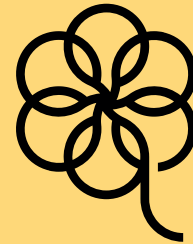


SCIENCE COMMUNICATION ON SOCIAL MEDIA

Good
practices



quest

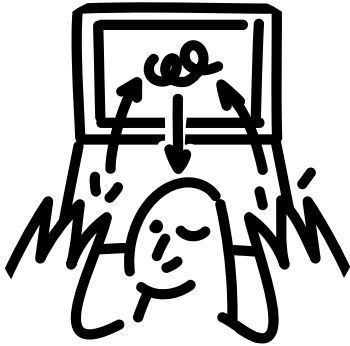


This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 824634

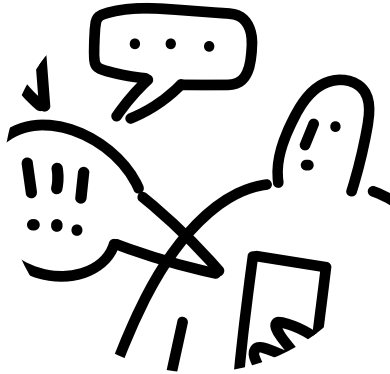
TABLE OF CONTENTS

The Social Media Landscape	3
Disintermediation	4
Infodemic	5
Polarisation	6
Science Communication on Social Media	8
Quality	9
Effectiveness	10
Quest Tips	12
3Ts: Type, Text and Time	12
A 4th T: Topic	13
Quest Checklist	14

THE SOCIAL MEDIA LANDSCAPE



Disintermediation



Infodemic



Polarisation

DISINTER-MEDIATION

The Internet and social media have deeply transformed the information landscape as a whole, including science communication. The Internet allows the public to have direct, total and generally free access to any kind of scientific content, often without any intermediary, neither a professional in the field, nor a journalist.

At the same time, social media enable scientists and communication practitioners to reach the general public without the need of any intermediaries (e.g. the press).

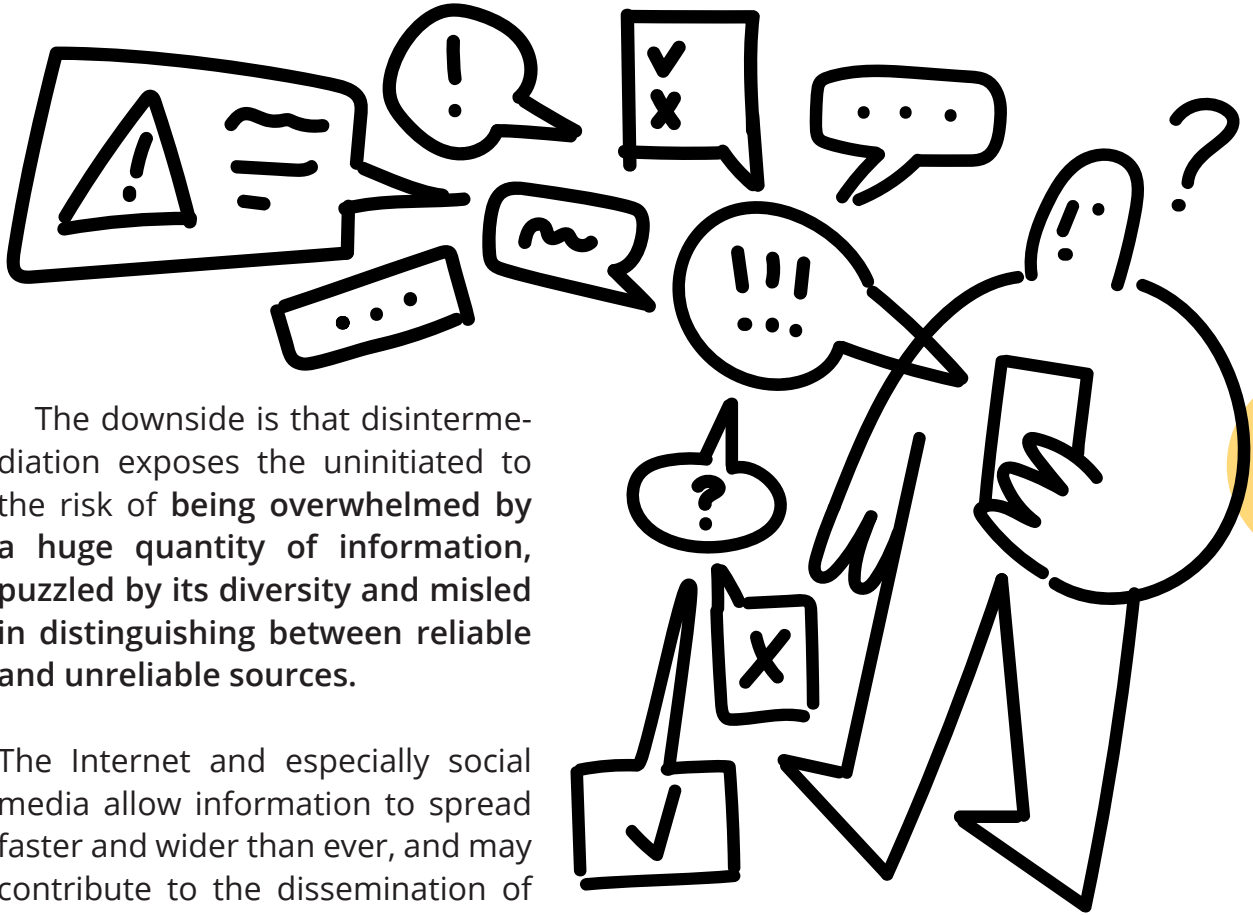
Therefore, despite being often considered as a threat to good information, such disintermediation may also pave the way to new opportunities for experts willing to disseminate and communicate science.



INFODEMIC

The downside is that disintermediation exposes the uninitiated to the risk of being overwhelmed by a huge quantity of information, puzzled by its diversity and misled in distinguishing between reliable and unreliable sources.

The Internet and especially social media allow information to spread faster and wider than ever, and may contribute to the dissemination of unreliable information.

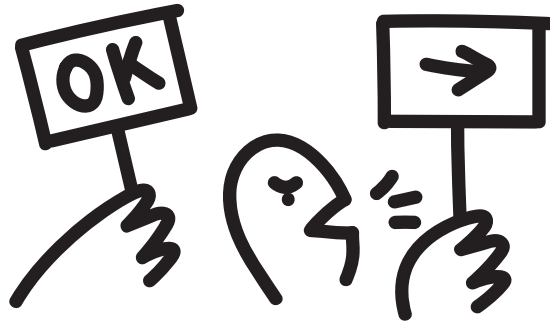


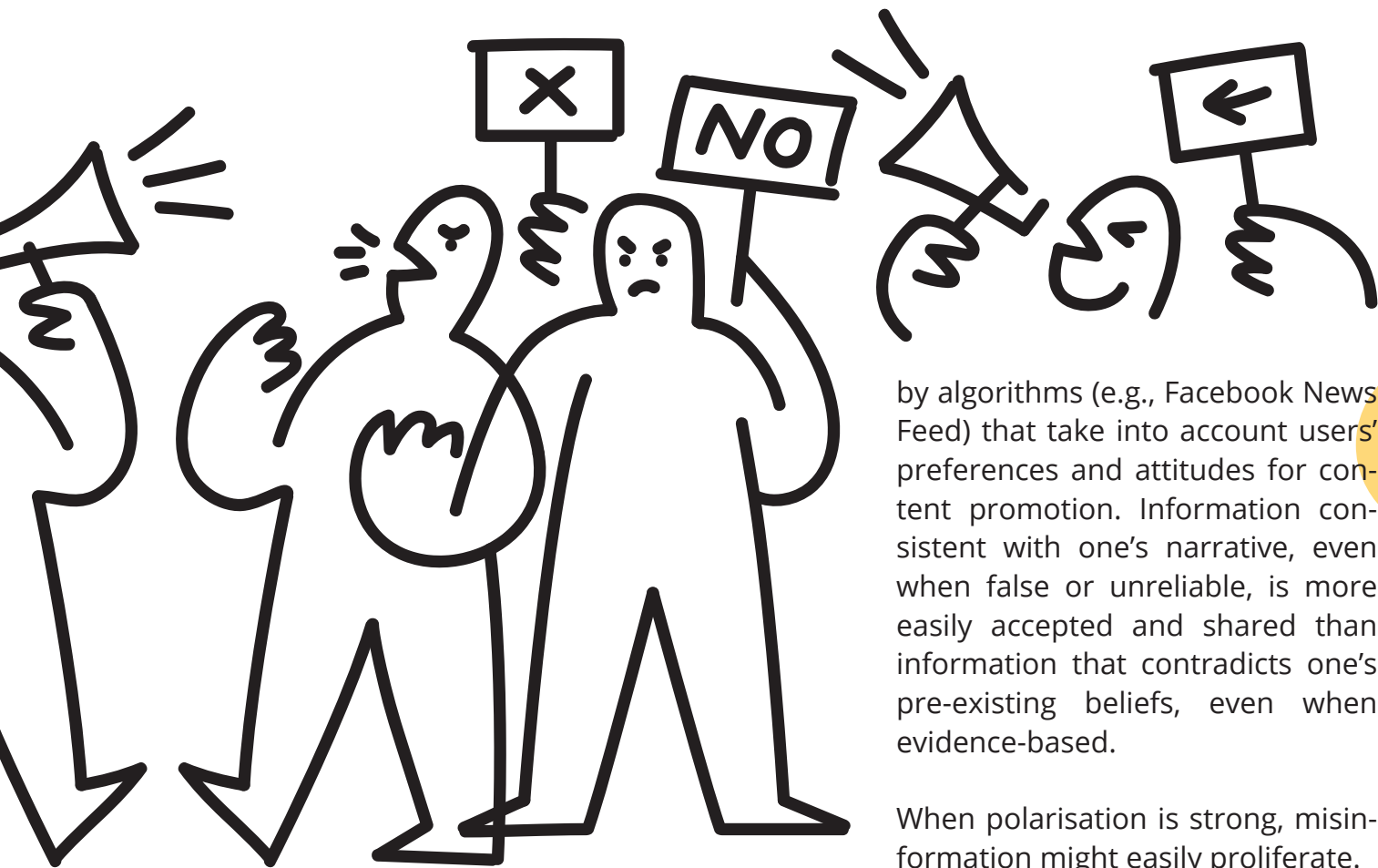
POLARISATION

Users on social media tend to aggregate in polarised communities of like-minded individuals who share a similar worldview, the so-called echo chambers or filter bubbles.

Immersed in these communities, users acquire information adhering to their values, prejudices and system of beliefs, and ignore information dissenting from their worldview.

Polarisation and echo chambers on social media may be fostered





by algorithms (e.g., Facebook News Feed) that take into account users' preferences and attitudes for content promotion. Information consistent with one's narrative, even when false or unreliable, is more easily accepted and shared than information that contradicts one's pre-existing beliefs, even when evidence-based.

When polarisation is strong, misinformation might easily proliferate.

SCIENCE on social media COMMUNICATION

8 Disintermediation, infodemic and polarisation are key dynamics in science communication, especially for issues with a big impact on society and everyday life.

Topics such as **vaccines, climate change and artificial intelligence** are linked to strong personal values, interests or ideology, and can also touch people's deepest emotions.

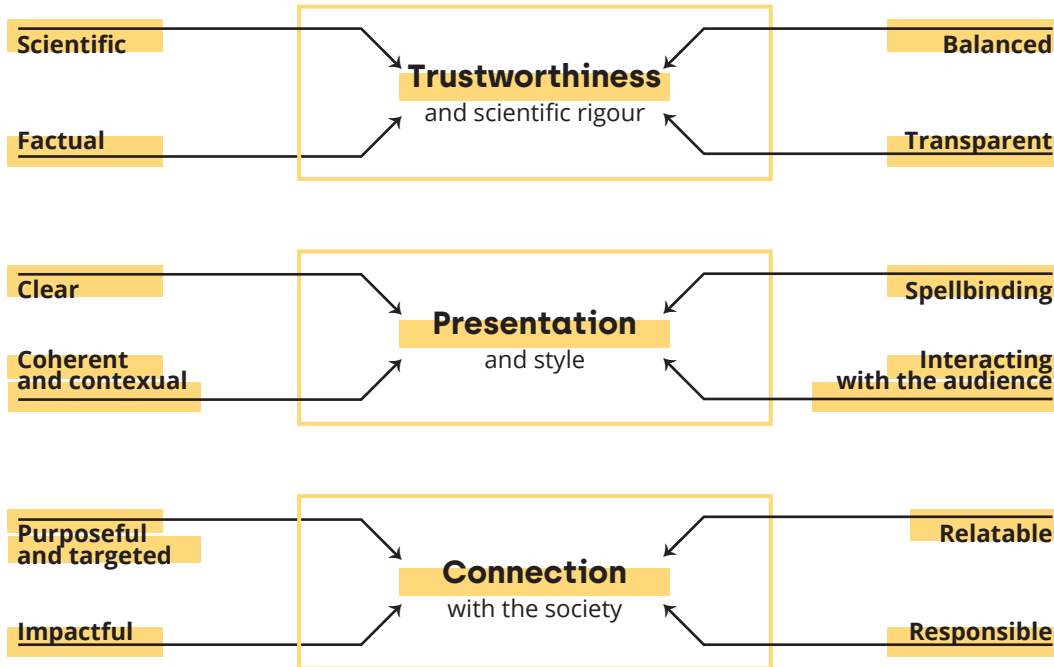
This is the reason why these three topics were selected as case studies within the QUEST project to investigate the landscape of science communication in Europe and on social media.

Based on co-design activities with dozens of diverse stakeholders in 7 European countries the QUEST project team defined 3 pillars and, within them, 12 indicators of quali-

ty in science communication, also relevant for social media.

QUALITY

12 quality indicators for Science Communication

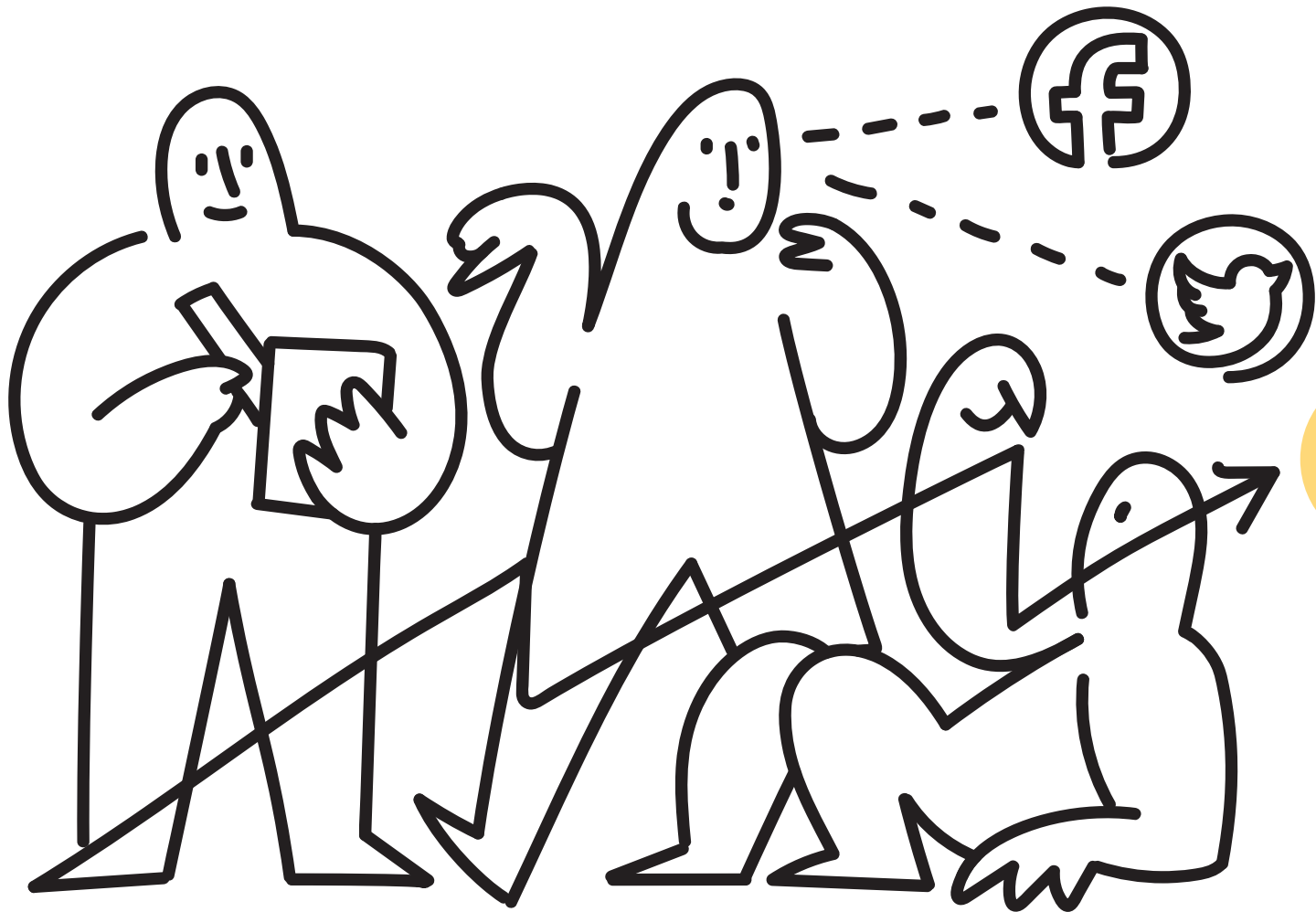


EFFECTIVE- NESS

From the analysis of data related to more than 2M tweets and posts across 7 countries from 498 Facebook pages and 661 Twitter accounts from a variety of diverse sources (i.e., Science Festivals, Industries, Institutions, Magazines, Science Journalists, Experts, Scientists, and Universities), the QUEST team discovered patterns associated with greater user engagement on social media, in general and in relation to the three QUEST topics, i.e., vaccines, climate change and artificial intelligence.

Practical tips based on these patterns and the above-mentioned indicators were tested on the field, allowing to improve the quality of communication and its effectiveness in terms of engagement.

Moreover, these tips were further refined according to the direct feedback of communication practitioners.



QUEST TIPS

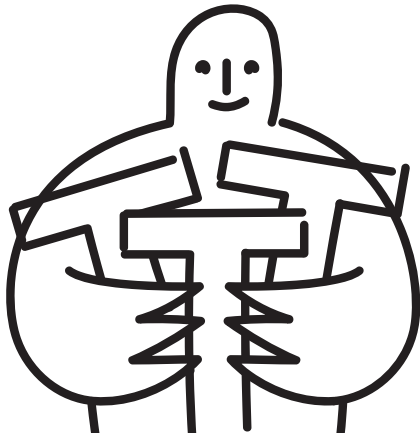
FOR SCIENCE COMMUNICATION

QUEST 3Ts

When using social media, keep in mind that your choices can impact users' engagement and reach.

Pay attention to:

- **TYPE** of content (such as text, picture, link, video)
- **TEXT** characteristics (length, use of hashtags, mentions, use of links, etc..)
- **TIME** of posting (hour of the day or day of the week)



**3Ts: Type,
Text, and
Time**

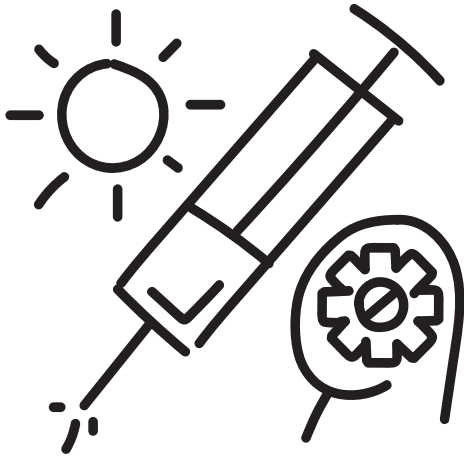
QUEST TIPS

FOR SCIENCE COMMUNICATION

A 4th T – Topic

Don't forget that target audience may change according to the Topics (e.g., vaccines, climate change and artificial intelligence).

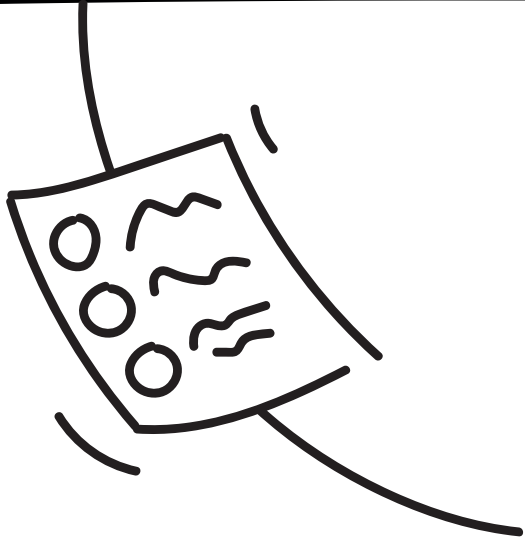
Remember to adapt your communication strategy to your public's habits and use of social media, e.g. in terms of the 3Ts.



**Vaccines,
Climate Change
Artif. Intelligence**

QUEST TO SELF-ASSESS QUALITY IN SCIENCE COMMUNICATION CHECKLIST

14



Trustworthiness And Scientific Rigour

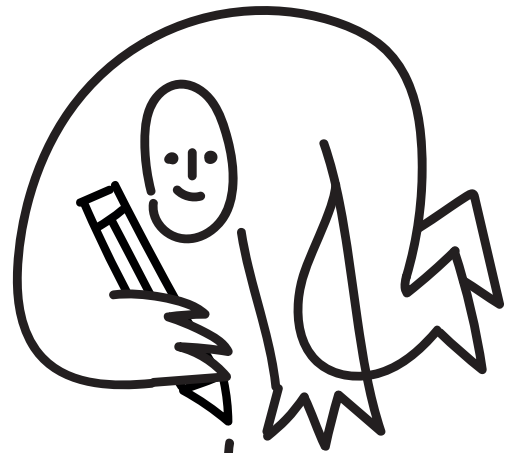
- ✓ Fact-check content
- ✓ Link references/sources in your content
- ✓ Disclaim any conflict of interest (that concern you or others)
- ✓ Consider gender balance (e.g., when selecting interviewees)

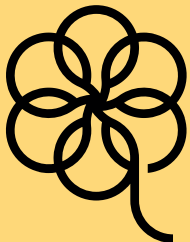
Presentation And Style

- ✓ Use narrative/storytelling
- ✓ Include a call to action (e.g., ask questions, invite to post and/or do something)
- ✓ Ensure that the content and its structure are consistent (e.g., title, pictures)
- ✓ Ensure that the language is clear (to your target audience)

Impact On Society

- ✓ Address real life issues
- ✓ Aim at changing users' behaviours (e.g., stop smoking, vaccinate their children, care for the environment, trust new technologies)
- ✓ Target/tailor your message to a specific group of users
- ✓ Follow ethical standards and/or consider social responsibility of your content





quest

questproject.eu

QUality and Effectiveness in Science and Technology communication

is a 24 months EU-funded H2020 SwafS Program Project, involving 8 partners from 6 countries.

It aims at mapping current situation of science communication in Europe within journalism, social media, museums, assessing best practices and defining quality, suggesting incentives in policies and developing and testing innovative solutions in education and practice.

All of this is made through a co-design approach and a validation by diverse stakeholders involved in most activities.

Contributors:

- Enrico Costa, Ana Lucía Schmidt, Roberta Villa, Fabiana Zollo (Ca' Foscari University of Venice)
- Arko Olesk, Berit Renser (Tallin University)
- Venice International University (Italy)
- Norwegian University of Science and Technology (Norway)
- CITY University of London (UK)
- Ca' Foscari University of Venice (Italy)
- Tallinn University (Estonia)
- WAN-IFRA FR (France)
- Science Gallery Dublin - Trinity College Dublin (Ireland)
- Agency for the Promotion of European Research (Italy)