

# The communicating scientist

I. BASICS

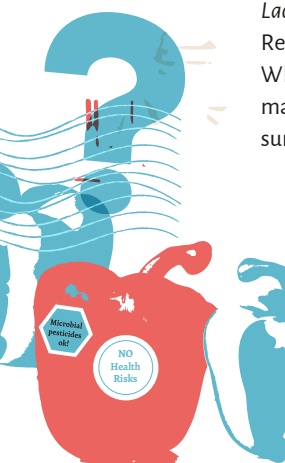
by SERGE HAAN

Around half of all academics appear to be involved in some outreach activities, but only a small percentage are responsible for the majority of activities <sup>[14]</sup>. A study involving US academic biologists and physicists also showed that female scientists are significantly more involved in outreach activities than men (72% of women vs. 42% of men) <sup>[15]</sup>.

Why do researchers engage in SciCom activities? Reasons may include: presenting their own research; ensuring that the public is better informed about scientific issues; increasing the visibility of the institution; contributing to the recruitment of students; meeting the requirements of funding bodies, etc. It is becoming increasingly important for researchers to be good communicators. To raise money for their research, researchers often have to pitch their projects to investors, industry partners or funding agencies. Furthermore, science communication is increasingly seen as an asset in the processes of funding programmes (e.g. narrative CVs).

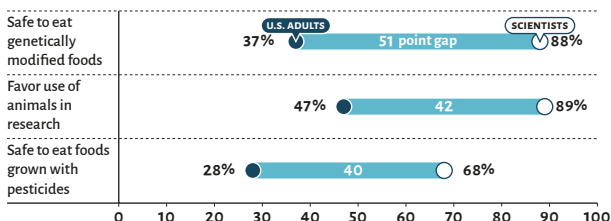
However, there are several barriers that tend to prevent efficient science communication <sup>[16, 17]</sup>:

*Lack of time, institutional support and reward by the research system:* Research is a time-consuming and highly competitive activity. When teaching and administrative tasks are added to the mix, many researchers are reluctant to take on an additional time-consuming task, even if many perceive it as rewarding. The underlying



## Opinion Differences Between Public and Scientists

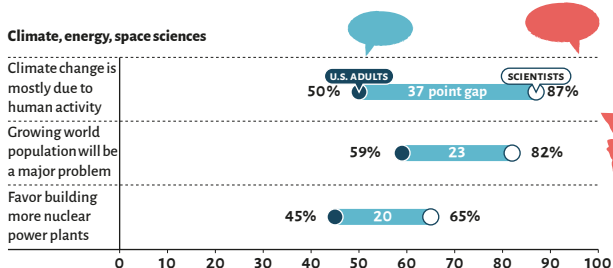
**Biomedical sciences** % of U.S. adults and scientists saying each of the following



(source: "public and scientists' view on science and society". Pew Research Center, Washington, D.C. (2015) <https://www.pewresearch.org/science/2015/01/29/public-and-scientists-views-on-science-and-society/>)

reasons may be a *marginal role of public engagement in institutional strategies and a lack of recognition*, either by colleagues or in the context of evaluations and career development, which tend to focus on scientific output. Obvious solutions are *clear recognition of outreach investments* by institutions and funding bodies to give SciCom its rightful place in modern research culture. Furthermore, the *development of support structures* for SciCom activities is essential for reducing the high initial time investment in developing outreach activities and for coordinating the efforts. Researchers should also seek cooperation, help and advice from professional science communicators, either within or outside their organisation, where possible.

**Lack of skills and training:** It is too easy to say that researchers are not good communicators. Communication towards peers, trainees and students is central to research and teaching. However, many researchers have never been formally trained to communicate in different contexts, and this often affects the communication towards lay audiences, where it is important to stimulate interest, adapt to the audience and hold their attention effectively. When communicating to lay audiences, researchers need to be aware that their perceptions may differ dramatically from those of the audience (see illustration). They also need to understand which tools and approaches are most appropriate for a given audience. Particularly at times when institutions seek to increase their visibility and funding bodies require outreach as a project deliverable, it is vital that appropriate training and support are provided.



#### Recommended reads:

- ♦ Mannino et al. (2021). *Supporting quality in science communication: insights from the QUEST project*. JCOM 20, A07. <https://doi.org/10.22323/2.20030207>.
- ♦ Woitowich et al. (2021). *Assessing Motivations and Barriers to Science Outreach within Academia: A Mixed-Methods Survey*. <https://doi.org/10.1101/2021.10.28.466319>
- ♦ Rose et al. (2020). *Scientists' incentives and attitudes toward public communication*. PNAS, 117: 1274–1276. [www.pnas.org/cgi/doi/10.1073/pnas.1916740117](http://www.pnas.org/cgi/doi/10.1073/pnas.1916740117)