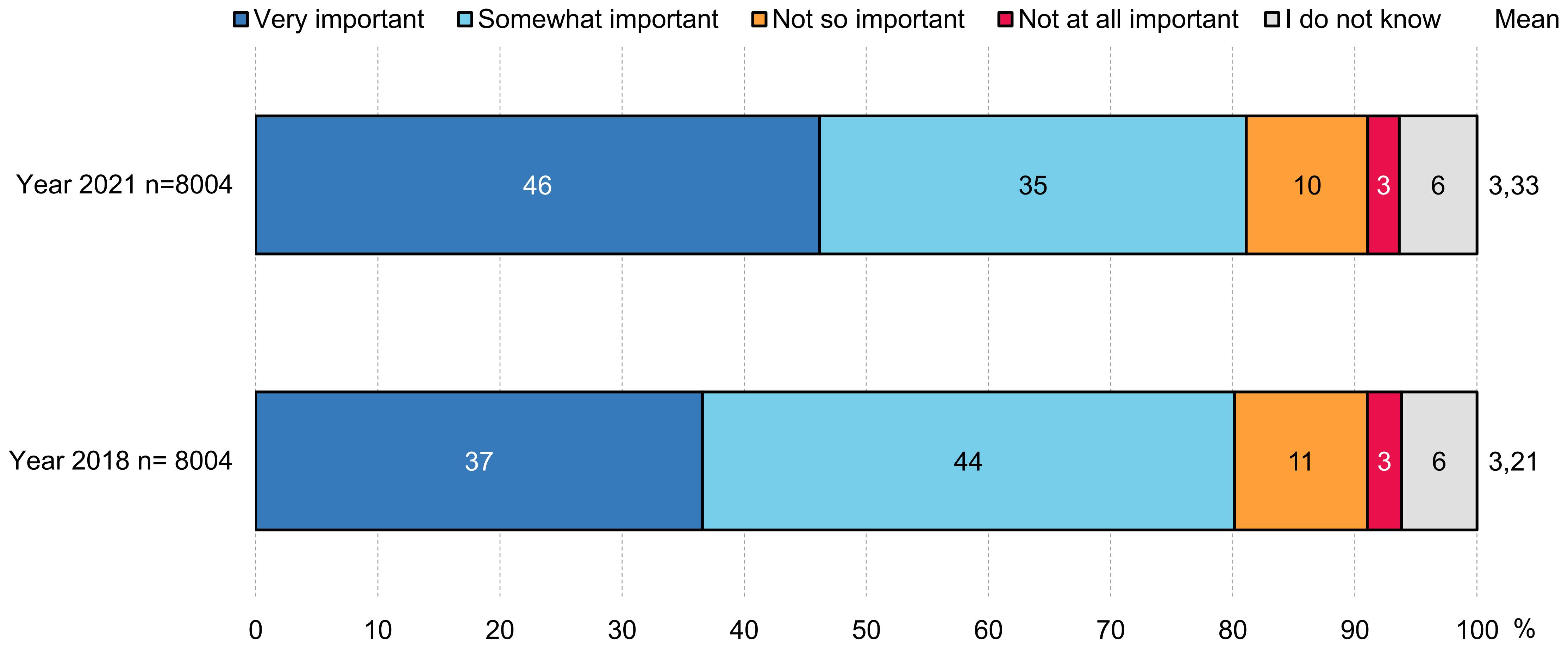
SERVICES AND APPLICATIONS BEING FREE IS MORE IMPORTANT TO OLDER PEOPLE AND RETIREES



How important do you feel the following features of digital applications / services are? It is free of charge

n=All respondents

EASY USE OF APPLICATIONS / SERVICES IS IMPORTANT FOR MORE THAN THREE OUT OF FOUR, WHICH IS A LITTLE MORE THAN IN 2018

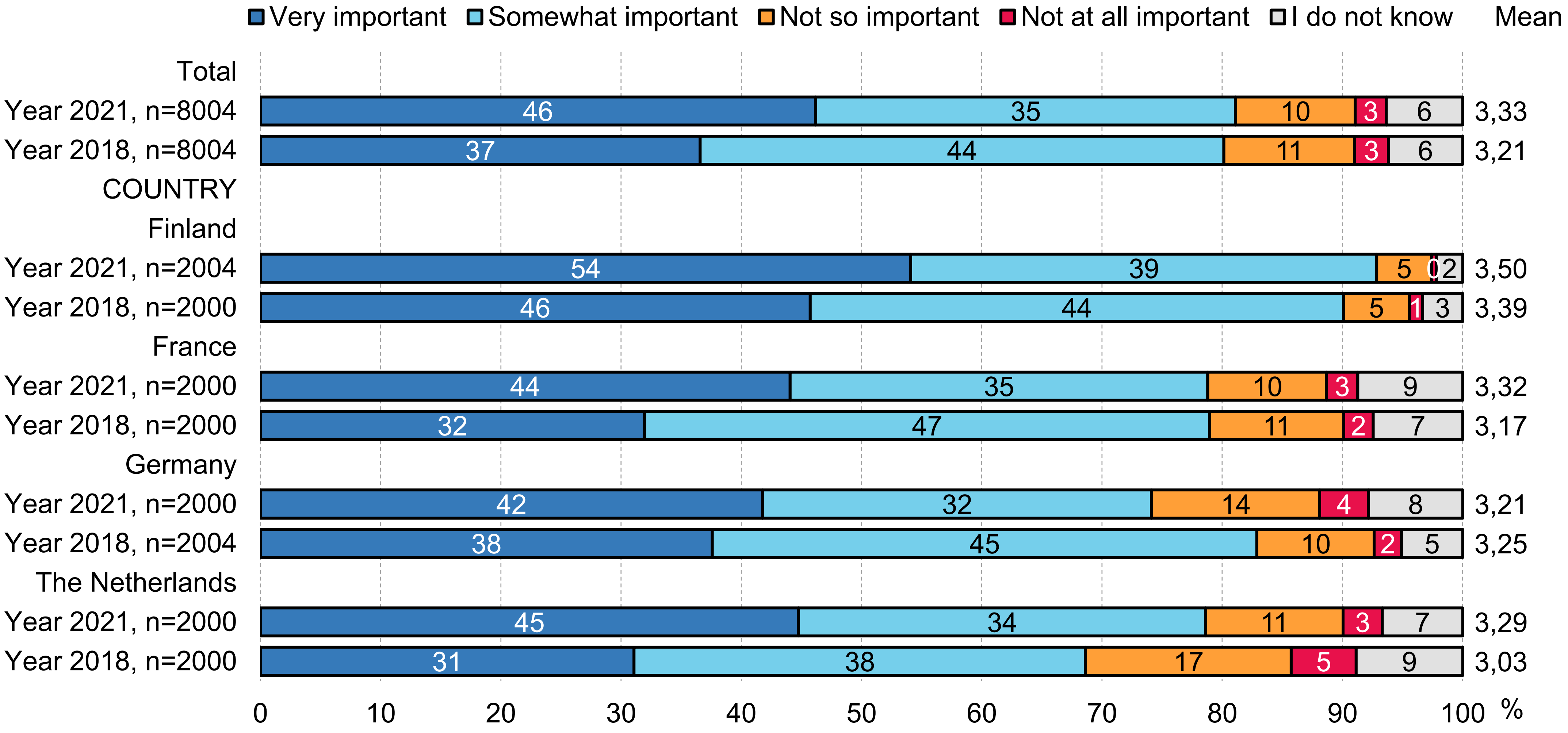


How important do you feel the following features of digital applications / services are? It is easy to use

n=All respondents

SITRA

THE IMPORTANCE OF EASY USE OF APPLICATIONS / SERVICES HAS INCREASED IN ALL OTHER COUNTRIES BUT GERMANY

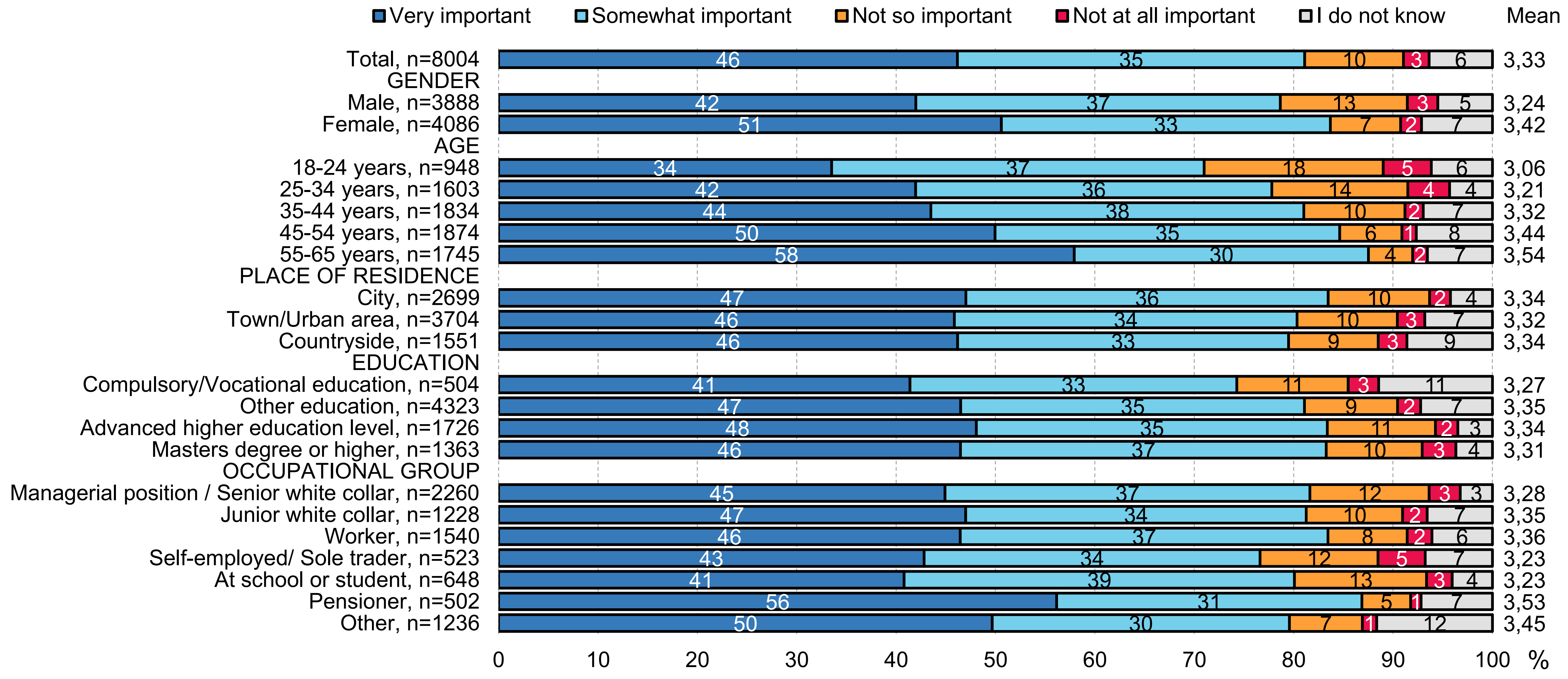


How important do you feel the following features of digital applications / services are? It is easy to use

n=All respondents

SITRA

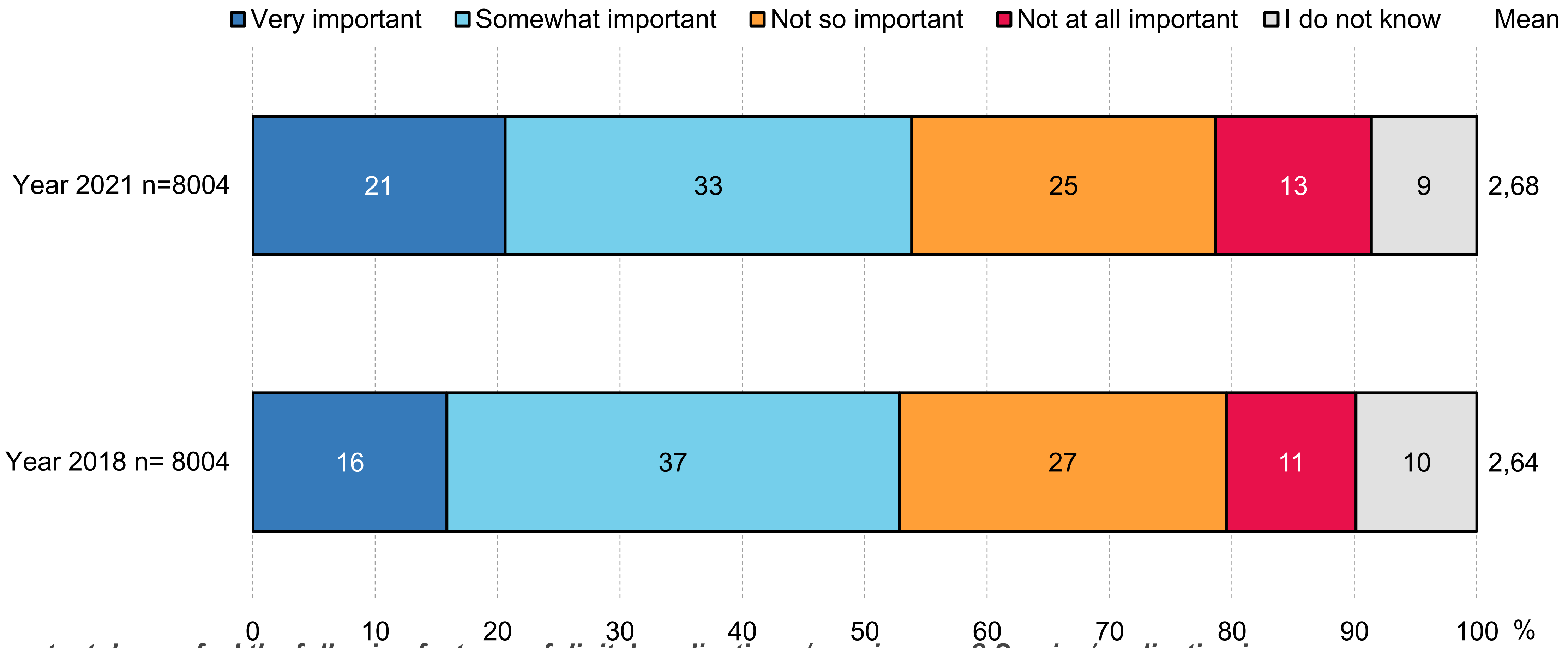
EASE OF USING APPLICATIONS AND SERVICES IS MORE IMPORTANT FOR OLDER AGE GROUPS AND RETIREES



How important do you feel the following features of digital applications / services are? It is easy to use

n=All respondents

PERSONALIZED SERVICE / APPLICATION BASED ON PREVIOUS USE OF DATA IS IMPORTANT FOR A LITTLE OVER HALF OF RESPONDENTS

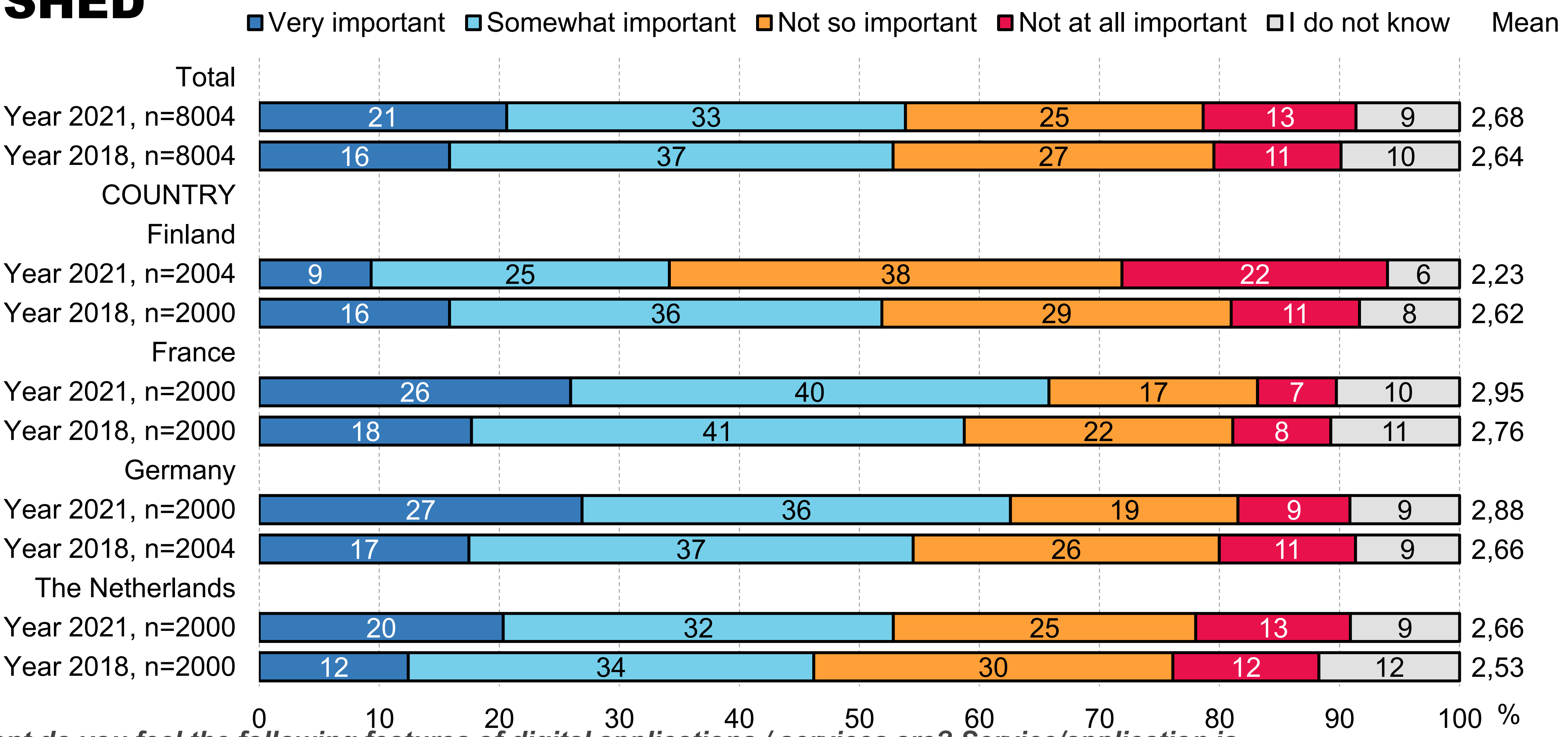


How important do you feel the following features of digital applications / services are? Service/application is personalized for me based on my previous usage

n=All respondents

SITRA

IMPORTANCE OF PERSONALIZED SERVICE / APPLICATION BASED ON PREVIOUS USE OF DATA HAS GROWN SINCE 2018 IN EACH COUNTRY BUT FINLAND, WHERE THE IMPORTANCE HAS DIMINISHED

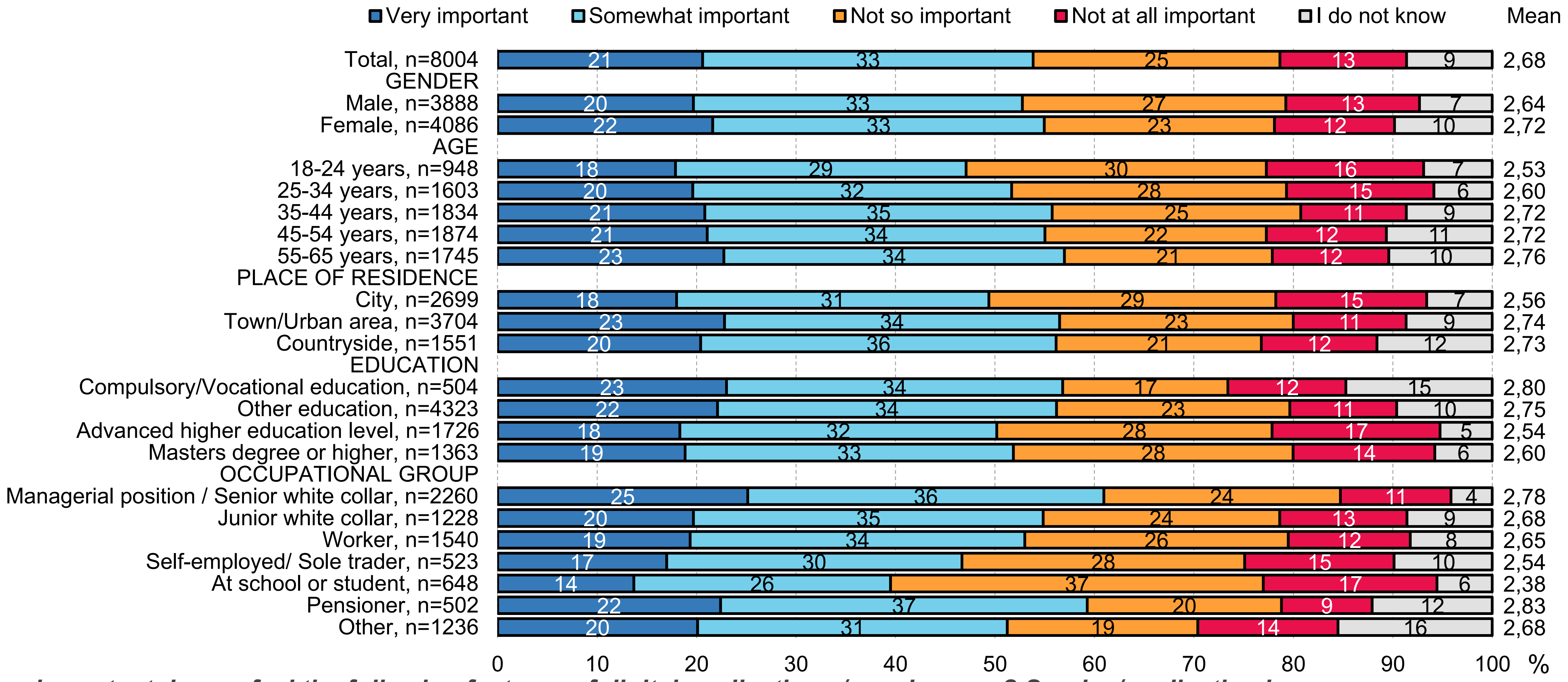


How important do you feel the following features of digital applications / services are? Service/application is personalized for me based on my previous usage

n=All respondents

SITRA

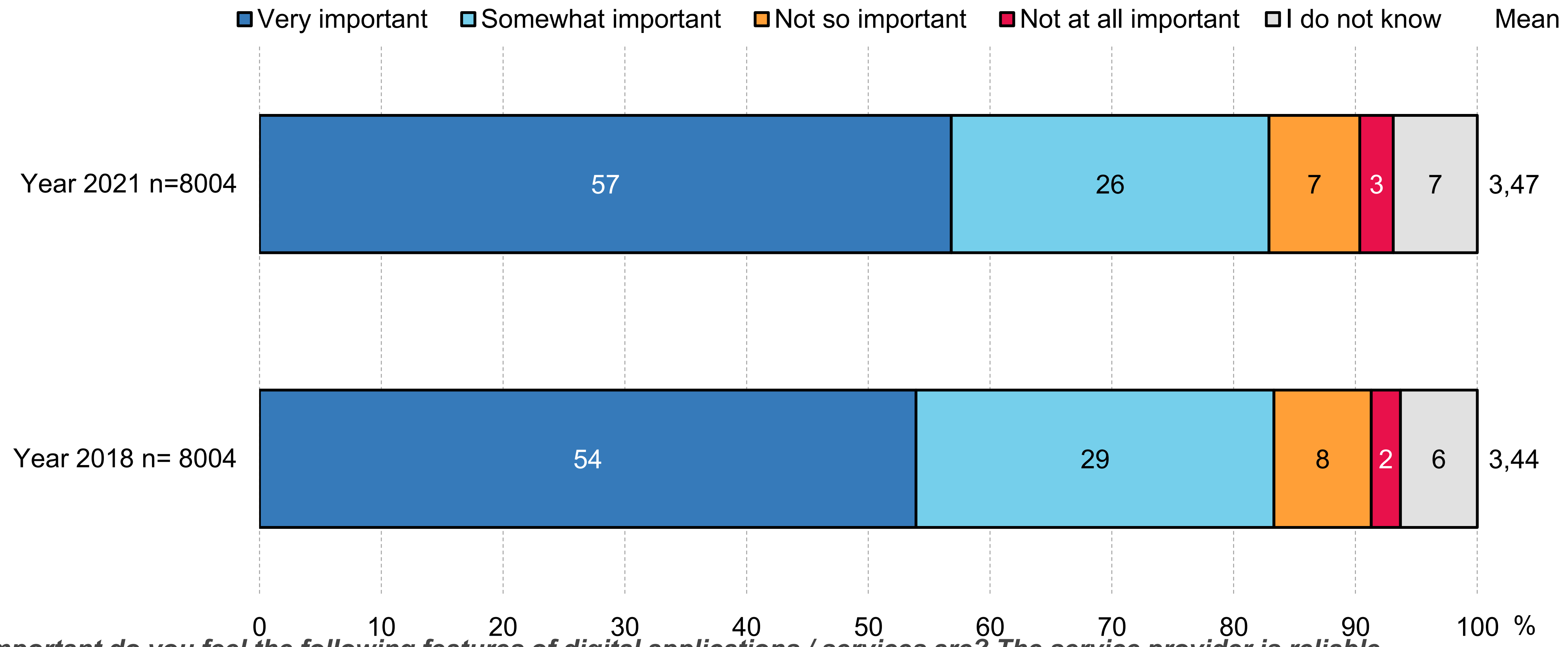
PERSONALIZING IS MOST IMPORTANT FOR PEOPLE IN MANAGERIAL / SENIOR WHITE COLLAR POSITIONS AND THE RETIREES



How important do you feel the following features of digital applications / services are? Service/application is personalized for me based on my previous usage

n=All respondents

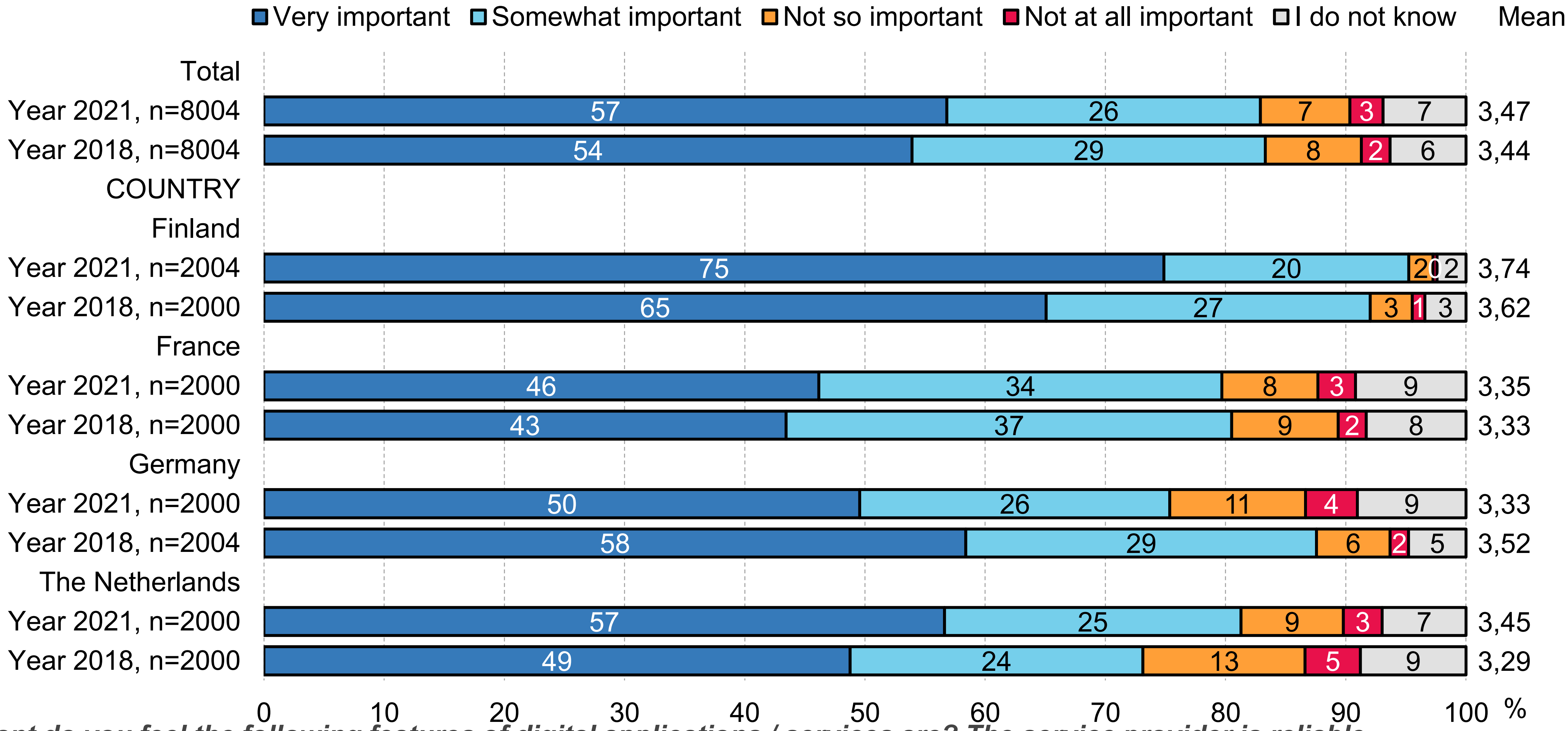
RELIABILITY OF THE SERVICE PROVIDER IS IMPORTANT TO OVER THREE OF FOUR, WHICH IS AT THE SAME LEVEL AS IN 2018



How important do you feel the following features of digital applications / services are? The service provider is reliable

n=All respondents

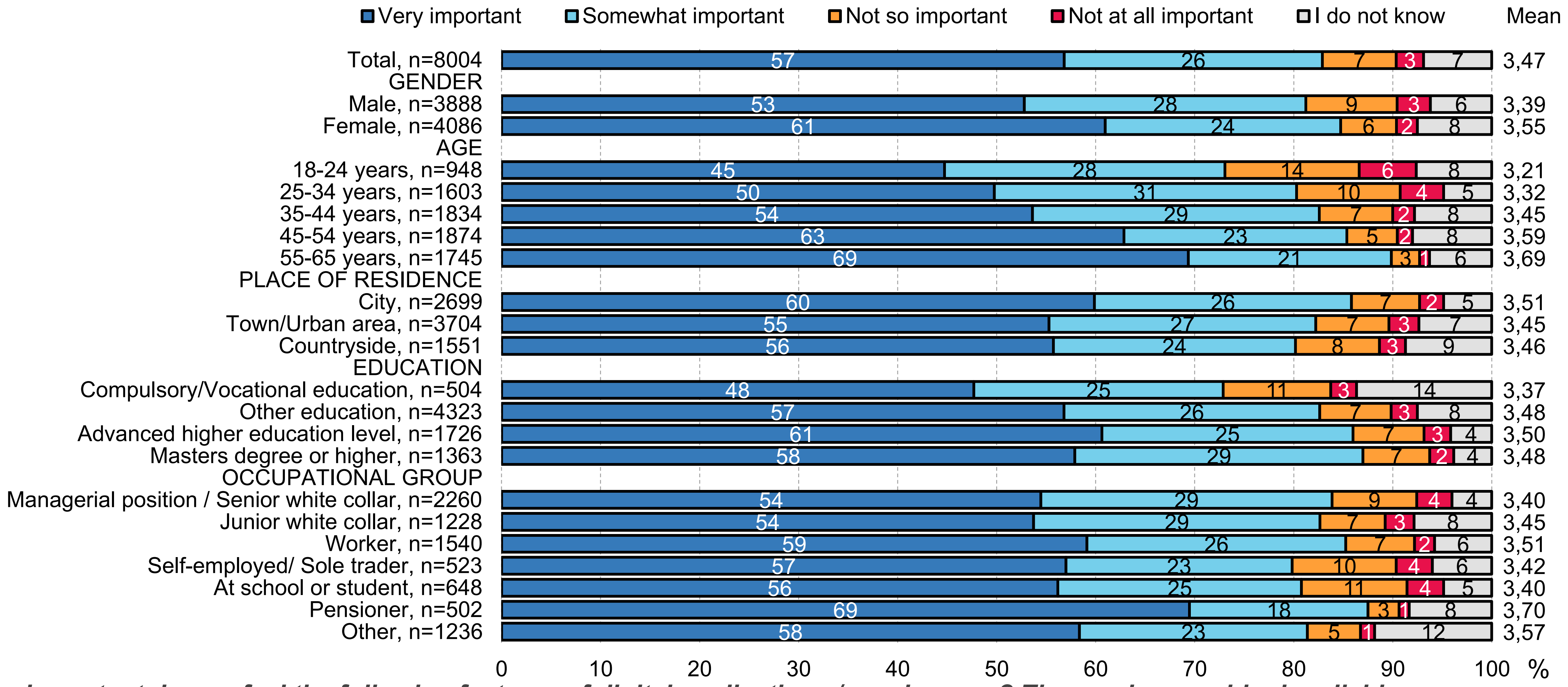
THE IMPORTANCE OF SERVICE PROVIDER RELIABILITY HAS DECREASED SINCE 2018 IN GERMANY ONLY



How important do you feel the following features of digital applications / services are? The service provider is reliable

n=All respondents

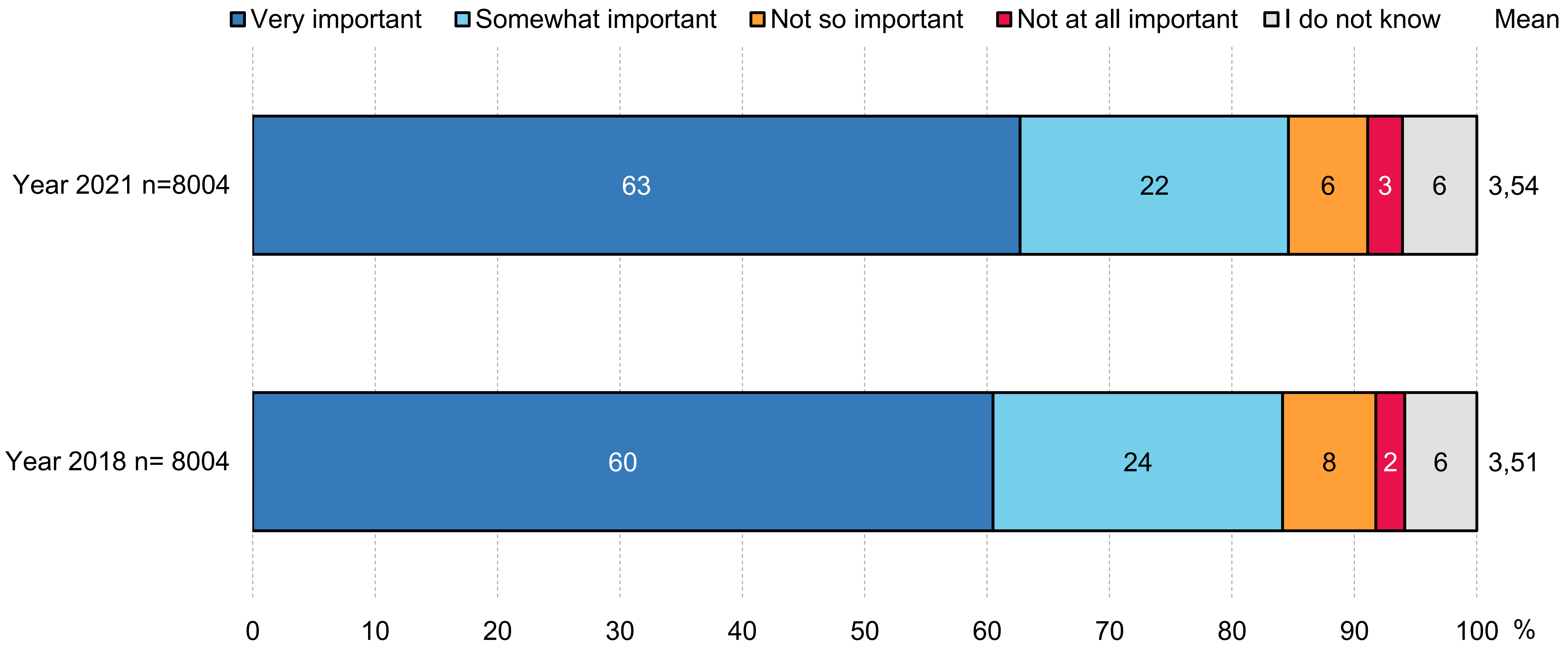
THE RELIABILITY OF SERVICES / APPLICATIONS IS ESPECIALLY IMPORTANT TO OLDER AGE GROUPS AND THOSE WTH HIGHER EDUCATION



How important do you feel the following features of digital applications / services are? The service provider is reliable

n=All respondents

THE SECURITY OF THE SERVICE IS IMPORTANT TO OVER THREE OUT OF FOUR, THE LEVEL HAS REMAINED THE SAME FROM 2018

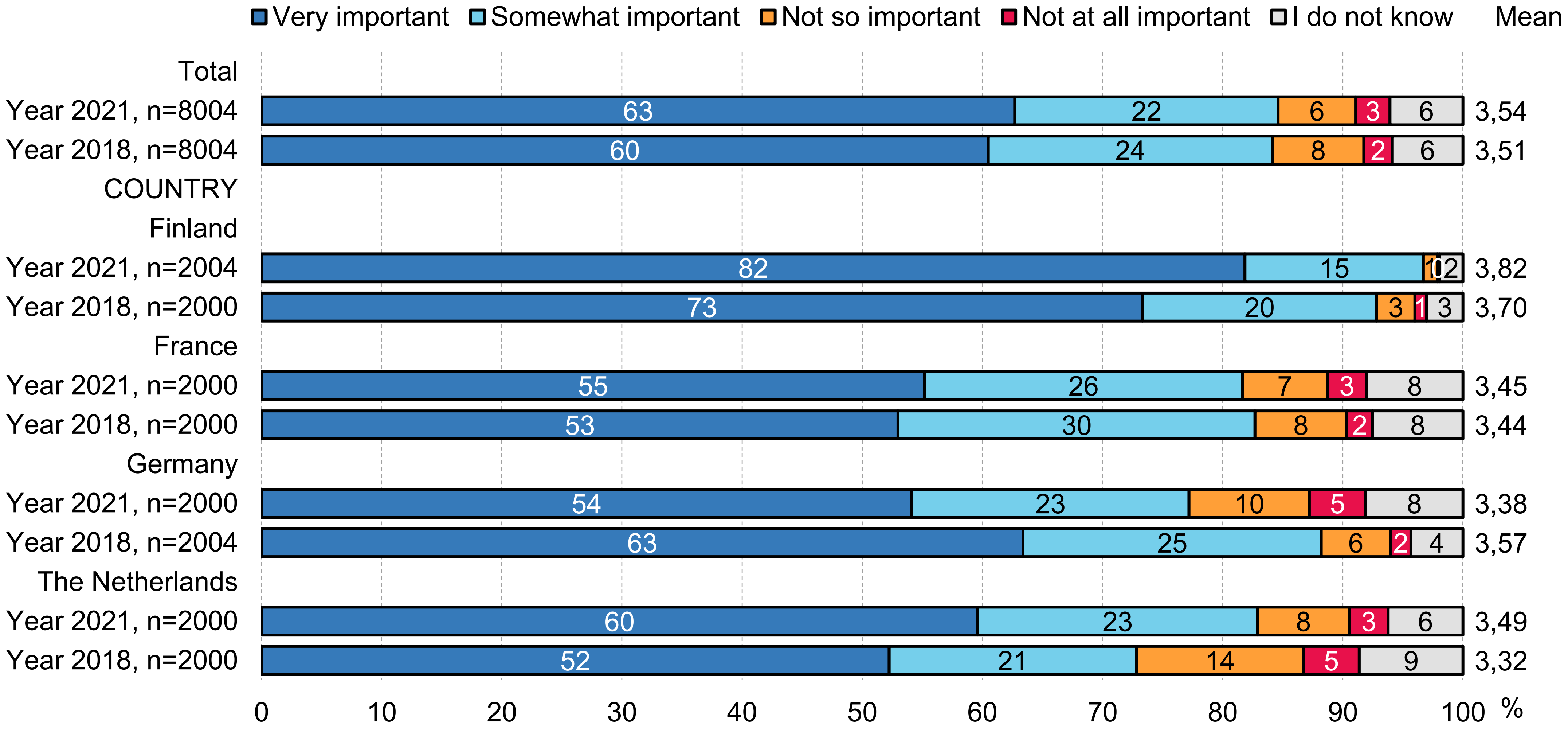


How important do you feel the following features of digital applications / services are? The service is secure

n=All respondents

SITRA

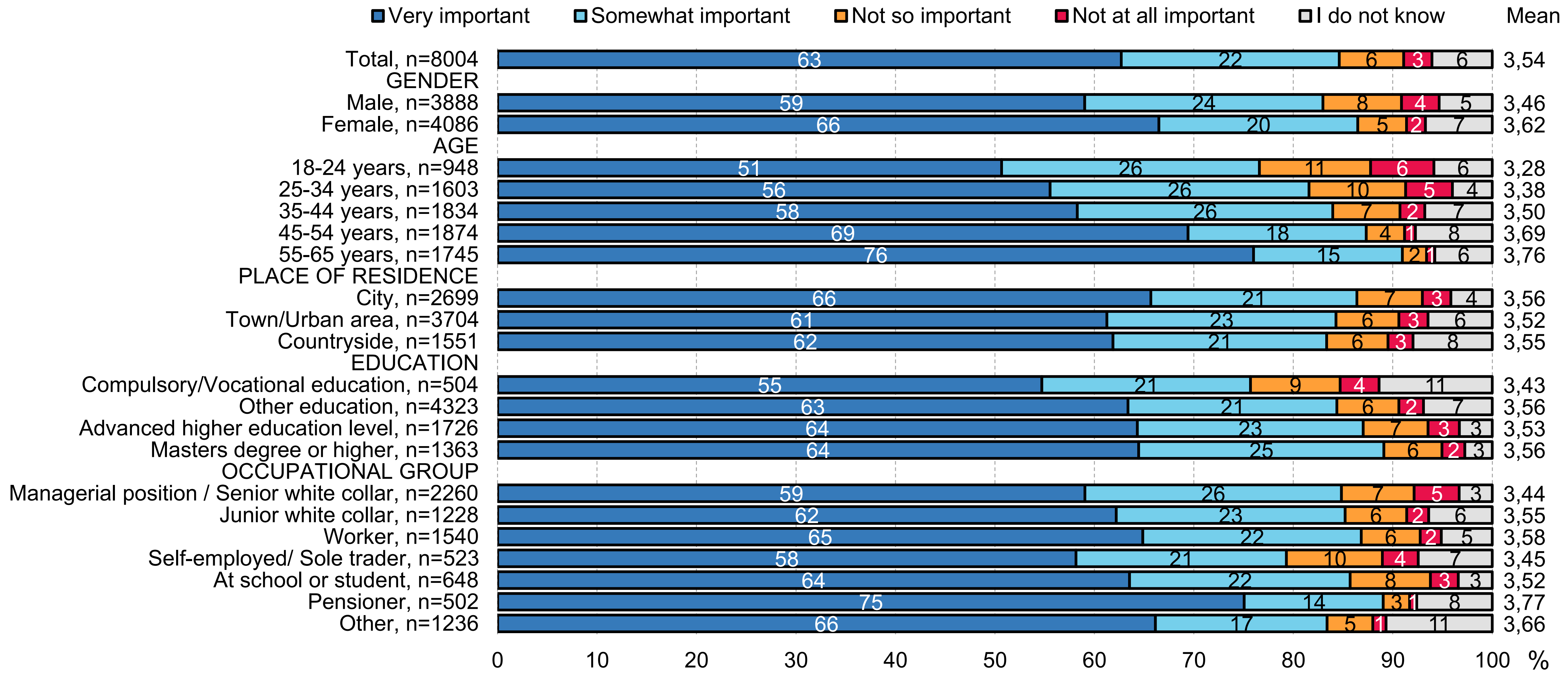
THE IMPORTANCE OF SERVICE SECURITY HAS INCREASED COMPARED TO YEAR 2018 IN OTHER COUNTRIES BUT GERMANY



How important do you feel the following features of digital applications / services are? The service is secure

n=All respondents

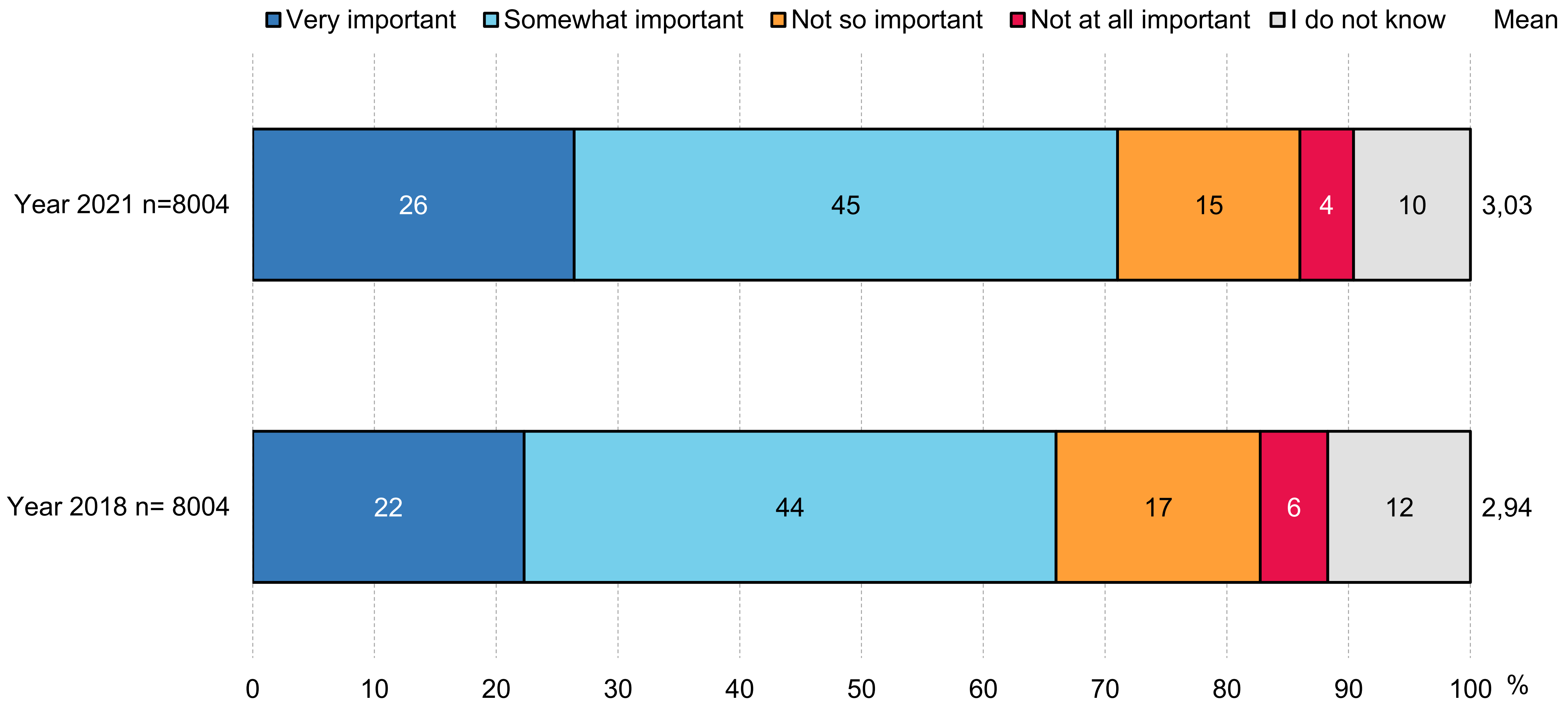
THE SECURITY OF SERVICE /APPLICATION IS ESPECIALLY IMPORTANT TO OLDER AGE GROUPS AND THOSE WTH HIGHER EDUCATION



How important do you feel the following features of digital applications / services are? The service is secure

n=All respondents

FAIR DATA LABEL IS CONSIDERED TO BE AT LEAST SOMEWHAT IMPORTANT BY APPROXIMATELY 70% OF RESPONDENTS, WHICH IS A LITTLE MORE THAN IN 2018

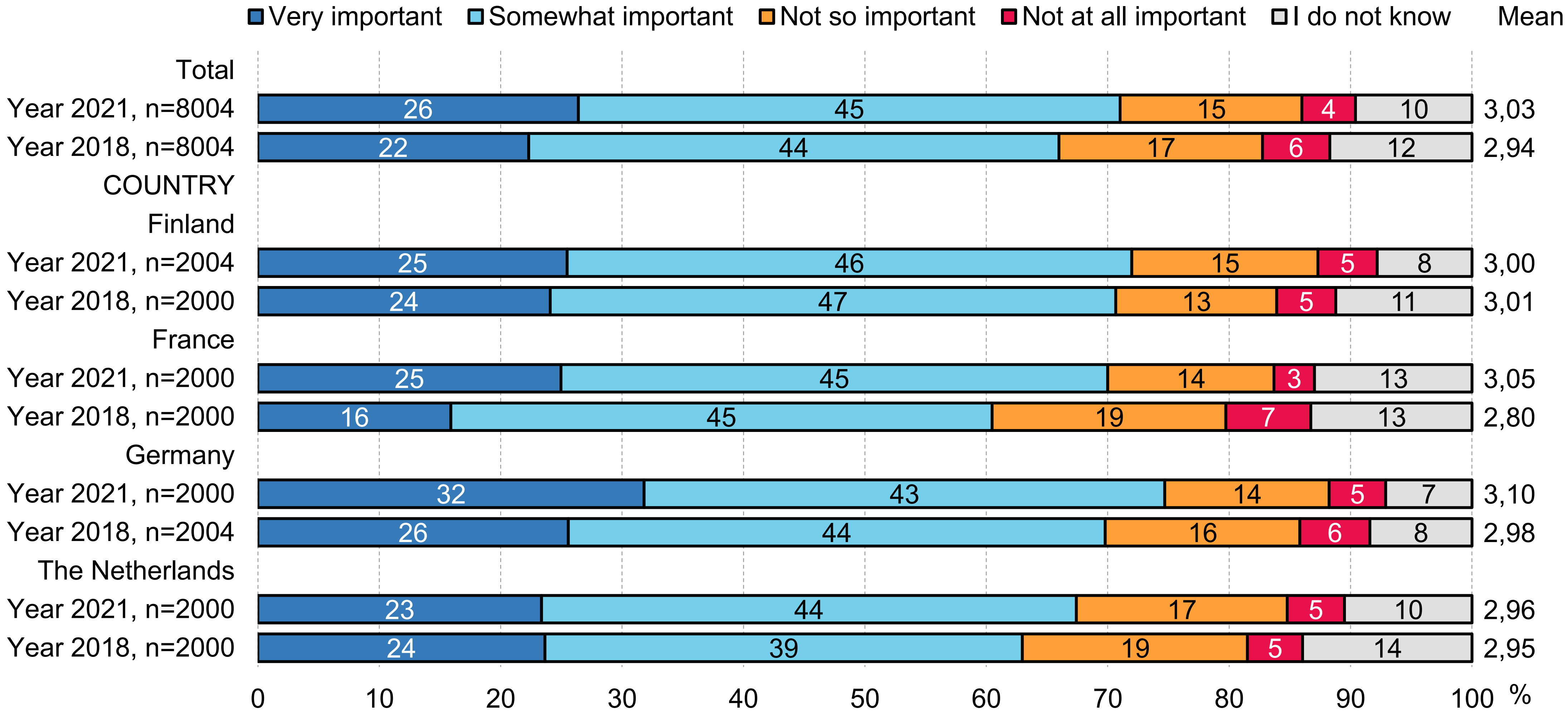


Consumer goods have the Fair Trade label. Would you find a similar label important for services that use data fairly?

n=All respondents

SITRA

THE IMPORTANCE OF FAIR DATA LABEL HAS INCREASED OR STAYED AT THE SAME LEVEL IN EVERY COUNTRY

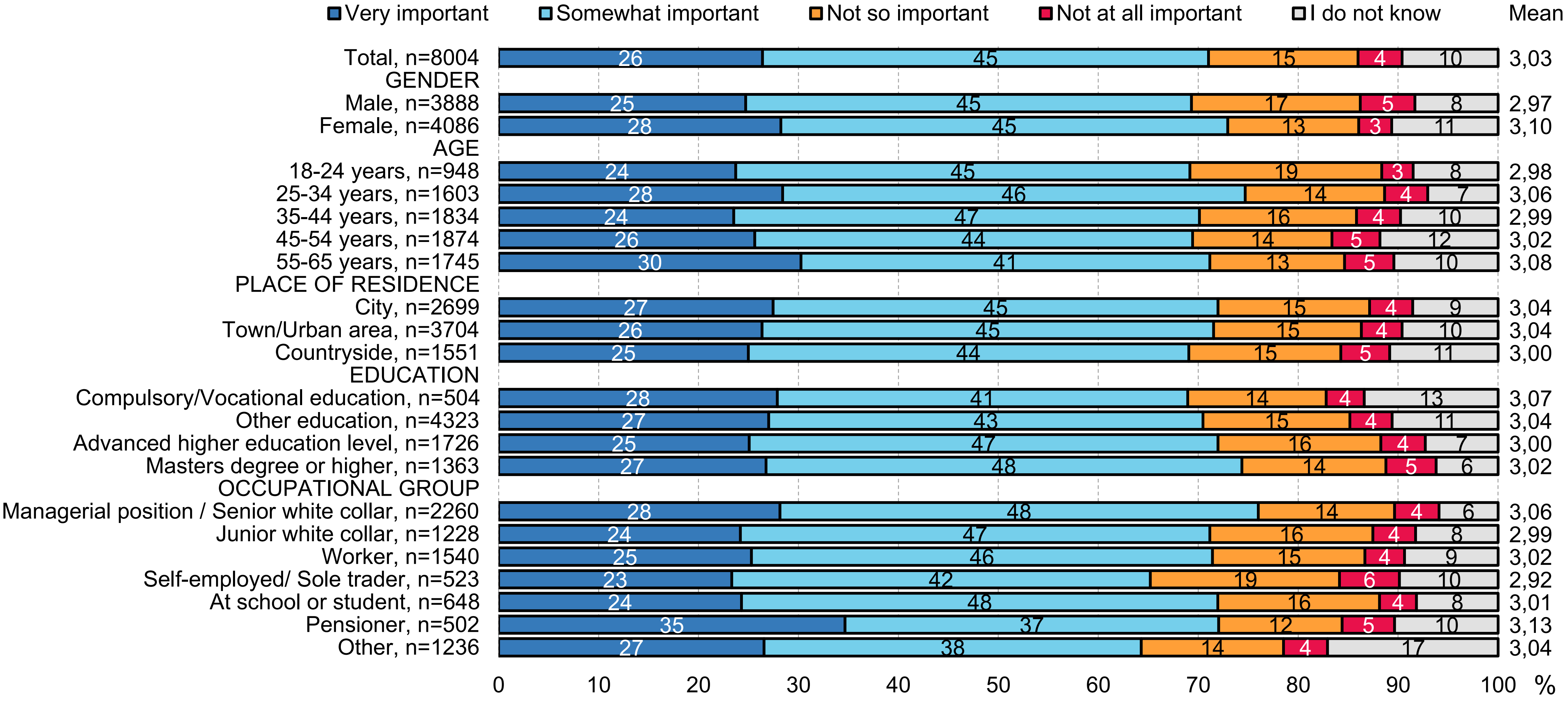


"Consumer goods have the Fair Trade label. Would you find a similar label important for services that use data fairly?

n=All respondents

SITRA

THE FAIR DATA LABEL IS CONSIDERED TO BE ABOUT AS IMPORTANT IN ALL AGE GROUPS AND ALL EDUCATIONAL LEVEL, OUT OF PROFESSION GROUPS THE ENTREPRENEURS CONSIDER IT A LITTLE LESS IMPORTANT



"Consumer goods have the Fair Trade label. Would you find a similar label important for services that use data fairly?

n=All respondents

SITRA

Cluster analysis

IMPLEMENTATION OF THE CLUSTER ANALYSIS

The cluster analysis was implemented as follows:

i. Three different data components were created:
   1. Data Protection Regulation and the terms of knowledge / understanding of related issues (Q1 and Q3)
   2. Questions related to behavior and operational issues (Q2 and Q5)
   3. Questions related to attitudes (Q7, Q8, Q10, Q11, Q13, Q14, Q18)

ii. A principal component analysis was performed for each sub-dataset.

iii. A total of four components were selected as clustering dimensions from the main components explaining the variance of the sub-data

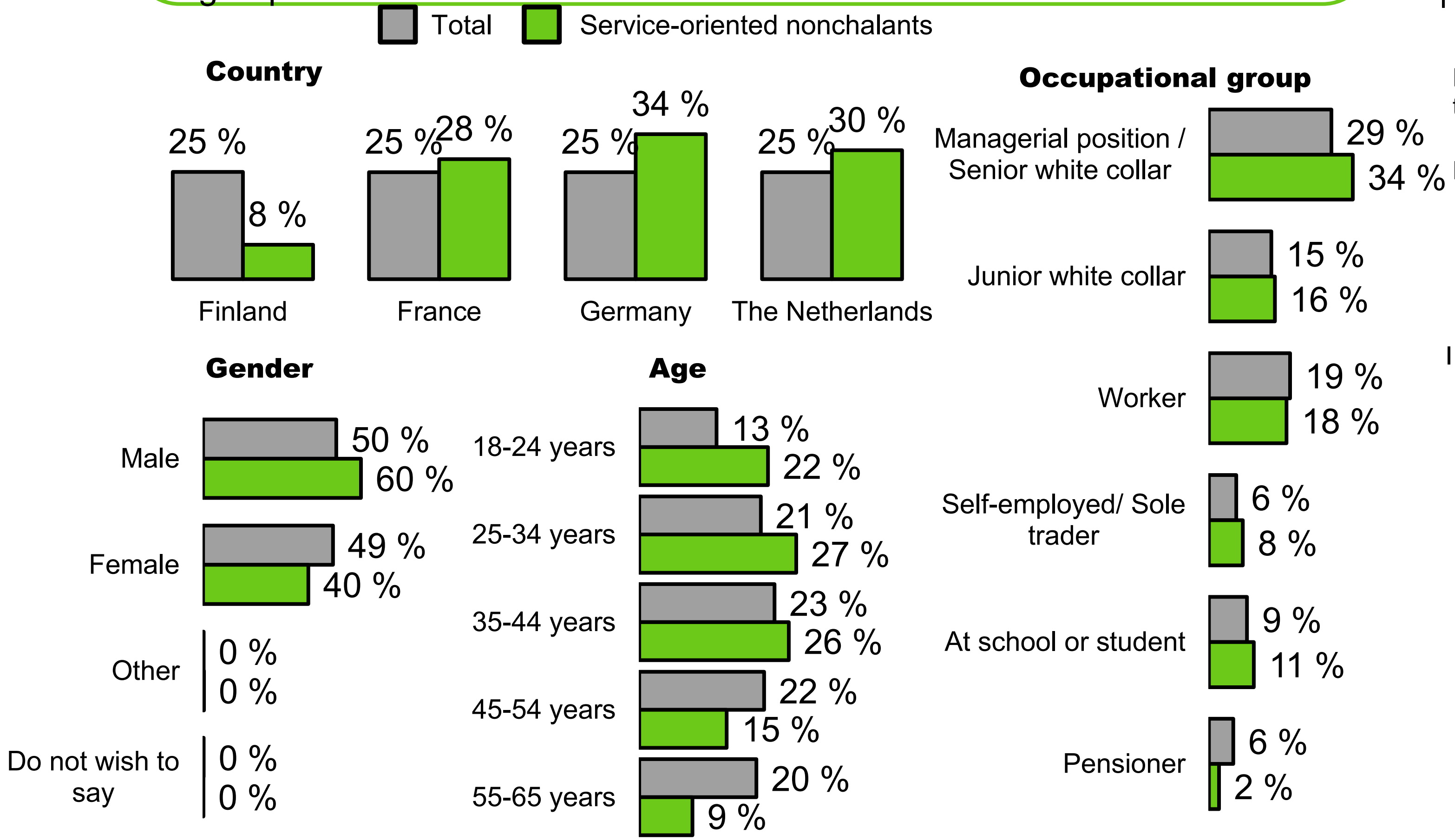
iv. The principal component scores of the selected principal components were calculated for each respondent.

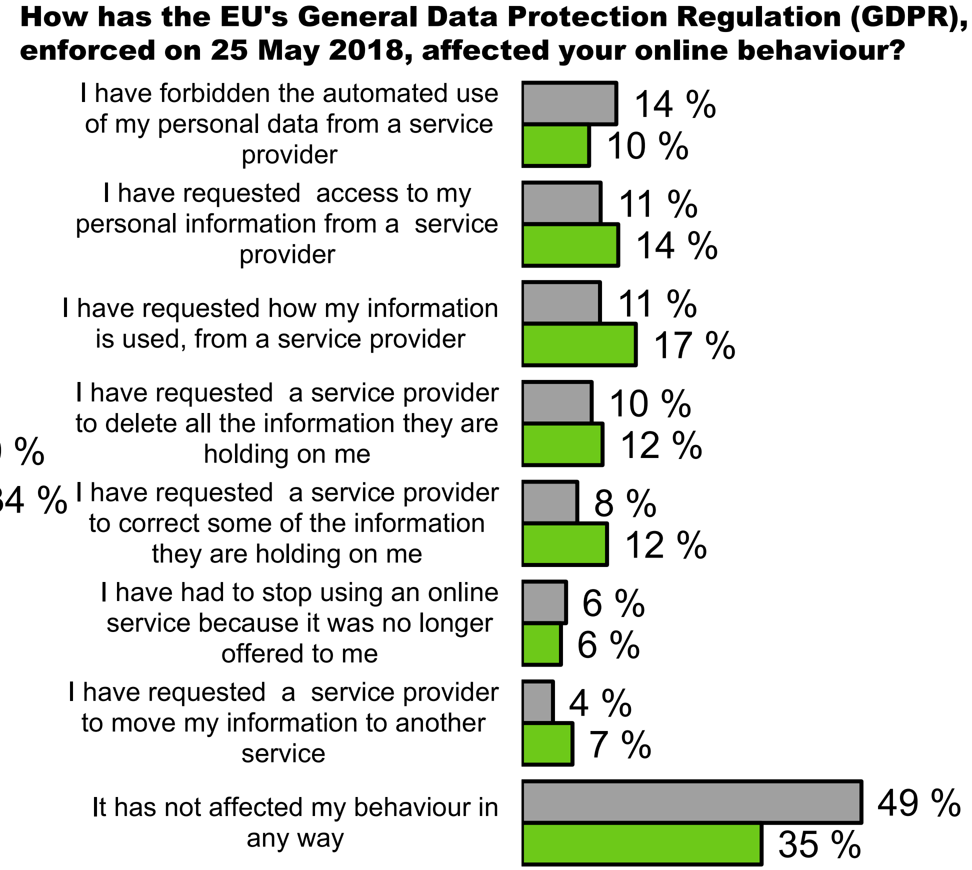
v. Major component scores were clustered

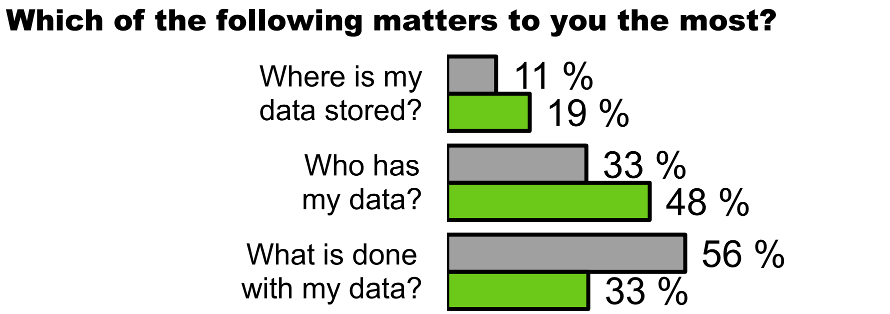
vi. The number of clusters was chosen to be 4, because this solution resulted in sufficiently differentiated, sufficiently large and clearly different clusters in terms of the number of respondents

Service-oriented non-chalants (20 %)

Accept loss of privacy as a result of using the services. These are more often men than women and often belong to younger age groups. They are not completely passive or unaware of their terms of use or their rights under the Privacy Regulation, but they value the services so much that they are willing to give up their privacy against them. There are clearly fewer of these people in Finland than in other countries. Second smallest group



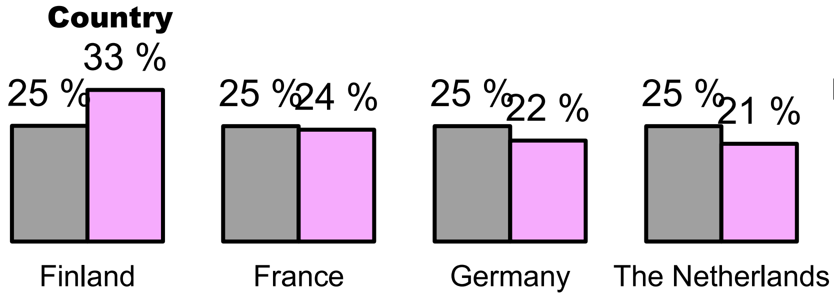


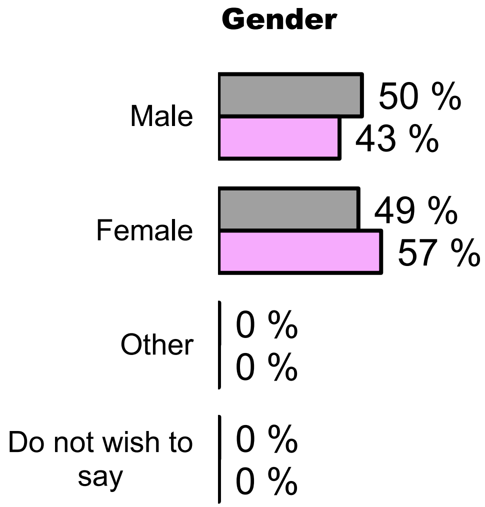


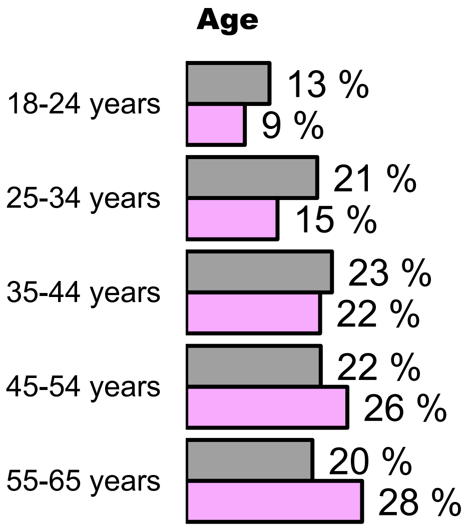
Uninformed & cautious (36 %)

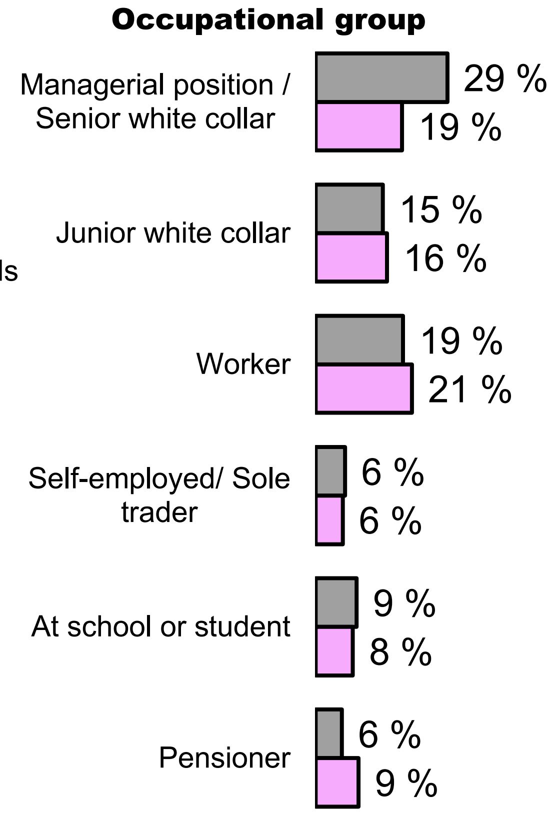
Do not know the terms of use or privacy legislation, regulation and rights of applications and services very well, and do not use their rights in general. However, they take their own information seriously and especially what is done with their information. They belong to the older age groups and are most found in Finland. The largest group.

Total Uninformed & cautious

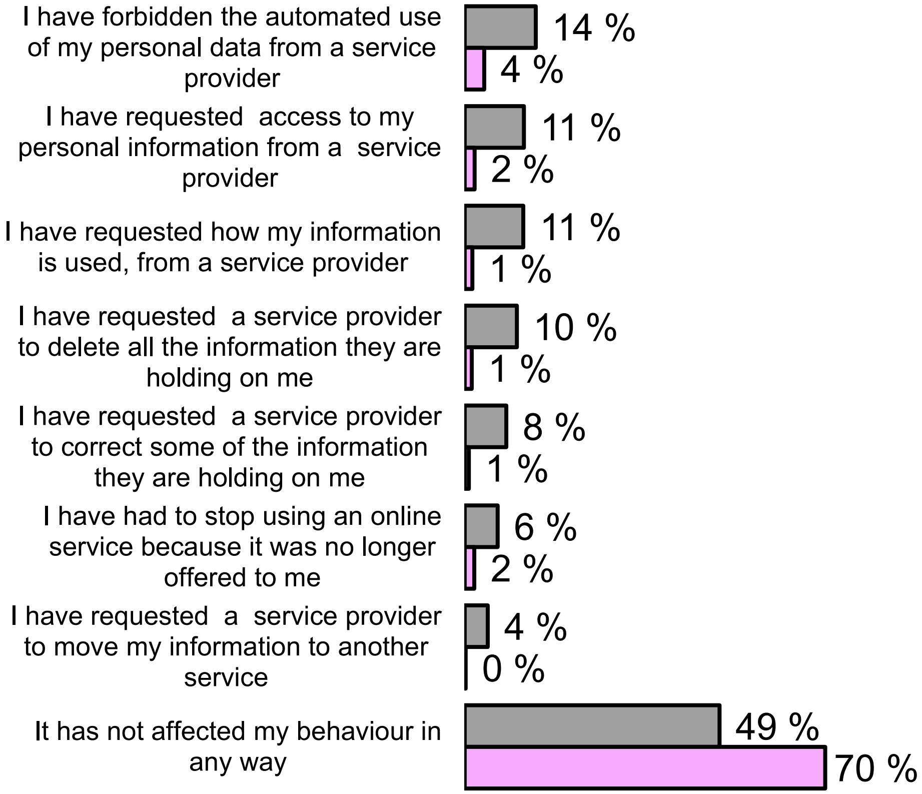




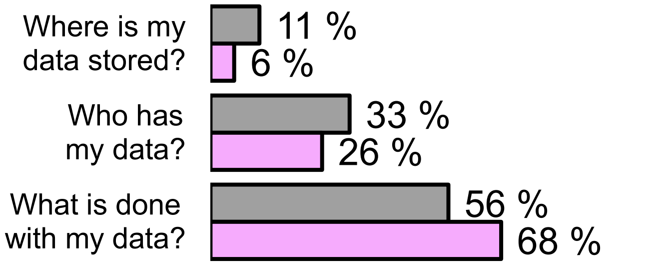




How has the EU's General Data Protection Regulation (GDPR), enforced on 25 May 2018, affected your online behaviour?



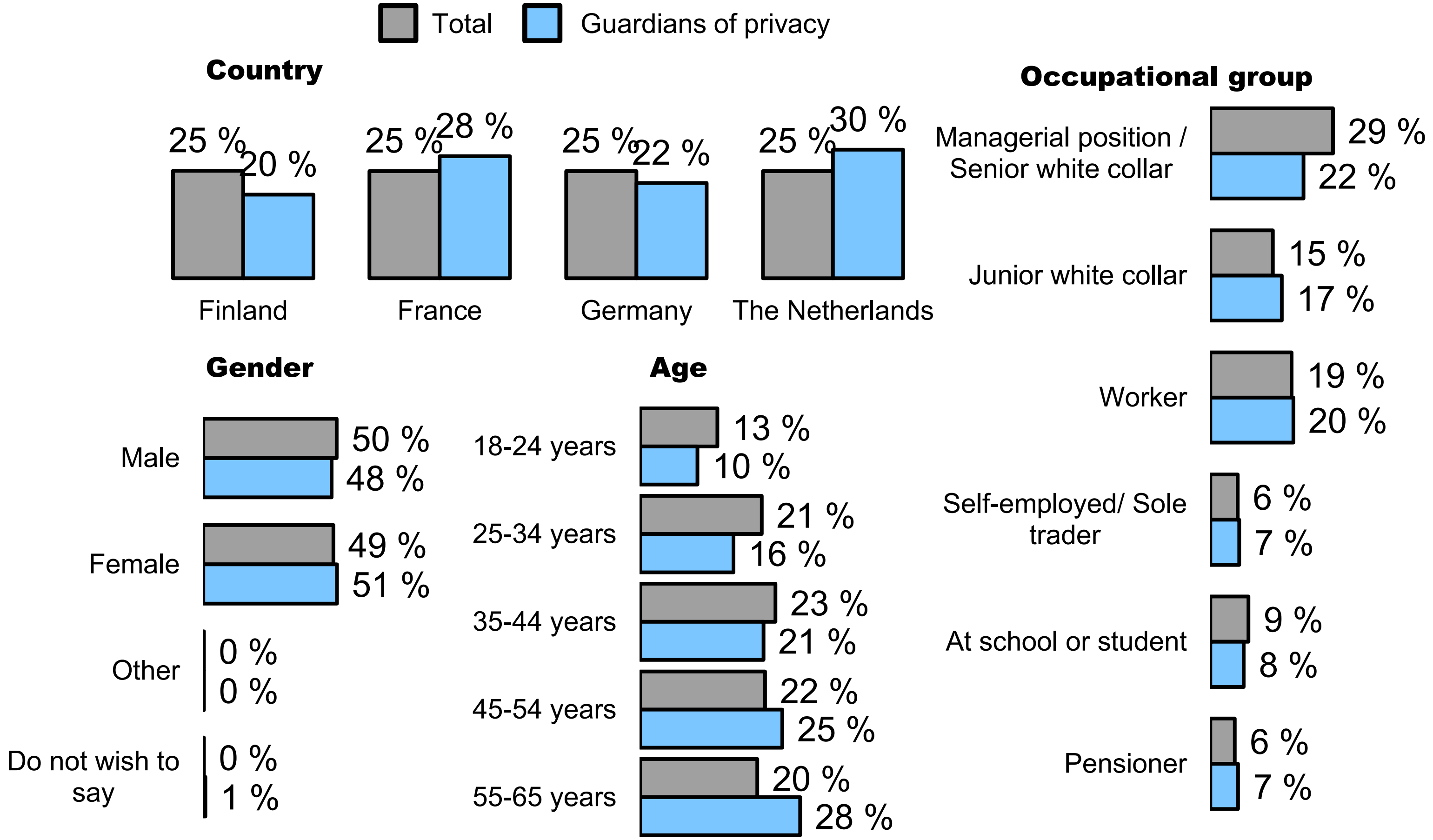
Which of the following matters to you the most?



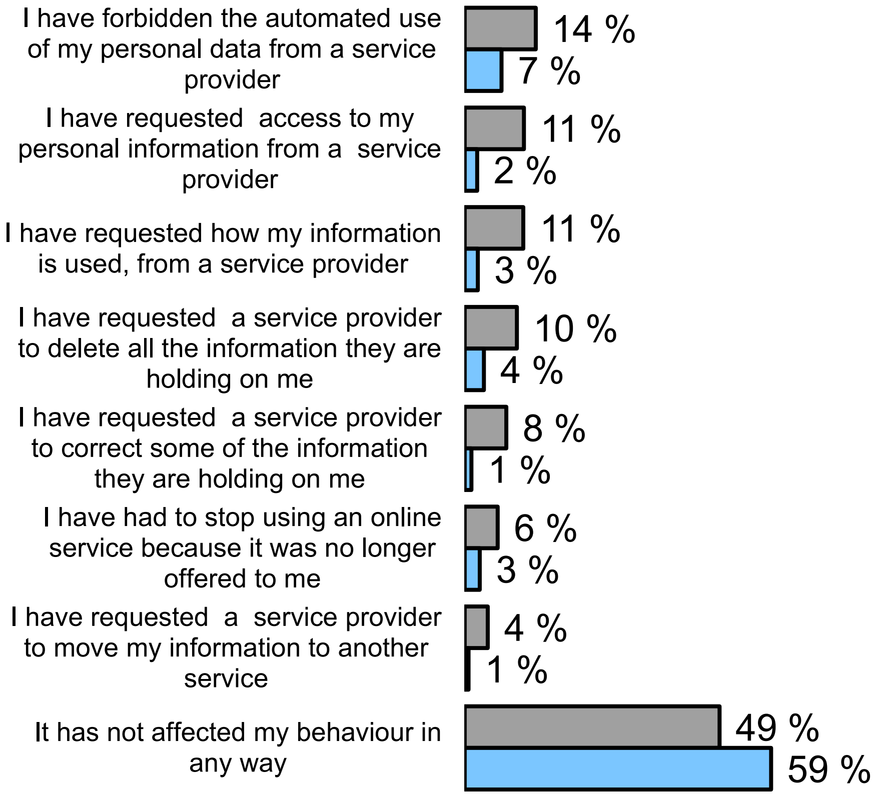
SITRA

Guardians of privacy (19 %)

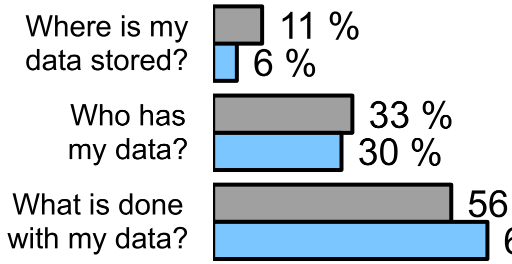
Know their terms and conditions of applications and services and legislation Data Protection Regulation and rights relatively poorly, but strongly value their privacy. However, they are quite passive and do not make extensive use of their data protection rights. They most often belong to older age groups. The smallest group.



How has the EU's General Data Protection Regulation (GDPR), enforced on 25 May 2018, affected your online behaviour?



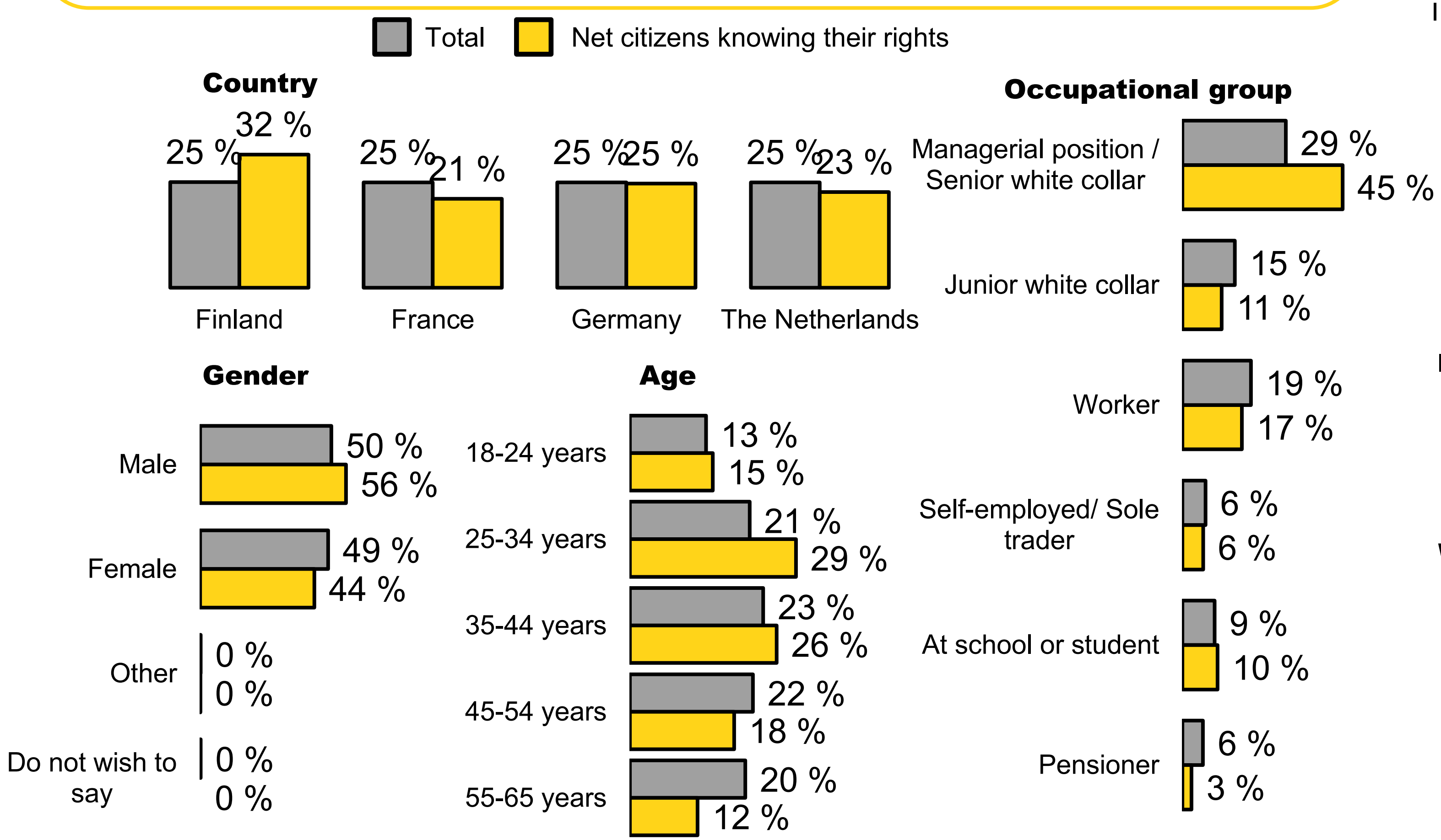
Which of the following matters to you the most?



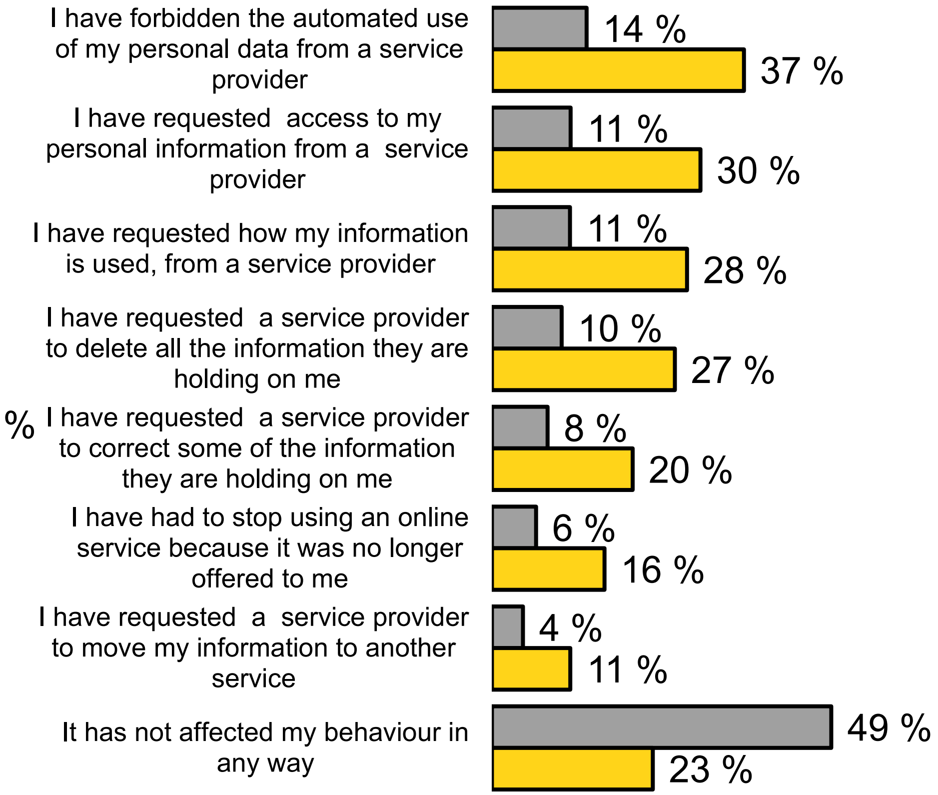
SITRA

Net citizens knowing their rights (25 %)

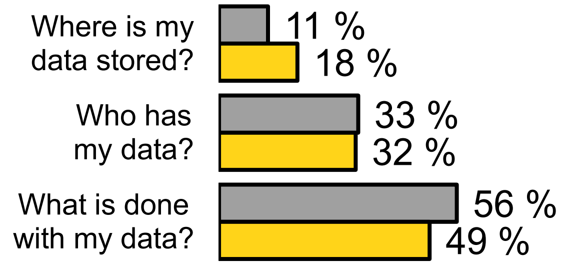
Know their terms and conditions and are based on the right to privacy settings, which are also used frequently. Are generally in senior positions or white-collar workers and young adults or middle-aged. Want control over their settings in applications and services. However, they are also willing to disclose their information in exchange for services. There are more online citizens who know their rights in Finland than in other countries. The second largest group.



How has the EU's General Data Protection Regulation (GDPR), enforced on 25 May 2018, affected your online behaviour?



Which of the following matters to you the most?



Appendix

Quality Control at Taloustutkimus Oy

- SGS Fimko has granted Taloustutkimus an ISO 20252 industry certificate, and all phases of this project have been carried out in accordance with that standard and Finnish law.
- Taloustutkimus treats all information related to the surveys, both from customers and generated in connection with the survey always as strictly confidential.
- Taloustutkimus is committed to complying with the international basic rules in the field of research published jointly by ESOMAR and the International Chamber of Commerce.
- Taloustutkimus has not used subcontractors in this study.

Publication and further release of the results of a separate study

- The subscriber of a study may publish the results of the study commissioned, provided that the published results are not misleading.
- When research results are published, a clear distinction should be made between the results and their interpretation.
- In connection with the publication, the name of the research, the time of implementation and the author of the research, Taloustutkimus Oy, must always be mentioned. We wish that you will send your planned publication (journal article, online information, etc.) to Taloustutkimus Oy for review before publication. In addition, we hope that you will provide us with information on where and when the matter will be published so that we can respond to any future inquiries from us.

- We are happy to help you in your communication.

TABLE OF RELIABILITY LIMIT ON THE LEVEL OF 95 %

Result in percentage	NUMBER OF RESPONDENTS															
	25	50	75	100	150	200	250	300	400	500	600	800	1000	2000	3000	5000
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
2 or 98	±5.6	±4.0	±3.2	±2.8	±2.3	±2.0	±1.8	±1.6	±1.4	±1.3	±1.1	±0.98	±0.9	±0.61	±0.51	±0.4
3 or 97	±6.8	±4.9	±3.9	±3.4	±2.8	±2.4	±2.2	±2.0	±1.7	±1.5	±1.4	±1.2	±1.1	±0.75	±0.62	±0.49
4 or 96	±7.8	±5.6	±4.5	±3.9	±3.2	±2.8	±2.5	±2.3	±2.0	±1.8	±1.6	±1.4	±1.3	±0.86	±0.71	±0.56
5 or 95	±8.7	±6.2	±5.0	±4.4	±3.6	±3.1	±2.7	±2.5	±2.2	±2.0	±1.8	±1.5	±1.4 **1**	±0.96	±0.79	±0.62
6 or 94	±9.5	±6.8	±5.5	±4.8	±3.9	±3.4	±3.0	±2.8	±2.4	±2.1	±2.0	±1.7	±1.5	±1.0	±0.87	±0.68
8 or 92	±10.8	±7.7	±6.2	±5.4	±4.4	±3.8	±3.4	±3.1	±2.7	±2.4	±2.2	±1.9	±1.7	±1.2	±0.99	±0.77
10 or 90	±12.0	±8.5	±6.9 **3b**	±6.0	±4.9 **3a**	±4.3	±3.8	±3.5	±3.0	±2.7	±2.5	±2.1	±1.9	±1.3	±1.1	±0.85
12 or 88	±13.0	±9.2	±7.5	±6.5	±5.3	±4.6	±4.1	±3.8	±3.3	±2.9	±2.7	±2.3	±2.1	±1.4	±1.2	±0.92
15 or 85	±14.3	±10.1	±8.2	±7.1	±5.9	±5.1	±4.5	±4.1	±3.6	±3.2	±2.9	±2.5	±2.3	±1.6	±1.3	±1.0 **2**
20 or 80	±16.0	±11.4	±9.2	±8.0	±6.6	±5.7	±5.0	±4.6	±4.0	±3.6	±3.3	±2.8	±2.5	±1.8	±1.4	±1.1
25 or 75	±17.3	±12.3	±10.0	±8.7	±7.1	±6.1	±5.5	±5.0	±4.3	±3.9	±3.6	±3.0	±2.8	±1.9	±1.6	±1.2
30 or 70	±18.3	±13.0	±10.5	±9.2	±7.5	±6.5	±5.8	±5.3	±4.6	±4.1	±3.8	±3.2	±2.9	±2.0	±1.7	±1.3
35 or 65	±19.1	±13.5	±11.0	±9.5	±7.8	±6.8	±6.0	±5.5	±4.8	±4.3	±3.9	±3.3	±3.1	±2.1	±1.7	±1.4
40 or 60	±19.6	±13.9	±11.3	±9.8	±8.0	±7.0	±6.2	±5.7	±4.9	±.4.4	±4.0	±3.4	±3.1	±2.2	±1.8	±1.4
45 or 55	±19.8	±14.1	±11.4	±9.9	±8.1	±7.0	±6.2	±5.8	±5.0	±4.5	±4.1	±3.5	±3.2	±2.2	±1.8	±1.4
50 or 50	±20.0	±14.2	±11.5	±10.0	±8.2	±7.1	±6.3	±5.8	±5.0	±4.5	±4.1	±3.5	±3.2	±2.2	±1.8	±1.4

Example 1

If 5 % of thousand respondents had bought the product, error marginal is ±1.4 percentage unit. According to the 95 percentage's reliability level among the whole population there is 3.6–6.4 % those who have bought the product.

Example 2

We assume that market share is about 15 %. We would like to research this with accuracy of ±1 percentage unit. We need 5000 respondents in the research.

Example 3

a) Of thousand respondents 150 falls into age group 15–19. Of these 150 respondents 10 % says that they frequently buy product X. At 95 %'s reliability level the real share is 10 % ±4.9 i.e. 5.1–14.9 %.

b) If we only had 500 respondents, number of 15–19 years old should have been 75 and share of product buyers 10 % ±6.9 that is 3.1–16.9 %.

COMPARING RESULTS FROM TWO SEPARATE RESEARCHES AT 95 %'S CONFIDENCE LEVEL

p = 50 percentage

Sample size, research 2	Sample size, research 1						
	100	250	500	750	1000	1500	2000
	%	%	%	%	%	%	%
100	13.8						
250	11.6	8.8					
500	10.7	7.6	6.2				
750	10.4	7.2	5.7	5.1			
1000	10.3	6.9	5.4	4.7	4.4		
1500	10.1	6.7	5.1	4.4	4.0	3.6	
2000	10.0	6.6	4.9	4.2	3.8	3.4	3.1

p = 40 or 60 percentage

Sample size, research 2	Sample size, research 1						
	100	250	500	750	1000	1500	2000
	%	%	%	%	%	%	%
100	13.6						
250	11.4	8.6					
500	10.5	7.4	6.1				
750	10.2	7.0	5.5	5.0			
1000	10.1	6.8	5.2	4.6	4.3		
1500	9.9	6.6	5.0	4.3	3.9	3.5	
2000	9.8	6.4	4.8	4.1	3.7	3.3	3.0

p = 30 or 70 percentage

Sample size, research 2	Sample size, research 1						
	100	250	500	750	1000	1500	2000
	%	%	%	%	%	%	%
100	12.7						
250	10.6	8.0					
500	9.8	7.0	5.7				
750	9.6	6.6	5.2	4.6			
1000	9.4	6.3	4.9	4.3	4.0		
1500	9.3	6.1	4.6	4.0	3.7	3.3	
2000	9.2	6.0	4.5	3.8	3.5	3.1	2.8

p = 20 or 80 percentage

Sample size, research 2	Sample size, research 1						
	100	250	500	750	1000	1500	2000
	%	%	%	%	%	%	%
100	11.1						
250	9.3	7.0					
500	8.6	6.1	5.0				
750	8.3	5.7	4.5	4.1			
1000	8.2	5.6	4.3	3.8	3.5		
1500	8.1	5.3	4.1	3.5	3.2	2.9	
2000	8.0	5.3	3.9	3.4	3.0	2.7	2.5

p = 10 or 90 percentage

Sample size, research 2	Sample size, research 1						
	100	250	500	750	1000	1500	2000
	%	%	%	%	%	%	%
100	8.3						
250	7.0	5.3					
500	6.4	4.5	3.7				
750	6.3	4.3	3.4	3.0			
1000	6.2	4.2	3.2	2.8	2.6		
1500	6.1	4.0	3.0	2.6	2.4	2.2	
2000	6.0	3.9	2.9	2.5	2.3	2.0	1.9

With help of these tables it is possible to evaluate significance of percentages received in two different researches with different sample sizes.

Choose the table where received p (percentage) is closest to your results/percentages.

EXAMPLE

We had two separate researches; one with 250 respondents and another with 1000 respondents. Market share of the product was 37 % in the smaller research and 35 % in the one larger one.

We take table p = 40 or 60 % because the results are closest to it. Then we look the figure in the cell where sample sizes 1000 and 250 are crossing. In this case a significant difference would have been 6.8 percentage units. Difference between the two results was only 2 percentage units (37 % - 35 %) – it was not significant.

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