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VA Barometer 2011/12 – VA Report 2011:4

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BRIGHTER OUTLOOK FOR SCIENCE?

Here are some of the results from VA's latest barometer:

- Confidence in researchers at universities increases following a previous decline
- Fewer people think that science and technology are too difficult for most people to understand
- Four out of ten think Sweden should put more effort into research that has Nobel prize winning potential

The VA barometer is an annual survey of Sweden's attitudes towards research and researchers. This report on the 2011/12 barometer presents results from 1003 telephone interviews and 3000 postal surveys, created and compiled by the SOM institute in collaboration with VA. The telephone interviews were conducted by market research company Novus Opinion between 17th and 21st October 2011. The results are based on a representative sample of the Swedish population aged 16 and over.

LAST YEAR THROUGH SWEDISH EYES...

Fundamental reform needed of the Intergovernmental Panel on Climate Change (IPCC) management structure, according to a review.

A governmental report reveals that **female researchers were treated unfairly** in assessments in research centres of excellence.

The "**Arab spring**" starts in Tunisia in January and spreads to other Arab countries throughout the year.

Strong earthquake and tsunami lead to **melt-down** in a nuclear power plant in Fukushima, Japan.

An **EHEC** outbreak transmitted by sprouts causes the death of several people across Europe.

Space shuttle Atlantis lands for the final time at Kennedy Space Center in USA.

Nobel Prize for literature awarded to the Swedish poet Tranströmer.

Apple's founder **Steve Jobs** dies.

Oct Nov Dec 2011 Jan Feb March April May June July Aug Sept Oct

A professor in Gothenburg is accused of serious **scientific fraud**.

Swedish Research Council introduces **harsher penalties** for researchers committing scientific fraud.

Suicide bomb in the city of Stockholm.

Extremely cold winter and problems with nuclear power plants lead to an **all-time high** for **electricity prices** in Sweden.

Study shows that none of the methods used to **counter bullying** in schools are based on evidence.

The use of a governmental DNA database (**PKU**) in Sweden for purposes other than research without the permission of donors is criticized.

69 young adults murdered on the Norwegian island **Utøya**, a bomb hits governmental buildings in Oslo.

Vaccine against **swine influenza** found to significantly increase the risk of narcolepsy in children.

The Icelandic volcano Grimsvötn erupts. **Ash cloud** causes air traffic trouble across Europe.

Measurement by researchers at CERN seem to show that **neutrinos travel faster than light**.

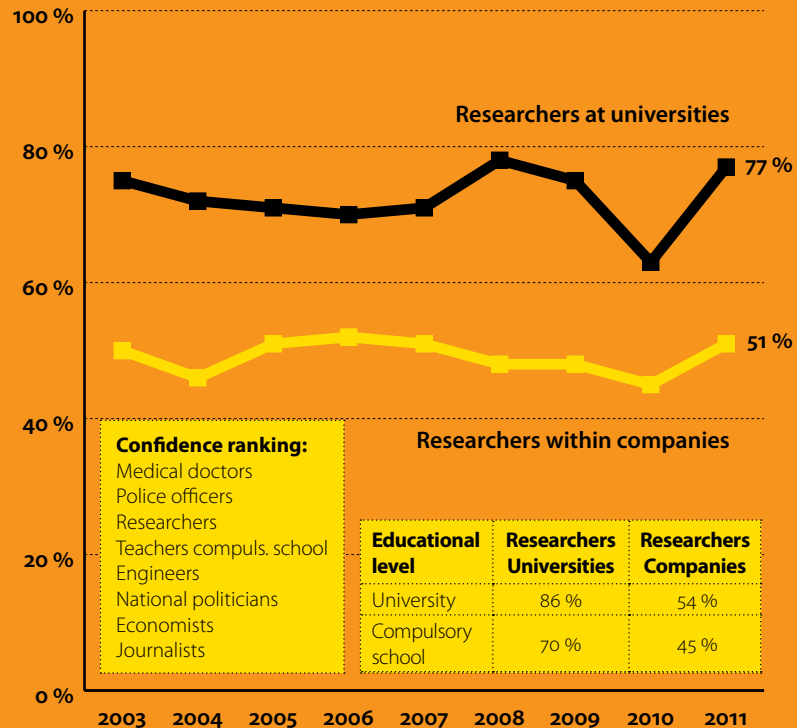
RISE IN CONFIDENCE IN RESEARCHERS

Confidence in researchers at universities returns to a high level after a marked decline in 2010. The level of confidence in researchers within companies also increased, although variations in this have been less significant over recent years.

In studies such as the VA barometer, attitudes are measured on one single day. Media releases immediately before the interviews can have a significant impact on the attitudes expressed. Just before the VA survey in 2010 there were several critical reports relating to the research work of the IPCC. This probably influenced people's responses to the barometer in 2010.

Researchers rank highly for level of confidence in comparison with other professions (see inset table).

*The graph shows the percentages of respondents who answered that they have a **high or very high** level of confidence in researchers.* NO. OF RESPONDENTS: 1 003



SWEDEN A TRUSTING NATION

The table clearly shows a lower level of confidence for researchers within companies than researchers at universities. However, a comparison between countries indicates that Swedes still have a comparatively high level of confidence in their researchers. An analysis of the results ranks Sweden fourth in terms of confidence in science and research and in top position when it comes to confidence in researchers within companies (see right table).

Sweden also stands out when it comes to trust in people in general. Data from the World Values Survey shows that Swedes have the highest level of trust in most people compared to all other countries surveyed. (Delhey et al (2011): How general is trust in “Most People”, Solving the radius of trust problem, American Sociological Review 76(5): 786-807.)

The tables show the ranking of confidence in research based on data from the Eurobarometer and the National Science Board, USA.

Confidence in science and research	
1.	Finland
2.	Denmark
3.	UK
4.	Sweden
5.	The Netherlands
6.	Belgium
7.	Japan
8.	Canada
9.	USA
10.	Italy
11.	Germany

Confidence in researchers within companies	
1.	Sweden
2.	Denmark
3.	Belgium
4.	Finland
5.	UK
6.	The Netherlands
7.	Italy
8.	Japan
9.	Canada
10.	Spain
11.	USA

Source: German Institute for Economic Research, DIW Berlin, 2009.

WHAT INFLUENCES CONFIDENCE?

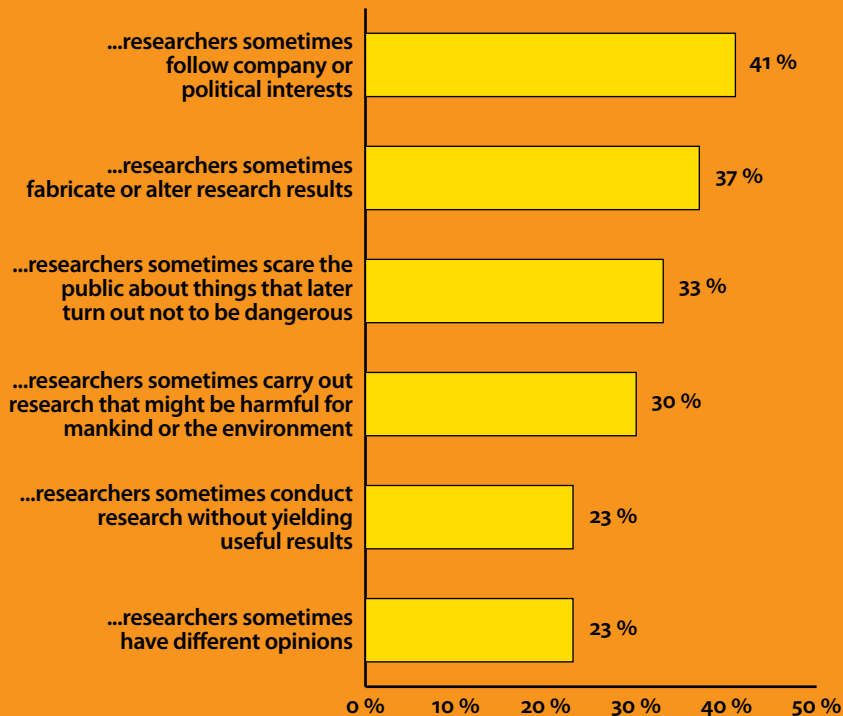
Over the last decade since the start of the VA barometer, attitudes towards researchers have changed continuously. It appears that trust in researchers is easily influenced – but by what? What is it that negatively influences people’s opinion of researchers?

The most important reason for the undermining of trust is researchers sometimes following non-scientific interests, according to those questioned. Only one fifth of the respondents believe that differences of opinion between researchers accounts for lower levels of confidence.

The reasons proposed for decreased trust are based on open answers given in a previous study about why people have high or low confidence in researchers (VA-report 2011:1).

*Graph shows the percentages of respondents who think that ... is something that could have accounted **very much** for the reduced confidence in researchers (on a scale from very much to not at all).*

NO. OF RESPONDENTS: 1 003



FINANCIAL CRISES HARD TO FOLLOW

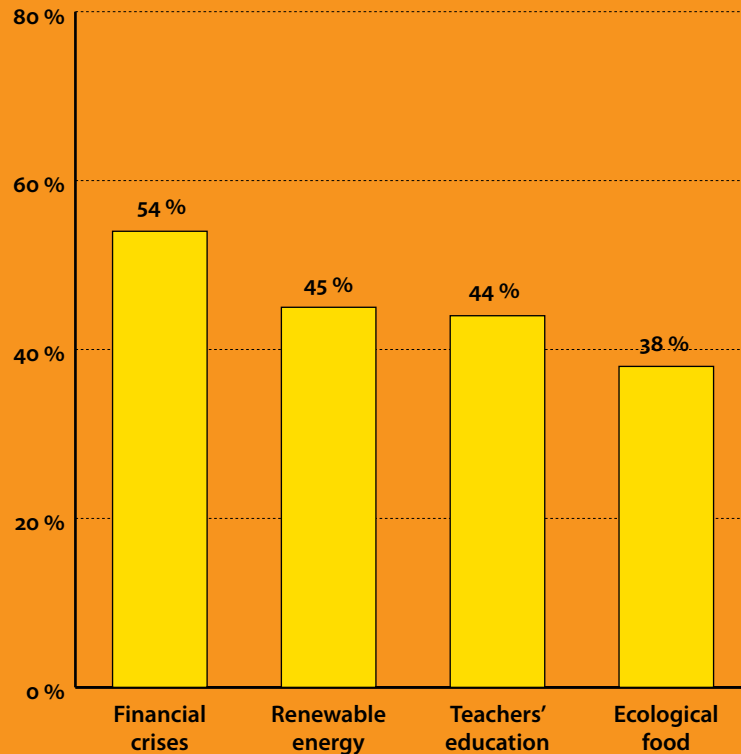
Researchers and other experts often appear in the media by contributing to debates or commenting on news items. But how well does the wider public understand what the researchers are saying?

More than half of respondents think that debates about financial crises are hard to understand. Approximately one third consider discussions about ecologically-produced food difficult to follow.

Results also show that more highly educated people can follow the debates more easily. Older people aged 60 or over have more difficulties understanding the debates. Debates about financial crises and renewable energy are easier for men to follow whereas debates about ecological food and teachers' education are easier for women to understand.

*The graph shows the percentages of respondents who think that it is **very or fairly difficult** to follow debates about... (on a scale from very easy to very difficult).*

NO. OF RESPONDENTS: 1 003



RESEARCHERS IN SOCIETAL DEBATES

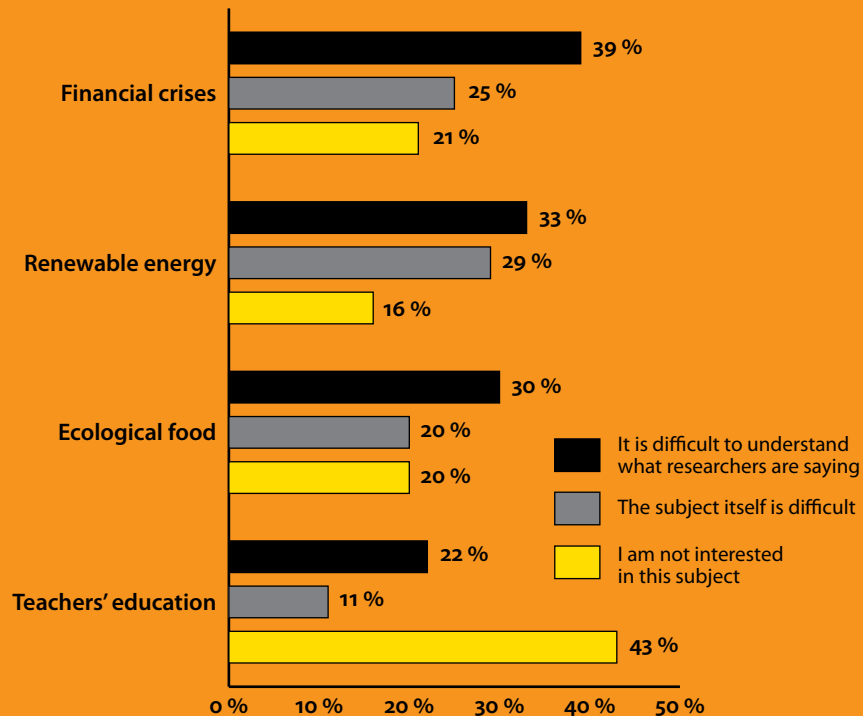
The previous chart shows that many people have difficulties following research-intensive discussions. There are many reasons for this, for example because the subject itself is difficult or a lack of interest. We asked respondents to indicate the reasons why it is difficult to follow the debates.

The most frequent response when asked about following debates about financial crises, renewable energy and ecological food is that it is hard to understand researchers and experts. The main reason given for having problems understanding discussions about teachers' education is a lack of interest in the subject.

Young people show significantly less interest in the research-intensive debates asked about in the survey.

The graph shows the percentage of respondents saying that...is the reason why they have difficulties following each debate (multiple responses allowed).

NO. OF RESPONDENTS: 1 003



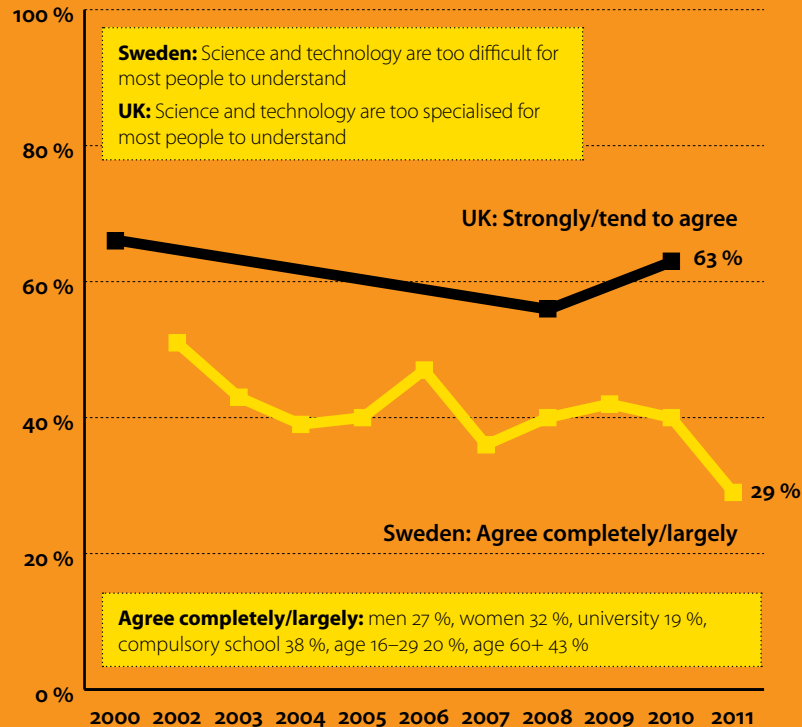
DECREASING “RESPECT” FOR S&T

Only one third of the respondents think that science and technology are too difficult for most people to understand, which represents a clear decrease over recent years. Less educated and elderly people (60+) indicate more often than highly educated and younger people that it is too hard to understand science and technology.

A similar question was posed in the UK: Science and technology is too specialized for most people to understand. In 2010, more than two thirds of the British public agreed with this statement. Although the Swedish and British statements are worded slightly differently, the results suggest that Swedes are less “respectful” towards science and technology than the Brits. (ref. Public Attitudes to Science, Ipsos MORI, 2011).

*The graph shows the percentages of respondents who **agree completely or largely** (Sweden) or **strongly agree or tend to agree** (UK).*

NO. OF RESPONDENTS: 2 103 (UK), 1 003 (SWEDEN)



HIGHEST CONFIDENCE IN MEDICINE

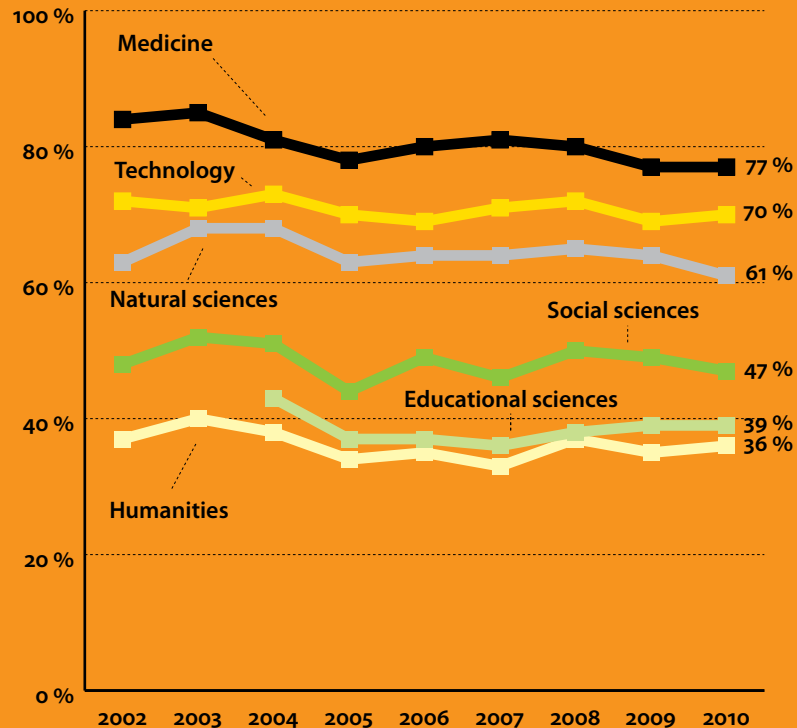
Confidence in research varies widely across different research disciplines. People have the highest trust in medical sciences and the lowest trust in humanities and educational sciences.

However the percentage of people saying they have very little confidence in humanities or educational sciences is very low. Rather, people tend to have no opinion about these sciences and answer “no opinion” or “neither nor”.

These results are in line with findings from earlier VA studies about how scientific the public regards different research disciplines. Medicine was considered “very scientific” whereas only between 20 and 40 percent thought history, philosophy and religious science were “very scientific” (see e.g. VA-barometer 2009 and 2010).

*The graph shows the percentages of respondents who have **very strong** or **fairly strong** confidence in the following research disciplines in Sweden...*

NO. OF RESPONDENTS: 1 582 IN 2010. DATA FROM SOM SURVEYS 2002–2010.



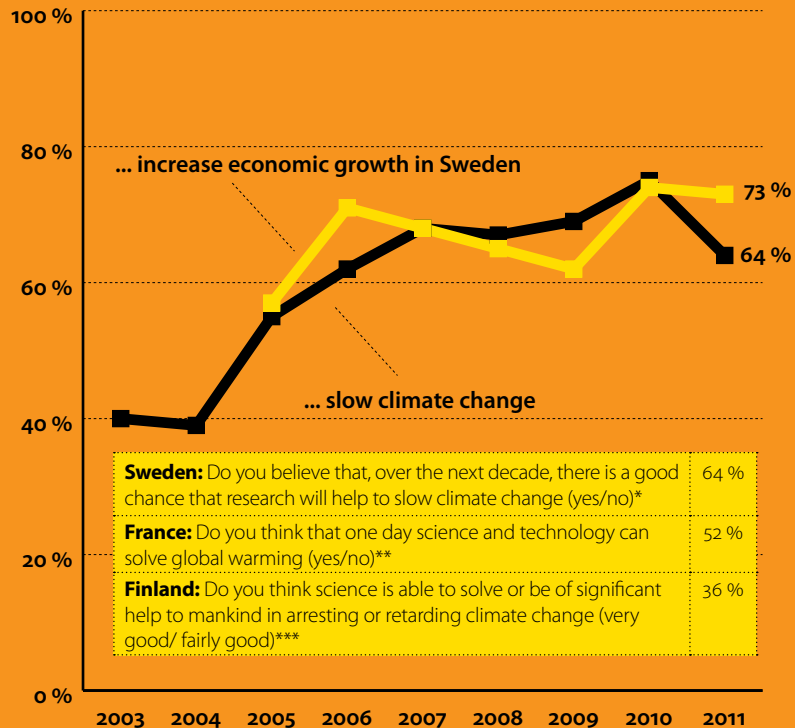
OPTIMISM ABOUT CLIMATE DECREASING

Over the last few years have we seen an increasing level of confidence in researchers, but also a decline in optimism about the potential for science and technology to stop climate change. In comparison with international data, more Swedes need to be convinced than Finns or the French that research and technology can help to stop climate change (see inset table).

Three out of four respondents believe that science and technology can increase economic growth in Sweden which is the same percentage as in 2010. This is also the same level as in the UK where 75 per cent of the Brits say that research contributes to economic growth (Public Attitudes to Science, Ipsos MORI 2011).

The graph shows the percentages of respondents who believe that over the next decade there is a good chance that research will help to...

NO. OF RESPONDENTS: 1 003



Sweden: Do you believe that, over the next decade, there is a good chance that research will help to slow climate change (yes/no)*

64 %

France: Do you think that one day science and technology can solve global warming (yes/no)**

52 %

Finland: Do you think science is able to solve or be of significant help to mankind in arresting or retarding climate change (very good/ fairly good)***

36 %

* VA Barometer 2011. ** Les Français et la Science 2011. *** Finnish Science Barometer 2007.

CONCERNS ABOUT CHEMICALS AND GMO

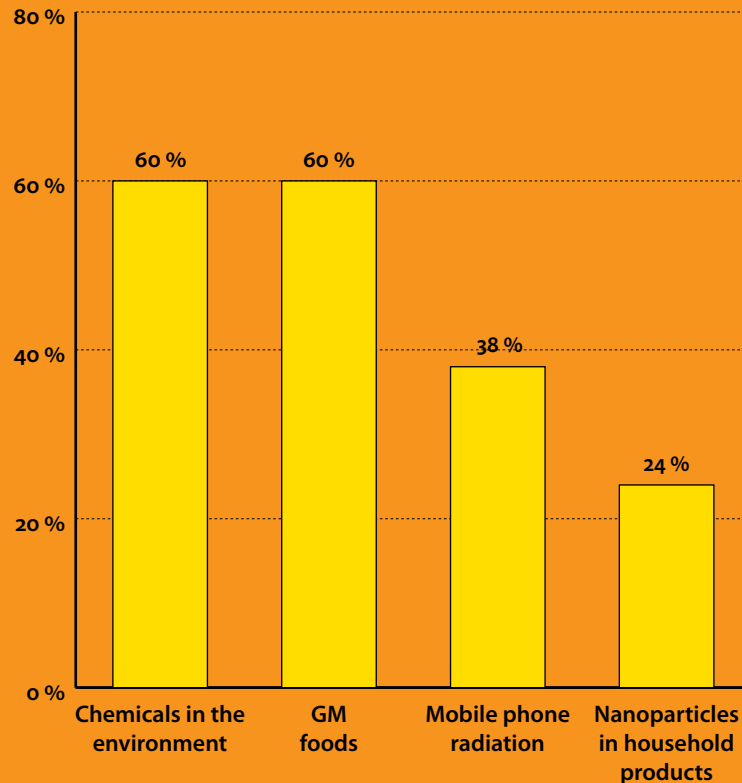
Two thirds of the respondents are fairly or very concerned about chemicals in the environment and genetically modified foods, whereas only one quarter worries about nanoparticles in household products.

Although Swedes are the world's most frequent users of mobile phones, 38 percent of respondents are concerned about radiation from their mobiles.

Women worry more than men about all the issues given. In general, younger people, under the age of 30, have fewer concerns than older people.

The graph shows the percentage of respondents who are very concerned or fairly concerned about... (on a scale from very strongly to not at all).

NO. OF RESPONDENTS: 1 003



PRIORITISATION OF RESEARCH AREAS

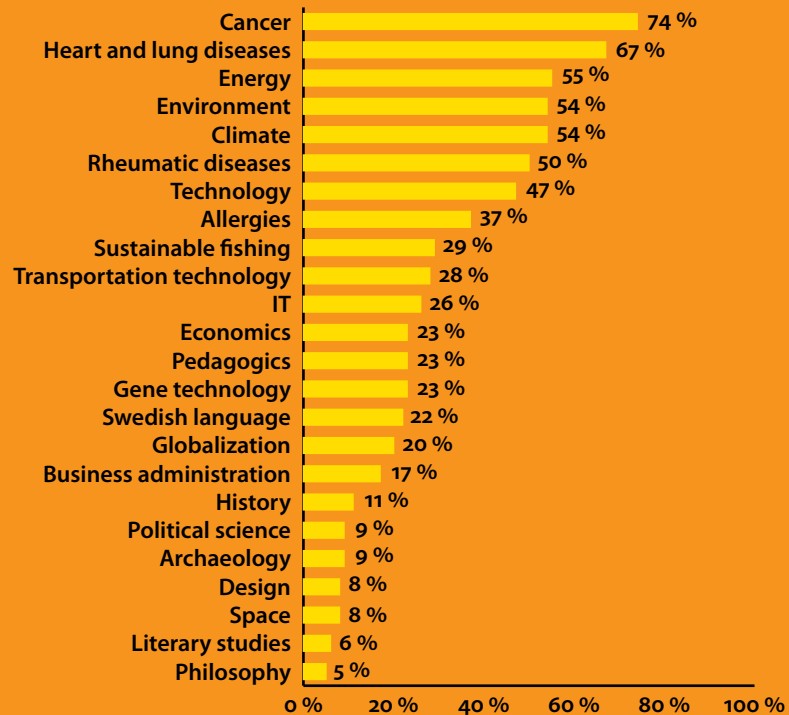
Research that has clear applications is more important than research areas where the benefits are less obvious, according to the majority of those questioned. These results can be compared to the findings about levels of confidence in different research disciplines (p 18).

Respondents with high trust in research and researchers more often think that it is important to spend money on research than those with a lower level of confidence in researchers (VA Report 2011:3).

In general, younger people consider research less important than other respondents. One exception however is that the young (age 16-29) want to see more efforts put into space research.

*The graph shows the percentage of respondents stating that it is **very important** or **fairly important** for Sweden to spend money on world-class research about... (on a scale from very important to not at all important).*

NO. OF RESPONDENTS: 1 582 IN 2010. DATA FROM SOM SURVEYS 2002–2010.



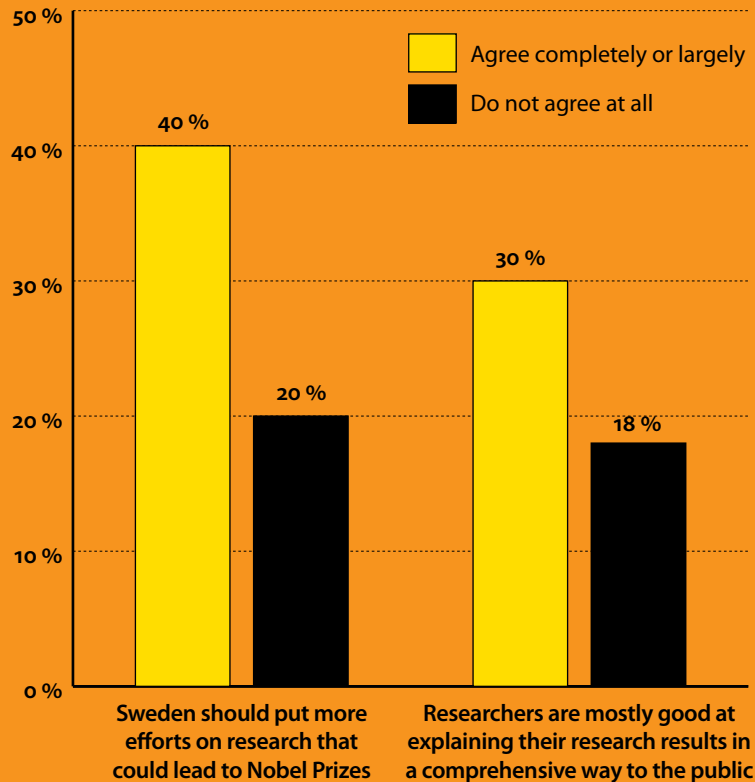
GO FOR NOBEL PRIZE RESEARCH!

Four out of ten people think Sweden should put more effort into research that could lead to a Nobel prize. Only two out of ten do not agree at all. Older people more often agree with the statement, but differences between groups in general are small.

30 percent think researchers are often good at explaining their research results to the public. Surprisingly, people with only a compulsory-level education and older people are more likely to agree, but differences across the genders and age groups are small.

*Graph shows the percentage of respondents who **agree completely or largely** with the respective statements (on a scale from agree completely to not at all).*

NO. OF RESPONDENTS: 1 003



VA (**Public & Science**) is a Swedish association which aims to promote dialogue and openness between the general public – especially the young – and researchers. The association endeavours to stimulate new forms of dialogue in unconventional arenas on issues that concern people, and to connect these issues to science. VA is a non-for-profit membership organisation, with diverse members from across Swedish society including organisations, public authorities, companies, universities and individuals.



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Read more at www.v-a.se