



Concern over communication of nanotechnology in Slovenia

The Slovenian government treats nanotechnology as a national research priority, but the topic is virtually non-existent in the national mass media, according to new research. This lack of information for the public means it is difficult for them to make decisions about the safety of products, the study argues.

The mass media is one of the main routes through which scientific and technological information is communicated to the general public. Nanotechnology has been hailed as one of the most promising modern scientific developments, but with this promise comes a great deal of uncertainty and national newspapers are thought to be critical in shaping public perceptions of the potential risks versus benefits.

The new study explored how the emergence of nanotechnology was covered in the national media between 2004 and 2009 in Slovenia, one of the smallest new EU Member States. The researchers counted the number of articles published by three daily newspapers and recorded how each article was 'framed', i.e. whether it focused on scientific, political, economic or 'ELSI' (ethical, legal, social) aspects.

In general, science and technology is poorly represented in Slovenian media (accounting less than 5% of articles after 2008) and the researchers found that nanotechnology was no exception. Although the number of nanotechnology-related articles increased during the study period, the number remained extremely low, with an average of just 12 articles per year across all three newspapers.

The vast majority of the articles (91.8%) focused on the scientific implications of nanotechnology, 5.5% focused on the economic implications and 2.7 % on the political implications. Of the few articles, the potentially positive aspects of nanotechnology were highlighted more than the potentially negative aspects. None of the articles focused on social, ethical or legal aspects.

Although Slovenian scientists have contributed much to nanotechnology, the fact that the number and content of scientific articles in the Slovenian mass media is somewhat limited indicates that the communication of science in Slovenia lags behind much of Europe. According to the researchers, the fact that just 52% of Slovenians agree that nanotechnology should be encouraged, as revealed in a 2010 study, may indicate that the Slovenian public tend to view nanotechnology as a novelty, rather than the 'strategic technology' that the European Commission identified it to be at the start of 2000. In other EU countries, such as the Netherlands, Denmark, Spain, Italy and Germany, greater media coverage of the social consequences of science has been influential in engendering public awareness and acceptance of new technologies.

The researchers also carried out interviews with eight selected scientists in the field of nanotechnology. In general, the scientists agreed that the media are important in shaping public opinion and that, in turn, public opinion is important in shaping regulations for nanotechnology research. As a result, most of the scientists were dissatisfied with the level and quality of nanotechnology coverage in the national mass media and suggested that this could be improved by increasing journalists' understanding of science. As the study only conducted interviews with scientists, a valuable extension of the analysis could include the viewpoints of policymakers, NGOs, and industry partners.

The interviews confirmed the general conclusions from the media analysis about the need for more open engagement of the public with nanotechnology. Since many nanotechnology products are already on the market, this is important to allow the public to make informed decisions regarding potential effects on health and the environment. On a wider scale, public participation in key policy decisions is an important feature of democracy, say the researchers.

Source: Groboljsek, B. & Mali, F. (2012). Daily newspapers' views on nanotechnology in Slovenia. *Science Communication*. 34(1): 30-56. DOI: 10.1177/1075547011427974.

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