



# Barriers to and Opportunities for Reaching Audiences



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# Lecture overview

Background

Objectives and approach

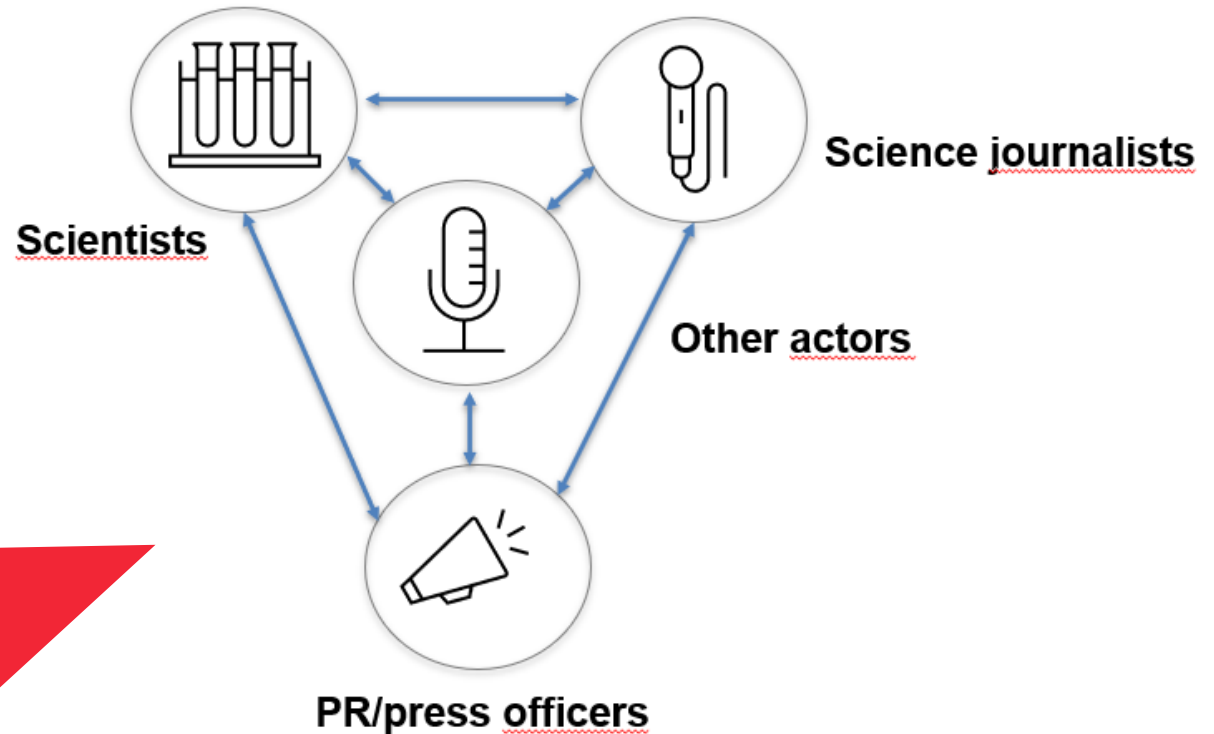
Which audiences and why?

Barriers to science communication

Outlook: Developing science communication roles as an opportunity for science communication

## Background

‘The new ecosystem will be richer, more diverse and immeasurably more complex because of the number of content producers, the density of the interactions between them and their products, the speed with which actors in this space can communicate with one another and the pace of development made possible by ubiquitous networking’ (Naughton, 2006, p.10)



# Objectives and approach

## Questions of focus

- How to reach audiences and get them involved in dialogue?
- What enables and hinders dialogue and interaction between science and society in the digital media environment?

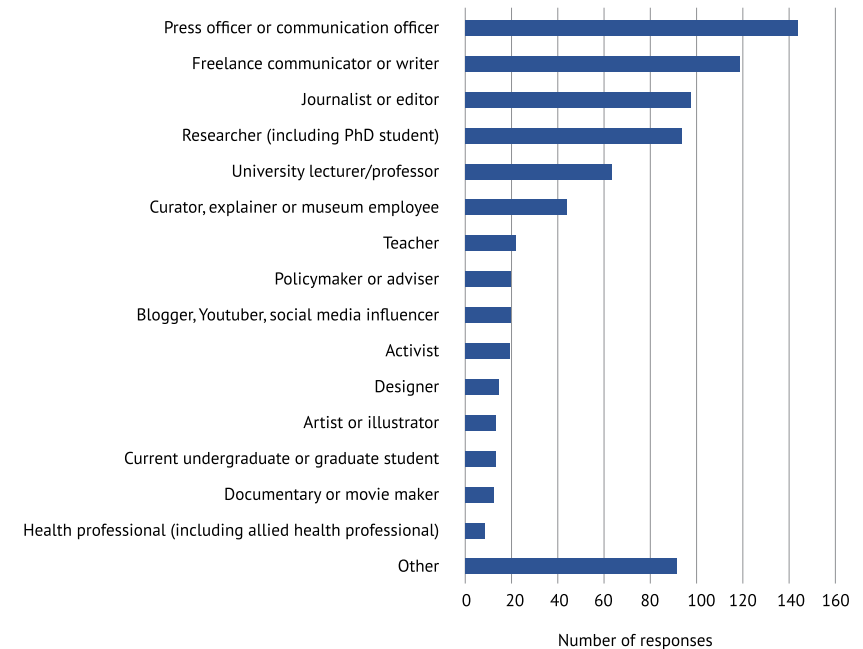
## Objectives

- Investigate **working practices, motivations of and barriers faced by** actors communicating science, technology and/or health.
- International comparison, focus countries: Italy, the Netherlands, Poland, Portugal, Serbia, Sweden and the UK.

# Objectives and approach

## Methodological approach:

- 1) **Survey** of science communicators (n = 778)
  - different actors to map the diversifying landscape
- 2) **Case studies** with science communication practitioners, including
  - group and plenary discussions
  - activity sheets to characterise communicators' work



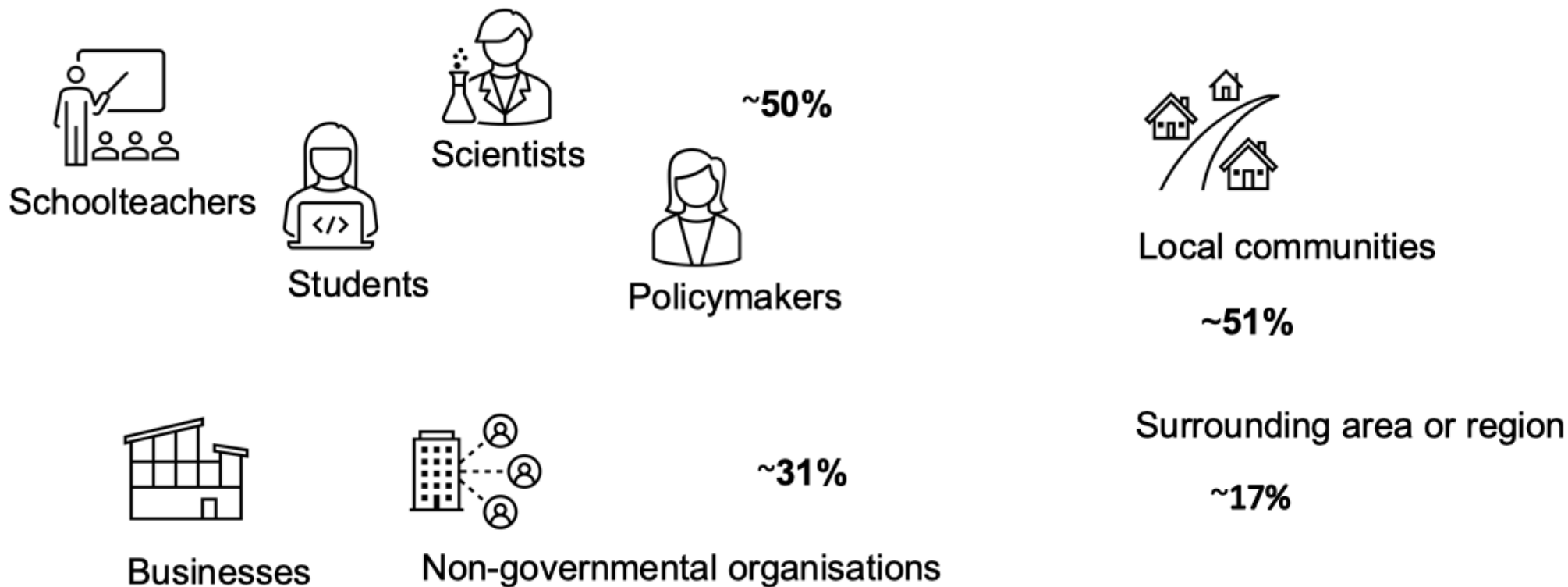
Frequency of responses for each category of professional roles.  
Q) How would you describe yourself? Please, select a maximum of three answers. Milani et al. (2020a), p. 14

## Which audiences, and why?

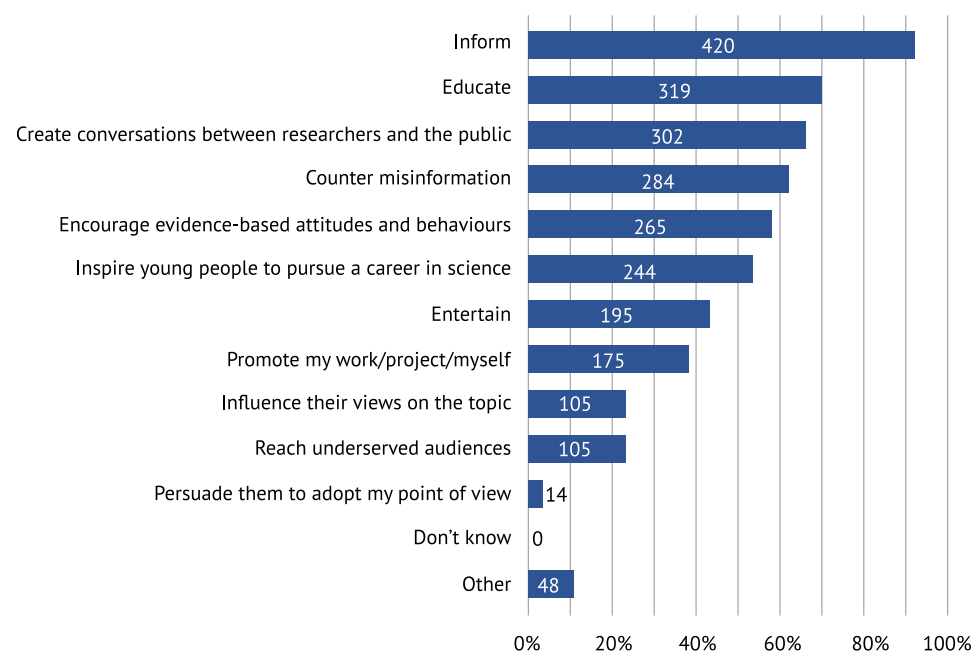
The term 'audience' is used here in a broad sense to denote all recipients of (science) information, while recognising that they may have played a role in seeking out information or contributing towards its development to varying degrees.

**'The term "the audience" can be contentious in itself.'**  
**(Wilkinson & Weitkamp, 2016)**

### Which audiences, and why?



## Which audiences, and why?



What the respondents are trying to achieve when they communicate about science, technology and/or health topics. Q) When you communicate about science, technology, and/or health, what are you trying to achieve? Tick all that apply. Total respondents 462. Dark blue bars – percentage of respondents who ticked the choice. The frequency of responses for each category is shown in the labels.

Priority of replies	1st2	nd	3rd	4th	5th
Inform					
Educate					
Create conversations between researchers and the public					
Encourage evidence-based attitudes and behaviour					
Counter misinformation					
Entertain					
Inspire young people to pursue a career in STEM					
Promote my work/project/myself					

Italy  
 the Netherlands  
 Poland  
 Portugal  
 Serbia  
 Sweden  
 the UK

Priority of replies for each country about what the respondents are trying to achieve when they communicate about science, technology and/or health topics.



# Barriers to science communication

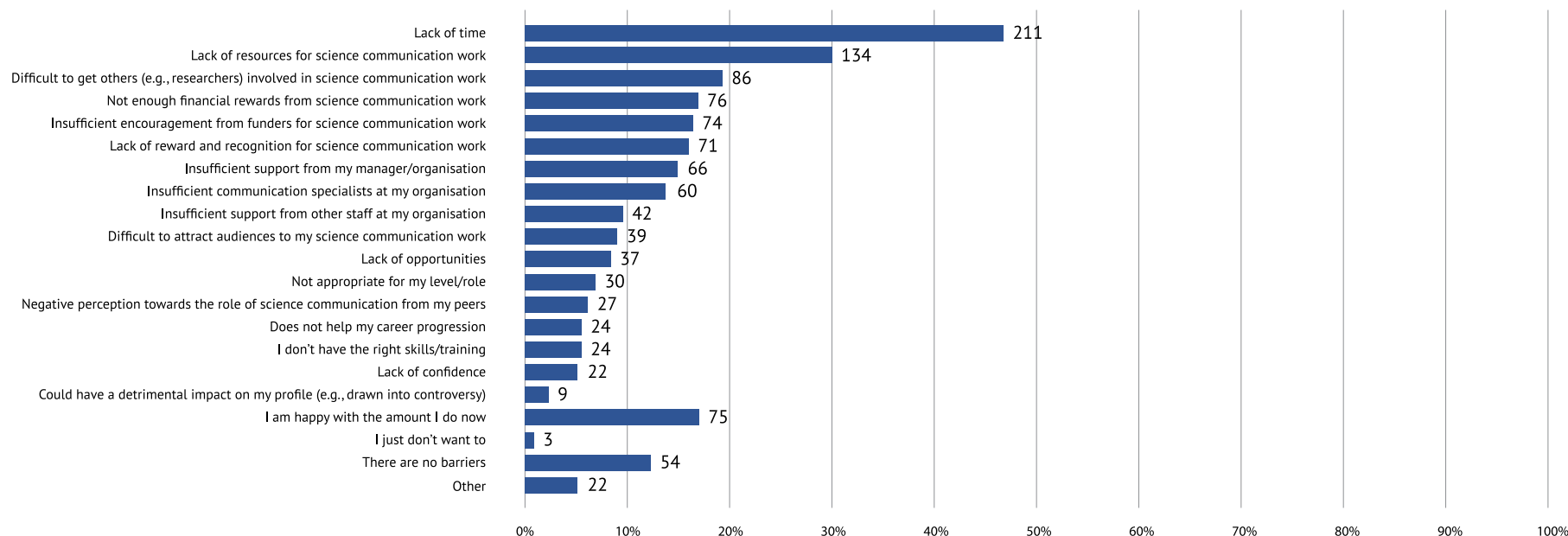
## 1) Barriers to science communication

What are the barriers that stop science communicators communicating?

## 2) Barriers to communication in general

What are the barriers to communication itself?

### Barriers to science communication



Barriers to communicating science, technology and/or health topics. Q) Which of the following are the most important reasons that prevent you from getting more involved in activities to communicate science, technology and/or health topics? Select a maximum of three choices.

Total respondents: 449. Dark blue bars – percentage of respondents who ticked the choice. The frequency of responses for each category is shown in the labels.

Milani et al., 2020a, p. 24

# Barriers to science communication

Sense of **disconnect with audience**.

In practice, **no two-way interaction** between communicator and audience in digital or social media.

- competition for attention
- audience targeting
- time constraints and speed of online communication
- overall communication habits
- prejudice against science communication, lack of interest

Connections are not equal across all levels of society: A **linear relationship** persists.

## Outlook: Developing science communication roles as an opportunity for science communication

The term 'role' is used to describe a characterisation of the activities of an individual engaged in science communication as they seek to encapsulate several aspects of what they do (Pielke, 2007).

Shifting roles of science communicators (e.g. Fahy & Nisbet, 2011)

- civic educator
- watchdog
- 'bridge builder' (Turnhout et al., 2013)

**Developing science communicators' roles as an opportunity to foster mutual exchange between science and society.**

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# Thank you for your attention!



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