SCIENCE BAROMETER 2017
Dear Sir or Madam

In the light of public discussions about anti-experts and fake news in recent months, we are pleased to take a look at the current attitudes of citizens towards science and research in Germany. Having established the German science barometer in 2014, we are delighted to publish the results of our annual survey in English as well. We would like to thank the Robert Bosch Stiftung for funding the project and for allowing us to further develop the survey. We are also grateful to the members of our international advisory board who worked with us on a revised questionnaire and who will further advise on the project.

In addition to general attitudes towards science and research such as interest or trust in science, we also addressed a current topic in this year’s survey: The results on pages 29/30 show that two thirds of respondents think that issues from science and research have not played a sufficient role in the campaign for the 2017 German national elections. The societal importance of science is also evident in the great interest in research stated by respondents and their desire to participate – both in discussions about science and in research itself. Discussing and informing about science as well as allowing for participation in research remain important tasks for science communication in order to responsibly address the role of science in society.

We hope you find the results interesting and wish you an informative read.

Markus Weißkopf
Managing Director Wissenschaft im Dialog
What is the science barometer?

Through the science barometer, *Wissenschaft im Dialog* annually surveys public attitudes towards science and research in Germany. Conducted for the first time in 2014, the survey questionnaire was revised with an international advisory board before the interviews in 2017 were conducted. For all results of the science barometer 2017 and all previous surveys waves as well as further information, please visit [www.sciencebarometer.com](http://www.sciencebarometer.com).

Who is responsible for the science barometer?

*Wissenschaft im Dialog* (*WiD*) is a non-profit organisation founded in 1999 by the German science organisations. Our work focuses on the public discussion of science and research. *WiD* aims to arouse and strengthen interest in science among people of every age and background. We aim to achieve this by organising discussions, education projects for schools, exhibitions and competitions – all focused on science and research. We develop new formats for science communication and run events across Germany to reach diverse target groups. Our goal is for as many people as possible to be involved in discussions about research, including its controversial aspects. The results of the science barometer help us in doing so. [www.wissenschaft-im-dialog.de](http://www.wissenschaft-im-dialog.de)

Photo credits: Ilja C. Hendel/Wissenschaft im Dialog (at the top), Christian Kleinert/Wissenschaft im Dialog (at the bottom)
How strong is your interest in ...?

58 per cent of respondents say they are interested in science and research. In a similar but not directly comparable question, 41 per cent of respondents stated in 2016 that they had a great interest in scientific topics (so-so: 43 per cent, low interest: 16 per cent).
Number of respondents: 1.007; Figures are in per cent. Numbers may not add up to 100 per cent due to rounding.
How strong is your interest in scientific topics from ...?

72 per cent of respondents state an interest in scientific topics from the medical field – 42 per cent with regard to the social sciences and humanities.
Number of respondents: 1.007; Figures are in per cent. Numbers may not add up to 100 per cent due to rounding.
How satisfied are you with media coverage of science and research?

34 per cent of respondents say they are satisfied with media coverage of science and research, while 22 per cent state that they are unsatisfied.
Number of respondents: 1.007; Figures are in per cent. Numbers may not add up to 100 per cent due to rounding.
How much do you trust science and research?

12 per cent of respondents state that they somewhat or completely distrust science and research. 37 per cent are undecided while half of respondents trust science and research somewhat or completely.
Number of respondents: 1,007; Figures are in per cent. Numbers may not add up to 100 per cent due to rounding.
Here are some reasons why you might trust scientists. To what extent do you personally agree with them?

Almost three quarters of respondents state expertise as a reason for trusting scientists.
Number of respondents: 1.007; Figures are in per cent. Numbers may not add up to 100 per cent due to rounding.

Because scientists are experts in their field.
- 31% completely agree
- 41% somewhat agree
- 17% undecided
- 5% somewhat disagree
- 2% completely disagree
- 3% don’t know, missing answer

Because scientists work according to rules and standard procedures.
- 16% completely agree
- 37% somewhat agree
- 28% undecided
- 11% somewhat disagree
- 3% completely disagree
- 4% don’t know, missing answer

Because scientists do research in the public interest.
- 14% completely agree
- 26% somewhat agree
- 37% undecided
- 13% somewhat disagree
- 8% completely disagree
- 2% don’t know, missing answer
Here are some reasons why you might distrust scientists. To what extent do you personally agree with them?

The respondents consider the dependency on funders as a main reason for distrust in scientists.
Because scientists are strongly dependent on the funders of their research.

<table>
<thead>
<tr>
<th>Agreement Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completely agree</td>
<td>46%</td>
</tr>
<tr>
<td>Somewhat agree</td>
<td>30%</td>
</tr>
<tr>
<td>Undecided</td>
<td>11%</td>
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<tr>
<td>Somewhat disagree</td>
<td>5%</td>
</tr>
<tr>
<td>Completely disagree</td>
<td>5%</td>
</tr>
<tr>
<td>Don't know, missing answer</td>
<td>2%</td>
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Because scientists often adjust results to their own expectations.

<table>
<thead>
<tr>
<th>Agreement Level</th>
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<tbody>
<tr>
<td>Completely agree</td>
<td>13%</td>
</tr>
<tr>
<td>Somewhat agree</td>
<td>27%</td>
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<tr>
<td>Undecided</td>
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<tr>
<td>Somewhat disagree</td>
<td>17%</td>
</tr>
<tr>
<td>Completely disagree</td>
<td>8%</td>
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<tr>
<td>Don't know, missing answer</td>
<td>4%</td>
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Because scientists often make mistakes.

<table>
<thead>
<tr>
<th>Agreement Level</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Completely agree</td>
<td>6%</td>
</tr>
<tr>
<td>Somewhat agree</td>
<td>12%</td>
</tr>
<tr>
<td>Undecided</td>
<td>43%</td>
</tr>
<tr>
<td>Somewhat disagree</td>
<td>26%</td>
</tr>
<tr>
<td>Completely disagree</td>
<td>11%</td>
</tr>
<tr>
<td>Don’t know, missing answer</td>
<td>3%</td>
</tr>
</tbody>
</table>

Number of respondents: 1,007; Figures are in per cent. Numbers may not add up to 100 per cent due to rounding.
To what extent do you agree with the following statements?

A majority of respondents assesses the benefits of science and research positively. When asked whether our living conditions change too quickly because of science and research, respondents are not clearly positive or negative.
I personally benefit from science and research.

- Completely agree: 30
- Somewhat agree: 30
- Undecided: 20
- Somewhat disagree: 13
- Completely disagree: 7
- Don’t know, missing answer: 1

All in all, science and research will lead to a better life in the future.

- Completely agree: 24
- Somewhat agree: 32
- Undecided: 31
- Somewhat disagree: 7
- Completely disagree: 4
- Don’t know, missing answer: 2

Science and research change our living conditions too fast.

- Completely agree: 19
- Somewhat agree: 23
- Undecided: 25
- Somewhat disagree: 18
- Completely disagree: 12
- Don’t know, missing answer: 2

All in all, science and research do more harm than good.

- Completely agree: 4
- Somewhat agree: 7
- Undecided: 23
- Somewhat disagree: 27
- Completely disagree: 37
- Don’t know, missing answer: 2

Number of respondents: 1,007; Figures are in per cent. Numbers may not add up to 100 per cent due to rounding.
To what extent do you agree with the following statements?

The majority of the respondents answers in favour of funding basic research. About a third finds that science should be allowed to do research into any area without restriction, while 45 per cent are of the opposite opinion.
Even if it brings no immediate benefits, research which advances knowledge should be publicly funded.

People trust too much in science and not enough in their feelings and faith.

If a new technology involves unknown risks, the development of this technology should be stopped, even if a benefit is expected.

It should be allowed to conduct science and research into any area without restrictions.

Number of respondents: 1,007; Figures are in per cent. Numbers may not add up to 100 per cent due to rounding.
To what extent do you agree with the following statements?

About half of respondents agree that scientists work for the benefit of society and are aware of the societal impact of their work. Around 40 per cent say that they personally want to participate in science and research.
I think it is important that citizens are involved in the formulation of research questions.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Undecided</th>
<th>Somewhat Disagree</th>
<th>Completely Disagree</th>
<th>Don’t Know, Missing Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>29</td>
<td>20</td>
<td>15</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

Scientists are aware of the societal impact of their work.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Undecided</th>
<th>Somewhat Disagree</th>
<th>Completely Disagree</th>
<th>Don’t Know, Missing Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>34</td>
<td>30</td>
<td>12</td>
<td>4</td>
<td>4</td>
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</table>

Scientists work for the benefit of society.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Undecided</th>
<th>Somewhat Disagree</th>
<th>Completely Disagree</th>
<th>Don’t Know, Missing Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>29</td>
<td>35</td>
<td>10</td>
<td>6</td>
<td>2</td>
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</tbody>
</table>

I would be interested in participating in a discussion format with scientists.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Undecided</th>
<th>Somewhat Disagree</th>
<th>Completely Disagree</th>
<th>Don’t Know, Missing Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>22</td>
<td>18</td>
<td>20</td>
<td>20</td>
<td>1</td>
</tr>
</tbody>
</table>

I would like to participate in a scientific research project.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Undecided</th>
<th>Somewhat Disagree</th>
<th>Completely Disagree</th>
<th>Don’t Know, Missing Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>20</td>
<td>20</td>
<td>17</td>
<td>23</td>
<td>1</td>
</tr>
</tbody>
</table>

Number of respondents: 1.007; Figures are in per cent. Numbers may not add up to 100 per cent due to rounding.
In your opinion, how strong is the influence of ...?

While the influence of business and politics on science is regarded as too strong by respondents, 45 per cent consider the influence of science on politics to be too low.
Number of respondents: 1,007; Figures are in per cent. Numbers may not add up to 100 per cent due to rounding.
In which area should research be conducted most intensively in the future?

The respondents consider climate and energy as well as health and nutrition to be most important for future research activities.
Number of respondents: 1.007; Figures are in per cent. Numbers may not add up to 100 per cent due to rounding.
To what extent do you agree with the following statements?

8 per cent of respondents question man-made climate change, 10 per cent evolutionary theory. However, about three quarters of respondents agree that climate change is mainly caused by humans and their actions as well as that humans and animals have common ancestors. A majority also assesses the benefits of vaccinations positively.
Climate change is mainly caused by humans and their actions.

Humans and animals have common ancestors, from which they have evolved over the course of evolution.

Vaccinating children does more harm than good.

Number of respondents: 1,007; Figures are in per cent. Numbers may not add up to 100 per cent due to rounding.
In the current election campaign, have science and research so far been addressed more like sufficiently or more like insufficiently?

About two thirds of respondents think that science and research were not sufficiently taken into account in the campaign for the 2017 German national elections. Only a fifth finds they have been addressed more like sufficiently.
Number of respondents: 1,007; Figures are in per cent. Numbers may not add up to 100 per cent due to rounding.
# Data on the survey design of the science barometer 2017

## Representative population survey

<table>
<thead>
<tr>
<th><strong>Population</strong></th>
<th>German-speaking residential population of the Federal Republic of Germany in private households from the age of 14 years and over</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of respondents</strong></td>
<td>1,007 respondents</td>
</tr>
<tr>
<td><strong>Type and period of the survey</strong></td>
<td>The interviews were conducted as telephone interviews (dual frame of landlines/mobile phones, 80:20) from 25 to 29 July 2017. The interviews were part of an omnibus survey carried out centrally by Kantar Emnid.</td>
</tr>
<tr>
<td><strong>Sampling</strong></td>
<td>The sampling was carried out according to ADM – i.e. using a telephone sample which was created by an initiative of the <em>Arbeitskreis Deutscher Marktforschungsinstitute (ADM)</em> using the <em>Gabler-Häder-Verfahren</em> and which also contains unlisted telephone numbers. Within the selected households from the landline sample, the target person was selected randomly. For the sample of mobile phones, no systematic selection of the target person took place since mobile phones are almost exclusively used by only one person.</td>
</tr>
</tbody>
</table>
Implementation

The interviews were computer-assisted telephone interviews (CATI). The general working instructions, used by all interviewers at Kantar Emnid, were applied in order to conduct all the interviews consistently.

Weighting and representativeness

The weighting took place in several steps: Firstly, a design weighting compensated for the different selection probabilities of the target persons caused by the numbers of landlines and mobile phone numbers as well as household sizes. Subsequently, the two samples of landlines and mobile phones were merged and weighted based on the characteristics of federal state, size of location, gender, age, occupation, formal education and household size. The weighting ensures that the structure of the sample on which the results are based matches the structure of the population. Therefore, the results of the survey are representative and can be generalised for the population within statistical margins of error. For this survey, the margin of error ranges from ± 1.4 (for a share of five per cent) to ± 3.1 (for a share of 50 per cent).

Documentation

The original text of the questionnaire as well as result tables are available online via the following link: www.sciencebarometer.com
Imprint

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