CONNECTING SCIENTIFIC COMMUNITIES WITH JOURNALISTS AND MEDIA ACROSS EUROPE

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Background

EuroScitizen WG4 aims to describe good practices to better link scientific communities with journalists and the media, and consequently to present powerful, stimulating and effective messages that can help strengthen the public understanding of scientific literacy and evolution in particular. To accomplish this (WG4 deliverable 1), a descriptive Europe-wide survey was implemented and a Short Term Scientific Mission (STSM) was carried out to build the data matrix for analysis, prepare the analysis and to perform a first descriptive analysis.

This involved a week of intense work, discussing the universe-sample relationships, the interpretation of multi-choice and open-ended questions, as well as the particular and arduous task of transforming data sets between different platforms that were not 100% format compatible and testing for compatibility with other types of data.

The data here shown are our first outputs and suggest how a further analysis can develop, review and generate materials and/or new data regarding this topic. Our purpose is that this approach will permit identifying good practices to facilitate an improved dialogue between scientists, journalists and the media.

Methods

- A cross-sectional, descriptive and explorative survey was designed to collect data from scientists/researchers and journalists/science communicators working in Europe. Data were collected between September 2021 and February 2022.
- The survey was a designed 39-item instrument, mostly single-choice questions, but also using a few multi-choice and open-ended questions. It was descriptive, to gather information about characteristics and aspects of respondents who either were working in the realm of science, communicating to media/the public, or journalists/science communicators. Few items were designed specifically to be handled by each of the sub-groups, being the majority of the questions answered by everyone. Survey was carried out using Easy-Quest©.
- The survey was distributed through our COST Action members out to their networks and organizations. This had the possible consequence of non-obtaining a representative sample since it was not possible to control our universe. This particularly restricts us from using other than descriptive statistics for our analysis. Format issues (string rather than numerical variables), further enhanced the need (in this preliminary analysis) to use only descriptives'.
- Data was transformed using a mix of Excel©, Word© and SPSS©, version 27.0.1. SPSS© was used to data analysis and Excel© to produce graphs.

'Take-Home' Message(s)

- An easy-to-use questionnaire was developed to assess some critical points of the interface within scientific communities, journalists, and media, across Europe.
- Qualitative analysis results shown here are preliminary and contribute positively to the establishment of first-hand materials for the understanding of this interface and creating future best practices.
- These data provide interesting insight for a further intervention approach (e.g. obtain a more supported correlation within all countries; further adjustment on the questionnaire).

ACKNOWLEDGEMENTS

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Study participants characterization:

A total of **n=361** respondents, from **n=38 countries** (Figure 1).

Three requests for cooperation were sent to improve the response rate.

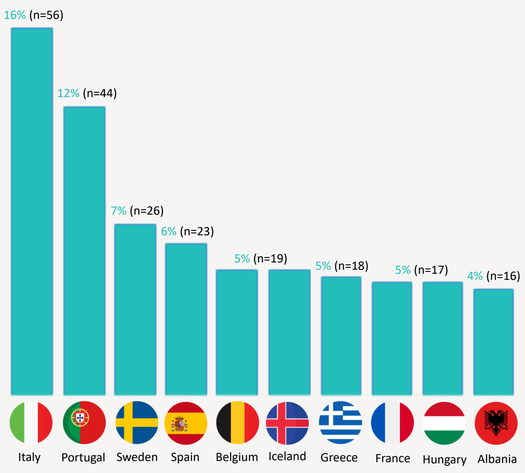


Figure 1. Representation of the most common (n=10) countries of the study. These countries were followed by Poland, Serbia, Czech Republic, The Netherlands, Turkey, Estonia, The Netherlands, United Kingdom, Bosnia and Herzegovina, Finland, Germany, Switzerland, Bulgaria, Canada, Cyprus, Austria, Democratic Republic of Croatia, Denmark, Israel, Macedonia, Malta, Mexico, Moldova, North Macedonia, Norway, Singapore and USA, in a lower expression.

Key findings:

- 52% of respondents indicate that **science communication can be studied in their countries**, 18% that it can´t, and 30% don't know.
- 55% of respondents **do not consider that is correct to assume that science communication is the main element of their current work**, and 44% assume it is.
- 58% of respondents reveal that **science communication is not a rewarded and/or a required component of a scientific career** (Figure 2).

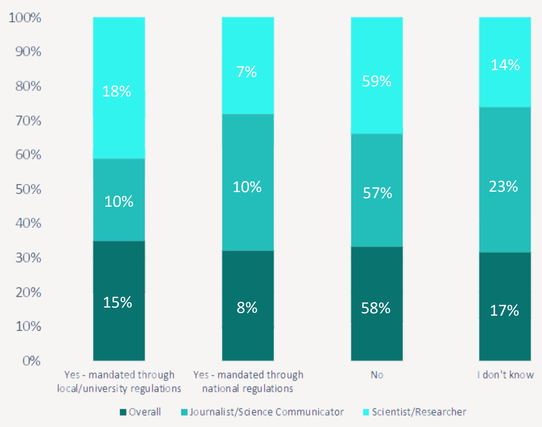


Figure 2. Relation between science communication and its prerequisites as a component of a scientific career. Data also shows results from cross-tabulation with Journalists/Science Communicators and with Scientists/Researchers.

- According to our general data **the most common educational background** for someone to work as a science communicator/science news reporter is **to have an "*education in science*"** (Figure 3). In addition, according to our respondents, **science communication can be studied as a "*separate program from science and journalism*"** (Figure 4).

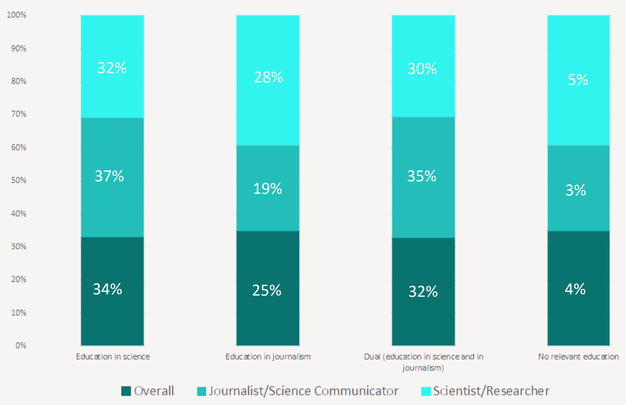
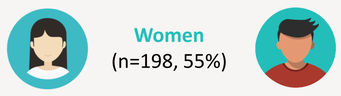


Figure 3. Correlation between '*educational backgrounds*' for someone who works as a science communicator/science news reporter. Data also shows results from cross-tabulation with Journalists/Science Communicators and with Scientists/Researchers.



Most common **age category**: 35–44 years (n=128, 35%)

Most common **education profile**: Post-graduated (Ph.D.) (58%) followed by 36% Graduated, 4% Undergraduate (Bachelor), and 1% with no formal higher education completed

Scientists/Researchers (n=233, 65%)

Journalists/ Science Communicators (n=128, 35%)

- work in the media as a science/research journalist (40%)
- work in research/science as a press officer/science communicator (58%)

Most common **working profile**: Researching or teaching at a University or Research Institution (n=194, 54%)

Followed by: *Others* (n=70; 19%); *Independent science communicator or science popularizer (self-employed)* (n=21; 6%); *School teacher (primary or secondary level)* (n=16; 4%); *Students* (n=16; 4%); *Science-center staff* (n=15; 4%); *Educator at an outreach institution* (n=13; 4%); *Journalist* (*employed* - n=31; 9%) (*freelancer* - n=13; 4%); *Independent researcher (self-employed)* (n=7; 2%).

16% were members of the COST Action
18% were not members but they know about the Action
65% were not members and didn't know anything about the Action

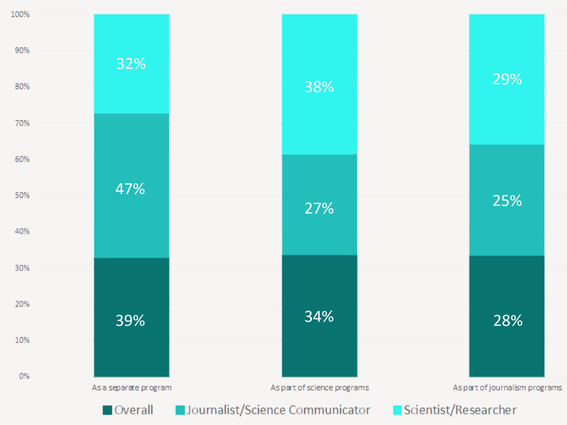


Figure 4. Correlation between how science communication can be studied. Data also shows results from cross-tabulation with Journalists/Science Communicators and with Scientists/Researchers.

- 51% of respondents consider that **people are not particularly interested in science news** and only follow 'hot stories'.
- 73% of respondents reveal **knowing some of their country's popular science celebrities** and 63% expressed **knowing some citizen science projects**.
- It seems to be a roughly equal distribution (50%) related to media types that cover science/research issues (e.g. newspapers, TV, radio, blogs, social media and online sources), except for journals/magazines, for which journalists/science communicators respondents distinguish it as 80% and scientists/researchers as 63%.
- In the opinion of our study participants (61%), the **public does not know how to distinguish verified scientific news from unsupported facts/hearsay/false information**, and 32% stress that they generally know, but not always.
- 61% of respondents **have dedicated or permanent contacts with scientists or press officers** at Universities or Research Institutes.
- 68% of scientists/researchers respondents do not have personal knowledge of any science communication or science journalism association, and 77% of journalists/science communicators study participants have.
- The majority of our study participants (89%) **use social media** (Facebook, Twitter, YouTube, Instagram) **to learn about science news**, and analysis from cross-tabulation seems to correlate it more with journalists/science communicators than with scientists/researchers.
- 54% of scientists/researchers promote (often or sometimes) their science through the Social Media (e.g., Facebook, Twitter, YouTube, Instagram), whereas 26% seldom and 20% never do.

More about our reflections on quantitative vs qualitative data analysis

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