

ENJOI's preliminary list of Standard, Principles and Indicators for Outstanding Open Science Communication.

Criteria	RECOMMENDATION FROM SPIs SELECTION
Ethical rules	Avoid becoming an advocate for any side. Present the information fairly. Be skeptical about the sources of information. Sources, authors and research collaborators should be correctly attributed.
Rigour	Use reliable, rigorous and relevant evidence. The message must be accurate, objective and fact-checked, link to references/sources in the content, and consider gender balance. The communicator must provide sufficient information about the scientific process, including funding, affiliations and uncertainty. Do not exaggerate when presenting research successes, nor trivialise or conceal risks. Avoid statistical concepts that are hard to interpret. The status of a research report should always be made clear.
Sources	Use rigorous, reliable, and verifiable sources and avoid employing only official sources. At least, quote three different experts or sources, chosen transparently. Their diversity can be guaranteed by including people with different expertise and backgrounds (gender, cultural, geographical, and socioeconomic diversity). Avoid falling into the concept of 'false balance' and confronting in an automatic and uncritical way opposing opinions with widely different credibility, as if they had the same credit.
Networking	Communicators, science professionals and scientific institutions must maintain a good relationship to ensure smooth communication. Press offices of the research centers are a good starting point to build a professional network. Seizing opportunities of networking with other professionals can be critical for amplifying a message.
Target audience	Your work should not be meant to satisfy the sources or the editors, but to provide a service to the public. It should be targeted to the nature, interests, and concerns of your audience, in terms of contents, form and medium of communication. Always keep in mind that the public is not a single entity, but a diversified series of 'communities' with different backgrounds and understanding of science.
Engagement	Bidirectional communication and direct public engagement are more effective than one-way communication. To achieve that, you should try to establish a contact with the audience, to maintain its involvement with the content as it develops, and to get responses, opinions and ideas from your audience. Moreover, the active involvement of scientists is critical to the success of science communication. To ensure it, researchers should plan a dialogue with the audience, respect their

	views and concerns, monitor their reactions and be prepared to deal with scepticism or distrust in a respectful manner.
News-worthiness	Introduce new and impactful knowledge, appropriately contextualised and relevant for the public and the society. Express the novelty of the information disclosed in your work, with respect to the state of art.
Perspective	The topic communicated should be set into a temporal, scientific and social context. It is important to clarify what is new or conflicting in the light of previous evidence, what applications or impact a certain scientific finding can have for society as well as different individuals, and what is still questionable or premature. If necessary, touching upon the material context of science and its social working adds value in providing a broader perspective of its reality.
Messages / language	Language should be clear, correct, and comprehensible. Technical jargon should be used only if necessary and always be accompanied with an explanation. Complex, formal sentences should be avoided in favour of simple ones, without indulging in oversimplification, trivialization or inappropriate tone. Short, concise sentences and active voice are preferable. Metaphors can help, but clichés and rhetorical questions should be avoided. Language should be inclusive and careful with sensitive words, such as "victims", "patients", etc.
Storytelling	<p>Narrative structures can help the audience to follow the message and remember it better, increase engagement with scientific information compared to a list of data, numbers or an expository text. You can present scientific information as a supportive element to a main narrative story. Such a narrative structure may comply with the following recommendations:</p> <ul style="list-style-type: none"> - Tell a story whose subject is representative of the scientific data to be conveyed. - Include ethical and social aspects of interest to the target audience in order to humanise the data. - Use emotions to strengthen your message - Use visual metaphors and images. - Include a call to action (ask the audience a question or invite them to interact in some way).
Format medium	Use innovative and creative formats to engage new audiences, including those with a limited interest in science: multimedia tools, cross-media, visualizations, interactive interfaces, participation systems, leaks platforms, sensors, gamification, etc. All these formats should be accessible on all devices. Graphical objects which accompany texts, like illustrations, maps, infographics, caricatures, graphs, etc. can be used to direct attention, motivate the reader, stir an emotion, reiterate a concept, develop a concept, correlate different elements, etc. For video and audio, scientific posters, and social media go to the specific criteria

Format medium - video and audio	When making videos and audios, it will be preferable to have planned the content and practised beforehand, use an external clip-on microphone or headphones, have good lighting, brightness and contrast settings, and edit it properly afterwards.
Format medium - Scientific posters	For scientific posters, the title should describe the main conclusion; introduction should include essential background, research aims, hypothesis and references used; the methods should use a flow-chart format; results section should use bullet points phrases or a graphical summary of main findings. The graphs presented in the poster should be large with a title describing what the image depicts.
Format medium - Social media	In social media, the pace and dynamics of conversations differ across platforms, so adapt the communication strategy to the public's habits and use of each one. Users often rely on endorsements to gauge reputation, which come in different forms, such as likes on Facebook, retweets or favorites on Twitter or number of views on YouTube. Use emotions (awe, anger, anxiety, surprise...) to increase the chances of your content to be shared, reaching wider audiences, initiating discussions and building relationships and networks. In any case, when using social media, pay attention to the 3Ts: Type of content (such as text, picture, link, video), Text characteristics (length, use of hashtags, mentions, use of links, etc.) and Time of posting (hour of the day or day of the week).
Format medium - Infographics	They should have at least one of the following communicative actions: <ol style="list-style-type: none"> 1. Causal explanations describing properties 2. Causal explanations involving processes 3. Raise possible scenarios or consequences 4. Analyze statistical data of multiple variables 5. Measure scalar and vector physical magnitudes
Structure	Any topic should be translated into a clear, ordered structure. There should be a focus on one central idea, or a few-key points at most. The first information that is proposed to the audience is very important: it should convey why the audience should care about the topic, be attractive, and communicate key-messages, without misrepresenting the subject. The subsequent information should have a coherent structure and allow for introducing more details. Stories are an especially powerful way of conveying content, but not the only possible one.
Impact	Your work will have a special merit if it triggers a significant and proven impact (social, practical, legal, etc.). You can achieve that by paying attention to real-life issues, what can be done about a given problem, potential solutions, etc.
