Deliverable 1.4

Short policy brief RP1

HOW TO SUPPORT A HEALTHY SCIENCE COMMUNICATION ENVIRONMENT?

Version 1.4

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ENJOI - ENgagement and JOurnalism Innovation for Outstanding Open Science Communication
This project received funding from the European Union's Horizon 2020 Research and Innovation program under Grant Agreement n°101006407
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REVISION HISTORY

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QUALITY ASSURANCE

To ensure the quality and correctness of this deliverable, we arranged an internal review and validation process. The deliverable was drafted by the work package leader (formicablu). All partners contributed and reviewed the overall draft. Finally, the final version was submitted to the project coordinator for a final review and validation.

DISCLAIMER

This deliverable contains original, unpublished work except where clearly indicated otherwise. It builds upon the experience of the team and related work published on this topic. Acknowledgement of previously published material and others' work has been made through appropriate citation, quotation, or both. The views and opinions expressed in this publication are the authors' sole responsibility and do not necessarily reflect the views of the European Commission.

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Media ecosystem is undergoing a **crisis of trust and accountability**, as clearly shown by the recent pandemic. Reversing this trend is crucial to effectively tackle challenges such as global health, climate change, AI and many others that are looming large. These issues can only be dealt with within a framework of **policies and actions properly informed by science**, allowing all relevant stakeholders to decide and act on the basis of evidence.

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The **main objective of this Short Policy Brief** is to present some challenges detected by the ENJOI Consortium while investigating the challenging issue of effectively communicating Science to Society as a whole in a transparent, reliable, effective and useful way.

This document provides balanced information to policymakers and others interested in **formulating or influencing specific policies** to address issues that have arisen during the first 18 months of research in the ENJOI project.

This Short Policy Brief is also intended **as a living document** and will be updated at the end of the project and complemented by other material produced throughout the next year and a half of project activity and beyond.

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2. ENJOI CONTRIBUTION TO SCIENCE COMMUNICATION

ENJOI (ENgagement and JOurnalism Innovation for Outstanding Open Science Communication) explores and tests **engagement as a key asset** of innovation in science communication distributed via media platforms, with a strong focus on journalism.

Through a combination of methodologies and in collaboration with producers, target users and stakeholders of science communication, ENJOI **co-creates and selects a set of standards, principles and indicators (SPIs)** condensed to a **Manifesto for Outstanding Open Science Communication (OOSC)**. Working in four countries, Belgium, Italy, Portugal and Spain, ENJOI takes into account **different cultural contexts** and through a series of actions, such as Engagement Workshops (EWs), Labs, field and participatory research, evaluation and testing phases, validates the SPIs and makes them accessible and usable by the science communication community and interested parties and stakeholders at large.

ENJOI designs and builds an **Observatory** as its landmark product to make all results and outputs available to foster capacity building and collaboration of all actors in the field.

ENJOI's ultimate goal is to promote **Outstanding Open Science Communication**. Contextually, it contributes to the active development of **critical thinking, digital awareness and media literacy** of all actors involved in the process, and thus facilitating **democratic deliberation and in fighting misinformation**.

ENJOI in a nutshell

ENJOI strongly supports the need for improved scientific communication and journalism, particularly through innovative approaches and methodologies:

ENGAGEMENT
A variety of actors (SciComm users and producers) are directly involved in key project actions

CO-CREATION
Stakeholders participate in the process of selecting a set of standards, principles and indicators (ENJOI SPIs) of quality in SciComm

INCLUSIVENESS
Different cultural contexts and perspectives are taken into consideration

KEY ENJOI OUTPUTS

ENJOI Manifesto
SPIs available to guide people while producing, consuming and sharing information

Observatory
The ENJOI's flagship product. Results and useful tools available to foster capacity building and collaboration of all actors in the field

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3. KEY QUESTIONS AND PROBLEMS EMERGING FROM ENJOI RESEARCH AND CO-CREATION ACTIVITIES

The need for thoroughly factual and carefully crafted science communication can no longer be ignored if we want citizens to participate fully and knowingly in democratic deliberations. The ENJOI's contribution to this overarching goal is the result of a multi-dimensional approach combining research and co-creation activities.

Besides traditional research approaches such as desk research and literature review, ENJOI tests 'engagement' as an innovative approach to directly involve all actors in the field in creating and testing tools and products designed to improve science communication. A considerable number of inputs and insights emerged from both branches of activities, some of them highlighting criticalities that need to be addressed.

The following sections provide an overall view of main issues emerged so far from which a first set of recommendations have been distilled.

3.1 LITERATURE REVIEW FOR THE SPIS INCEPTION REPORT

To address the lack of recognised standards, principles and indicators in science journalism and communication, ENJOI has undertaken an integrated and multiple approach to identify, pre-select and then co-create a set of Standard, Principles and Indicators (SPIs) of high-quality science communication. The first step was that of surveying the academic literature (including books and grey literature) and consulting several key experts in the field. The result of this first set of research is collected in D2.1 The inception report for the creation of the SPIs.

Critical issues	Lessons learned	Indications for policymakers
The information about best practices in science communication is spread through a wide variety of different, heterogeneous sources (from	Learning about best practices in science communication requires addressing not only formal sources, like academic literature, but also a wide range of informal	When looking into media innovation, do not rely merely on publications and official literature. Studies, interviews and a wide variety of formal and informal

papers, to codes of best practices, to books, to grey literature like opinion articles, reports etc.).	sources, including the opinion and advice of authoritative individuals (for example, expert stakeholders provide important inputs that might not be coded into literature yet).	sources are needed to monitor and evaluate the current state of the art of quality of science communication and of the challenges that communicators have to face. In particular, special attention needs to be granted to experts' and stakeholders' opinions when dealing with questions on science communication.
The way publications in the field of SciComm are classified and are searchable do not refer to standards, principles and indicators. In other words, there are no direct search keys and tags to identify the literature focusing on these issues.	In order to obtain a manageable sample of the literature a number of diverse queries had to be run into the databases using a range of different keywords. Once obtained a bulk of publications, a further selection, by reading the abstracts, was needed to come up with a reasonable subset of relevant papers.	There are improvements to be made to the classification of official publications, with the definition of nomenclature and classification systems that might facilitate the retrieval of relevant literature. A more effective system of organisation and access to scientific literature might help to meet the useful research outputs.
The initial survey of existing SPIs showed a significant overlap of advices and indications coming from very different sources. This might suggest that there is an underlying agreement among experts about the key-ingredients of a high-quality science communication.	While there is a theoretical agreement on some definitions of high-quality SciComm, there is also a shared perception that good practices are difficult to apply in the real world context of media. This is mainly due to the very critical situation faced by most media: pressures of all sorts, including from corporations and/or political forces; lack of resources; precarious job conditions.	All sorts of efforts should be made to protect the communication system from bias and pressures. Independence of media is a key value and there should be a huge attention made to grant a healthy media ecosystem and dignified job conditions, as a precondition to give the possibility of best practices to be applied.

3.2 THE RELATIONSHIP BETWEEN SCIENCE COMMUNICATION AND JOURNALISM, CURRENT STATE OF THE ART

During the past few decades, societies, and especially media landscapes, have gone through far-reaching changes due to the development of internet and social media technologies (Dunwoody, 2014). Changes of course affected the science-media relationship too. The quality and effectiveness of interactions between scientists and media has been investigated in ENJOI through a specific literature review to clearly detect the state of the art of this interaction and possible areas for improvement.

The main results of this thorough literature review are collected in D5.1 Report on the literature review about the science-journalism relationship.

The literature review aimed to answer two main research questions, formulated in the ENJOI Grant Agreement (2020):

1. How can active collaborations between scientists and media producers improve accuracy in science communication?
2. How can interactions between scientists and media producers be fostered and improved?

The analysis of scientific literature about the relationship between scientists and journalists showed that this relationship is mostly positive. Nevertheless, two key problems were identified.

Critical issues	Lesson learned	Indications for policymakers
Scientists and journalists have different perceptions about their own and each other's roles in science communication, related to who should have control over the message.	Scientists mostly described their roles as active expert, educator or science popularizer. Journalists tended to see scientists as more passive sources of expert information. In addition, journalists generally described their roles as critical and independent, whereas scientists preferred journalists to take on more supportive roles.	Support trainings and opportunities for scientists and journalists to work together and build a healthy relationship, defining their roles and respecting their specificities.
Studies about what discourages scientists and journalists from participating in science communication identified many challenges related to a lack of time, resources and skills.	There is a lack of communication skills among scientists and at the same time a lack of basic scientific knowledge among journalists. There are concrete difficulties to make time for science communication for both parties.	Scientists will be more incentivised to learn and practice communication if that becomes regularly considered and recognised as part of their duties and career development. Journalists might benefit from spending more time within scientific institutions as visiting, interacting with scientists on a regular basis and not only for the short space of an interview.

3.3 EXPLORING INNOVATION AND OPENNESS IN SCIENCE COMMUNICATION AND JOURNALISM

In a series of 4 focus reports, ENJOI has explored the existing landscape of **innovation and openness in science journalism and communication** to understand how and if citizens' information needs are getting those responses. The focus reports are focused on 4 lines of innovation experimented by the media industry in recent years:

- How **engagement** has been exploited by digital media in covering science
- How the use of **data** can specifically contribute to excellent journalism
- How innovative media **formats** (interactive, visual, crossmedia) can effectively communicate science to users
- How **solution journalism** is used in science topics

These four lines of research, developed through the analysis of case studies, surveys and interviews with experts, resulted in four distinct deliverables:

D7.1 Digital engagement focus report

D7.2 Analysis report on the use of data and open science results

D7.3 Focus report on innovative digital formats

D7.4 Focus report on constructive journalism

Critical issues	Lesson learned	Indications for policymakers
Public awareness of the importance of science for society is increasing but trust in media is at an all time low.	Engagement can be a key of innovation of the media process while building stronger trust and openness in science coverage. However, designing and developing an engagement journalism approach while covering science requires resources and competences currently not available to media and science journalists.	Build new training opportunities for mid-career journalists and media editors. A scheme such as that of the Marie Curie-like grants could be developed also for journalists and communicators who need to be re-trained. Studying the dynamics that govern the communication environment would help journalists and media to design more engagement-laden coverages.
Science is not a national/local issue. Science coverage is often	While in other journalistic sectors - such as the investigative one -	On one hand, a EU-wide database of experts might prove useful and

limited to national networks because media tend to interview and involve only 'known' names who have become prominent public figures.	cross border collaboration has become the norm (crime; pollution, environmental and health crises do not stop at the borders), science journalists are more likely to rely on national news, contacts, references.	contribute to broaden up the possibility to portray the EU dimension of science making. On the other hand, fostering EU-wide networks of journalists working on science stories might be a key to develop stories focusing on a wide EU dimension rather than on national contact points. This might also facilitate the outreach of younger and more cosmopolitan scientists than the usual local and regional experts.
Innovative science communicators have to make a huge personal 'marketing' investment on social media to compete with well-established experts who are more prominent on legacy media.	In situations of crisis, such as the pandemic, legacy and traditional media tend to use a very narrow range of experts also out of their core expertise. New communicators, young scientists and science writers have to invest massively in time and effort to build their social media presence in order to gain a spot in the communicative arena.	Creating space and opportunities for younger, more innovative and less established experts as well as science communicators will grant the possibility for a more diverse audience to find answers to their information needs and will allow younger people to feel represented within the scientific sector.
Data journalism has grown to become a mature and highly recognised form of communication and can be very useful in science coverage. However, lack of reliable data and of institutional transparency keeps being a challenge.	Use of data and of data visualisation when covering complex science topics can deeply improve the public understanding, the audience engagement and their perception of dealing with a useful piece of content. Lack of data, or a wrong use of data, inaccurate, biassed or misled, can only contribute to distrust both toward science and toward public institutions.	A much stronger effort needs to be put in order to support transparency in data collection and publication. Data from public institutions as well as corporate data of public interest need to be made available, in raw and machine-readable format, to anyone who might be interested in using them. Journalists, activists, schools, researchers could contribute to improve the quality of science information had they the possibility to access data in a very linear and accessible way. Right to access info should be made a priority at the EU level for all data produced within public institutions as well as all data regarding corporations who work and act in Europe. Data should not be made an exclusive good to access.
Media have undergone a huge change in recent years. Processes, organisations and even products have become more	Design-driven technologies and processes have become central in the work of innovative as well as more traditional media	Establish support schemes that can be used to experiment, also to a small scale (small and medium innovative projects) in

fluid, less structured, and very divergent from the traditional model of legacy media.	organisations. There is a strong need to experiment, monitor and adjust. Resources and skills become the limiting factor in allowing a higher or more restricted level of innovation.	order to foster a very high turnover of agile experimentation, even with small networks of partners. Grant schemes should be designed to be accessible by small organisations, even creative individuals, with very low bureaucracy entry level, and a mechanism to select and re-fund truly innovative projects (similar to the philosophy that is behind rounds of VC funding, but without the market oriented only ROI demand).

3.4 ENJOI ENGAGEMENT WORKSHOPS, EMERGED ISSUES

ENJOI **Engagement Workshops** (EWs) and Labs is where the process of co-creating Standards, Principles and Indicators (SPIs) of quality science communication happens. **Engaging and empowering communities** to develop solutions against mis- and disinformation is nowadays essential.
EWs took place in four of the project countries (Italy, Spain, Belgium and Portugal) involving a wide range of SciComm stakeholders, regardless of their role as producer or consumer of such communication. The first ENJOI SPIs checklist was shared with them in order to further refine it or add SPIs, if paramount. The idea was to focus on the Southern European region and compare the results and the discussions with those held in Brussels, considered a reference point as a pan European situation.

Stakeholders' voices turned out to be significant and their valuable insight provided a great number of inputs.

More insights about the EWs contribution to the SPIs are available in D2.2 Engagement Workshops contribution to the SPIs for OOSC.

Critical issues	Lesson learned	Indications for policymakers
EWs participants highlighted the	As clearly shown by the recent	Both formal and informal

lack of opportunities for mutual learning and discussion between journalists and scientists/researchers and, in general, by all actors involved in knowledge production and communication.	pandemic, the lack of exchanges among key actors may hinder the smooth flow of knowledge sharing towards the society as a whole. Open and constructive discussions can help to set a common ground for understanding respective 'ways of doing' and then promote a mutual understanding that benefits both communication and science practices.	opportunities where professionals meet to discuss and share knowledge need to be set up. Policy has a stake in promoting such opportunities, be it through specific funding schemes or any other type of incentive that may support knowledge exchange, and thus fighting mis- and disinformation and further facilitating democratic deliberation.
A lack of specialisation/professionalisation in science communication has been detected.	In this context, learnings and good practices on science communication do not succeed in reaching out journalists (as well as editors and newsroom managers), often resulting in poor science reporting.	Policy impulse to promote tools relevant to information producers dealing with scientific issues is of the greatest significance. Specific guidelines and good practices are to be made available to all actors involved in science communication production and dissemination. • Guidelines and best practices should be adaptable to the different media organisations • Editors and newsroom managers must be involved in a reflection on their role and how good practices can be implemented. • Once good practices are available, training sessions can be set up
Lack of diversity of sources included in news reporting: • always same experts • no young voices • perpetuation of stereotypes (mentioned by researchers • perpetuation of backgrounds within the newsrooms (e.g., no representation of minorities) There is clearly a need to actively look for diverse profiles (i.e., gender, field of expertise, socio-economic status, ethnicity, nationality, etc.).	This lack of diversification directly impacts on how stories are built. Journalists that want to include 'other voices', e.g., can make contact with researchers in charge of the research, independently of their career stage and not only professors or senior researchers. While media editors or directors can ensure diversity in the newsrooms by hiring professionals with diversified backgrounds. Inclusiveness has a key role in this context.	Taking care of human resources professionalisation is nothing new in HR policies definition. An attractive workplace and a fulfilling career where excellence and effort are rewarded means developing HR policies that promote cultural change in the workplace, aligning it with the rapidly changing society.
There is currently a need for a multiformat content so it engages more with the audience, but it is not all organisations that have	There is a significant need of promoting a multidisciplinary team with specialists in different topics, instead of focusing on the	The recently adopted Human Resources Strategy for the Commission (April 2022)

diversity in the background (journalist, photographer, editor, web developer, etc).	multitasking ability of professionals and their exhaustion.	explicitly refers to the need of granting a healthy, friendly, non-discriminatory, inclusive, gender-balanced and accessible to all working experience/environment. EU and local policymakers should refer to it as a starting point to provide incentives to support multidisciplinarity in the media environment, bearing in mind that rapid technological progress and digital transformation have deeply changed workplace structures, organisations and relationships. It is hence urgent to align policies with the rapidly changing reality to meet citizens' need for quality information.
'Time' has emerged as an essential, yet insufficient resource.	When journalists undergo time constraints to develop their job, inaccuracy in reporting can occur.	'Slow journalism' may be promoted and supported to allow the necessary time to: • produce articles that are accurate and supported by facts: • incorporate multiple (and diversified) sources, that are rigorous and that respond to people's needs for information in a way that is accessible for them.
Science communication research is not shared enough among the scientific community more broadly. This hampers the sharing of new knowledge and limits the expansion of professional networks of scientists/researchers, regardless of their discipline.	Science communication research can concretely benefit all scientific research strands. In order for that to be possible, it is nevertheless necessary that interdisciplinary scientists connect with researchers working on science communication.	Setting up designated funding channels is an essential policy action to be implemented to support the spread of science communication among the scientific community at large. Such a policy should seek to: • encourage meetings between academics and practitioners that feed into each other; • promote dialogue on what holds back researchers in science communication; • implement outreach to diversify the network of scientists interested in science communication;

		• reinforce the role of existing networks such as PCST.
Science communication is still not well enough embedded in research funding, preventing that way to effectively embed its contribution.	Science communication must be funded as an integral part of research, not an add-on. This can be done through: • series of workshops on identification of benefits and needs that brings funders together with researchers, communicators and other stakeholders; • showcasing best practices and good examples; • co-creation of an action plan; • manifesto/commitment charter.	Policy makers, decision makers and funders at EU and national levels must better embed science communication in their funding criteria to bring about a culture change where science communication is considered an integral part of being a researcher
News need to have more empathy in order to catch audience interest.	News may be neutral, inclusive, enriched with humour and emotion. Increasing the connection between art and science could be useful too.	Policy and decision makers may encourage connection between science and art. The existing New European Bauhaus can take great advantage from science communication inputs, these can easily spread and thus support sustainability (harmony with nature, the environment, and the planet) and inclusiveness (dialogue across cultures, disciplines, genders and ages).

4. INITIAL RECOMMENDATIONS

Collecting, integrating and expanding upon the criticalities, lessons learned and suggestions coming from the activities that ENJOI had deployed in its first 18 months of work, a set of **8 preliminary recommendations** can be distilled. The recommendations are intended for policy makers at all levels: from the EU Commission, regarding EU-wide initiatives and support schemes that might foster a concrete improvement of the current situation, to policymakers and institutions at regional and local level, who can act on more specific levels of intervention to facilitate a high-quality work for science journalists and communicators, as well as the other key players and stakeholders active in the scientific and media communities.

The recommendations have been organised for sectors of intervention: knowledge and training; fundings and resources; infrastructures; incentives, regulations and laws.

Knowledge and training

A. **Better knowledge is needed.** The description and evaluation of the state of the art of the science media and communication landscape **cannot be relied upon only on the basis of peer review and academic literature**. Given the pace of innovation and the multiplicity of actors, experiments and the rapid development of new trends, media studies do not always manage to catch the evolution and **knowledge and evaluation of the sector can only be complete by performing ad hoc focus reports and studies**, including interviews and consultations with experts and a broad diversity of stakeholders (similar to the focus studies commissioned ad hoc on specific topics by the Panel for the Future of Science and Technology (STOA) Panel at the Euro Parliament).

B. **Better training is needed.** A specialised training in science communication should always be required for all journalists and science communicators who deal with complex science topics. Demand that science institutions employ science communicators is a first step. A second one is to provide **opportunities for high quality training** not only at the entry level (as that granted by many Masters in science communication) but also for **mid and advanced career journalists, editors and communicators**, on one side, and **for researchers and scientists** who are asked to perform as experts of reference in the public domain. Flexible training schemes (Master classes; Summer schools; Intensive long weekends) need to be implemented for working professionals and career scientists who can hardly attend full time

courses. Beside formal training, **visiting schemes** (journalist in residence in a research centre as well as scientists in residence in a communication environment) can prove useful to understand boundaries and needs of the both professions.

Funding and resources

C. **Support agile experiments in journalism and communication**. Innovation requires a lot of design, prototyping and experimenting. A specific small scale grant scheme directed to local projects, small ventures, innovative ideas, can elicit a lot of interesting data and fresh approaches to improve the communication environment. Short-term, small-scale funding could be the key to support independent and creative approaches. Quick and agile cycles of funding, with an appropriate system of evaluation, can be more fruitful than big scale projects that require well established institutions and companies and rarely foster quick and creative innovative approaches.

D. **Europe is changing, its population is changing, diversity needs to become the rule.** A science communication only based on a western traditional perspective is no longer acceptable. Newsrooms as well as communication ventures and initiatives need to expand beyond diversity as political correctness. Media organisations as well as science institutions have to become truthfully inclusive and diversify beyond one-stop initiatives such as specific workshops and seminars, to allow for more accurate and trustworthy news that cater the needs of their audiences. There is scope for funding schemes that support communication initiatives that prove to change structurally and not only superficially the approach.

Infrastructure

E. **Small is beautiful and very much needed.** While there are a number of science networks such as PCST, ECSITE, ESOF and many others, whose activities span globally or at least at the EU level, the local dimensions cannot be forsaken. Local newsrooms; local groups of activists and concerned citizens; small independent centres… They are all key players in ensuring that local perspectives are taken into account, that there is no one dominating perspective over a range of important local ones. Mountain communities; coastal communities; small farmers communities; small towns and villages have very diverse needs and expectations in terms of the science information and knowledge they might use. Structural funding as well as tech (broadband; good connectivity; open-source tools and softwares; etc) and infrastructural resources should be made available and accessible to allow the

development and independence of small local initiatives that might better respond to the needs of their community of reference.

F. **Right to access key information and data.** Data, science publications, scientific literature, corporate information are key components of a transparent system of information and communication. A better and more integrated system of data and information accessibility, that does not require journalists and communicators to spend big resources or to confront a high level of bureaucracy, is needed to ensure that citizens, stakeholders, researchers and all interested parties are promptly informed in issues that have a relevance for the public interest. Transparency should be the key, both regarding public data and also data related to the corporate environment that prove to be of high public interest, in order to nurture trust in scientific developments.

Incentives and policies to enhance the working environment

G. **Dignified job conditions.** It is essential to encourage cultural change in the workplace, aligning with the rapidly changing society: fast technological progress and digital transformation have deeply changed workplace structures, organisations and relationships. It is hence urgent to align policies to meet citizens' need for quality information. Local policy and decision makers may draw inspiration from the recently adopted Human Resources Strategy for the Commission (April 2022) aimed at granting a healthy, friendly, non-discriminatory, inclusive, gender-balanced and accessible to all working experience/environment (employees at the Commission).

H. **Media independence is a key value.** Particular attention should be paid to ensuring a healthy media ecosystem as a precondition for giving the possibility to apply best practices and, most importantly, preventing possible pressure from institutions, both political and economic. All this can make a significant contribution to reversing the crisis of trust and responsibility experienced by the media today.

5. REFERENCES

Bonelli, Giulia, Boscolo, Marco, & Tola, Elisabetta. (2021). Digital Engagement Focus Report. Zenodo. https://doi.org/10.5281/zenodo.5972155

Bonelli, Giulia, Boscolo, Marco, & Tola, Elisabetta. (2022). Focus Report On Solution Journalism. Zenodo. https://doi.org/10.5281/zenodo.6783558

Boscolo, Marco, Bonelli, Giulia, & Tola, Elisabetta. (2021). Analysis report on the use of data and open science results. Zenodo. https://doi.org/10.5281/zenodo.5972274

Boscolo, Marco, Tola, Elisabetta, & Bonelli, Giulia. (2022). Focus Report On Innovative Digital Formats. Zenodo. https://doi.org/10.5281/zenodo.6758949

de Jong, Anouk, & Dijkstra, Anne M. (2021). Literature review about the science-journalism relationship. Zenodo. https://doi.org/10.5281/zenodo.6207978

Dunwoody, S. (2014). Science journalism: Prospects in the digital age. In Routledge *Handbook of Public Communication of Science and Technology* (pp. 43-55). Routledge

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Human Resources Strategy for the Commission https://ec.europa.eu/info/sites/default/files/c_2022_2229_2_en_act_part1_v12.pdf

New European Bauhaus
https://europa.eu/new-european-bauhaus/index_en

Panel for the Future of Science and Technology (STOA), European Parliament, studies examples
https://www.europarl.europa.eu/stoa/en/publications/search?publicationTypes=STUDY

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