

Europeans are optimistic about biotechnology

A new Europe-wide poll, the Eurobarometer survey on life sciences and biotechnology, shows public support for responsible innovation in life sciences and biotechnology. 53 % of respondents believe biotechnology will have a positive effect in the future, and only 20 % a negative effect. The survey also reveals important knowledge gaps, pointing to a need for more communication.



A majority of respondents had never heard of some of the areas covered by the survey, such as nanotechnology (55 % unaware), biobanks (67 % unaware) and synthetic biology (83 % unaware) while scepticism and concern persist in some areas such as genetically modified foods.

Research, Innovation and Science Commissioner Máire Geoghegan-Quinn said: "This survey tells us three things. First, Europeans are mostly rather positive about biotechnology although they remain uneasy about some particular aspects. Second, many people feel that they lack basic information on important aspects of biotechnology, so there is a major communication challenge. I intend to take it up and I urge all stakeholders to do the same. Third, all decisions on biotechnology should be rooted in sound science and take due account of ethical, health and environmental factors: we cannot be led either by emotional reactions or by short-term commercial considerations. Biotechnology can make an enormous contribution to our Europe 2020 goals of sustainable growth and better health and quality of life, so it will continue to be a key research area under our EU Framework Programmes."

As for previous Eurobarometer surveys on biotechnology, the survey questionnaire was prepared, and the results analysed, by an independent team of expert social scientists, on this occasion led by the London School of Economics. They conclude that there is no rejection of the impetus towards innovation. In general, Europeans are in favour of responsible innovation with appropriate regulation

to balance the market, and wish to be involved in decisions about new technologies when social values are at stake. At the same time, there has been since 2005 an increase in trust in most of the key actors - such as doctors, scientists, the EU, national governments and industry - to do a good job in taking decisions on biotechnology issues. Sustainability considerations have become more important over time.

Among the 53 % of EU residents optimistic about biotechnology, people in the following countries were particularly positive - Estonia 77 %, Sweden 72 %, Finland 69 %. The only Member State where those who felt biotechnology will have a negative effect outnumbered the optimists was Austria – 41 % as against 35 %.

There was strong support across the EU for biofuels. 72 % of respondents supported crop-based biofuels and 83 % were in favour of biofuels made from non-edible material.

There was overwhelming support for medical applications of biotechnology, subject to strict laws. 63 % of respondents approved of embryonic stem cell research, up from 59 % in 2005. 69 % conditionally supported other stem cell research, up from 65 %, and 63 % supported gene therapy compared to 54 % five years ago. Another 15-18 % were prepared to accept the above applications in special circumstances. The countries where most respondents were supportive of these applications overall were the UK, Spain and Denmark.

A clear majority of Europeans (61 %, up from 57 % in 2005) remains broadly opposed to GM food. Respondents cite safety concerns, a perceived absence of benefits and general unease. However, there is cautious support for new 'technolite' generations of GM food applications - for example introducing genes from crab apples into eating apples, with 46 % of respondents in favour as against 38 % opposition.

There was also strong opposition to animal cloning for food with only 18 % supporting this.

The Eurobarometer, carried out in February 2010, is the seventh in a series since 1991 and is based on representative samples from 32 European countries. The analysis of this Eurobarometer is part of the research project Sensitive Technologies and European Public Ethics (STEPE), funded by the Science in Society Programme of the EC's Seventh Framework Programme for Research and Technological Development (FP7).

The report – with summary - data and country fiches are available on the [Eurobarometer website](#).

Figures for Germany (University of Stuttgart press release)

The survey shows that more than half of all Europeans (53 per cent) are currently expecting biotechnology and genetic engineering to have a positive effect on their lives. In Germany, this figure is only 43 per cent. Only Austrians are more sceptical than the Germans. The majority of the European public is opposed to GM food because they believe that it is fundamentally unnatural, not safe for their health, it is seen as offering no benefits and as a cause for concern. Many Germans in particular are concerned about the inequitable distribution of GM benefits and risks between countries, organisations and social groups.

The survey also shows that Europeans are concerned whether genetically engineered products involving gene transfer are safe, however, they are less concerned about vertical gene transfer in which an organism receives genetic material from a related organism than about horizontal gene transfer whereby an organism incorporates genetic material from an unrelated organism. In addition, the Eurobarometer survey also shows that the majority of Europeans are strongly opposed to cloning animals for food.

In common with previous surveys, another key finding of the current Eurobarometer survey is that a

large majority of Europeans and Germans accepts the medical application of genetic engineering, including research involving embryonic stem cells, which is an ethically highly controversial topic. Around 63 per cent of Europeans, but only around 46 per cent of Germans approve of embryonic stem cell research. Europeans are slightly more supportive of adult stem cell research than of research involving embryos (difference of 6 per cent), while more Germans disapprove of research using embryos than that which uses adult stem cells (difference of 14 per cent).

Of particular importance are the Eurobarometer results regarding the application of new technologies. The survey found that the acceptance of controversially debated technologies such as genetic engineering depends largely on whether the public believes that these technologies are adequately regulated. The majority of people are positive about new technologies as long as they are subject to strict legal regulations. Regulation is seen as the task of governments, but the public wishes to be heard on issues of social values. The survey shows that Europeans are inclined to let science prevail over ethics, whilst a higher number of Germans than Europeans in general calls for public involvement in the debate and puts greater emphasis on ethical and moral issues than on scientific excellence as the basis for decisions.

The survey was conducted by scientists from several European countries, including Dr. Jürgen Hampel from the Institute of Social Sciences at the University of Stuttgart.

Press release

28-Nov-2010

Source: Europäische Kommission (11.11.10) / Universität Stuttgart (23.11.2010)