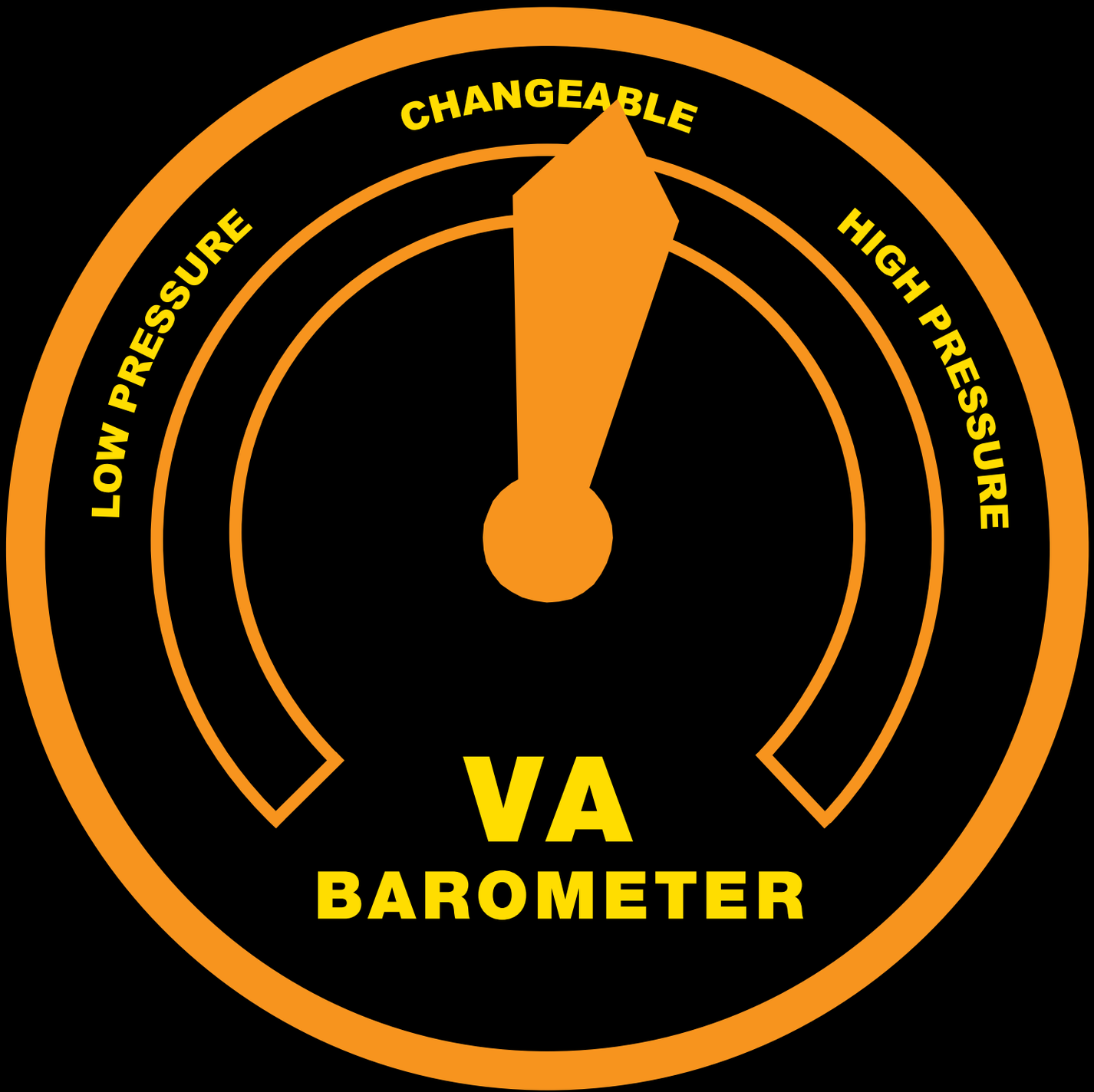

2009/10

VA Barometer 2009/10 – VA Report 2009:2

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CLOUDS ON THE HORIZON

The 2009 VA Barometer points to a decline in the positive opinions Swedes have of science:

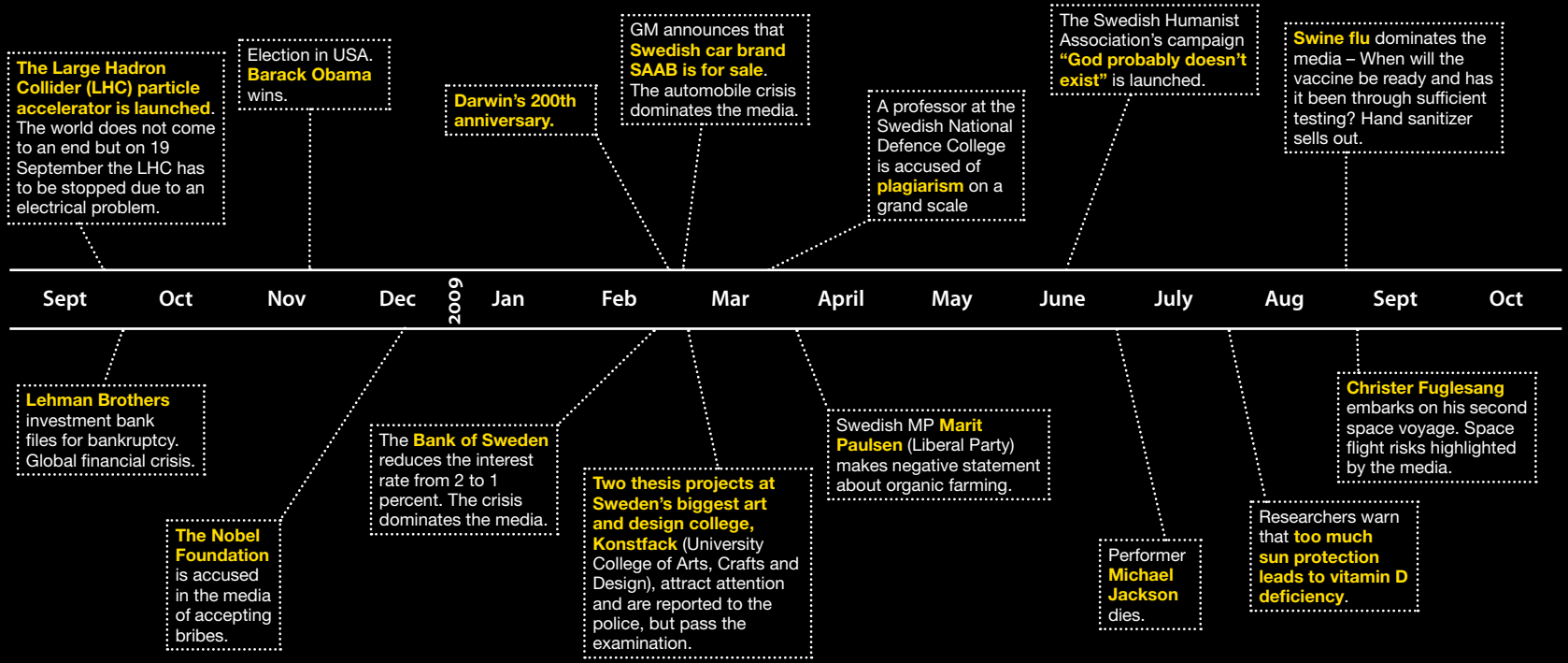
- Optimism about scientific development is waning.
- More people think science and technology are too difficult to understand.
- More people believe that that astrology is a scientific subject.
- Fewer young people want to become scientists.

But there is some good news. Many people agree that scientists and researchers are needed to solve the problems facing mankind. And confidence in the potential of research continues to be high, particularly regarding climatic and environmental research.

CONTENTS

The VA barometer was compiled using information from over 1,000 telephone interviews with a representative sample of the Swedish adult population (aged 16 and over). The interviews were conducted between 15th and 21st September 2009 by the opinion poll company Novus Opinion. This is the eighth barometer since VA was formed in 2002. The VA barometer is produced with support from the Swedish Research Council.

2008/2009 THROUGH SWEDISH EYES...



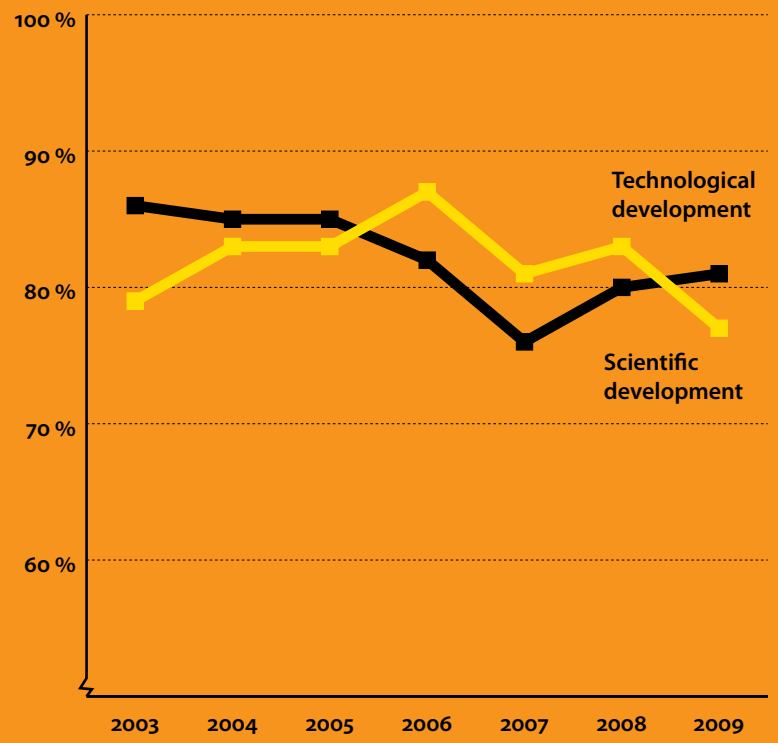
COOLER ATTITUDE TOWARDS SCIENCE

In 2008 there was a clear increase in Swedes' positive attitudes towards research and scientists. Now this trend seems to be declining. The percentage of people who believe that scientific development has improved people's lives is at its lowest since 2003.

Men are more positive than women towards both scientific and technological development; more of them respond that development has improved people's lives. People in a high income bracket, people with a high level of education and those over 30 have a more positive opinion of scientific development than others.

Taking the decade as a whole, confidence levels in science and technology are high. At the beginning of the 1980s, only 60-70 percent of people had a positive opinion of technological development.

The graph shows the percentage of the general public who believe that scientific and technological development over the past 10-20 years has made people's lives better. Please note that the scale is not continuous.

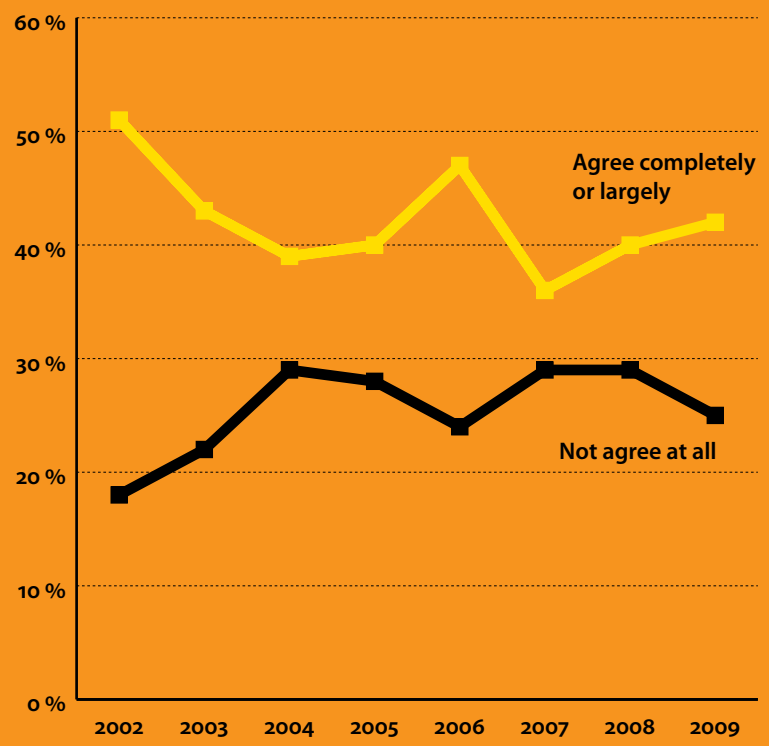


STILL LIVING IN IVORY TOWERS?

Is science and technology too difficult for most people to understand? The percentage of people who think so has increased slightly. This increase follows a steady decline since the beginning of the decade.

The percentage of people who agree has increased in all age groups with the exception of people between 30 and 44 years. Together with people with a university education, this group is least likely to believe that science and technology are too difficult to understand. Only three out of ten in these groups agree completely or largely with this. People with only the nine-year compulsory education and those over 60 years are more likely than others to think that science and technology are too difficult to understand; more than half agree completely or largely with this statement.

The graph shows the percentage who agree completely, largely or not at all with the statement "Science and technology are too difficult for most people to understand".



INCREASE IN CONFIDENCE SLOWS DOWN

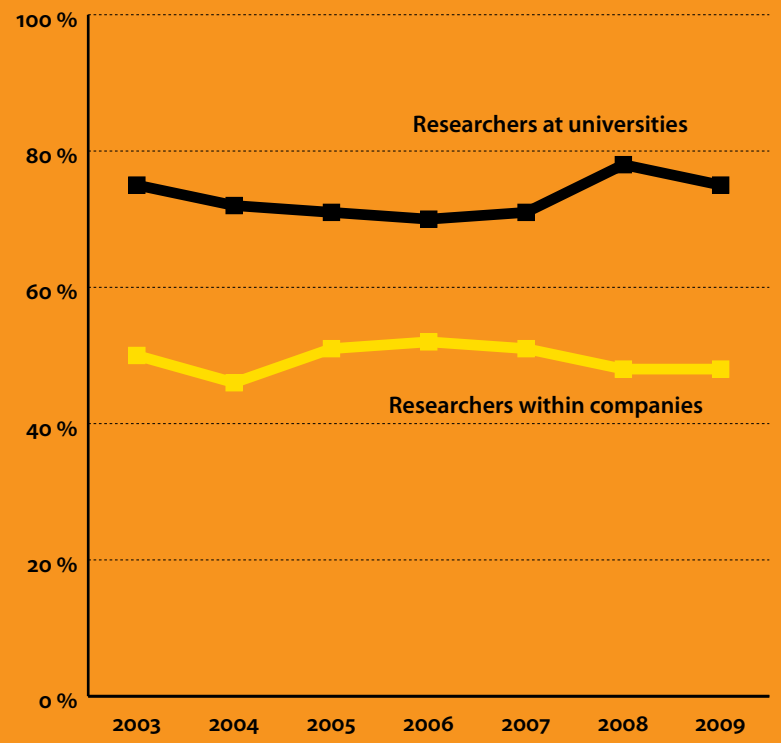
Swedes have a high confidence in researchers, but confidence is fragile and can easily be affected by media reports.

The most common examples of negative research news the public gave when asked in an open question were:

- Cheating in research, dubious research methods
- Swine flu and the vaccine
- Too many alarmist reports and scare stories
- Mixed messages about food, diet and health
- Researchers disagree – Who should we believe?

Only a few answers related to the financial crisis. People with a high level of education have more confidence than others in academic researchers.

The graph shows the percentage of the public who have a high or very high level of confidence in researchers.



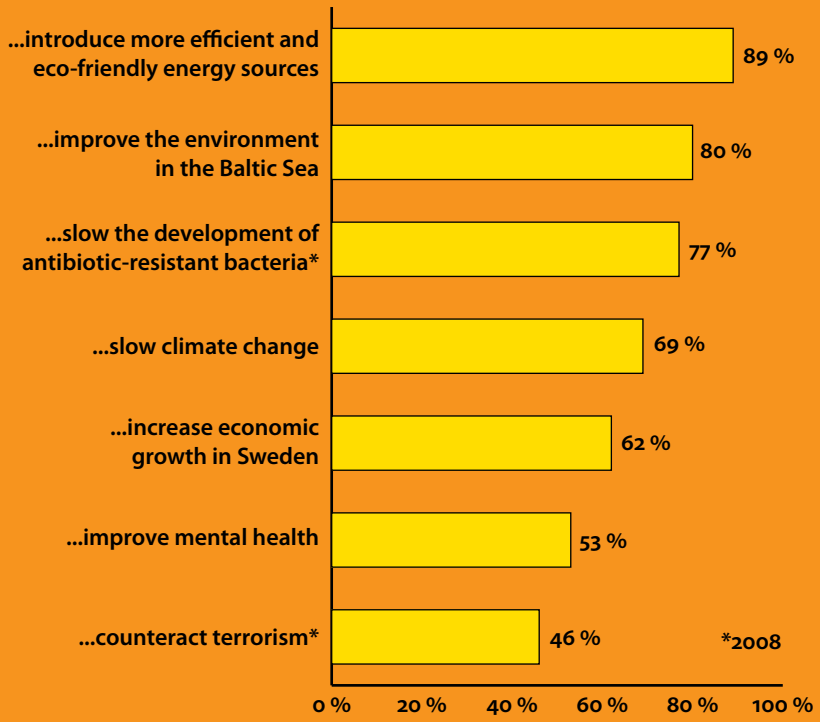
THE POTENTIAL OF RESEARCH

Confidence among Swedes in the potential of research to solve problems is very high – particularly within areas relating to the environment, medicine, the climate and energy. Media reporting probably plays a role in this optimistic view.

Only half of the respondents believe that research can lead to better mental health. University-educated respondents are the most sceptical. Otherwise, people with a high level of education are generally the group with the highest level of confidence in the potential of research.

People over 60 years old have in most cases a lower level of confidence than younger people in the ability of research to solve various problems. Differences along gender lines are usually small, but men are more likely than women to believe in the ability of research to lead to economic growth.

The graph shows the percentage of people who believe that there is a good chance that within a period of ten years research will help to...

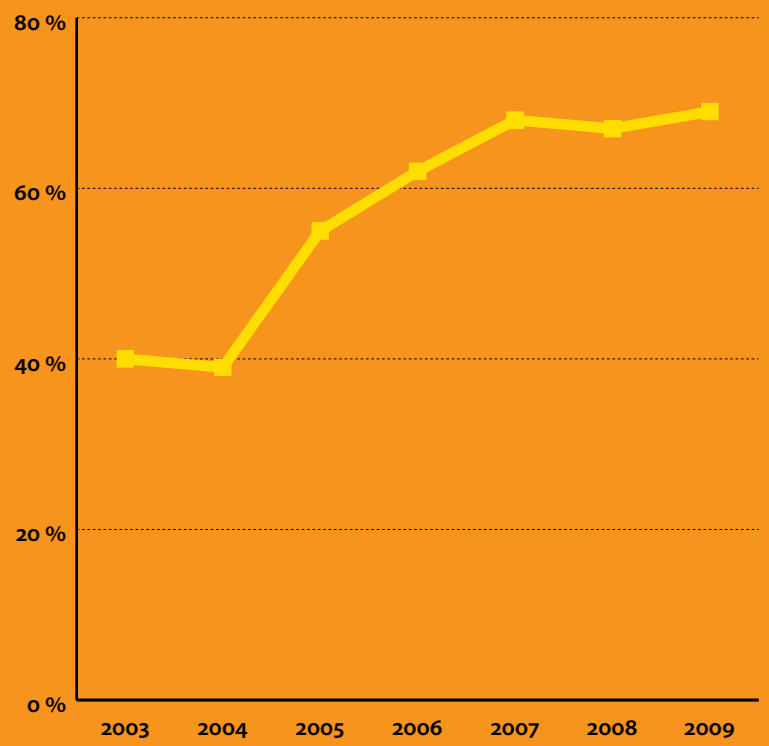


SCIENTISTS CAN SAVE THE CLIMATE!

Following the tsunami disaster of 2004 and Hurricane Katrina in 2005, the human impact on the climate and the environment became the focus of public debate. Since then the percentage of people who believe that research can help slow climate change has been steadily increasing.

Young people have the greatest confidence in the potential of climate research. People over 60 are the most pessimistic. This older group also shows the most uncertainty, being more likely to answer "don't know" to climate related questions.

The climate issue is also sometimes mentioned as an example of "bad news" about research in our open question (see page 12). The percentage of people who gave this response has, however, fallen.



Graph: Do you believe that there is a good chance that research will help to slow climate change within ten years? Percentage Yes.

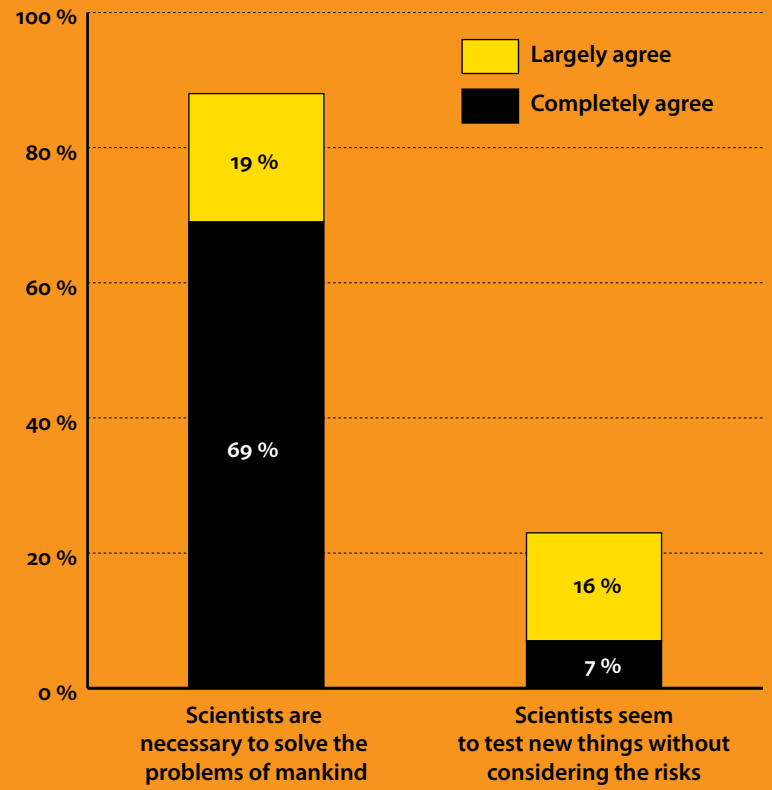
WE NEED SCIENTISTS!

Almost nine out of ten people believe that research is necessary to solve mankind's problems. In 2007 three out of four agreed with this statement.

Less than one in four believe that scientists test new things without considering the risks – a fall of eight percent since 2003. Only one in three, however, totally disagree with the statement.

Young people (16–29 years), low wage earners and people with only the nine-year compulsory education are more likely than older people, people with a high level of education and those with higher incomes to believe that scientists do not pay sufficient attention to the risks.

The graph shows the percentage of people who agree entirely or largely with the two statements.

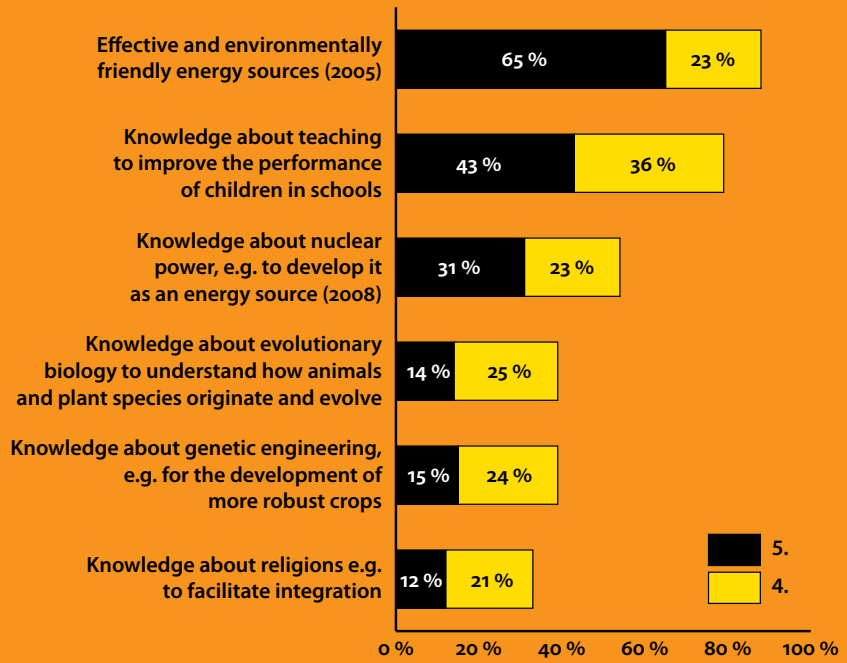


EVERYDAY ISSUES ARE PRIORITISED

Issues which affect people's everyday lives are considered important areas in which to conduct research. Education is one example, energy another. Evolutionary biology and religion are areas where it may be more difficult to see the direct benefits. This is reflected in the fact that fewer people think this type of research should receive government funding.

People with a high level of education are more likely than others to believe that research in all of the areas mentioned is important.

People under 30 support funding research into religions more than other people: 42 percent compared to the average of 33 percent. Women are also significantly more likely than men to believe that it is important to fund research into religion and evolutionary biology.



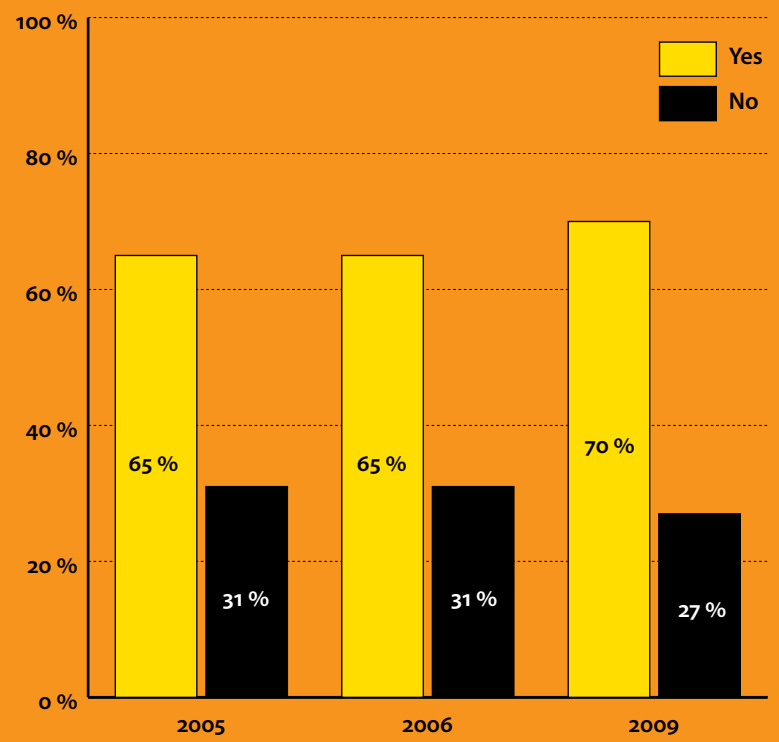
Graph: How important do you believe it is to invest government funds in these areas? (Percentage of 4 and 5 on a scale from 1 = not important at all, to 5 = very important.)

TOO MANY SCARE STORIES

The percentage of people who think that too many alarmist reports are published is increasing. More than eight out of ten people also feel that it is better to wait before publishing information about new research discoveries until the results have been confirmed. This is also higher than the previous year.

"Scare stories" is one of the most common answers to our open question asking respondents if they have seen any negative news reports relating to research. People are tired of scare stories and this may impact their view of research in general.

Graph: Research results that may be significant for people's health are sometimes published before they have been confirmed or refuted by other researchers, in order to warn people about risks associated with, for example, habits or lifestyles. Do you think that too many of these so-called scare stories are published? The percentage of people answering "Don't know" is not shown in the graph.



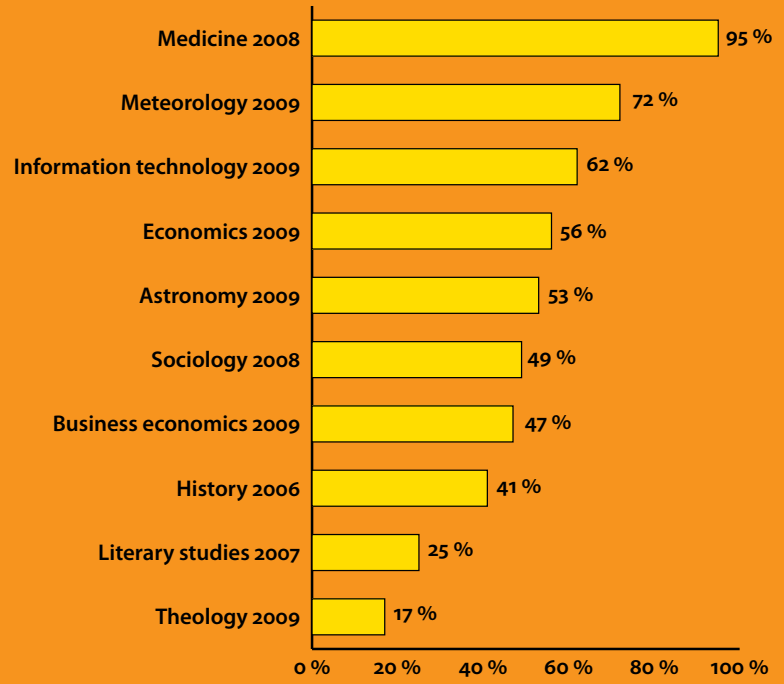
WHAT IS SCIENCE?

Opinions on how scientific different academic subjects are differ among people with different levels of education. In general, those with a high level of education consider the subjects to be more scientific than others do.

In the wake of the financial crisis and the recession, economic research has become the focus of attention. This may explain the fact that the percentage of people who consider business economics to be a scientific subject has increased from 40 percent in 2008 to 47 percent in 2009. The percentage of people with the same opinion about economics has increased slightly since 2005, from 54 to 56 percent.

Young people are more likely than others to categorise business economics as unscientific (1 or 2 on the scale), while older people are more likely to categorise sociology as unscientific.

The graph shows the percentage of people who think that various subjects are scientific (4 or 5 on a scale from 1 to 5, where 5 = to the highest degree and 1 = not at all). An explanation of all subjects was provided to avoid misunderstandings.

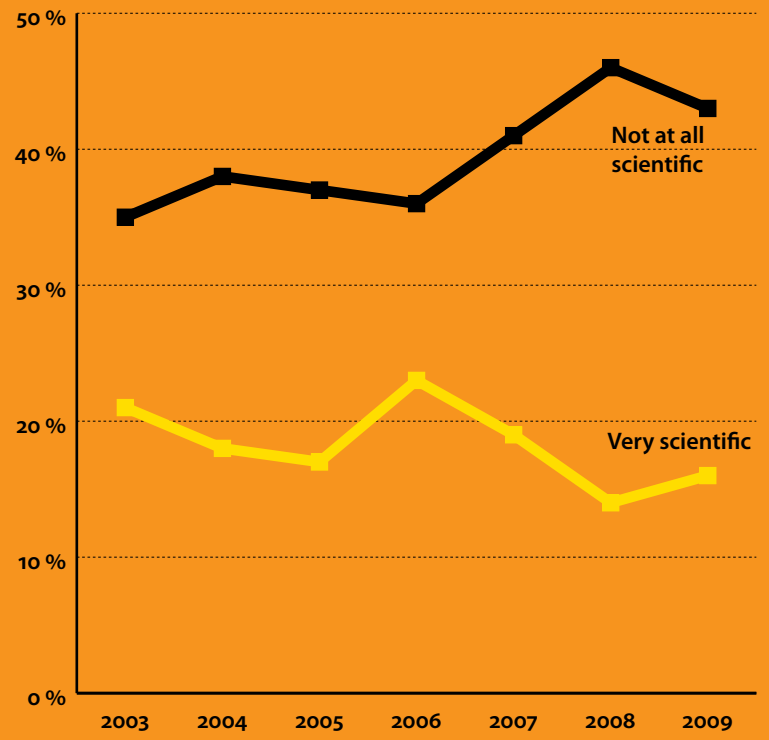


BELIEF IN ASTROLOGY IS RISING

In 2008, the percentage of people who think that astrology is a scientific subject was at its lowest level since VA started its barometer in 2003. Now the curve seems to be on its way up again.

The question whether people believe astrology to be scientific is a common question used to gauge knowledge in opinion surveys. Compared to other countries, relatively few Swedes believe that astrology is scientific.

The graph shows the percentage of people who believe that astrology is very scientific (4 or 5 on a scale from 1 to 5), or not at all scientific (1). When the question is asked, astrology is described as "the study of the affect that the signs of the zodiac have on our lives."

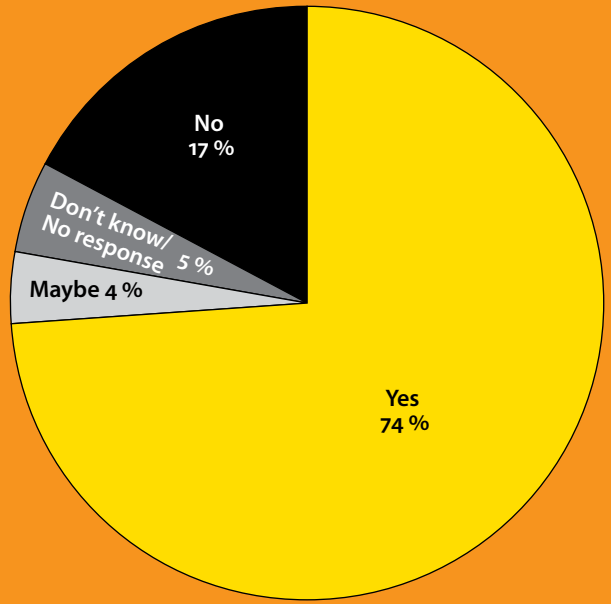


RESEARCH – A GOOD CAREER CHOICE

As we saw on page 6, the public has great confidence in scientists. Most people would also recommend research as a career to their friends and relatives.

Young people under the age of 30 and people with only the nine-year compulsory education are least likely to recommend that someone becomes a researcher; just over six out of ten answered yes.

People with a higher level of education and people between 45 and 59 are the most positive – more than eight out of ten would recommend that someone becomes a researcher.



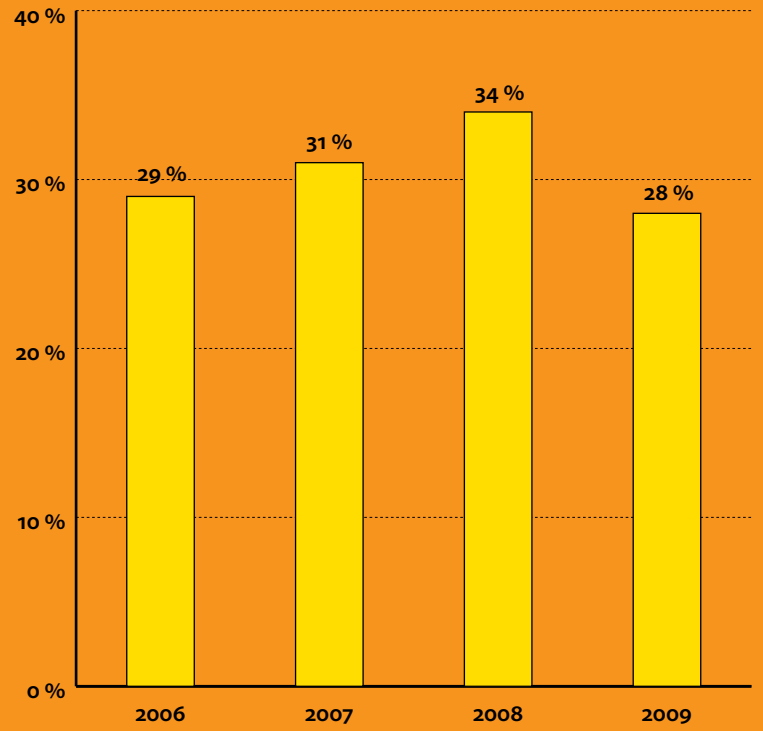
Graph: Would you recommend research as a career to someone you know?

WANING INTEREST IN SCIENTIFIC CAREERS

Young people's interest in becoming scientists in the future has fallen somewhat compared to last year. Three out of ten, 28 percent, answered yes and 10 percent answered maybe. In previous years there has been a greater interest amongst young men than young women, but this year young women were more likely to answer yes (34 percent).

When asked about a career in engineering, the percentages are roughly the same. 26 percent answered yes and 8 percent maybe (while 3 percent are already working as engineers). There is, however, a bigger gender difference. One out of three young men and only about half as many young women answered yes. Seven out of ten girls and half as many boys answered with a definite "No."

Graph: Would you like to work as a scientist in the future? Percentage answering yes. The question was asked of young people between the ages of 16 and 29 years. The percentage who answered "maybe" is not shown in the graph.



DIFFERENCES BETWEEN GROUPS

The most important differences in attitudes between different groups:

- Level of education – the most important factor and the one that makes the most difference. People with a high level of education are in general more positive towards research and scientists than people with a low level of education.

- Young people have less reverence for science and technology than older people and often have more faith in the ability of science to solve problems. Younger people are more likely to think that astrology is a scientific subject.

- Gender is only a factor in certain cases, for example regarding the potential of research to effect economic growth, and which research areas should receive government funding.

VA REPORTS 02–09

2002:1	What do people in other countries think?
2002:2	The public's view of science
2002:3	Researchers' views on dialogue with the public
2002:4	How young people view science
2003:1	Science in society
2003:2	VA studies under the microscope: Perspectives on science 2002
2003:3	How the public views science 2003
2003:4	How researchers view Public & Science*
2003:5	Researchers' views on dialogue with the public
2004:1	Science in society
2004:2	Teachers' attitudes towards science and research-based knowledge
2004:3	How the public views science 2004
2004:4	How teachers view science*
2004:5	Researchers' views on dialogue with the public
2004:6	What do people in other countries think, 2004?
2005:1	Science in society
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2005:3	Eurobarometers on science, 2005
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2006:4	Eighteen voices on the relationship between researchers and politicians
2006:5	Politics and science*
2006:6	How the public views science, 2006
2006:7	Stockholm politicians' view of science
2006:8	Politics and science –a literature survey
2006:9	The public on Carl Linnaeus, 2006
2007:1	Journalists on research
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2007:4	Young people's views on science
2007:5	Young people on knowledge
2007:6	Crazy, confused and evil?
2007:7	Projects with no effect?
2007:8	Knowledge rocks! Summary of a youth study by VA*
2008:1	After the Linnaeus anniversary
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2008:3	Myself as a researcher*
2008:4	The value of knowledge in the business world
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2008:6	VA barometer 2008
2009:1	Science in society
2009:2	VA barometer 2009/10
2009:3	Knowledge you can believe in?
2009:4	ODE – Public Engagement and Dialogue

Reports marked with an asterisk (*) are available in English.

Vetenskap & Allmänhet, VA (Public and Science), is a Swedish association aimed at promoting dialogue and openness between the public – especially the young – and researchers. It endeavours to stimulate greater dialogue around issues that concern people, and to connect these issues to science. VA operates through the broad involvement of its members-organisations, public authorities and institutions, labour confederations, companies, private associations, religious groups and private individuals from across Swedish society. Everyone is welcome to join VA, which is a non-profit association.

vetenskap & allmänhet

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