

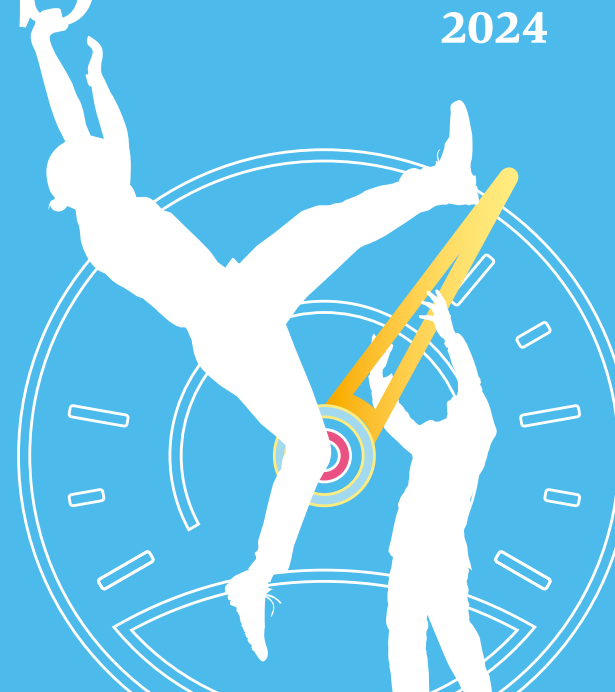


# Summary of the Finnish Science barometer

A STUDY OF PUBLIC OPINION AND ATTITUDES

TOWARDS SCIENCE AND TECHNOLOGY IN FINLAND

2024



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Science barometer  
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## To the reader

Public trust in science institutions and scientists remains high in Finland. It is in fact extremely high by international comparison, reflecting a broader sense of trust and confidence in all key institutions of society.

In 2024, 86% of respondents expressed very high or rather high trust in science and research. Universities ranked third on the institutional trust scale: 83% said they trusted the defence forces, the police, and 80% universities. Public trust was at the same level as in the previous survey.

Respondents' assessments of the state of science and technology in Finland were less positive than two years ago: 79% gave a high rating to the general standard of technology and 76% to the quality of science and research. These figures are 9 to 10 percentage points lower than in 2022. The results reflect the growing concerns expressed recently by many scientists about the level of Finnish research and technology.

Attitudes to the increasing use of AI in society were slightly more often positive (51%) than negative (39%). Among different AI applications, respondents took the most positive view on the use of facial recognition in crime prevention and border control. At the opposite end of the scale, respondents were most negative about the use of automatic weapons and the use of AI in journalism and employee recruitment.

**Esa Väliverronen**

Finnish Society for Scientific Information

## Strongest interest shown in natural sciences

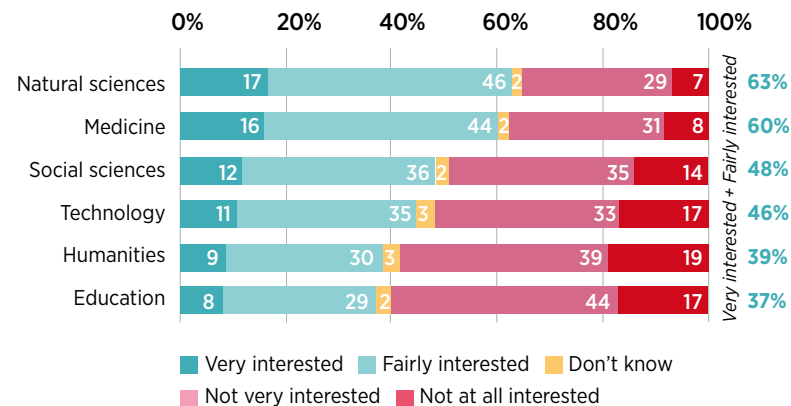
People in Finland are most interested in the natural sciences (63%) and medicine (60%), followed in third place by the social sciences (48%).

This result differs somewhat from earlier foreign studies in which medicine has usually come out on top. Strong public interest in the natural sciences and the social sciences seems to be a distinctively Finnish phenomenon.

Public interest in the humanities and education was at a somewhat lower level than interest in other disciplines.

## How interested are you in research done in the following fields

TOTAL 2024 (n=1006)



## Newspapers take over as top source of information

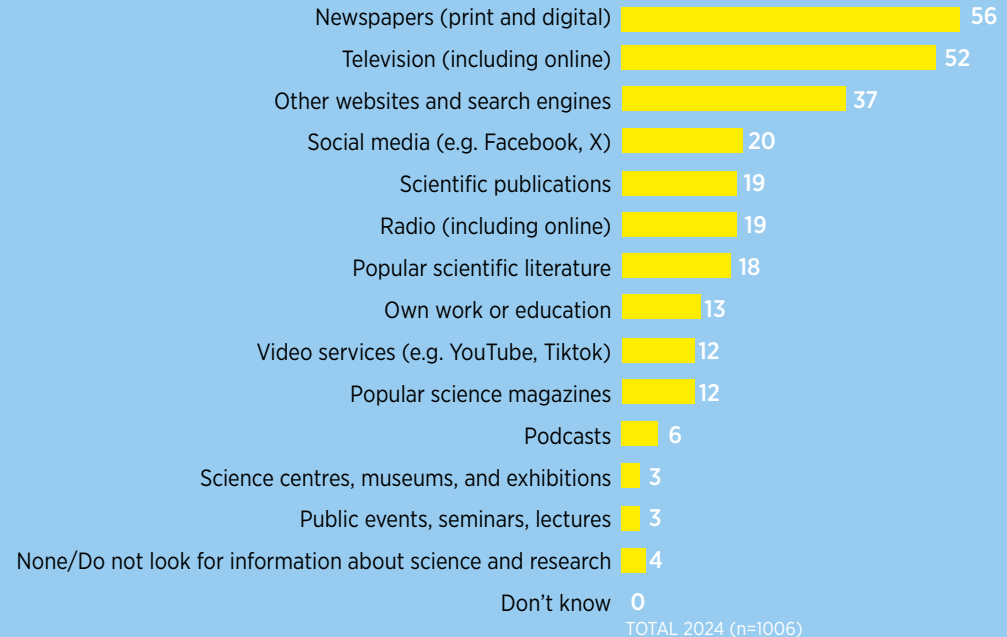
News media remain an important source of scientific information for people in Finland. When asked to name their top three sources, respondents most often mentioned newspapers (56%), television (52%), and other websites and search engines (37%). Only 4% of respondents said they did not look for information about science at all.

These rankings changed compared to the previous survey, with newspapers taking over from television as the most important source of information. The results for the two years are not directly comparable, however, as the 2024 survey asked respondents to name their three rather than two most important information sources. It is also worth noting that the precise classification of information sources is not straightforward.

The importance of information sources varies widely by age group. For people under 30, social media are the most important information source on science and research, and video services also rank highly. However, younger people follow a diverse range of media. People over 60 get most of their information about science from newspapers and television.

## Top three information sources

Information about science and scientific advances is available from various sources. Below is a list of some these sources and channels of information. Select a maximum of THREE that are most important to you:



## High public trust in science

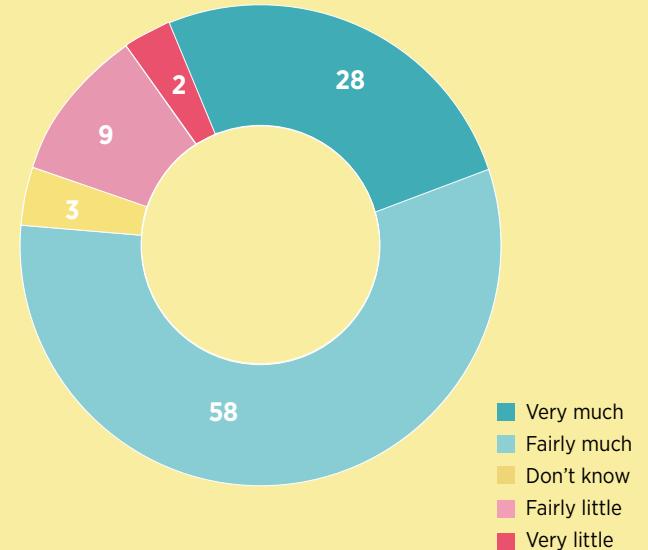
An overwhelming 86% majority of respondents said they trusted science and research. On the other hand, 11% said they had only little trust in science. These figures are effectively unchanged from 2022.

Socio-demographic differences were relatively small, although the higher educated expressed stronger trust in science than respondents with less education. There were no marked differences by political party affiliation, except for Finns Party supporters. Even in this group 73% said they trusted science, but they had the highest proportion of those who did not trust science (23%).

By international comparison, public trust in science is at a very high level in Finland. The German Wissenschaftsbarometer (2023), for example, found that 54% of respondents had very high or rather high trust in science. The Swedish VA Barometer (2023–24) reported a corresponding figure of 79%.

## How much do you trust science and research in general?

TOTAL 2024 (n=1006)



## Most trusted scientists and experts

Respondents were asked to name a maximum of three scientists or experts whom they considered trustworthy. This question elicited some 500 mentions, suggesting that scientists and researchers have become somewhat more familiar to people in Finland. The scientists or experts with a research background were familiar to the general public, almost without exception, through television.

While the 2022 list was heavily dominated by the Ukraine war and the COVID-19 pandemic, the 2024 survey marked something of a return to normal. The spot of most trustworthy scientist was reclaimed by Esko Valtaoja, Professor Emeritus of Space Astronomy, while the 2022 number one Mika Aaltola, now carving out a political career, slipped back to second place. New names in the top ten list included three social science researchers, i.e. Heikki Hiilamo, Timo Miettinen, and Hanna Wass.

Esko Valtaoja	42
Mika Aaltola	26
Sixten Korkman	18
Heikki Hiilamo	12
Kari Enqvist	11
Bengt Holmström	11
Ilmari Käihkö	9
Timo Miettinen	8
Mika Salminen	8
Hanna Wass	8

## Why are experts trusted?

We also asked respondents to explain in their own words what factors they weighed when judging the expert's trustworthiness. Most often, they referred to education and research but also to the expert's experience and background, for instance whether they represented a trustworthy organisation. The responses were unsurprising in that these are exactly the kind of factors that are considered the hallmarks of an expert.

Furthermore, many respondents mentioned the expert's style and appearance as well as the manner and clarity of their communication. Frequent mention was also made of the expert's independence and impartiality. Potential threats to impartiality were thought to include various issues related to funding and political agenda.

Speech communication skills, argumentation and reasoning, drawing on previous studies, and clearly citing sources.

I listen to what the expert is saying and how: do they reference research studies or just stating their own opinions. I will also consider their education and other merits.

Are they talking about their own field of research specialization or are they a jack of all expertises.

Is the expert inclined to offer oversimplified or overly assertive opinions on the subject.



## Why is science trusted?

Conflicting expert opinion does not seem to undermine public trust in science. In fact, 86% of respondents thought that disagreement is part and parcel of science. More than two-thirds disagreed and only one in four respondents agreed with the opposite statement that “science cannot be trusted because experts in the same field can disagree completely”.

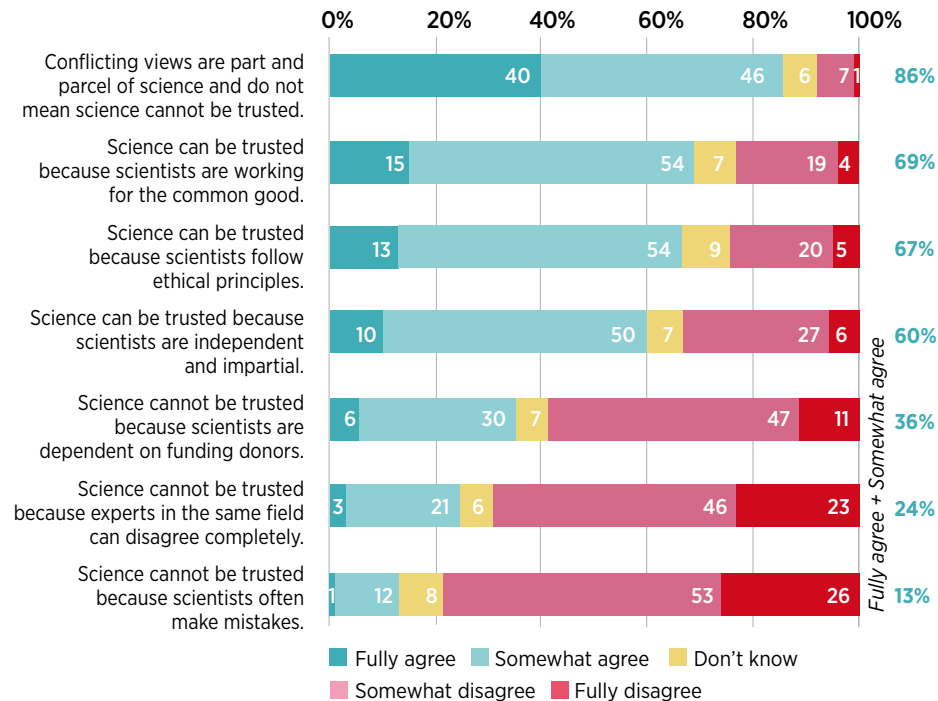
Almost 70% of respondents thought that science can be trusted because scientists are working for the common good or because they follow ethical principles. One-quarter of respondents disagreed with these statements.

Opinion was somewhat more divided on the independence of research: 60% of respondents trusted science “because scientists are independent”, 33% disagreed.

As for the relationship between doing science and the funding of science, 36% of respondents agreed with the statement that “science cannot be trusted because scientists are dependent on funding donors”, but 58% disagreed. These results are effectively unchanged from the previous survey. Political party identification did not significantly affect attitudes other than in the case of Finns Party supporters, who were more sceptical than others about whether science can be trusted.

## To what extent do you agree with the following statements concerning the trustworthiness of science?

total 2024 (n=1006)



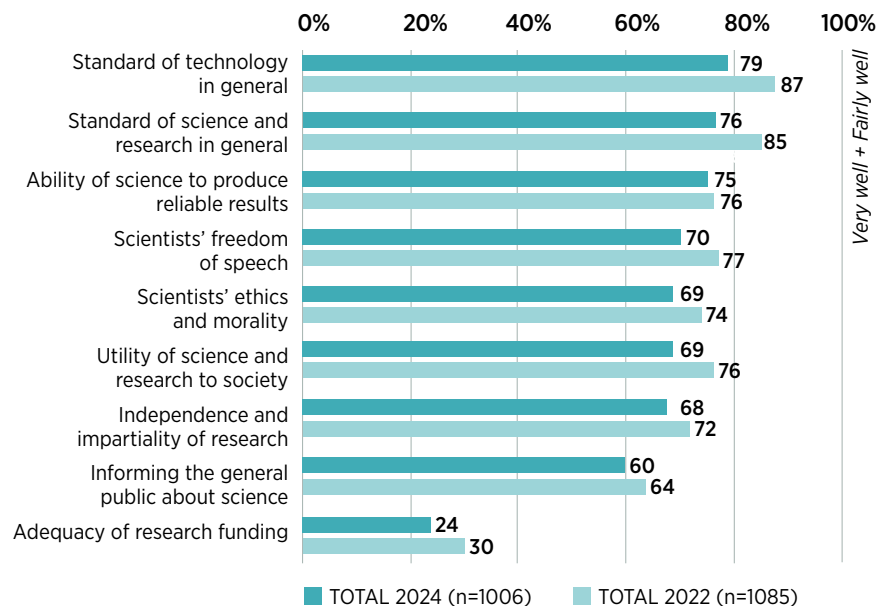
## Views on the state of science less optimistic

Respondents' views of the state of science in Finland were somewhat more pessimistic than two years ago, particularly so with regard to the general standard science and technology. Similar changes were seen across the board, although in other issues the differences were less pronounced.

However, nearly four in five respondents thought the overall standard of science and technology was good. More than two-thirds gave high ratings to the independence of research and the ethics and morality of scientists. One-quarter or 24% thought that the level of science and research funding was adequate, 56% took the opposite view.

By age group, respondents under 30 had a more critical assessment of the general standard of science and technology in Finland.

How well or badly do you think things are going for science and research in Finland?



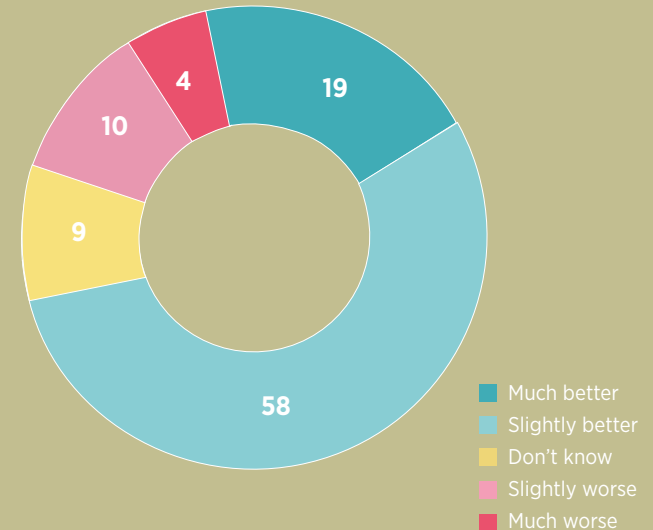
## Science and the future

Three-quarters or 77% of respondents thought that advances in science and technology will change everyday life for the better over the next 10–20 years, while 14% expected things to get worse. These assessments were at the same level as in the 2022 survey.

All demographic groups had roughly similar assessments, but some minor differences could be detected. Among self-employed persons 93% and among managers and upper-level employees 85% expected a change for the better, compared to 66% of unemployed persons. By age group, the results revealed an interesting difference: people over 70 were the most optimistic and those under 30 the most pessimistic. Coalition Party (90%) and SDP (84%) supporters were the most optimistic, while Finns Party supporters (63%) were the most pessimistic.

How do you expect advances in science and technology will change everyday life over the next 10–20 years?

TOTAL 2024 (n=1006)



## Science, everyday life, and beliefs

Relationships between science, everyday life, and beliefs were explored with a set of statements concerning evolution, lifestyle changes, worldviews, and UFO sightings, for example. The statement measuring support for the theory of evolution was accepted by 75% of respondents, while 14% disagreed. Almost half or 49% of respondents thought that advances in science and technology were changing everyday life too quickly; 42% took the opposite view.

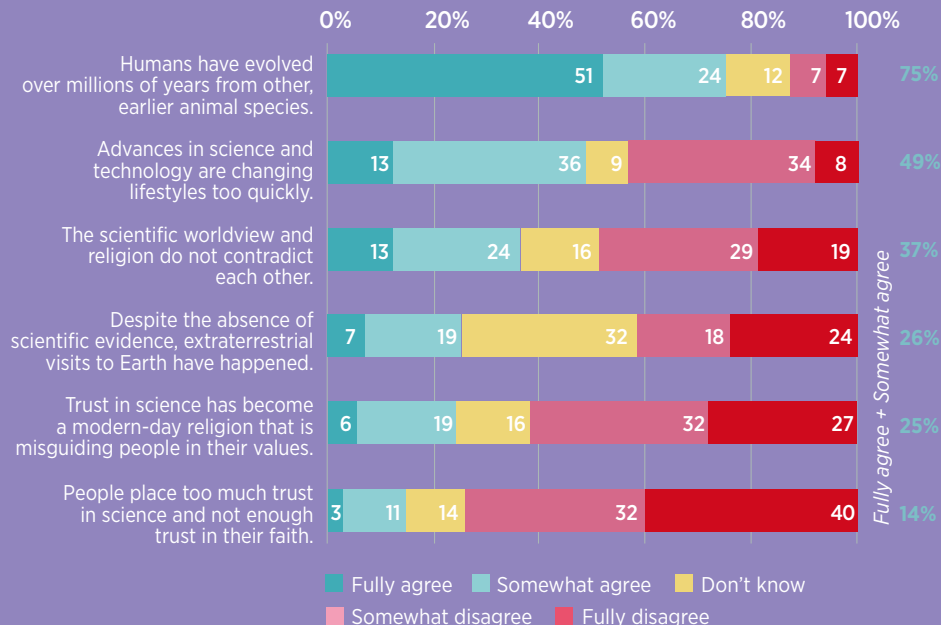
Opinions were divided on the relationship between religion and science: 37% agreed with the statement that the scientific worldview and religion do not contradict each other, 48% held the opposite view.

By demographic group, people aged 60–69 felt more often (62%) than others that science was changing life too quickly. In the age group over 70, this view was shared less often (53%). Centre Party (63%) and Finns Party supporters (62%) thought more often than others that the world was changing too quickly.

The proportion of believers in UFO sightings showed a slow downward trend after 2001 but began to edge up in 2019 and now stood at 26%. Finns Party supporters (44%) and people living in Northern and Eastern Finland (32%) were more inclined to believe in UFO sightings.

To what extent do you agree with the following statements concerning the relationship of science to everyday life, religion, and personal views?

TOTAL 2024 (n=1006)



## Science, everyday life, and beliefs 2001–2024

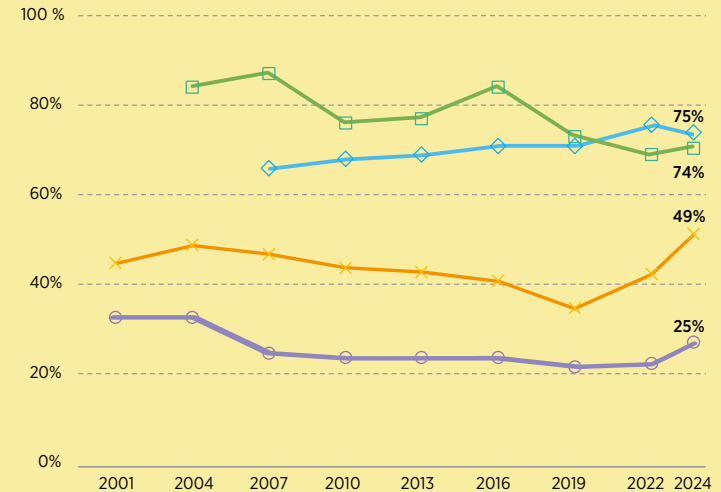
Some aspects of the relationships between science, everyday life, and beliefs have been followed in the Science Barometer survey since the early 2000s. For example, the proportion of people who support the theory of evolution has risen steadily since 2007 (66%) and was now 75%.

Views on the seriousness of climate change, by contrast, have fluctuated quite widely. Overall, the share of those who consider climate change a serious threat has declined over the past couple of decades.

Agreement with the statement “advances in science and technology are changing lifestyles too quickly” decreased from 2004 to 2019, but then began to rise. In 2019 the figure was 25% and in 2024 it was up further to 39%. Agreement with the statement “trust in science has become a modern-day religion” also declined steadily from 2001 onwards but began to increase in 2022 and was now slightly higher again. Based on these results it seems there are increasing concerns about the negative effects of science and technology.

## Science, everyday life, and beliefs 2001–2024

Respondents who fully agree and somewhat agree



- ◆ Humans have evolved over millions of years from other, earlier animal species.
- The progress of climate change is a real and serious threat that requires firm action from political decision-makers.
- ✕ Advances in science and technology are changing lifestyles too quickly.
- Trust in science has become a modern-day religion that is misleading people in their values.

## Medicine and CAM

A clear majority (87%) of respondents agreed with the statement that “scientists and professionals are the best experts in all matters related to health”. At the same time, a fairly large number of respondents also trusted alternative therapies and natural remedies.

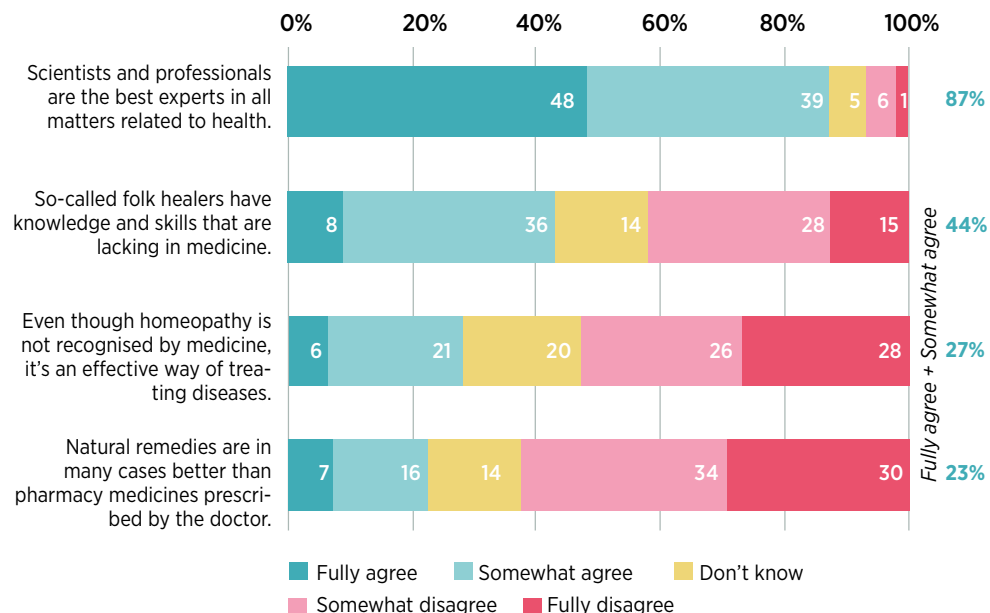
Almost half (44%) of respondents believed in the power of folk healers. People living in Northern and Eastern Finland (51%) and Finns Party supporters (56%) trusted folk healers somewhat more often than others.

Over one-quarter (27%) believed in the power of homeopathy. Slightly higher than average scores were recorded for Finns Party supporters (39%), workers (38%), and self-employed persons (34%).

Almost one-quarter (23%) of respondents expressed preference for natural remedies over prescription medicines. A slightly higher proportion of Finns Party supporters (40%), working-class identifiers (31%), and people under 30 (29%) shared this view.

To what extent do you agree with the following statements concerning the relationship of science to everyday life, religion, and personal views?

TOTAL 2024 (n=1006)



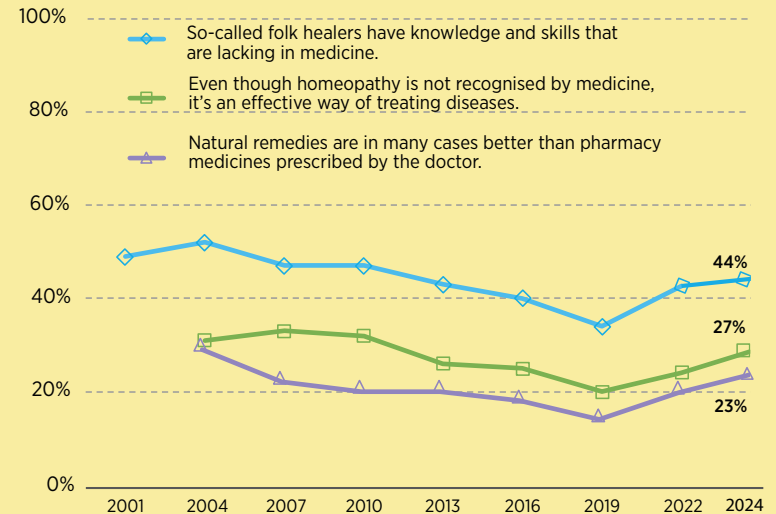
## CAM 2001–2024

The previous Science Barometer indicated an upturn in the popularity of alternative therapies, while it had been on a downward trend from the early 2000s to 2022. The share of respondents in favour of CAM was slightly up again, but the change was so small that it fits within the margin of error.

The trend is clear, however. Alternative therapies and products have gained in public approval alongside conventional medicine.

## CAM 2001–2024

Respondents who fully agree and somewhat agree



## Science and society

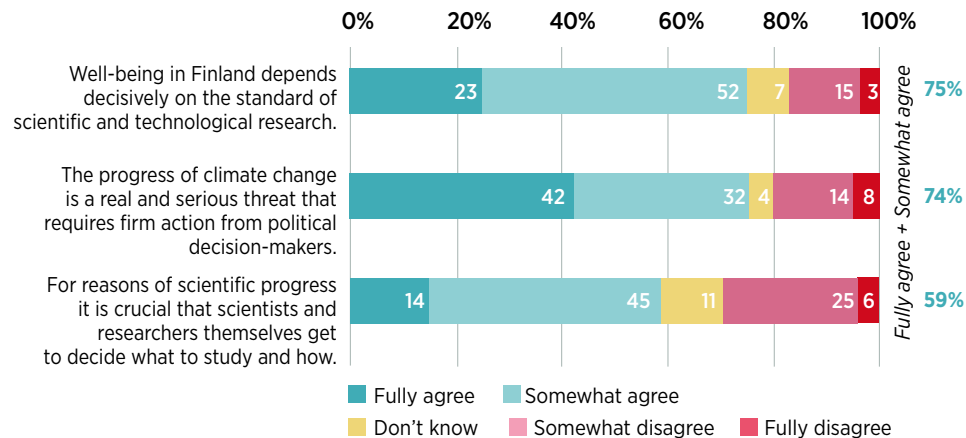
Respondents' views on the relationship between science and society and on science funding were explored with six statements. Three-quarters or 75% subscribed to the statement that “well-being in our country depends decisively on the standard of scientific and technological research”. Almost the same number thought that climate change was a serious threat that required firm action from decision-makers. Agreement with both statements increased somewhat compared to the previous survey.

Women (81%) thought that climate change was a serious threat more often than men (68%). Among Finns Party supporters only 46% shared this view, and 52% disagreed.

Over half or 58% respondents thought that the choice of research subjects should be left to scientists and researchers themselves. This view was held most strongly among Left Alliance supporters (74%). Among all respondents 31% disagreed.

To what extent do you agree with the following statements concerning the relationship of science and society?

TOTAL 2024 (n=1006)





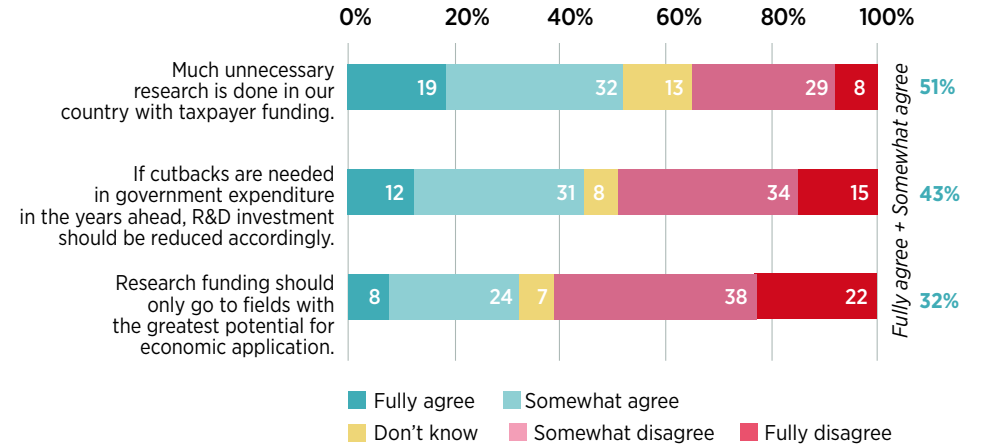
## Funding for science

Respondents' opinions were more sharply divided on statements concerning the funding of science, and demographic differences were more pronounced. Support for cutting research spending in line with other expenditure was somewhat stronger (43%) than in 2022 (37%), but a larger share of respondents (49%) still took the opposite view.

Finns Party (78%) and National Coalition Party (46%) supporters were more often in favour of cutting funding for science. Limiting research funding to fields with the greatest potential for economic application was supported by 32% and opposed by 50% of all respondents. The difference between right-wing and left-wing supporters was clear: 55% of Finns Party and 43% of National Coalition Party supporters were in favour of allocating science funding based on the potential for financial benefit, compared to only 8% of Left Alliance supporters.

To what extent do you agree with the following statements concerning the relationship of science and society?

TOTAL 2024 (n=1006)



## Relationship of science and politics

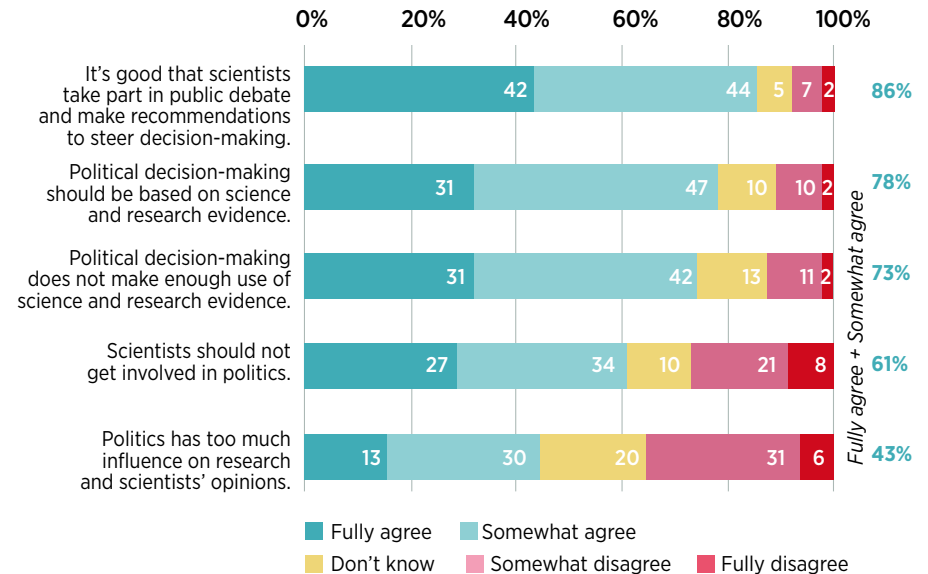
There is strong public support in Finland for using science as a tool in political decision-making. More than four in five respondents thought it was good that researchers take part in public debate and make recommendations to steer decision-making. Almost as many took the view that political decision-making should be based on science and research evidence. Even among Finns Party supporters two-thirds or 66% shared this position.

Over 60% of respondents agreed with the statement that scientists should not get involved in politics. Left Alliance (26%) and Green Party (39%) supporters and respondents under 30 agreed less often than others.

These statements were included in the Science Barometer survey for the first time in 2022 and there were no major shifts in the responses.

## Opinions on the relationship of science and politics

TOTAL 2024 (n=1006)



## Opinions on AI

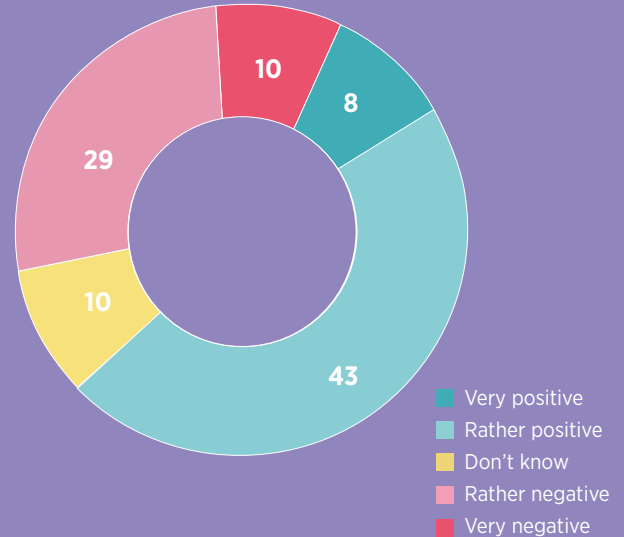
The special theme selected for the 2024 Science Barometer was artificial intelligence. Responses to the item on general attitudes towards AI and its application in society showed that a slightly larger proportion took a positive (51%) than negative (39%) view.

Men (56%) had a more positive view on AI than women (45%). Attitudes were most positive among people in managerial positions (74%) and the highest income brackets (72%). Over half or 53% of the unemployed took a negative attitude towards AI.

By political party identification, the most positive views were expressed by National Coalition Party (72%), SDP (54%), and Green Party (52%) supporters; and the most negative views by Finns Party and Left Alliance supporters. In the latter two groups, 53% and 51%, respectively, took a primarily negative stance.

## What view do you take on AI and its application in society?

TOTAL 2024 (n=1006)



## Opinions divided on AI applications

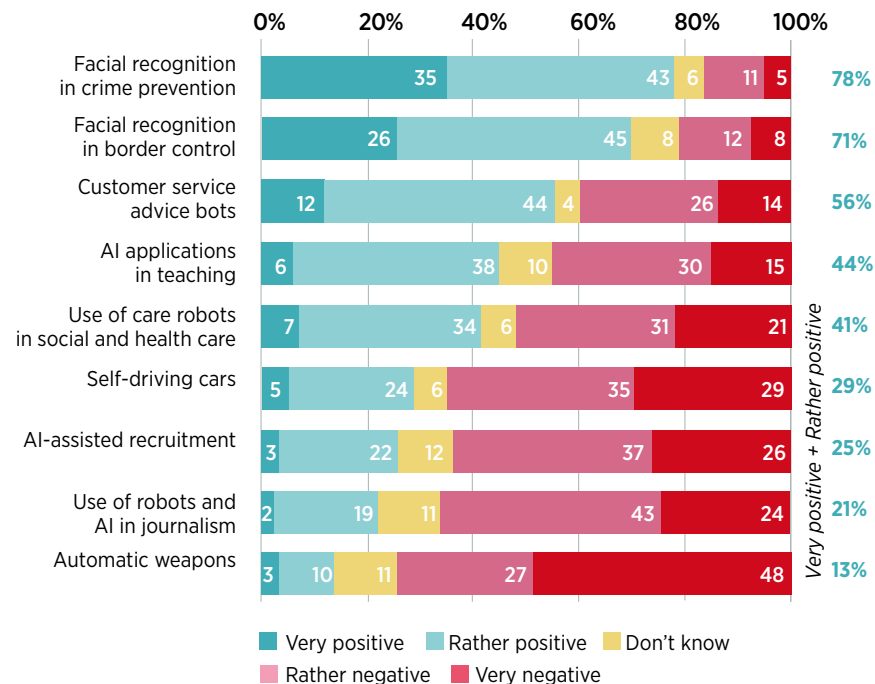
Opinions about different AI applications vary. Most support was expressed for the use of facial recognition in crime prevention (78%) and border control (71%); 16% and 20% of respondents, respectively, took a negative view on these applications. Attitudes towards AI customer advice bots were slightly more often positive (56%) than negative (40%).

Opinions on all other applications were more often negative than positive. Most opposition was expressed towards automatic weapons, the use of robots and AI in journalism, and AI-assisted recruitment.

Overall, National Coalition Party supporters took a more positive view and Left Alliance supporters a more negative view towards AI applications.

The following lists some AI applications.  
What view do you take on the use of these applications:

TOTAL 2024 (n=1006)



## Defence forces enjoy highest trust

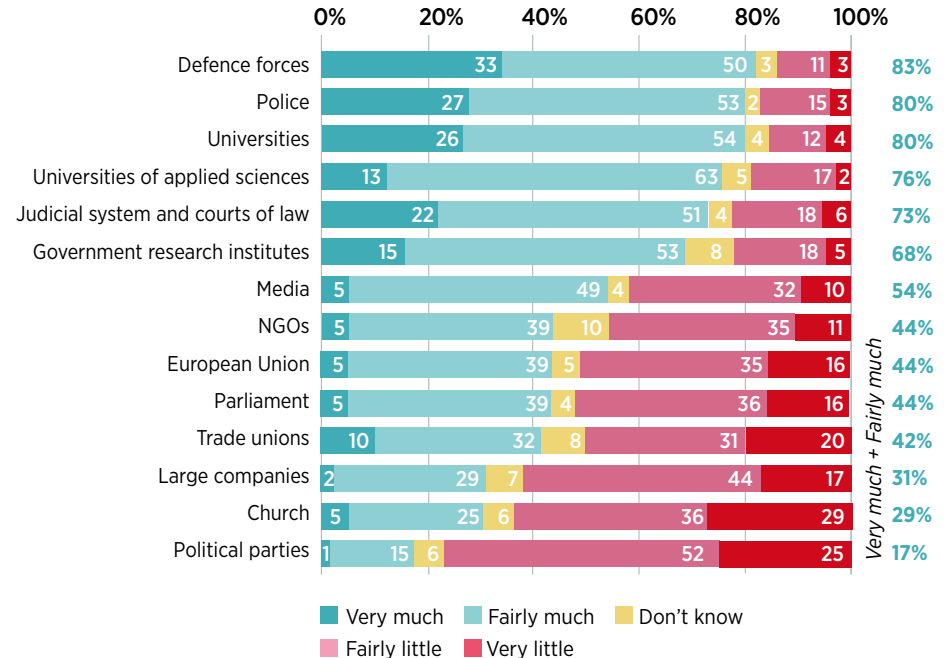
The most trusted institutions and organisations have long been ranked in the same order in the Science Barometer: the defence forces, the police, and universities. The result was the same in the 2024 survey. Trust ratings were slightly lower than two years ago, but the change fits within the margin of error. A somewhat sharper drop in trust was seen for some other institutions, such as Parliament, the European Union, the church and political parties.

Trust in universities was strongest among respondents in managerial positions (94%) and those identifying with the political left (93%).

Another interesting result was the finding that 77% of respondents said they had only little trust in political parties.

## To what extent do you feel you can trust the following social institutions?

TOTAL 2024 (n=1006)



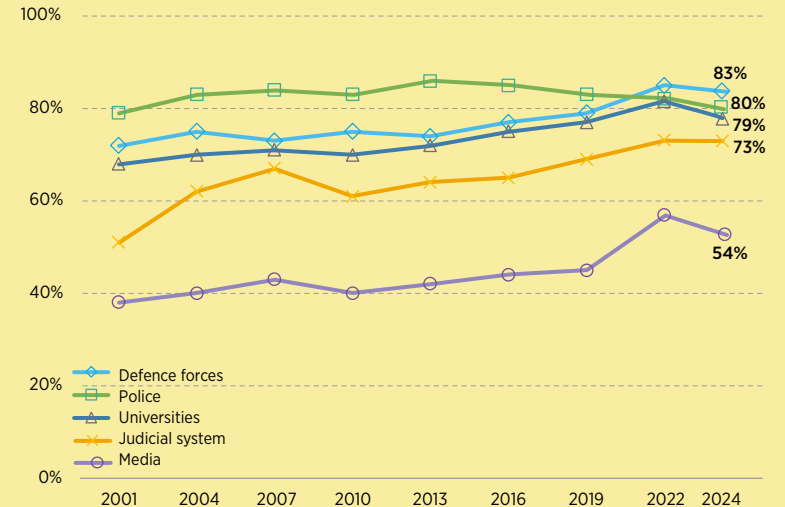
## Changes in trust 2001–2024

Over a longer period from 2001 to 2024, levels of trust in society's key institutions have mainly been rising or remained around the same. This also applies to universities: the proportion of respondents who expressed at least fairly high trust in universities increased from 68% in 2001 to 79% in 2024. The sharpest rise over this period is seen in trust in the judicial system. Trust in the church, on the other hand, has declined.

The sense of trust in key institutions is not universally shared, however. For example, the 2022 Science Barometer showed that the share of people expressing low trust in institutions has increased, while fewer respondents than before do not express their opinion. This same trend is reflected in the results for 2024 (see previous spread).

### Trust in institutions 2001–2024

Respondents expressing very high and fairly high trust



## The Science Barometer survey

The Finnish Science Barometer survey has tracked public opinion on science and the role of science and technology in society since 2001. The survey is nowadays conducted every other year.

The survey data were collected via Kantar Forum during 17–24 May 2024. Data collection is based on a panel of respondents administered by Verian (formerly Kantar Public), using online data transfer.

A total of 1,006 persons took part in the survey. The respondents represent the Finnish population aged over 18, excluding residents of Åland.

To improve the reliability of statistical conclusions, the data are weighted by gender, age, and place of residence to better represent the population. The confidence interval for the results at the level of the total data set is +/- 3.1 percentage points and slightly higher for results for specific groups, depending on group size.

The Finnish Science Barometer is produced by the Finnish Society for Scientific Information. The data are stored in the Finnish Social Science Data Archive.

Heureka, Finnish science center 2024







Photo: Lauri Veijjalainen



