



Deliverable 4.2

Report on the ENJOI Engagement Workshops 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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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This deliverable contains original, unpublished work except where clearly indicated otherwise.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. Acknowledgment 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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1. SUMMARY

The Engagement Workshops (EWs) together with the Labs are the core of ENJOI (ENGagement and JOurnalism Innovation for Outstanding Open Science Communication) strategy to include experiences, skills and knowledge distributed in different social groups into the process of innovating science communication in an open manner. Researchers and practitioners of science communication are involved at consultation, validation and co-creation stages.

To take into account local, geographical, linguistic and socio-economical differences, the EWs were organised in Italy, Belgium, Spain and Portugal in local languages in each country. The EWs counted with a diverse range of communication producers and target users such as science and data journalists, communication and dissemination experts, media editors, cross-sectional experts, local activists, teachers, and students.

In face to face events the participants co-created the Standards, Principles and Indicators (SPIs) for outstanding open science communication through different dynamics that were constantly adapted thanks to the cascade model used in the project (described in D.3.2). This allowed the collection and use of feedback in an iterative way from one EW to the next one, to improve how to co-create SPIs and to start designing pathways that will inspire the production of innovative practical tools to foster capacity building both for producers and users of scientific information.

This report informs about the round of EWs, it further describes the guidelines and materials created, approaches the implementation in each country and provides the results achieved with the dynamics.



2. PROJECT OVERVIEW

ENJOI (ENgagement and JOurnalism Innovation for Outstanding Open Science Communication) is exploring and testing 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 is co-creating and selecting a set of standards, principles and indicators (SPIs) to produce a Manifesto for an Outstanding Open Science Communication (OOSC). ENJOI is deploying a series of actions via Engagement Workshops, Labs, field and participatory research, evaluation and testing phases.

It will also build 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 is working in four countries: Belgium, Italy, Portugal and Spain, taking into account different cultural contexts.

ENJOI's ultimate goal is that of improving science communication by making it more consistently reliable, truthful, open and engaging. Contextually, ENJOI will contribute to the active development of critical thinking, digital awareness and media literacy of all actors involved in the process.



3. INTRODUCTION

One of the methodologies to achieve ENJOI's goals is the implementation of a round of Engagement Workshops (EW) in Italy, Belgium, Spain and Portugal, where we involved target users (producers and consumers) to co-create the Standards, Principles and Indicators (SPIs) for science communication. The EWs were the core activity in establishing the co-creation process of the SPIs and the Manifesto for OOSC, to make sure they include not only producers' views but also users' needs, demands and expertise that reflect a wider community of actors. The discussions that took place during the EWs will also be the source and the inspiration of specific pathways to the generation of innovative products for capacity building in OOSC.

In order to coordinate the implementation of the EWs, Science for Change (SfC) team developed the dynamics and materials, taking into account the methodology elaborated by Stickydot "D3.2 Co-designing innovative multi stakeholder engagement for OOSC". The guidelines and templates were created to be used for the partners in each country. Then meetings were scheduled to go through the dynamics step by step. After each EW, the Consortium met for Mutual Learning sessions where lessons learnt were shared. This also allowed it to adapt the cascade model improving the dynamics to the next EW focusing on increasing participant's capacity to express their information needs and demands for high standards in quality contents. A similar strategy has been successfully applied in the citizen science communication labs from the NEWSERA project, one of the SwafS-19 sisters' projects (Magalhães, Guasch, *et al.*, 2022). Finally, the European Consensus Workshop was organised to align the results from each country.

4. MATERIALS

To achieve an inviting and inclusive environment where participants could freely brainstorm, different materials were created to promote the engagement in the co-design dynamics. All the materials were shared with the partners in English then translated and adapted to the local languages considering the specific needs. These are all described below.



4.1 Guidelines

SfC developed a document to guide the partners that run the EWs with the instructions for each step involving the event and the dynamics preparation, implementation and evaluation. The guidelines (Annex 8.1) had the following information:

- Pre- EW
 - Sending a survey to gather public perception about science communication.
 - Collecting the answers from the survey and completing the analysis grid.
- EW
 - General template for the Engagement Workshops in Miro board (Figure 1).
 - Printable overview and agenda for each workshop.
 - Instructions of the dynamics for Miro (if needed) and offline materials (documents to print, documents to draw, sticky notes and dots needed, ENJOI stickers, etc.)
 - Instructions on how to use all templates and materials.
- Post- EW
 - Reporting the EW after the event.



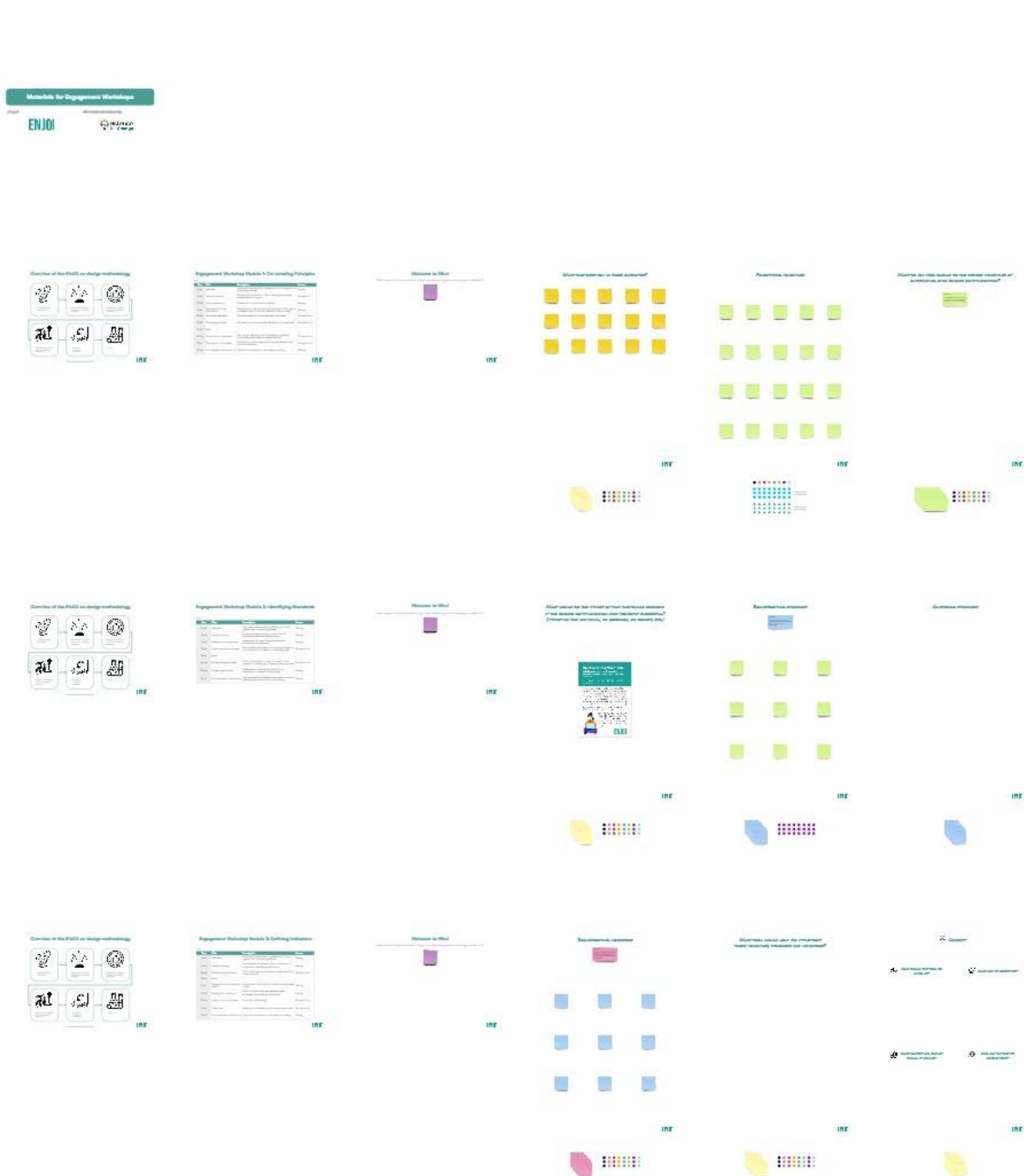


Figure 1. The Miro board with the general template for the EWs.



PRIORITISING PRINCIPLES



ENJOI

Figure 1.2. Zoom in from the module of “principles” in the Miro board with sticky notes and sticky dots.



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4.2 Survey

The survey (Annex 8.2) is part of “Gathering public perceptions” in the “D3.2 Co-designing innovative multi stakeholder engagement for OOSC”. The aim was to ensure that the co-creation process took into consideration the views of the general public of each partnership as its starting point, before stakeholders would come together to build on these views.

More than 200 people that do not work with science communication replied to the survey across the four countries. The answers made it possible to understand the perceptions of the general public regarding science journalism, science communication and their role, as well as the perceptions of the general public regarding what makes outstanding science communication.

4.2.1 Analysis grid

Once each country had the results of the survey, it was necessary to analyse them through an analysis grid (Annex 8.3) where the answers were grouped contemplating the situations that people consider important to communicate about science research, the examples that worked well and the principles related to science communication that were mentioned. The inputs from citizens were presented through word clouds in a presentation of the EW and used during the first module of the workshop (Figure 2).



Figure 2. Word cloud from the survey in Belgium.



4.3 Invitation to the participants

The partners mapped the possible participants through the stakeholder map “D3.1 Developing a roadmap”. They were invited by email (Annex 8.4 and Annex 8.5). Once they accepted, the participants received the agenda of the EW (Annex 8.6) and the best practices (Annex 8.7) that were developed for the “D.2.1 Inception Report for the co-creation of SPIs”.

5. IMPLEMENTATION

Once the participants were invited and the materials prepared, it was time to go into action.

5.1 Engagement Workshops in practice

More than 50 people attended the EWs that were organised face to face in each country and held in the local language. The EWs took place over 2 months, from March to May 2022. The first happened in Italy, followed by Belgium, Spain and finally Portugal. The participants were journalists, science communicators, researchers, science museum experts, teachers, activists, social media experts, editors, and designers.

The Chatham House Rule was applied in all of the EWs to guarantee that everyone had the right to use the information they received and spread on social networks, but neither the identity nor the affiliation of the participants who made any particular comment could be revealed.

The workshops were divided in activities about the co-creation of principles, identification of standards, definition of indicators and ideation of tools. They were held a minimum of two weeks between each country to guarantee the cascade effect that will be further explained in the section 5.2 of this deliverable.

On March 11th, Italy developed the first EW in Bologna with 19 participants. Then Belgium on March 29th had 12 participants. Following it was Spain on April 28th with 14 people. The last EW was organised in Portugal on May 25th, with 13 participants (Figure 3).

In general, participants quickly entered the experience. Their willingness to cooperate, share and listen to each other was impressive. The identification of



principles for excellent science communication and journalism was felt as a real need. Regarding the network in the project, participants were really motivated to be in touch and participate in the ENJOI Observatory.



Figure 3. EWs in Italy, Belgium, Spain and Portugal.

5.2 Mutual learning process

The mutual learning sessions, within the internal ENJOI team, happened after each EW was held and before the EW in the next country. This occurred in order to guarantee the cascade effect that evaluated and improved the dynamics (Figure 4). This model allowed timely collection of feedback and sound transfer of these learnings to the next partner, enhancing mutual learning, improving the dynamics of each session and incorporating lessons learned. A partner representing each country shared a presentation explaining the feedback of the EW (Annex 8.8).



General feedback

- **Atmosphere:** Energetic, relaxed and collaborative.
- The **plenary** worked really well after each module to present what each group did, but the cluster part was not possible because of the time.
- We had the total minutes for each dynamic in a slide. In order to keep the relaxed environment we suggest to use the facilitators as allies to bring attention to the next dynamic.
- **Network:** willingness to be in touch and participate in the ENJOI Observatory.



Figure 4. Presentation of Mutual Learning of the EW in Spain.

Italy was the first country to implement the EW. The feedback about the work set up was that the materials were easy to use, being simple and effective. The steps for each dynamic were very clear. They recommended not spending much time explaining the methodology because it would become clear step by step. They prepared the groups in advance and changed them in the 3 modules (standards, principles and indicators). The part of identifying the standards was the most difficult, because it was harder to understand the difference between principles and standards.

Belgium implemented some of the feedback from Italy, avoiding the word “standard” and pushing for ideal outcomes in order to get the answers related to standards. Some changes were made such as putting a limit on the number of sticky dots during the prioritisation part of the dynamics.

In Spain, the participants were kept in the same groups to save time and maintain the flow of thought between the dynamics. The establishment of standards was also a complicated part of the dynamic, but the participants were instructed to focus on the best practices that would allow accomplishing the principles. The words “rules” and “requirements” were used so they were able to develop the exercises about standards.



Portugal had the same introduction as in Italy, Belgium and Spain: practical information, agenda, ENJOI presentation, previous EWs, diversity of participants' profiles (and why they), ice breaker, and presentation of survey results. They considered the feedback from the previous EWs about the struggle with standards and implemented a change to present a clear example of principle, standard and indicator:

- Accuracy (Principle)
- To measure using the same instrument/known length (Standard)
- Measure (in cm) (Indicator)

This made it easier to understand the link between principles and standards while avoiding the discussions about definitions. At the same time it highlighted the success of the cascade process used in the EWs.

5.3 European Consensus Workshop

The partners collated the outcomes of the national EWs at European level during the European Consensus Workshop. The goal was to build a core of common values and ground around a set of ENJOI Principles, Standards and Indicators for outstanding open science journalism and science communication. A Miro board (Figure 5) was developed to look into the disparities between the countries and align the results. The conclusion of this meeting culminated into a working list of the SPIs available in the "D2.2 Engagement Workshops (EWs) contributions to the SPIs for OOSC".



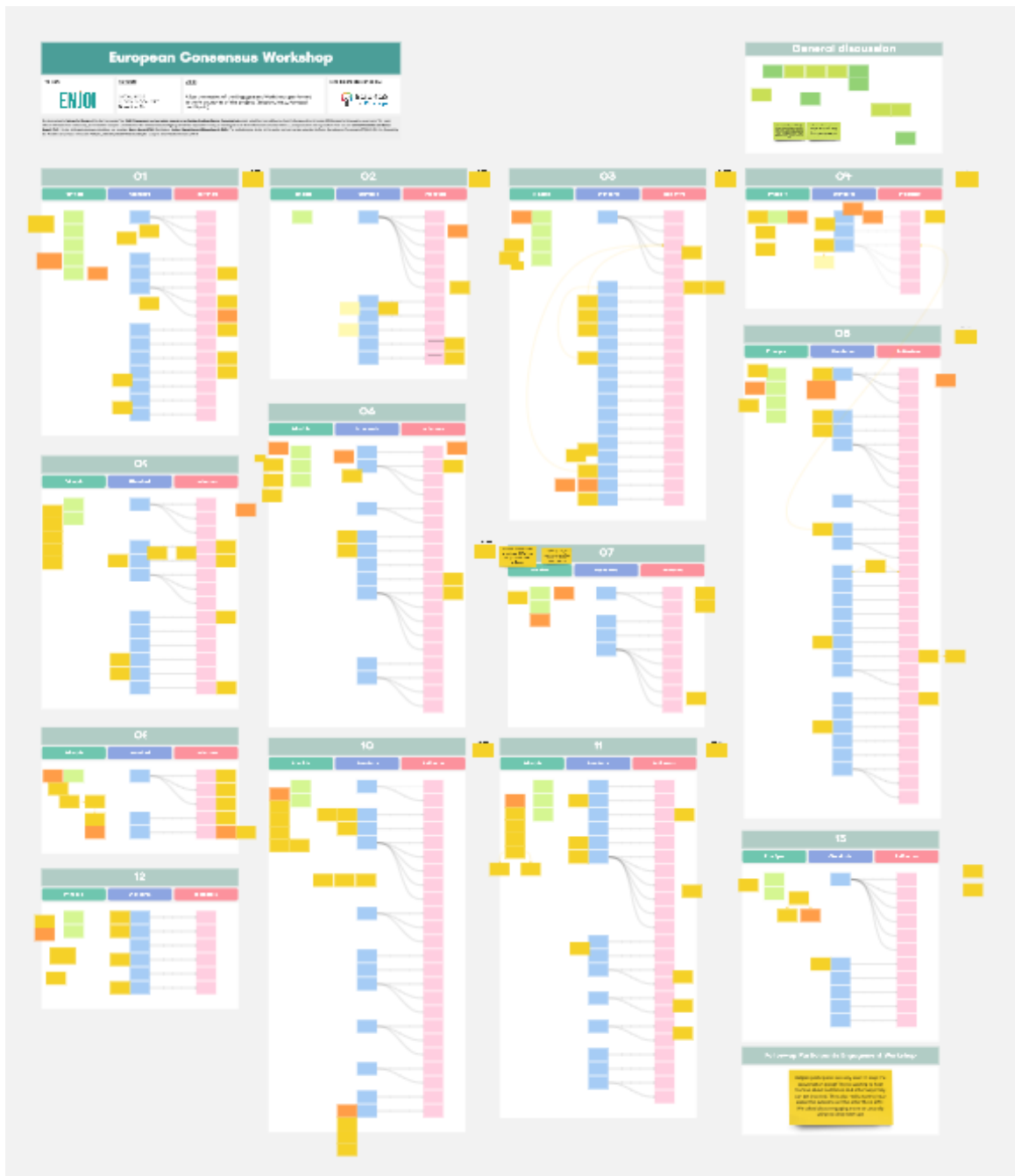


Figure 5 The process to align the SPIs during the European Consortium meeting.



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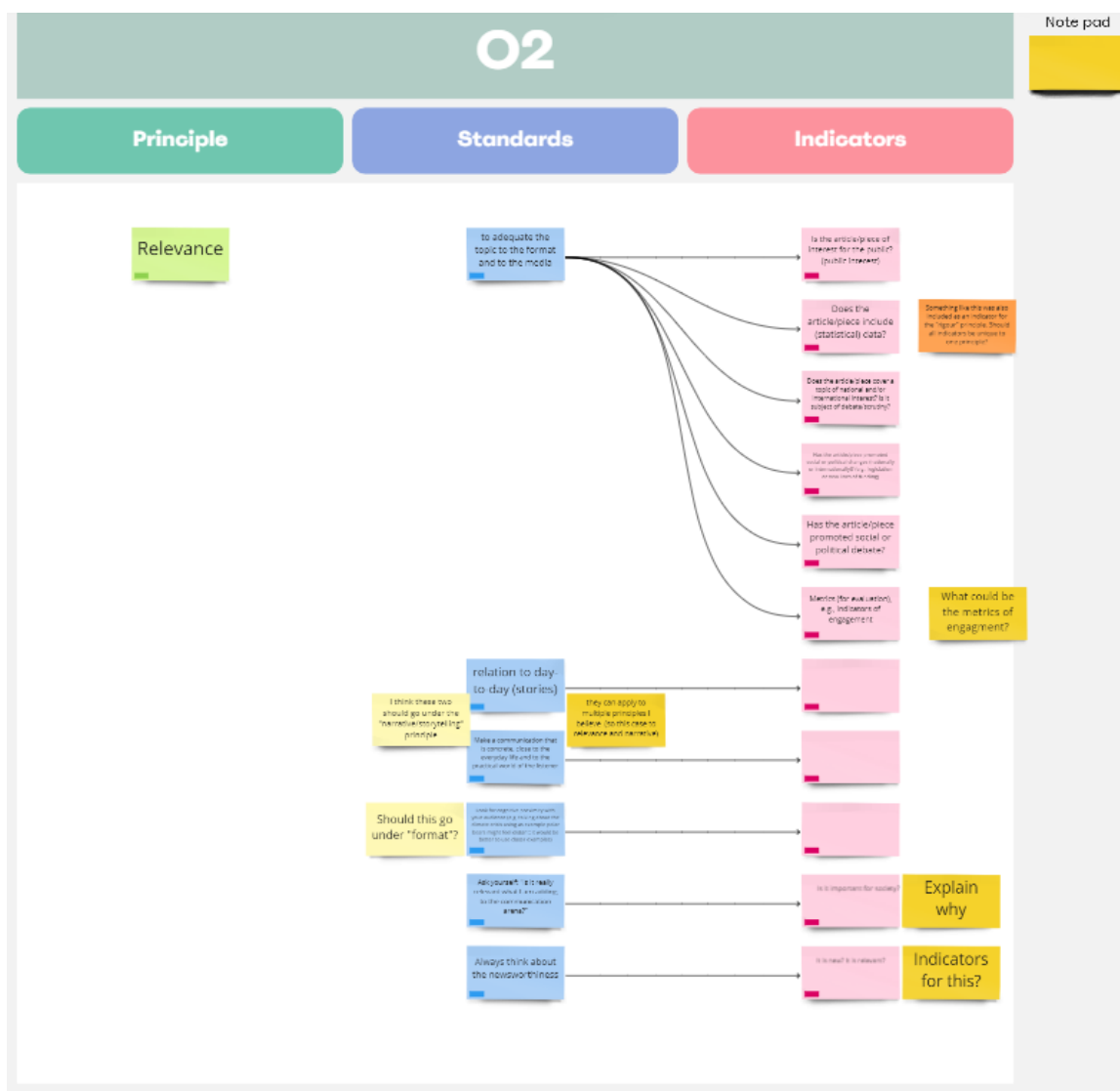


Figure 5.1 Zoom in from a section of the discussion related to “relevance” and SPIs.

5.4 Follow up activities with participants

In order to give continuity to the results of the EWs, each country will adapt strategies to keep the participants engaged. A survey (Annex 8.9) was designed aiming to co-create the engagement as suggested in “D4.1 The ENJOI Engagement Methodology for target users and quadruple helix stakeholders”.

Participants in Spain for example suggested creating a Twitter list with the people that attended the EW in the other countries and promote an online event between them. This follow up can be an opportunity to foster synergies and exchange of points of view, as well as create a community. Additionally, the aim



is that the ENJOI network from the EWs and Labs will have in first hand the materials produced in the project. The actions in each country will be flexible enough to allow adaptations to the local context.

6. RESULTS

Along with the 58 participants and 18 organisers, the EWs achieved connections with fellow science communicators in Italy, Belgium, Spain and Portugal. The different dynamics allowed them to influence the creation of recommendations for outstanding open science communication on a European level making sure that the outputs are practical for their work.

All results and outcomes from the EWs were incorporated into the final set of Standards, Principles and Indicators for the D2.2. The recommendations obtained from all EWs will contribute to the ENJOI Manifesto (D2.3) that aims to become a landmark reference for production and correct use of OOSC in the media environment.

6.1 Reporting

To collate the results, after running the EW each local partner reported it in two steps:

- informative template - practical information about the EW;
- content template - technical information about the exercises.

Below are the informative and content reports of each country.

6.1.1 Italy

Question	Answers
Country	Italy
Date	11.03.2022
Format: online or in person?	In person
Duration of the EW	11:30 - 17:30
How many organisers?	5
How many participants?	19 (divided in 4 groups)



What kind of stakeholders participated? How many from each group?	<p>Journalists (3) Science communicators (3) Researchers (3) Science museum experts (2) Teachers (2) Clinician (1) Activist (1) Actor (1) YouTuber and Instagrammer (1) Editor (1) Graphic journalist (1)</p>
<i>Note: most of participants belong to more than 1 category - we indicated the main one</i>	

Engagement Workshop Module 1: Co-creating Principles	
Question	Answers
What surprises you in these outcomes?	<p>Citizens' "principles":</p> <ul style="list-style-type: none"> ● Competence ● Engagement ● Coherence ● Reliability ● Emotion ● Images ● Rigour ● Effectiveness ● Synthesis ● Reassurance <p>All groups were particularly surprised by the last item ("Reassurance") and all agreed to remove it. "Effectiveness" and "Synthesis" were considered controversial by some participants.</p>
Prioritising principles	<p>All 4 groups took this step as a key moment of the discussion, but none of them clustered the principles in a systematic way (example in the picture below). It was more a debate, which led to the selection of the desired principles in the next phase.</p>
What do you feel should be the desired principles of outstanding open science	<ul style="list-style-type: none"> ● Storytelling ● Ethics ● Reliability ● Sources ● Target ● Engagement



communication?	<ul style="list-style-type: none"> ● Community ● Participation ● Motivation ● Rigour ● Newsworthiness ● Perspective ● Context ● Relevance ● Coherence ● Clarity ● Concreteness ● Curiosity ● Data ● Precision ● Accuracy ● Respect ● Emotions ● Pleasure ● Transparency ● Common good ● Education (controversial principle: not all groups agreed) ● Neutrality (controversial principle: not all groups agreed) ● Impact (controversial principle: not all groups agreed)
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Engagement Workshop Module 2: Identifying Standards

<p>What would be the impact of this particular scenario if the science communication was perfectly successful? (impact on the individual, on research, on society, etc.)</p>	<p>For the Italian EW, this was the most challenging part.</p> <p>The scenario, while useful to give a practical perspective, proved to be a bit confusing and slowed down the process in our groups.</p> <p>The term ‘impact’ proved to be confusing as a couple of groups questioned the term itself in the previous Principles’ session.</p> <p>There was also a lot of initial confusion between Principles and Standards; this obstacle has been overcome connecting</p>
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Brainstorming standards	<p>Standards from the principle “Source”:</p> <ul style="list-style-type: none"> ● Use reliable, trustworthy, verified sources ● Include different perspectives ● Avoid false balance ● When possible, make the sources available to the public ● Include sources that are “cognitively close” to your audience ● Assure the quality and completeness of the sources
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Standards from the principle “Target”:

- Define who you are talking to
- Analyse your targets
- Choose the right language for the right audience

Standards from the principle “Engagement”:

- Try to build a community around your work
- Collect inputs from your audience
- Develop call to actions
- Listen to your readers, do not try to persuade them

Standards from the principles “Relevance”/“Newsworthiness”:

- Ask yourself: “Is it really relevant what I am adding to the communication arena?”
- Always think about the newsworthiness

Standards from the principle “Clarity”

- Be clear, but avoid oversimplifications
- Be simple, not simplistic
- Use a clear language
- Communicate data in a clear way

Standards from the principle “Accuracy”

- Be precise
- Be exhaustive, not “pachydermic”

Standards from the principle “Rigour”

- Fact-checking
- Always have articles reread before publication

Standards from the principle “Concreteness”

- Make a communication that is concrete, close to the everyday life and to the practical world of the listener
- Look for cognitive proximity with your audience (e.g. talking about the climate crisis using as example polar bears might feel distant; it would be better to use closer examples)

Standards from the principle “Context”:

- Define the context of your work
- Include the point of view of different stakeholders
- Explain the causes of a phenomenon, but also try to talk about its consequences

Standards from the principle “Storytelling”

- Tell representative stories
- Use (wisely) emotions to connect with your audience
- Use infographics



	<p>Standards from the principle “Ethics”:</p> <ul style="list-style-type: none"> ● Avoid advocacy ● Report the idea of “scientific consensus”, if there is one ● Be accountable <p>Standards from the principle “Impact”:</p> <ul style="list-style-type: none"> ● Think about the value impact your work can have ● Follow-up on your work (circular approach) <p>Other proposed standards:</p> <ul style="list-style-type: none"> ● Define your communication objectives ● Define your communication strategy ● Define your communication channels ● Do not just talk about problems, but try to include solutions ● Do not take the press releases for granted ● Avoid rhetoric ● Form is substance: it should be as carefully crafted as the content ● Follow-up on your work (keep covering relevant stories) ● Study!
Clustering standards	<p>We eliminated this part, as most of the clustering had been already done in the previous steps. This left more time for the plenary discussion.</p> <p>General comments about standards:</p> <ul style="list-style-type: none"> ● Standards should be linked with a quantitative or qualitative measurement (indicators) ● Each communication channel should have its own standards ● Standards might also include what not to do (e.g. sensationalism, alarmism, false balance, etc.) ● Standards can change according to the different contexts ● Some concepts, such as “engagement” and “quality” can be both principles and standards ● Standards should be seen as a “process” ● “Why do you call them SPI and not PSI?” :-)
Engagement Workshop Module 3: Defining Indicators & tools	
Brainstorming indicators	<ul style="list-style-type: none"> ● Target(s): demographics, profiles, etc. ● Questionnaires ● Qualitative interviews to selected readers ● Number of readers (copies sold) ● Number of views ● On social media: number of followers, likes, shares, comments, etc. ● Follow these numbers over time (not just one specific moment) ● Subscribers (free + paywall) ● Fidelity level ● “Polarisation” of readers? ● Content analysis of contents



	<ul style="list-style-type: none"> ● Permanence (e.g. for how long do users watch a video?) ● How many times our article/product was cited/reported in other platforms ● How many and which sources were used ● What do our “competitors” say about our work? ● Peer review and fact checking in the production process ● Numbers of revisions ● How many times the same experts were interviewed and on which topics ● Level of interdisciplinarity and diversity of fields/topics over time ● Coherence with the methodology used (which should be made explicit) ● Pertinence of images used ● Number of typos (“If I write badly I think badly”) ● Non-commercial partnerships ● Qualitative and quantitative reports (to measure impact) ● Impact evaluation ● Performance ● Community responsiveness
What tool would help me implement these principles, standards and indicators?	<ul style="list-style-type: none"> ● Audience “thermometer” ● Audience survey (NYT style: how much do you know about the most relevant 10 news of the week?) ● Young board for excellent scicomm ● Events for the public
Who should this tool be aimed at?	<ul style="list-style-type: none"> ● Audience “thermometer”: aimed at communication producers ● Audience survey: aimed at the already established readers ● Young board for excellent scicomm: aimed at the selected young people, + the scicomm community ● Events for the public: aimed at the already established audience, but potentially also to new audiences
What are its objectives?	<ul style="list-style-type: none"> ● Audience “thermometer” <ul style="list-style-type: none"> - Measure the level of audience engagement - Measure the level of audience polarization - “Reciprocity” ● Audience survey <ul style="list-style-type: none"> - Assess the effectiveness of our journalistic work ● Young board for excellent scicomm <ul style="list-style-type: none"> - Identify their needs - Co-create with them communication products - Test with them communication products ● Events for the public <ul style="list-style-type: none"> - Branding - Promotion



	<ul style="list-style-type: none"> - Find new audiences - Direct contact with the community - Public relations
What content and format should it include?	<ul style="list-style-type: none"> ● Audience “thermometer” <ul style="list-style-type: none"> - Mix of methods and formats ● Audience survey <ul style="list-style-type: none"> - Questionnaire (multiple answers) ● Young board for excellent scicomm <ul style="list-style-type: none"> - In person workshops - Asynchronous communications ● Events for the public <ul style="list-style-type: none"> - Accessible, inclusive, sustainable contents - Enjoyable contents - Show/performance - Edutainment - Video - Social media
Who can support its development?	<ul style="list-style-type: none"> ● Audience “thermometer” <ul style="list-style-type: none"> - Social researchers - Communicators and journalists - Informatics/web developers - Statisticians - Economics ● Audience survey <ul style="list-style-type: none"> - Readers - Communication experts - Writing/editorial staff ● Young board for excellent scicomm <ul style="list-style-type: none"> - Science communicators - Science communication researchers - Facilitators - Foundations ● Events for the public <ul style="list-style-type: none"> - Science communicators - Researchers - Guests - Artists/Performers - Foundations - Donors



6.1.2 Belgium

Question	Answers
Country	Belgium
Date	29 March 2022
Format: online or in person?	In person
Duration of the EW	7 hours (9.30am - 4.30pm)
How many organisers?	3
How many participants?	12
What kind of stakeholders participated? How many from each group?	4 Academics in science communication 1 university outreach department representative 1 non-profit organisation representative 2 public authorities representatives 1 science journalist 3 scientists

Engagement Workshop Module 1: Co-creating Principles	
Question	Answers
Prioritising principles (from citizen survey)	<ul style="list-style-type: none"> ● Clarity of the information ● Reliability of the content and source ● Trustworthiness ● Graphic elements ● Coherence of the message ● Personal stories of scientists ● Widespread presence ● Collaboration of multiple scientists ● Honesty ● Encouragement to question information ● Not oversimplifying science ● Empathy ● Free from jargon ● Good humour ● Transparency of sources ● Contextualising complexity ● Playfulness
What do you feel should be the desired principles of outstanding open science communication?	<ul style="list-style-type: none"> ● Evidence base ● Transparency ● Engagement ● Clarity ● Appealing format ● Dialogue ● Goal-orientation ● Balance/representativeness



Engagement Workshop Module 2: Identifying Standards

<p>What would be the impact of this particular scenario if the science communication was perfectly successful? (impact on the individual, on research, on society, etc.)</p>	<p>Jean, in charge of communication in a university outreach department, Instagram post on energy transition - <u>The ideal outcomes of the post would be:</u></p> <ul style="list-style-type: none"> ● A large reach ● Diversity: many different types of profiles and stakeholders engaged that can relate to the science communication piece ● More trust in science (in the role of science, in concrete realisations) ● Engaged audience thanks to visual elements ● Incentives: people are aware of positive impacts of energy transition ● People are informed and impressed ● Trigger dialogue among the audience ● Impulse actions ● Trigger interest and awareness on the topic <p>Marta, writing a local news article on COVID-19 vaccines <u>The ideal outcomes of the article would be:</u></p> <ul style="list-style-type: none"> ● Local communities understand the process of vaccine development ● People are empowered ● Myths are debunked ● The article is widely circulated ● People feel represented by diverse voices within the article ● People feel their fears are acknowledged ● Researchers are more willing to communicate on vaccines ● Researchers change their attitudes to communication on vaccines ● Policymakers change their attitudes to communication on vaccines <p>Issam, preparing a TV news piece on odour pollution <u>The ideal outcomes of the article would be:</u></p> <ul style="list-style-type: none"> ● Impact on policy (awareness raising), acting on policy (acknowledging the problem) ● City planners take the problem into account ● Awareness raising for citizens on a new health threat ● Doctors are informed ● Agenda setting for research ● All stakeholders are engaged to act
<p>Brainstorming standards</p>	<p>Standards for Evidence-base:</p> <ul style="list-style-type: none"> ● Use a variety of scientific sources ● Informative of where to find additional information ● Representative and qualitative sources <p>Standards for Transparency</p> <ul style="list-style-type: none"> ● Reputation/integrity/code of conduct of a news outlet is important ● Honesty about difficulties



	<ul style="list-style-type: none"> ● Experts voice is present (they talk and interact) <p>Standards for Engagement</p> <ul style="list-style-type: none"> ● Relatable ● Engage community around doubts and fears ● Think about longevity of articles online ● Solutions-oriented (empowerment and agency) ● “Podium” for all stakeholders <p>Standards for Clarity</p> <ul style="list-style-type: none"> ● Use the right language for the right target groups ● Starting from questions (in boxes and things you should know) ● Explain the context <p>Standards for Appealing format</p> <ul style="list-style-type: none"> ● Well written ● Visually attractive images ● Diversity, including gender equality
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Engagement Workshop Module 3: Defining Indicators & tools

Brainstorming indicators	<p>Indicators to measure TRANSPARENCY</p> <ol style="list-style-type: none"> Are the sources retrievable? (scale from open access, to not retrievable) Are the credentials of sources with URLs provided? (yes/no) Is there a general introduction on the scientific research process provided in the piece? (yes/no) Where does the information come from? (Press agency, university, ...) Are the limitations in the scientific research mentioned? (yes/no) Is the scicomm piece mentioning at which stage the research currently is? (yes/no) Is the scientific method explained/mentioned (info on sampling, process, representative, reliability)? (yes/no) Does the author (journalist, etc..) use his/her own quotes? (Yes/no) Are there scicomm guidelines? (yes/no) <p>Indicators to measure EVIDENCE-BASED</p> <ol style="list-style-type: none"> Is there at least 2 sources + independent researchers sources used? When relevant, are uncertainty, doubts, and the unknown highlighted? Does the scicomm piece show multiple perspectives (multi-disciplinary and contradictory)? When possible, the scicomm piece should prioritize open access and open science Does the scicomm piece provide a read more section to take users deeper into the topic (other publications)? Have the results presented in the scicomm piece been checked/peer reviewed (exceptions: processes, novelty/urgency)? Choice of sources: Is the scicomm piece choosing the best experts:
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	<p>recommandations, affiliation, experience, publications?</p> <p>Indicators to measure ENGAGEMENT</p> <ol style="list-style-type: none"> Did the scicomm piece provoke changes in attitude, actions taken by users? (measure changes in attitude and actions people took) What is the number of comments related to the scicomm piece (as a sign of controversy and interest)? Was there a vocabulary check? Did the people understand the piece? Follow-up with the group: what do users remember? Evaluation: visitor numbers Number of likes, shares and clicks Quality of the comments “Draw a scientist” as an evaluation technique Does the scicomm piece provide a link with researchers for follow-up?
What tool would help me implement these principles, standards and indicators?	SCIENCE IN THE NEWSROOM
Who should this tool be aimed at?	Editors, newsroom managers and journalists
What are its objectives?	<ul style="list-style-type: none"> - Improve science reporting and journalism - Create awareness on the needs of good science reporting with editors and newsroom managers - Encourage slow science journalism - Implement guidelines on excellent science journalism
What format should it include?	<ul style="list-style-type: none"> - Lobbying with editors and newsroom managers - Training sessions - Guidelines (best practices, ...) adaptable to the different media organisations
What content should it include?	<ul style="list-style-type: none"> - Scholarly communication and science as an international institution - Elements of good science communication (SPIs) - Dialogue and reflexion on the role of science journalism with the target audience of the tool - Possibility for reporters to provide feedback on their needs - Recent science communication research finding



What tool would help me implement these principles, standards and indicators?	Horizon scicomm: scicomm as integral part of research
Who should this tool be aimed at?	- Policy-makers, decision-makers - EU, National levels - Science Europe
What are its objectives?	- Awareness, advocacy on science communication - Reward science communication in academia - Change funding criteria - Culture change (science communication becomes integral part of being a researcher)
What content should it include?	- Showcasing best practices and good examples (+impact) - Concrete steps and recommendations - Identification of challenges and barriers as well as needs - Manifesto/commitment charter
What format should it include?	- Series of workshops on identification of benefits and needs and co-creation of an action plan - The Action plan (final result)

What tool would help me implement these principles, standards and indicators?	Scicomm research network
Who should this tool be aimed at?	<ul style="list-style-type: none"> ● Interdisciplinary scientists with a focus on researchers working on science communication ● Existing networks such as PCST, WIN, Flemish communication science networks, BESciComm ● Risk analysis stakeholders
What are its objectives?	<ul style="list-style-type: none"> ● Advance science communication practice by applying new knowledge ● Create new knowledge on science communication ● Broaden the network of scientists interested in science communication
What content and	A network of scientists who are researchers in science communication Meetings between academics and practitioners that feed into each other



format should it include?	Finding out what holds back researchers in science communication <ul style="list-style-type: none"> - In-person meetings - Linking national and international level - Networking - Aiming to set up designated funding channels
Who can support its development?	PCST, WIN, Flemish communication science networks, BESciComm

6.1.3 Spain

Question	Answers
Country	Barcelona
Date	28/04/2022
Format: online or in person?	In person
Duration of the EW	7 hours (10am - 5pm)
How many organisers?	7
How many participants?	14
What kind of stakeholders participated? How many from each group?	1 Journalist - fact-checking 1 PhD in science communication 5 Communication manager from research centers 1 Museum director 1 Scientific museum disseminator 1 University outreach department representative 1 Digital marketing and science outreach 1 Citizen science specialist 1 Head of communication 1 Consultor in science communication

Engagement Workshop Module 1: Co-creating Principles

Question	Answers
What surprises you in these outcomes?	<ul style="list-style-type: none"> • Give importance to the impact of scientific communication - will they happen with things not related to Covid? • Knowing the communication of Pascual Maragall • Very concrete examples of good communication from newspapers, TV, etc. • Science seems to be more scary than hopeful (it's a problem)



	<ul style="list-style-type: none"> ● Responses very focused on health, not much on technology and the environment ● Technology and its impacts seem invisible ● The word "dissemination" is very often repeated and associated with science communication. ● Some people have no science in their life horizon (because of the answer "I don't remember"). ● We are blinded by current subjects , only today's issues matter ● the variety of answers ● Little about the internet, there are Instagram stories, but not Twitter or Youtube ● Cosmos continues to be a reference point despite the passing of the years ● Surprising interest in the arrival of man on the moon (past) and not the arrival of perseverance on Mars (recent). ● The importance of the visual format ● Surprisingly reliable word map ● Presence of the importance of the channel goes unnoticed ● Communicators emphasise text but success lies in good infographics ● No link to climate change as an area of science communication ● Little interest in climate change
<p>Prioritising principles</p>	<ul style="list-style-type: none"> ● Perspective ● Democratisation of information ● Rigour ● Visual format ● Reliable sources ● Impact ● Credibility ● Language ● Continuity ● Proximity ● Truthfulness ● Narrative
<p>What do you feel should be the desired principles of outstanding open science</p>	<ul style="list-style-type: none"> ● Diversity ● Multiformat (communication channels) ● Visual <i>but without the visual destroying the content</i> ● Didactic/educational ● Critical ● Inclusive



communication?	<ul style="list-style-type: none"> ● Bidirectional ● Bottom up ● Comprehensibility ● Transparency ● Creative narrative ● Accessibility ● Empathy ● Context ● Promotion of critical thinking ● Driver of change ● Generation of curiosity and knowledge ● Digital scientific literacy ● Audience segmentation ● Proposition of solutions ● Accuracy ● Open access ● Citizen science ● Storytelling ● Promoting professionalisation/specialisation ● Co-creation and generation of debate
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Engagement Workshop Module 2: Identifying Standards

<p>What would be the impact of this particular scenario if the science communication was perfectly successful? (impact on the individual, on research, on society, etc.)</p>	<p>Group 1</p> <ul style="list-style-type: none"> ● Generate impact visually ● Create a 6w script ● Consult reliable sources to create the script ● Be objective with all information ● Positive approach (even if negative things are talked about) ● Narrative that encourages sharing - viralisation ● Appeal to emotion, common goals, identification of the individual ● Bottom up: ask followers questions beforehand and make a collaborative post ● Turn followers into advocates ● Visualise all sides of the "problem" (discovery in another case study) ● That it is attractive enough to make people want to share it ● The post is part of a series of posts that would be a narrative. ● Use Instagram tools well (hashtags, tags, etc.) ● Visualise the "enemy" (politicians, energy lobby) and not responsabilise citizens. <p>Group 2</p>
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Empathy and proximity:

Random interview in the street to get testimonies from citizens (diversity of profiles: age, culture, socio-economic level, gender).

1- Truthfulness: What's in the air?

2- Rigour: Infographics on health impacts

3- Lack of environmental regulations

Sources of contrast: stakeholders involved (public sector, private sector, affected citizens).

Fairness: Make alternative solution visible, e.g.: organised platform

Group 3

- Start by making sure that a video is really what is needed: series of videos and teasers.
- Ask yourself the objective of the video
- Define the target audience
 - Youtube survey
 - Benchmarking competitors
 - Ways of consuming information
- Prepare script with storytelling
 - Impact
 - Call to action
 - context
- Contact experts plus previous bibliography of the topic
- Honesty: what is Carla's relationship with the app?
- Use external voices, give space to experts, don't just be the one talking, although this is not always successful (interviews still work worse than a youtube short alone)
- Focus on how the app works and how science will use the data in context.
- Exploiting YouTube positioning, keywords
- Measure viewing statistics
- Indicators
- Comments
- App download metrics x your video
- Identify what works

Group 4



	<ul style="list-style-type: none"> ● Innovative format (twitter thread, stories on Instagram), infographics, clarity of message ● Channels (social media, digital, etc): ask questions, reply when the article has been made ● Appropriate narrative, accessible language ● Contextualisation, audience questions
Brainstorming standards	<p>Critical:</p> <ul style="list-style-type: none"> ● reflect all parties involved (make interest explicit) ● evaluate the outcome and consequences of communication ● be clear about the didactic objective <p>Diversity:</p> <ul style="list-style-type: none"> ● include stakeholders ● incorporate a diachronic view <p>Reach everyone:</p> <ul style="list-style-type: none"> ● adapt the message to the target audience ● enrich with humour and emotion ● interdisciplinary ● do not stereotype <p>Didactics:</p> <ul style="list-style-type: none"> ● recontextualise and do not simplify ● highlighting basic research and local innovation <p>Rigorous and truthful:</p> <ul style="list-style-type: none"> ● review by a collaborating specialist ● based on up-to-date scientific evidence ● bibliographic sources ● multidisciplinary team for quality <p>Empathy and equity:</p> <ul style="list-style-type: none"> ● neutral ● inclusive <p>Diversity format:</p>



- tailored to the specific audience
- cognitive diversity
- accessibility
- attractiveness
- creative
- display the information
- reference the data source

Contrasted, reliable and diverse sources:

- accreditation and recognition
- conflict of interest (ethics)
- independent
- specialists

Transparency:

- real data

Context/objectivity:

- minimum talk to 2 pax, but depends on topic and consensus
- if there is controversy assess whether all perspectives should be reflected
- be careful with the type of literature
- start with systematic reviews then high impact
- go to official and original sources
- allow the info to be correctly assessed

Impact (driver of change):

- think about interests and priorities for telling the message
- visual and cultural references
- data visualisation tools are recommended

Audience segmentation:

- change the language for each age and audience
- use the codes of each segment
- surveys, focus groups and interviews to understand the target audience
- stickers on Instagram
- surveys on youtube, twitter likes and rt
- don't always simplify, define the target audience (user centred design)
- explain it as you have understood it



	<p>Journalism principles:</p> <p>Be informative:</p> <ul style="list-style-type: none"> ● certain value adjectives avoid it ● beware of sensationalism <p>Be honest:</p> <ul style="list-style-type: none"> ● referencing everything everywhere (contacts) or admitting that you have no references <p>Balance between information and opinion:</p> <ul style="list-style-type: none"> ● make opinions of evidence explicit <p>Accessible language:</p> <ul style="list-style-type: none"> ● analogies ● explanation of technical terms ● links to more info ● concise sentences <p>Narrative:</p> <ul style="list-style-type: none"> ● audience identification ● helps to maintain interest ● keeping proportions (one testimony is not representative of all) <p>Channels:</p> <ul style="list-style-type: none"> ● reading time ● tailored to the target audience ● two-way interaction ● ease of sharing
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Engagement Workshop Module 3: Defining Indicators

<p>Brainstorming indicators</p>	<p>Critical:</p> <ul style="list-style-type: none"> ● reflects any hidden interests? ● does it include several voices or points of view?
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	<ul style="list-style-type: none"> ● KPI RRSS- Number of likes, number of interactions <p>Didactic:</p> <ul style="list-style-type: none"> ● include and value basic research, including local research <p>Bottom-up:</p> <ul style="list-style-type: none"> ● number of comments ● interest by topic ● interactions ● visits typology news <p>Diversity:</p> <ul style="list-style-type: none"> ● number of countries geographical diversity ● gender diversity ● number of different formats ● number of different platforms ● number of visual resources used <p>Data, empathy, equity:</p> <ul style="list-style-type: none"> ● number of actors considered: minimum 4 (helix) <p>Adapted language:</p> <ul style="list-style-type: none"> ● incidents ● visual impairment ● hearing impairment ● inclusive gender <p>Sources, data:</p> <ul style="list-style-type: none"> ● number of sources consulted and types ● journal quality ● peer review ● open access ● indicate when pre - print ● declaration of conflict of interest ● work in recognised institutions and organisations ● yes/no you have consulted bibliographic sources ● expert sources ● have you read the scientific article
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- long-term driver of change: attracting talent that when applying for an offer they know you through social networks
- at least one voice for and one against on controversial topics (specialist people)
- at least 2 different sources
- proximity (sources that are involved in the issue)

Multidisciplinary team:

- specialists in different topics and data

Media impact:

- number of press releases
- how many call you with requests
- clipping
- that you reach a new medium that has not been reached before
- the number of times you reach media, number of unique media you have reached
- alignment of objectives and measurement
- *observation: a minimum indicator that does not take time or all of your communication time to analyse after*

Objectivity:

- yes/no external or peer evaluation of the objectivity of your piece
- conversion funnel: track how hard or how much effort they do apply it

Impact:

- RRSS algorithms
- viewing time
- the minute they abandon a video
- average video time (the time until you have half of your entire audience)
- number of views
- number of videos (equivalent for other communication products)
- action trigger of a communication element 'engagement', eg: likes, RT, level of interaction
- press release number of journalists contacting you
- number of visits to the article

References:

- scientific articles



	<ul style="list-style-type: none"> • data from official organisations
Engagement Workshop Module 3: Defining tools	
TOOL 1	
What tool would help me implement these principles, standards and indicators?	Software for KPIs
Who should this tool be aimed at?	Journalists, students, research centre communicators, project managers,
What are its objectives?	Tool to evaluate activity, RRSS, hashtags, mentions, etc.
What content and format should it include?	Tool to analyse the quality of scientific communication, web with checklist to check the degree of excellence, data visualisation interface, publications programming interface, free of charge
Who can support its development?	Developers, science communicators
TOOL 2	
What tool would help me implement these principles, standards and indicators?	Virtual platform



Who should this tool be aimed at?	Science communication professionals, scientific community, journalists.
What are its objectives?	Promote good practices, democratise them, unify criteria, professionalise, materialise, create community.
What content and format should it include?	Video capsules, toolkit, guideline, intensive workshops (face-to-face, virtual), validation, recognition of good practices, questionnaire and evaluation.
Who can support its development?	Science for Change, web developers, web dynamiser, public administration, science communication institutions (ACCC, AECC, etc), press offices, research centres, foundations, companies.

TOOL 3

What tool would help me implement these principles, standards and indicators?	Database of experts in science and science communication.
Who should this tool be aimed at?	Journalists and communicators, research centres, universities, researchers (positioning).
What are its objectives?	Increasing diversity of sources, bypassing Google, saving time for the professional, facilitating compliance with best practice criteria.
What content and format should it include?	Usable as a social/contact network, alerts to communication department, coding of information with intelligent search, up-to-date, reward system (aneca accreditation, funding improvements)



Who can support its development?	ENJOI, other EU-funded projects, FECYT, SINC.
TOOL 4	
What tool would help me implement these principles, standards and indicators?	Guide about good practices
Who should this tool be aimed at?	Science communicators, popularisers, journalists, scientific community, press offices.
What are its objectives?	Training, to provide guidelines for excellent communication, to create a reference document and to be practical.
What content and format should it include?	Lessons learnt; list of network contacts, bibliographic recommendations, examples of excellent articles from the press; definition of what good practices are for a Communication of excellence; a visually attractive guide.
Who can support its development?	Communication experts who can review it, journalists, institutions, influencers, private foundations, public entities, designers and translators

6.1.4 Portugal

Question	Answers
Country	Portugal
Date	25/05/2022



Format: online or in person?	In person
Duration of the EW	10:00 - 16:00
How many organisers?	3
How many participants?	13 participants, divided in 3 groups (4 + 4 + 5)
What kind of stakeholders participated? How many from each group?	Journalists (environment; fact-checking; visual storytelling; generalist) = 4 PhD and master students (astrobiology, engineering, and maths, one of them also content producer in social media) = 3 Institutional communication (astrophysics and biology/chemistry) = 2 Medical doctor (also content producer in social media) = 1 Museum curator (natural sciences) = 1 Media editor & researcher/lecturer in journalism = 1 Media literacy association representative, journalist & researcher/lecturer in journalism = 1

Co-creating Principles and Standards

Question	Answers
Brainstorming of principles	<p><u>Group 1</u> Scientific rigour Avoid sensationalism Attractiveness Storytelling Creativity Relevance (impact) Clarity Accessibility</p> <p><u>Group 2</u> Independence Factuality Trust Public interest (reply to and create) Inclusion Transparency</p> <p><u>Group 3</u></p>



	<p>Responsibility Transparency Code of ethics / common values Honesty / integrity Impartiality Neutrality (vs partiality) Cultural diversity & diversity of opinions Critical thinking Rigour (scientific) No polarisation of debates Information vs opinion (clearly identified) Process and not only results (science not as immutable truth)</p>
<p>Brainstorming standards</p>	<p><u>Group 1</u> To include diversity of sources To use reliable sources To verify sources Peer-review Not to extrapolate Use of plain language Use of analogies Relation to day-to-day (stories) To adequate the topic to the format (video, text, etc.) and to the media (newspaper, social media, radio, etc.)</p> <p><u>Group 2</u> To validate To verify To clarify To include/cite specialised sources To include/cite primary sources Creativity in the way information is presented Use of multimedia, infographics Clear language To adapt/adjust the content to the context/needs (rhythm)</p> <p><u>Group 3</u> Adaptation to change (science not as immutable) To consider the audience (identification and adjustment) To use multiple formats (photos, texts, graphs) Newsworthy (information hierarchy) Open standards Open methods (open sources) - reproducibility</p>



	<p>Open data - availability of data Collaboration and cooperation (vs competition) Science - culture Reliability (sources) Identification of sources Training in communication Experimental + social sciences (all sciences/all fields of knowledge) Storytelling</p>
<p>Clustering and prioritization of principles (Top 3 principles)</p>	<p><u>Group 1</u></p> <ol style="list-style-type: none"> 1. Rigour 2. Relevance 3. Accessibility <p><u>Group 2</u></p> <ol style="list-style-type: none"> 1. Independence 2. Factuality 3. Trust <p><u>Group 3</u></p> <ol style="list-style-type: none"> 1. Transparency 2. No polarisation of debates 3. Scientific rigour
<p>Clustering of standards (TOP3 principles and their associated standard)</p>	<p><u>Group 1</u></p> <ol style="list-style-type: none"> 1. Principle 1 Rigour → Standards: verify sources; reliable sources; no extrapolation; diversity of sources; peer-review 2. Principle 2 Relevance → Standards: to adequate the topic to the format and to the media; relation to day-to-day (stories) 3. Principle 3 Accessibility → Standards: plain language; analogies <p><u>Group 2</u></p> <ol style="list-style-type: none"> 1. Principle 1 Independence → Standards: to use and cite several sources; primary sources; to adapt/adjust the content to the context/needs (rhythm) 2. Principle 2 Factuality → Standards: validate/verify; creativity in the way information is presented; use of multimedia 3. Principle 3 Trust → Standards: clarification; clear infographics; clear language <p><u>Group 3</u></p> <ol style="list-style-type: none"> 1. Principle 1 Transparency → Standards: Open methods and reproducibility; sources; ethics 2. Principle 2 No polarisation of debates → Standards: Diversity (cultural, socio-economic, racial, ethnicity, etc.); collaboration and cooperation (vs



	<p>competition); definition of the target audience and adaptation of the message</p> <p>3. Principle 3 Scientific rigour → Standards: Critical thinking; impartiality; science as a process and adaptation to change (not immutable truths)</p>
<h2 style="background-color: #00a68a; color: white; padding: 5px;">Defining Indicators</h2>	
<p>Brainstorming and clustering of indicators (indicators for each of the TOP 3 principles and their associated standards identified)</p>	<p><u>Group 1 (with inputs from groups 2 and 3)</u></p> <p>Principle 1: Rigour, related indicators:</p> <ul style="list-style-type: none"> ● Does the article/piece include diverse sources (with diverse cultural, socio-economic status, etc.)? ● How many sources does the article/piece include/cite? ● Does the article/piece include specialised/recognised (by the scientific community) and reliable sources? ● Was the scientific article subjected to peer-review? ● Existence of good practices in science (research) to guarantee scientific rigour <p>Principle 2: Relevance, related indicators:</p> <ul style="list-style-type: none"> ● Is the article/piece of interest for the public? (public interest) ● Does the article/piece include (statistical) data? ● Does the article/piece cover a topic of national and/or international interest? Is it subject of debate/scrutiny? ● Has the article/piece promoted social or political changes (nationally or internationally)? (e.g., legislation or new lines of funding) ● Has the article/piece promoted social or political debate? ● Metrics (for evaluation), e.g., indicators of engagement <p>Principle 3: Accessibility, related indicators:</p> <ul style="list-style-type: none"> ● Is the article/piece comprehensible? <i>“Could you explain it to your granny”?</i> ● Does the article/piece incorporate/use formats that allow inclusive communication (e.g., sign language)? ● Is the article/piece adequate to its target audience? ● Is the language used adequate? ● Usability (web accessibility) <p><u>Group 2 (with inputs from groups 1 and 3)</u></p> <p>Principle 1: Independence, related indicators:</p> <ul style="list-style-type: none"> ● Does the article/piece include diverse sources (minimum of two)? Diversity and number of sources: at least two sources, one should be a



	<p>primary source (minimum) and one should be a specialised and independent source (minimum)</p> <ul style="list-style-type: none"> • Does the article/piece identify any conflict of interests? • Does the article/piece identify any financing source? • Is the article/piece sponsored? - identification of sponsored content (content shouldn't be sponsored) • Periodical meetings to monitor and assess the work conducted <p>Principle 2: Factuality, related indicators:</p> <ul style="list-style-type: none"> • Does the article/piece include and/or cite sources for each fact mentioned? • Is the article/piece based on facts? • Has the article/piece been reviewed by experts in the field and/or other colleagues (e.g., other journalists)? <p>Principle 3: Trust, related indicators:</p> <ul style="list-style-type: none"> • Are the sources official? • Are the sources identified in the article/piece? • (If any) Is funding clearly identified in the article/piece? (transparency about / independency of financial sources) • Does the article/piece or media assess their performance through direct interaction with the audience (e.g., survey, focal groups)? <p><u>Group 3 (with inputs from groups 1 and 2)</u></p> <p>Principle 1: Transparency, related indicators:</p> <ul style="list-style-type: none"> • Does the article/piece (and/or media) identify any conflict of interests? • Does the article/piece include sources? How many sources are cited? • Does the article/piece follow the code of ethics? • Reliability of sources • Does the article/piece include, cite and/or use/share open source or open data? • Does the media make public their funding/financial information (availability of financial report)? • Avoid use of jargon - accessibility of the information provided <p>Principle 2: No polarisation, related indicators:</p> <ul style="list-style-type: none"> • Does the article/piece include diverse sources? • Does the team incorporate diverse backgrounds (gender, geographies, ethnicity, etc.)? • Does the article/piece or media assess their performance through direct interaction with the audience (e.g., survey, focal groups)? For instance, to ensure accessibility of the content
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	<p>Principle 3: Scientific rigour, related indicators:</p> <ul style="list-style-type: none"> ● Has the article/piece been reviewed by experts in the field and/or other colleagues (e.g., other journalists)? ● Are the sources cited? ● Is the article/piece based on facts? ● Is the article/piece based on data? (to favour the use of data, in particular in experimental sciences) ● Rigorous use of adjectives (only when necessary)
<p>Most voted SPIs</p>	<p><u>PRINCIPLES</u></p> <ul style="list-style-type: none"> ● Transparency ● Rigour (journalist and scientific) ● Accessibility ● Factuality ● Trust ● Independence ● Relevance ● No polarisation <p><u>STANDARDS</u></p> <ul style="list-style-type: none"> ● To include diversity of sources (backgrounds, etc.) ● To use open methods (for reproducibility) ● To use plain and clear language ● To verify the sources ● Impartiality ● No extrapolation ● To adequate the topic to the format (video, infographics, etc.) and media (newspaper, radio, social media) ● To validate and verify ● To present science as a process ● To identify the target audience and to adapt to it <p><u>INDICATORS</u></p> <ul style="list-style-type: none"> ● Sources (15) <ul style="list-style-type: none"> ○ Does the article/piece include diverse sources (with diverse cultural, socio-economic status, etc.)? ○ Does the team involved (or the media) incorporate diversity (i.e., journalists/scicommers in newsrooms, institutional communication offices, etc.)? ○ How many sources does the article/piece include/cite? ○ Does the article/piece include specialised/recognised (by the scientific community) sources? ○ Does it include/cite reliable sources?



	<ul style="list-style-type: none"> ○ Does it include/cite primary sources? ○ Does it include/cite independent sources? ○ Does it include/cite noticeable sources? ● Data (8): <ul style="list-style-type: none"> ○ Is the article/piece based on/supported by data? ○ Does the article/piece include (statistical) data? ○ Does the article/piece include, cite and/or use open source or open data repositories (for reusability and accessibility of data, in particular in data journalism)? ● Was the scientific article subjected to peer-review? ● Is the language used adequate? ● Has the article/piece been reviewed by experts in the field and/or other colleagues (e.g., other journalists)? ● Does the article/piece incorporate/use formats that allow inclusive communication (e.g., sign language)? ● Is the article/piece sponsored? (if so) Is it correctly identified? ● Does the article/piece (and/or media) identify any conflict of interests? ● Does the article/piece follow/apply the code of ethics (for journalists)? ● Is the article/piece of interest for the public? Does the article/piece cover a topic of national and/or international interest (e.g., subject of debate/scrutiny)? ● Is the article/piece adequate to its target audience?
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Co-creation of tools

<p>What tool would help me implement these principles, standards and indicators?</p>	<ol style="list-style-type: none"> 1. Platform/app (online) 2. Game (online) 3. Debates throughout the country (north to south, in person)
<p>Why this tool?</p>	<ol style="list-style-type: none"> 1. To ensure the correct interpretation of scientific information 2. To increase media literacy through a process of learning by doing, captivating diversified publics to produce and disseminate scientific content (prosumers) 3. To disseminate 'good practices' of science communication and journalism



<p>Who should this tool be aimed at?</p>	<ol style="list-style-type: none"> 1. Journalists (in particular, generalist) 2. Science communicators (in general, anyone interested in science communication/journalism) 3. Journalists, researchers/scientists, and general public
<p>What are its objectives?</p>	<ol style="list-style-type: none"> 1. To explain the several parts that form a scientific article (science literacy for journalists) 2. To increase media literacy by imitating the process of content production (in science communication and journalism), in an oriented way and based on the principle of 'learning by doing'. Design to help players (diversified audience, but in particular the youth) to understand, learn, and apply the 'good practices' while playing. Objective of the game: to gain a reputation to be a recognised science communicator, journalist, Youtuber, etc. 3. To disseminate 'good practices' in journalism and science communication in a series of debates that incorporate the views (and knowledge) of journalists, scientists, and the general public
<p>What content and format should it include?</p>	<ol style="list-style-type: none"> 1. Digital platform to automate access to scientific articles and the explanation of each of their components (e.g. journal name, quartile, IF, authors names, affiliations, conflict of interests, etc.) 2. Online game. Players decide how news/science information are produced by taking the role of science communicators or journalists, when they apply a 'good practice' players win badges. Players can choose the topic, sources, target audience, format, etc. Good practices can take the form of challenges to overcome / goals to be achieved. 3. In-person debates, organised in several places (e.g., schools, universities, local councils, newsrooms, etc.) covering the entire country; need to have a moderator and a guideline of 'good practices'



7. CONCLUSION

The EWs demonstrated to be a great opportunity to reflect on the quality of science communication and science journalism. The co-creation process implemented during the EWs led to the development of an improved version of the Standard, Principles and Indicators (SPIs) defined within WP2.

This challenge will be further addressed during the Labs and condensed into the ENJOI Manifesto for a more consistently, reliable, truthful, open, engaging and useful science communication and journalism.

The feedback from all the different stakeholders who attended the Engagement Workshops was very positive and the fact that they are all interested in ENJOI's next step is an important assessment for the project.

In all the four countries, the EWs participants also expressed their high interest in being involved in similar think tanks and working groups to discuss the quality of science communication and journalism. After the pandemic, this became an even more urgent need for many stakeholders. The collaborative local and international partnerships established within ENJOI might very well address this need, promoting exchanges between professionals and providing useful inputs towards the ENJOI Observatory for an outstanding open science communication.

8. REFERENCES

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Matozinhos, K., Magalhães, J., Arias, R., Guasch, B. (2022). D.4.1 The ENJOI Engagement Methodology for target users and quadruple helix stakeholders. Deliverable report of project H2020 ENJOI (grant agreement No 101006407). <https://doi.org/10.5281/zenodo.6641827>

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9. ANNEX - see next section





Annex 9.1

Guidelines and Templates for the Engagement Workshops



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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Abstract

The Engagement Workshops (EWs) are at the core of ENJOI's strategy to innovate science communication taking into account experiences, skills and knowledge distributed in different social and cultural groups. Researchers and practitioners of science communication will be involved at consultation, validation and co-creation stages.

To take into account local, geographical, linguistic and socio-economical differences, the EWs will be organized in local languages in each country (Italy, Spain, Portugal and Belgium). The local dimension would greatly improve also the recognition of local/regional social, cultural and economic differences while granting a higher degree of inclusiveness, from different perspectives starting from the gender one. The focus on local dynamics and issues emerging from the EWs will also be useful to compare the situation of how science communication is produced and perceived in the different countries and to draw useful conclusions to be transferred at global level.

A group of 8-15 people in each country will work in different aspects of science communication, with a good balance of practitioners and researchers. There people can be science and data journalists, communication and dissemination experts, citizen science practitioners, museum staff, media editors, cross-sectional experts, local activists; teachers and students and more.

All results and outcomes from EWs will be incorporated into the final set of Standards, Principles and Indicators that will constitute, together with guidelines and recommendations yielding from all EWs the ENJOI Manifesto to become a landmark reference for production and correct use of OOSC in the media environment.

In this document the partners that will run the EWs will find the following information:

- Before the EW
 - Sending survey or interview to 50 citizens.
 - Collecting the answers from the surveys and completing the analysis grid
- During the EW
 - Instructions for Miro and offline materials
- After the EW
 - Reporting EW

More information about the methodology of the roadmap and the EW can be found in the D3.1 Developing a roadmap and D3.2 Co-designing innovative multi stakeholder engagement for OOSC. The meeting where these materials were presented is available at: <https://drive.google.com/file/d/1jflj3z3grdIZx3-cRnXsuZ-0z6v8Hx4x/view?usp=sharing>





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1. Survey

1.1 Guideline

The survey is part of “Gathering public perceptions” in the D3.2 Co-designing innovative multi stakeholder engagement for OOSC. The aim is to interview around 50 people: non-professionals in research, journalism or science communication.

Below there is a template that can be translated to each language and put into a [Google Form like this](#).

The countries can choose to have interviews with citizens instead of the survey. No personal data should be collected from participants.

Deadline: Ideally at least 30 to 15 days before the first EW. The answers need to be looked over into the analysis grid model because they will be part of the first dynamic of the EW.

1.2 Template

ENJOI is a European project that explores how we can communicate science in the best possible way. We are working with science communicators and journalists across Spain and Europe to create a set of standards for excellent science communication. We hope that at the end every science communicator in Europe will follow these standards to improve the quality of journalism. Your views will provide the starting point of this European co-creation process. Our survey takes less than 5 minutes to answer. Thank you!
<https://enjoiscicomm.eu/>

1- Do you work in journalism or science communication? (Close question)

- Yes
- No

2- If I say to you “science communication,” what is the first thing you think about? (Open question)

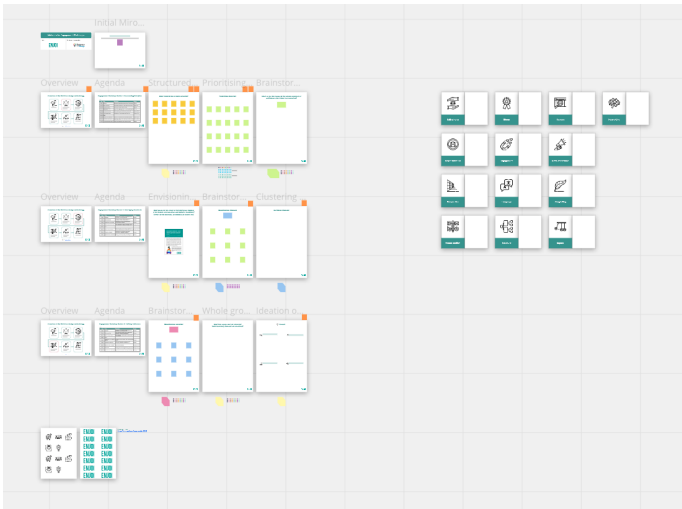
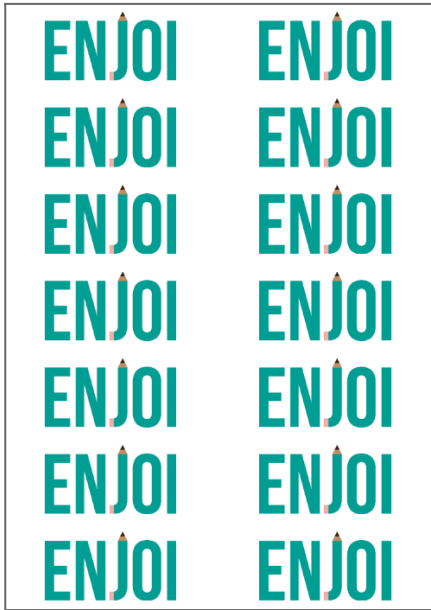
3- Please think about a situation in which it was important to communicate about science research. Can you give a successful example of science communication that worked well in that situation? (Open question)



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<p>Template with comments and more (work-in-progress template with comments and other materials such as stickers that will be needed for face-to-face workshops): https://miro.com/app/board/uXjVQZt142g=/</p>	
<p>ENJOI labels to print on sticky paper and place at the bottom right corner of every piece of paper produced during the workshop. Model: APLI Ref. 01277 https://www.apli.com/es/producto/01277</p>	
<p>In the following sections (3.1, 3.2 and 3.3), we will describe all the materials that need to be printed and drawn for the three engagement workshops. You can download all of them in PDF using these links. Remember to adapt the size to fit a DIN-A4 when printing.</p>	<p>Editable Agenda for EW1, EW2 and EW3. Overview and agenda for EW1 (print on A4). Documents to draw for EW1 (draw on flipchart paper).</p> <p>Overview and agenda for EW2 (print on A4). Documents to draw for EW2 (draw on flipchart paper). Scenarios for EW2 (print on sticky paper A4).</p> <p>Overview and agenda for EW3 (print on A4). Documents to draw for EW3 (draw on flipchart paper). Icons for EW3 (print on sticky paper A4).</p> <p>ENJOI stickers for all sessions (print on sticky paper A4).</p>



3.1. Engagement Workshop 1: Agenda and templates

(2h10min)

Time	Title, description and materials	
5 min	Welcome	
	Description	Welcome to the workshop, presentation of the agenda and practical guidelines.
	Format	Plenary
	Documents to print	<p>2 documents in DIN-A4, color, 1 copy per each working group:</p> <ul style="list-style-type: none"> • Overview of the ENJOI co-design methodology. • Agenda of the session.

Overview of the ENJOI co-design methodology

ENJOI

Engagement Workshop Module 1: Co-creating Principles

Agenda

Time	Title	Description	Format
5 min	Welcome	Welcome to the workshop, presentation of the agenda and practical guidelines	Plenary
10 min	Warm-up activity	Participants' introduction - What makes great science communication for you?	Groups of 3
10 min	Initial presentation	Presentation of public opinion results	Plenary
5 min	Dynamic and format introduction	Presentation of the dynamic as a whole and the format of the session (Miro for online, posters for face-to-face)	Plenary
20 min	Structured discussion	What surprises you in the interviews' outcomes?	Groups of 4-6
10 min	Prioritising principles	Prioritisation of the principles identified in the interviews	Groups of 4-6
15 min	Break		
40 min	Brainstorm and discussion	What do you feel should be the desired principles of outstanding open science communication?	Groups of 4-6
5 min	Prioritisation of principles	Prioritisation of the clusters of principles defined in the previous discussion	Groups of 4-6
10 min	Final discussion and wrap-up	Open final conversation, next steps and closing	Plenary

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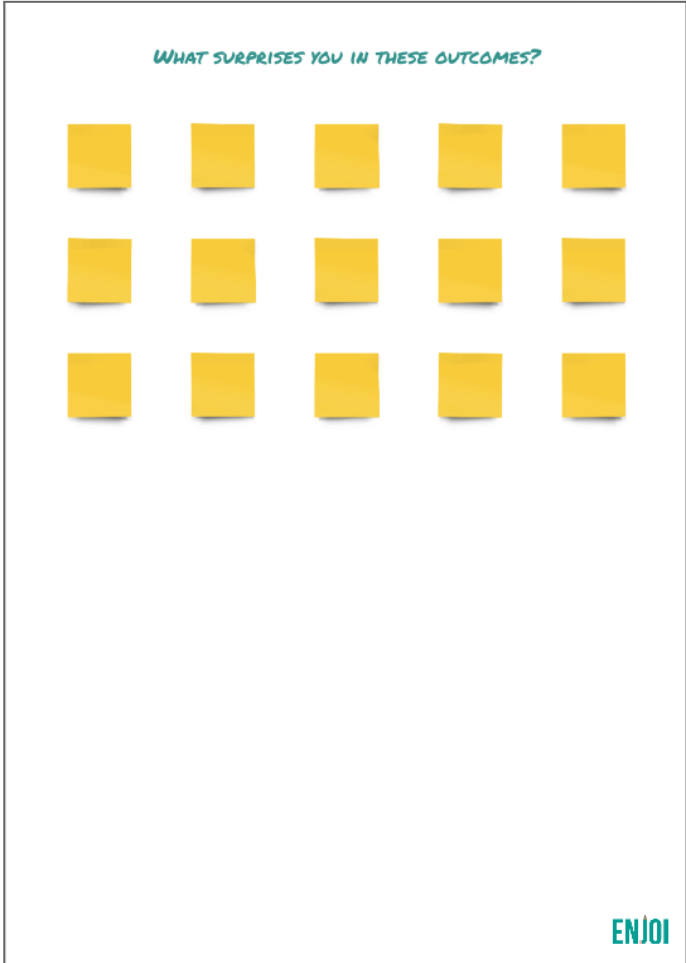
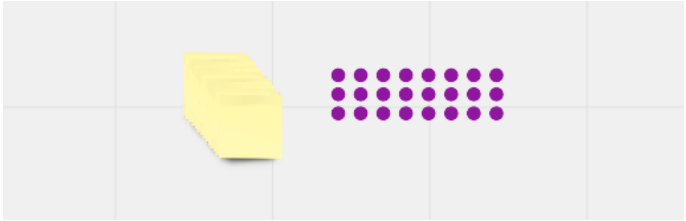
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	Documents to draw	–
	Other materials needed	Presentation template (PPT)
10 min	Warm-up activity	
	Description	Participants' introduction – What makes great science communication for you?
	Format	Groups of 3
	Documents to print	–
	Documents to draw	–
	Other materials needed	–
10 min	Initial presentation	
	Description	Presentation of public opinion results
	Format	Plenary
	Documents to print	–
	Documents to draw	–
	Other materials needed	Presentation
5 min	Dynamic and format introduction	
	Description	Presentation of the dynamic as a whole and the format of the session (posters, sticky notes and dots, working groups, etc.)
	Format	Plenary
	Documents to print	–
	Documents to draw	–
	Other materials needed	–
20 min	Structured discussion	
	Description	What surprises you in the surveys' outcomes?
	Format	Groups of 4-6
	Documents to print	–

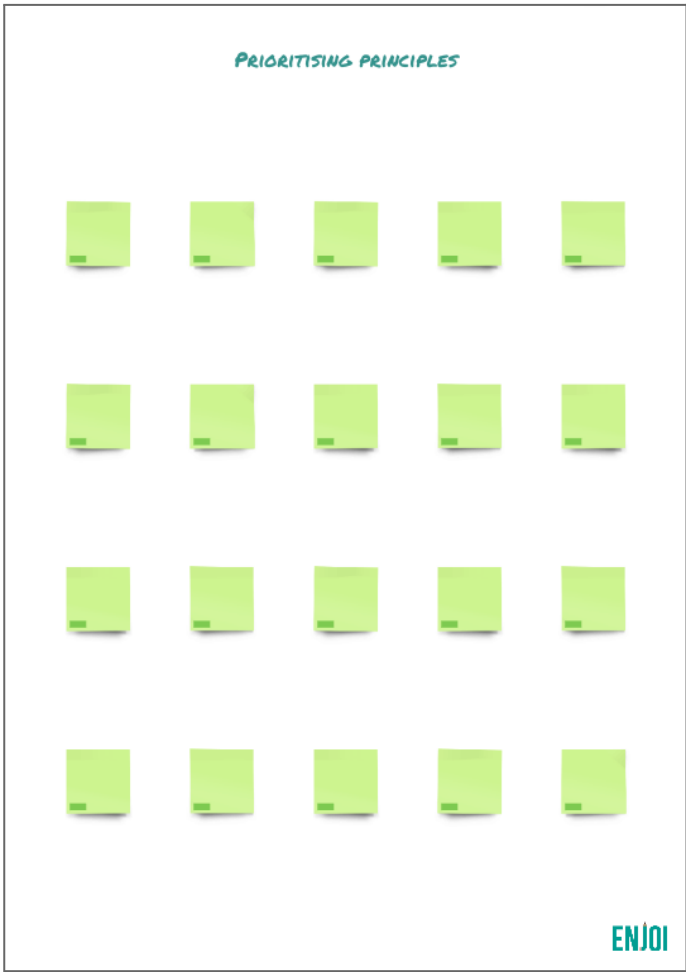




Documents to draw		<ul style="list-style-type: none">• Flipchart paper size – approx. 100x70cm (1 per each working group).• Answers that will come from the survey will be placed on the poster before the beginning of the session, leaving enough free space for the participants to add their ideas. We suggest these are added using dark yellow sticky notes (1 per answer). <div data-bbox="620 517 1307 1476"></div>
Other materials needed		<ul style="list-style-type: none">• Light yellow sticky notes (approx. 8 per person).• Sticky dots of 1 color – we suggest purple (3 per person).• Fine black felt-tip pens. <div data-bbox="620 1664 1307 1883"></div>





10 min	Prioritising principles	
	Description	Prioritisation of the clusters of principles defined in the previous discussion
	Format	Groups of 4-6
	Documents to print	–
	Documents to draw	<ul style="list-style-type: none">• Flipchart paper size – approx. 100x70cm (1 per each working group).• Already defined principles will be placed on the poster before the beginning of the session. We suggest these are added using green sticky notes (1 per principle). 
Other materials needed	<ul style="list-style-type: none">• Sticky dots of 2 colors and shapes – we suggest blue circles and green triangles (3 per person of each type).• Fine black felt-tip pens.	






15 min	Break	
40 min	Brainstorm and discussion	
	Description	What do you feel should be the desired principles of outstanding open science communication?
	Format	Groups of 4-6
	Documents to print	–
	Documents to draw	<ul style="list-style-type: none"> • Flipchart paper size – approx. 100x70cm (1 per each working group). • The definition of Principle will be placed on the poster before the beginning of the session. We suggest this is added using a big green sticky note.





		<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>WHAT DO YOU FEEL SHOULD BE THE DESIRED PRINCIPLES OF OUTSTANDING OPEN SCIENCE COMMUNICATION?</p> <div style="border: 1px solid black; background-color: #d9ead3; padding: 5px; width: fit-content; margin: 10px auto;"> <p><small>PRINCIPLE</small></p> <p>A fundamental truth, serving as the common ground to build theories about good science communication</p> </div> <p style="text-align: right; color: #008080; font-weight: bold;">ENJOI</p> </div>
	<p>Other materials needed</p>	<ul style="list-style-type: none"> ● Green sticky notes (approx. 8 per person). ● Sticky dots of 1 color – we suggest purple (3 per person). ● Fine black felt-tip pens. <div style="text-align: center; margin-top: 10px;">  </div>
5 min	Prioritisation of principles	
	Description	Prioritisation of the clusters of principles defined in the previous discussion
	Format	Groups of 4-6
	Documents to print	–



	Documents to draw	(use the map from the previous dynamic)
	Other materials needed	(use the materials from the previous dynamic)
10 min	Final discussion and wrap-up	
	Description	Open final conversation, next steps and closing
	Format	Plenary
	Documents to print	–
	Documents to draw	–
	Other materials needed	–

3.2. Engagement Workshop 2: Agenda and templates

(2h10min)

Time	Title, description and materials	
5 min	Welcome	
	Description	Welcome to the workshop, presentation of the agenda and practical guidelines.
	Format	Plenary
	Documents to print	2 documents in DIN-A4, color, 1 copy per each working group: <ul style="list-style-type: none"> • Overview of the ENJOI co-design methodology. • Agenda of the session.



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		<div style="text-align: center;"> <h3>Overview of the ENJOI co-design methodology</h3> <p>ENJOI</p> </div> <div style="text-align: center; margin-top: 20px;"> <h3>Engagement Workshop Module 2: Identifying Standards</h3> <p>Agenda</p> <table border="1"> <thead> <tr> <th>Time</th> <th>Title</th> <th>Description</th> <th>Format</th> </tr> </thead> <tbody> <tr> <td>5 min</td> <td>Welcome</td> <td>Welcome to the workshop, presentation of the agenda and practical guidelines</td> <td>Plenary</td> </tr> <tr> <td>10 min</td> <td>Warm-up activity</td> <td>Drawing concepts to align to the notion of standards in science communication</td> <td>Plenary</td> </tr> <tr> <td>10 min</td> <td>Presentation of scenarios</td> <td>Presentation of a set of fictitious science communication scenarios</td> <td>Plenary</td> </tr> <tr> <td>15 min</td> <td>Envisioning ideal outcomes</td> <td>What would be the impact of a particular scenario on an individual, on research, on society, etc.?</td> <td>Groups of 4-6</td> </tr> <tr> <td>15 min</td> <td>Break</td> <td></td> <td></td> </tr> <tr> <td>40 min</td> <td>Brainstorming standards</td> <td>What standards would need to be met in this scenario to achieve your collective ideal outcome?</td> <td>Groups of 4-6</td> </tr> <tr> <td>20 min</td> <td>Clustering standards</td> <td>Presentation of standards of each group, clarification if needed and clustering</td> <td>Plenary</td> </tr> <tr> <td>15 min</td> <td>Final discussion and wrap-up</td> <td>Final conversation focused on what standards are missing under each principle, and closing</td> <td>Plenary</td> </tr> </tbody> </table> <p>ENJOI</p> </div>	Time	Title	Description	Format	5 min	Welcome	Welcome to the workshop, presentation of the agenda and practical guidelines	Plenary	10 min	Warm-up activity	Drawing concepts to align to the notion of standards in science communication	Plenary	10 min	Presentation of scenarios	Presentation of a set of fictitious science communication scenarios	Plenary	15 min	Envisioning ideal outcomes	What would be the impact of a particular scenario on an individual, on research, on society, etc.?	Groups of 4-6	15 min	Break			40 min	Brainstorming standards	What standards would need to be met in this scenario to achieve your collective ideal outcome?	Groups of 4-6	20 min	Clustering standards	Presentation of standards of each group, clarification if needed and clustering	Plenary	15 min	Final discussion and wrap-up	Final conversation focused on what standards are missing under each principle, and closing	Plenary
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	Other materials needed	<ul style="list-style-type: none"> • DIN-A5 or DIN-A6 papers – that is, dividing an A4 into 2 or 4 pieces of paper (4 per person). • Fine black felt-tip pens. 																																				


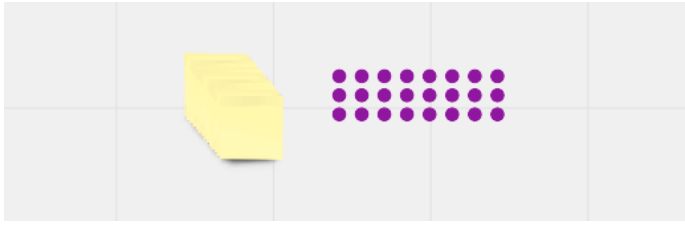




10 min	Presentation of scenarios	
	Description	Presentation of a set of fictitious science communication scenarios
	Format	Plenary
	Documents to print	–
	Documents to draw	–
	Other materials needed	Presentation
15 min	Envisioning ideal outcomes	
	Description	What would be the impact of a particular scenario on an individual, on research, on society, etc.?
	Format	Groups of 4-6
	Documents to print	<ul style="list-style-type: none"> Scenario documents in DIN-A4, color, 1 copy per each scenario/ working group. <div style="border: 1px solid black; padding: 10px; margin-top: 10px;"> <p>ENGAGEMENT WORKSHOP - ENJOI Collaborative partnership to envision ideal outcomes of open science communication scenarios</p> <p>Carla, 35 years old, journalist for an independent newspaper</p> <p>Hi, my name is Carla, I am 24 years old and I am a Youtuber. I have had my channel for two years and so far I have 600.000 subscribers. My next video will be about insomnia and the effects on the body. I would like to present the causes, what consequences can have bad sleep or what to do if you sleep badly, but I also want to share a little of my experience and what I learned in one of the most complicated moments of my life.</p> <div style="display: flex; align-items: center;">  <p style="font-size: 0.8em;">My audience is between 15 to 35 years old. I am the person that writes the script and also edit the video. Now I need your help, what will success look like for my story?</p> </div> <p style="text-align: right; font-weight: bold; font-size: 1.2em; margin-top: 10px;">ENJOI</p> </div>
Documents to draw	<ul style="list-style-type: none"> Flipchart paper size – approx. 100x70cm (1 per each working group). Each scenario will be placed on the poster before the beginning of the session, leaving enough free space for the participants to add their ideas. 	

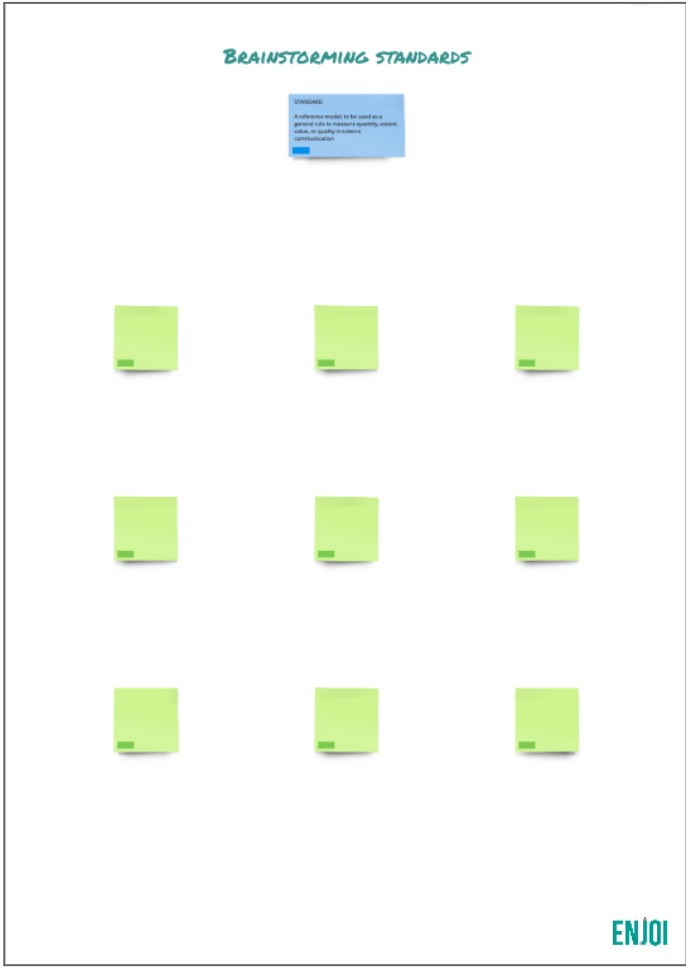




		<p style="text-align: center;"><i>WHAT WOULD BE THE IMPACT OF THIS PARTICULAR SCENARIO IF THE SCIENCE COMMUNICATION WAS PERFECTLY SUCCESSFUL? (IMPACT ON THE INDIVIDUAL, ON RESEARCH, ON SOCIETY, ETC.)</i></p> <div style="text-align: center;">  </div> <p style="text-align: right;">ENJOI</p>
	Other materials needed	<ul style="list-style-type: none"> • Light yellow sticky notes (approx. 8 per person). • Sticky dots of 1 color – we suggest purple (3 per person). • Fine black felt-tip pens. <div style="text-align: center;">  </div>
15 min	Break	
40 min	Brainstorming standards	
	Description	What standards would need to be met in this scenario to achieve your collective ideal outcome?
	Format	Groups of 4-6

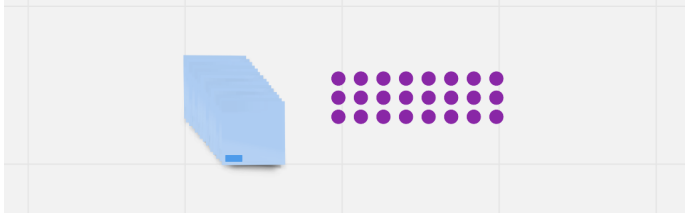




Documents to print	–
Documents to draw	<ul style="list-style-type: none">• Flipchart paper size – approx. 100x70cm (1 per each working group).• The definition of Standard will be placed on top of the poster before the beginning of the session. We suggest this is added using a big blue sticky note.• Already defined principles – prioritised in the previous session – will also be placed on the poster before the beginning of the session, leaving enough free space for the participants to add their ideas around each principle. We suggest these are added using green sticky notes (1 per principle). 
Other materials needed	<ul style="list-style-type: none">• Blue sticky notes (approx. 8 per person).• Sticky dots of 1 color – we suggest purple (3 per person).• Fine black felt-tip pens.

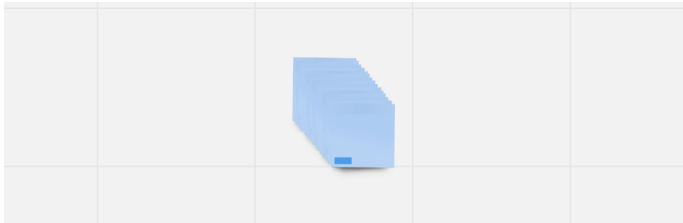




		
20 min	Clustering standards	
	Description	Presentation of standards of each group, clarification if needed and clustering
	Format	Plenary
	Documents to print	–
	Documents to draw	<ul style="list-style-type: none"> • Flipchart paper size – approx. 100x70cm. <div style="border: 1px solid black; padding: 20px; margin: 10px 0;"> <p style="text-align: center; color: teal;">CLUSTERING STANDARDS</p> <div style="text-align: right; color: teal; font-weight: bold;">ENJOI</div> </div>
Other materials needed	<ul style="list-style-type: none"> • Blue sticky notes (approx. 8 per person). 	





		<ul style="list-style-type: none"> Fine black felt-tip pens. 
15 min	Final discussion and wrap-up	
	Description	Final conversation focused on what standards are missing under each principle, and closing
	Format	Plenary
	Documents to print	–
	Documents to draw	–
	Other materials needed	–

3.3. Engagement Workshop 3: Agenda and templates

(2h10min)

Time	Title, description and materials	
5 min	Welcome	
	Description	Welcome to the workshop, presentation of the agenda and practical guidelines.
	Format	Plenary
	Documents to print	2 documents in DIN-A4, color, 1 copy per each working group: <ul style="list-style-type: none"> Overview of the ENJOI co-design methodology. Agenda of the session.



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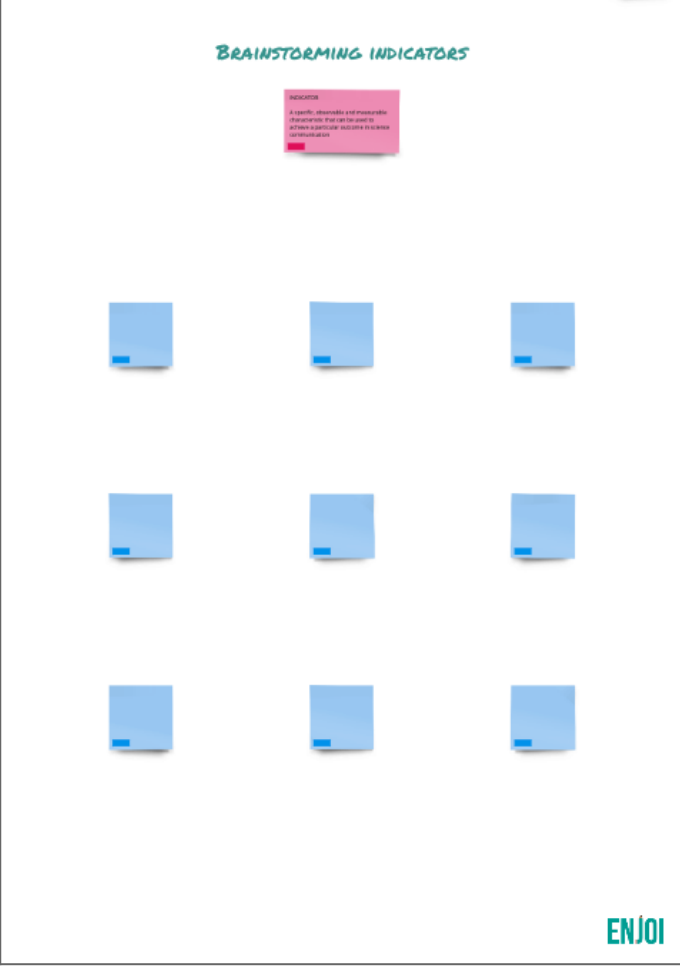




		<div style="text-align: center;"> <h3>Overview of the ENJOI co-design methodology</h3> <p>ENJOI</p> </div> <div style="text-align: center; margin-top: 20px;"> <h3>Engagement Workshop Module 3: Defining Indicators</h3> <p>Agenda</p> <table border="1"> <thead> <tr> <th>Time</th> <th>Title</th> <th>Description</th> <th>Format</th> </tr> </thead> <tbody> <tr> <td>5 min</td> <td>Welcome</td> <td>Welcome to the workshop, presentation of the agenda and practical guidelines</td> <td>Plenary</td> </tr> <tr> <td>10 min</td> <td>Warm-up activity</td> <td>Word association game to align to the notion of indicators in science communication</td> <td>Plenary</td> </tr> <tr> <td>40 min</td> <td>Brainstorming indicators</td> <td>What indicators could be used to measure each of the standards?</td> <td>Groups of 4-6</td> </tr> <tr> <td>15 min</td> <td>Break</td> <td></td> <td></td> </tr> <tr> <td>5 min</td> <td>Presentation of tool ideation session</td> <td>Introduction of the notion of tools to be developed in WPs</td> <td>Plenary</td> </tr> <tr> <td>10 min</td> <td>Whole group brainstorm</td> <td>What tool would help me implement these principles, standards and indicators?</td> <td>Plenary</td> </tr> <tr> <td>30 min</td> <td>Ideation on two concepts</td> <td>What? Who? How? Why?</td> <td>Groups of 4-6</td> </tr> <tr> <td>5 min</td> <td>Poster time</td> <td>Reading and commenting the other group's poster</td> <td>Groups of 4-6</td> </tr> <tr> <td>10 min</td> <td>Final discussion and wrap-up</td> <td>Open final conversation, next steps and closing</td> <td>Plenary</td> </tr> </tbody> </table> <p>ENJOI</p> </div>	Time	Title	Description	Format	5 min	Welcome	Welcome to the workshop, presentation of the agenda and practical guidelines	Plenary	10 min	Warm-up activity	Word association game to align to the notion of indicators in science communication	Plenary	40 min	Brainstorming indicators	What indicators could be used to measure each of the standards?	Groups of 4-6	15 min	Break			5 min	Presentation of tool ideation session	Introduction of the notion of tools to be developed in WPs	Plenary	10 min	Whole group brainstorm	What tool would help me implement these principles, standards and indicators?	Plenary	30 min	Ideation on two concepts	What? Who? How? Why?	Groups of 4-6	5 min	Poster time	Reading and commenting the other group's poster	Groups of 4-6	10 min	Final discussion and wrap-up	Open final conversation, next steps and closing	Plenary
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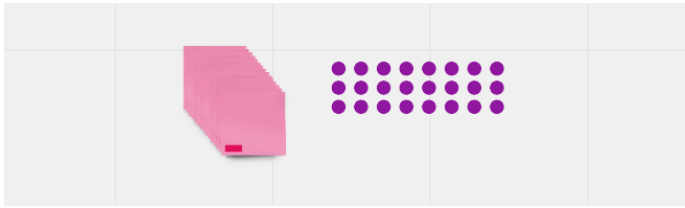




Description	What indicators could be used to measure each of the standards?
Format	Groups of 4-6
Documents to print	–
Documents to draw	<ul style="list-style-type: none">• Flipchart paper size – approx. 100x70cm (1 per each working group).• The definition of Indicators will be placed on top of the poster before the beginning of the session. We suggest this is added using a big pink sticky note.• Already defined standards – prioritised in the previous session – will also be placed on the poster before the beginning of the session, leaving enough free space for the participants to add their ideas around each standard. We suggest these are added using blue sticky notes (1 per standard). 

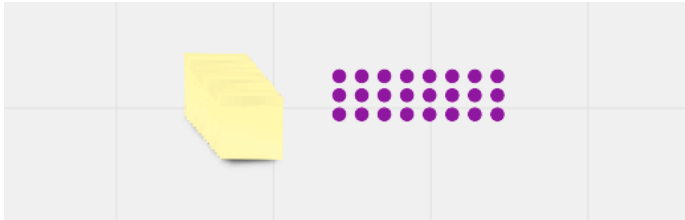




	Other materials needed	<ul style="list-style-type: none"> • Pink sticky notes (approx. 8 per person). • Sticky dots of 1 color – we suggest purple (3 per person). • Fine black felt-tip pens. 
15 min	Break	
5 min	Presentation of tool ideation session	
	Description	Introduction of the notion of tools to be developed in WP6
	Format	Plenary
	Documents to print	–
	Documents to draw	–
	Other materials needed	Presentation
10 min	Whole group brainstorm	
	Description	What tool would help me implement these principles, standards and indicators?
	Format	Plenary
	Documents to print	–
	Documents to draw	<ul style="list-style-type: none"> • Flipchart paper size – approx. 100x70cm.






		<div style="border: 1px solid black; padding: 20px; text-align: center;"> <p><i>WHAT TOOL WOULD HELP ME IMPLEMENT THESE PRINCIPLES, STANDARDS AND INDICATORS?</i></p> </div> <p style="text-align: right; color: teal; font-weight: bold;">ENJOI</p>
	Other materials needed	<ul style="list-style-type: none"> ● Light yellow sticky notes (approx. 8 per person). ● Sticky dots of 1 color – we suggest purple (3 per person). ● Fine black felt-tip pens. <div style="text-align: center; margin-top: 10px;">  </div>
30 min	Ideation on two concepts	
	Description	What? Who? How? Why?
	Format	Groups of 4-6
	Documents to print	<ul style="list-style-type: none"> ● Icons in DIN-A4, printed on sticky paper (1 copy).


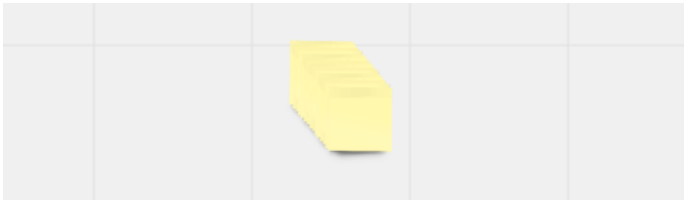




		
	Documents to draw	<ul style="list-style-type: none">● Flipchart paper size – approx. 100x70cm (1 per each working group).● Each concept will be placed on top of the poster before the beginning of the session. The rest of the paper will be divided into 4 areas, according to 4 questions. A descriptive icon will be placed next to each question.





		
	Other materials needed	<ul style="list-style-type: none"> • Light yellow sticky notes (approx. 8 per person). • Fine black felt-tip pens. 
5 min	Poster time	
	Description	Reading and commenting the other group's poster
	Format	Groups of 4-6
	Documents to print	–
	Documents to draw	–





	Other materials needed	–
10 min	Final discussion and wrap-up	
	Description	Open final conversation, next steps and closing
	Format	Plenary
	Documents to print	–
	Documents to draw	–
	Other materials needed	–

4. Reporting

4.1. Reporting guidelines

After running the Engagement Workshops each local partner needs to report in three steps:

- informative template - practical information about the EW;
- content template - technical information about the exercises;
- observation template - considerations about the process and the atmosphere.

The templates below can be copied to each country folder:

<https://drive.google.com/drive/u/0/folders/1AaSIWZiH-D4iqzHgM06JkIXHHnOwdAhW>

4.2.1 Reporting informative template

Question	Answers
Country	
Date	
Format: online or in person?	
Duration of the EW	
How many organizers?	
How many participants?	



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What kind of stakeholders participated? How many from each group?	
---	--

4.2.2 Reporting content template

Engagement Workshop Module 1: Co-creating Principles	
Question	Answers
What surprises you in these outcomes?	a. b. c. d. e. f.
Prioritising principles	a. b. c. d. e. f.
What do you feel should be the desired principles of outstanding open science communication?	a. b. c. d. e. f.
Engagement Workshop Module 2: Identifying Standards	
What would be the impact of this particular scenario if the science communication was perfectly	a. b. c. d. e. f.





successful? (impact on the individual, on research, on society, etc.)	
Brainstorming standards	a. b. c. d. e. f.
Clustering standards	a. b. c. d. e. f.
Engagement Workshop Module 3: Defining Indicators & tools	
Brainstorming indicators	a. b. c. d. e. f.
What tool would help me implement these principles, standards and indicators?	a. b. c. d. e. f.
Who should this tool be aimed at?	a. b. c. d. e. f.





What are its objectives?	a. b. c. d. e. f.
What content and format should it include?	a. b. c. d. e. f.
Who can support its development?	a. b. c. d. e. f.

4.2.3 Reporting observation template

Question	Answers
How actively or passively did the participants contribute?	
Rating the workshop from 1-5 on active contribution (1 is weak and 5 strong)	
Rating the workshop from 1-5 on active contribution (1 is weak and 5 strong)	
Rating the workshop from 1-5 on equality of contributions (1 is weak and 5 strong)	
Was there one or more stakeholder who dominated the meeting? (active participation) If yes, who (reported anonymously – role)	
Was there one or more	





stakeholder who did not participate? (passive participation). If yes, who (reported anonymously)	
Example of a specific situation:	
Example of a specific remark one of the participants made:	
How was the atmosphere during the meeting?	
Give an example of one situation that describes the atmosphere:	





Annex 9.2

Survey: Citizen's Inputs about Science Communication



ENJOI survey

ENJOI is a European project that explores how we can communicate science in the best possible way. We are working with science communicators and journalists across Spain and Europe to create a set of standards for excellent science communication. We hope that at the end every science communicator in Europe will follow these standards to improve the quality of journalism. Your views will provide the starting point of this European co-creation process. Our survey takes less than 5 minutes to answer. Thank you! <https://enjoiscicomm.eu/>

*Obligatorio

1. Do you work in journalism or science communication? *

Selecciona todos los que correspondan.

Yes

No

2. If I say to you "science communication," what is the first thing you think about? *

3. Please think about a situation in which it was important to communicate about science research. Can you give a successful example of science communication that worked well in that situation? *

4. What made that communication work well? *

5. Would you like to add any comments?

Este contenido no ha sido creado ni aprobado por Google.

Google Formularios

ENJOI

Annex 9.3

Analysis Grid of the Citizen's Survey





Citizen Survey Results

Words used to describe science communication:	Situations that people consider important to communicate about science research:	Examples that worked well:	What made these examples work well?	What principles were mentioned and how often?
<i>Possible results</i>	<i>Possible results</i>	<i>Possible results</i>	<i>Possible results</i>	<i>Possible results</i>
e.g. Ethic	Climate emergency and the raising temperatures	Science weekly podcast	Clear and/or objective messages	Ethical rules
	The development of the vaccines for Coronavirus		Providing reliable evidence	Rigour
	Increase of extreme poverty		Having different sources	Sources
	Nanoscience		Brought new and impactful knowledge	Engagement
	Promoting gender equality		Contextualized the situation	News-worthiness
	The price of sustainable energy		I felt engaged	Perspective
	Economic growth		The story was catchy	Language
			The format motivated me to consume the new	Storytelling
				Format medium
				Structure
				Impact



Annex 9.4

Invitation to Participate in the Engagement Workshop



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Engagement Workshops

A great opportunity to improve science communication and journalism by making them more consistently, reliable, truthful, open, engaging and useful.

You will:

- Connect with fellow science communicators in Spain, by joining this community of practice;
- Influence the creation of recommendations for excellent science communication on a European level and make sure that the outputs are practical and applicable for your work;
- Be connected with science communicators from across Europe and be in touch with latest research results on science communication;
- Be able to participate in workshops related to science communication;
- Have a good time and get a chance to take a break from your daily routine to reflect on the bigger picture with your peers.

Join our Engagement Workshops and be part of ENJOI!



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Annex 9.5

ENJOI's Leaflet



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ENJOI

The Covid-19 pandemic highlighted the urgency of improving science journalism towards an outstanding science communication, however there are no shared standards for evaluating good scientific journalism.

To bridge the gap the EU project ENJOI (***ENgagement and JOurnalism Innovation for Outstanding Open Science Communication***) is co-creating and selecting a set of **standards, principles, and indicators** (SPIs) to define an outstanding open science communication.

ENJOI will address the challenge by exploring and testing **engagement** as a key asset of innovation in science communication. Another crucial element of the ENJOI approach is **co-creation**: each action develops from the intertwining of multiple experiences and skills, involving both professionals & experts in scientific communication and users.

The process of co-creating SPIs takes place in the **Engagement Workshops** (EWs).



Starting from a preliminary list created by the Consortium, producers and users of scientific communication meet and dialogue to co-define the essential elements of effective and transparent science communication.

The co-creation process is repeated in steps in four countries (Italy, Spain, Belgium, Portugal) and the results of an EW feed the subsequent workshop in cascade. This allows to build further knowledge and at the same time to take into due consideration the different cultural contexts.

SPIs that will emerge from this exercise will be condensed into the **Manifesto** for Open and Outstanding Scientific Communication, a further stage of the project that paves the way for ENJOI flagship product: the **Observatory**, which will provide results and useful tools to encourage the development of skills and collaboration of all actors in the field.

ENJOI Consortium is a highly qualified, well-balanced and, multidisciplinary network including

professional journalists and science communicators; experts in science communication

through civic engagement and citizen science; researchers in the fields of history of science,

science and technology studies and environmental issues; science communication and

Responsible Research and Innovation (RRI).

Partners

- Formicablu – coordinator, Bologna
- Catalan Association of Science Communications (ACCC) – Barcelona
- Science for Change – Barcelona
- Stickydot – Bruxelles
- FCIências.ID – University of Lisbon
- University of Twente



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📍 ENJOIproject
Zenodo: ENJOI SciComm
Mail ENJOI



Annex 9.6

Agenda for the Engagement Workshop



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Engagement Workshop Module 1: Co-creating Principles

Time	Title	Description	Format
5 min	Welcome	Welcome to the workshop, presentation of the agenda and practical guidelines	Plenary
10 min	Warm-up activity	Participants' introduction – What makes great science communication for you?	Groups of 3
10 min	Initial presentation	Presentation of public opinion results	Plenary
5 min	Dynamic and format introduction	Presentation of the dynamic as a whole and the format of the session (Miro for online, posters for face-to-face)	Plenary
20 min	Structured discussion	What surprises you in the interviews' outcomes?	Groups of 4-6
10 min	Prioritising principles	Prioritisation of the principles identified in the interviews	Groups of 4-6
15 min	Break		
40 min	Brainstorm and discussion	What do you feel should be the desired principles of outstanding open science communication?	Groups of 4-6
5 min	Prioritisation of principles	Prioritisation of the clusters of principles defined in the previous discussion	Groups of 4-6
10 min	Final discussion and wrap-up	Open final conversation, next steps and closing	Plenary

Engagement Workshop Module 2: Identifying Standards

Time	Title	Description	Format
10 min	Presentation of scenarios	Presentation of a set of fictitious science communication scenarios	Plenary
15 min	Envisioning ideal outcomes	What would be the impact of a particular scenario on an individual, on research, on society, etc.?	Groups of 4-6
15 min	Break		
40 min	Brainstorming standards	What standards would need to be met in this scenario to achieve your collective ideal outcome?	Groups of 4-6
20 min	Clustering standards	Presentation of standards of each group, clarification if needed and clustering	Plenary
15 min	Final discussion and wrap-up	Final conversation focused on what standards are missing under each principle, and closing	Plenary

Engagement Workshop Module 3: Defining Indicators

Time	Title	Description	Format
40 min	Brainstorming indicators	What indicators could be used to measure each of the standards?	Groups of 4-6
15 min	Break		
5 min	Presentation of tool ideation session	Introduction of the notion of tools to be developed in WP6	Plenary
10 min	Whole group brainstorm	What tool would help me implement these principles, standards and indicators?	Plenary
30 min	Ideation on two concepts	What? Who? How? Why?	Groups of 4-6
5 min	Poster time	Reading and commenting the other group's poster	Groups of 4-6
10 min	Final discussion and wrap-up	Open final conversation, next steps and closing	Plenary



Annex 9.7





Best Practices in Science Communication


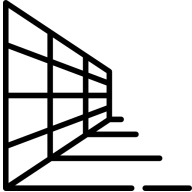


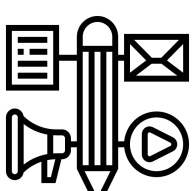
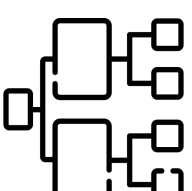
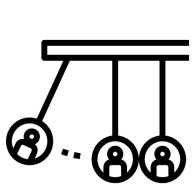


ENJOI

Best practices

Combining individual work with co-creation activities, ENJOI has come up with the first checklist of best practices in science communication.

	Criteria	Description
	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, transparent and fact-checked.
	Sources	Include people with different expertise and backgrounds considering gender, cultural, geographical and socioeconomic diversity.
	Engagement	Establish contact with the audience, maintain its involvement with the content as it develops, and get responses, opinions and ideas from the audience.

	News-worthiness	<p>Introduce new and impactful knowledge, appropriately contextualized and relevant for the public and the society.</p>
	Perspective	<p>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.</p>
	Language	<p>Language should be clear, inclusive, correct, and comprehensible. Technical jargon should be used only if necessary and always be accompanied with an explanation.</p>
	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.</p>
	Format medium	<p>Use innovative and creative formats to engage new audiences. The formats can be used to direct attention, motivate the reader, stir an emotion, reiterate a concept, develop a concept, correlate different elements, etc.</p>
	Structure	<p>Any topic should be treated into a clear, ordered structure. There should be a focus on one central idea, or a few-key points at most.</p>
	Impact	<p>The work will have a special merit if it triggers a significant and proven impact (social, practical, legal, etc.). It can be achieved by paying attention to real-life issues.</p>





Annex 9.8.1

Mutual Learning Presentations: Italy



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Engagement Workshop ITALY



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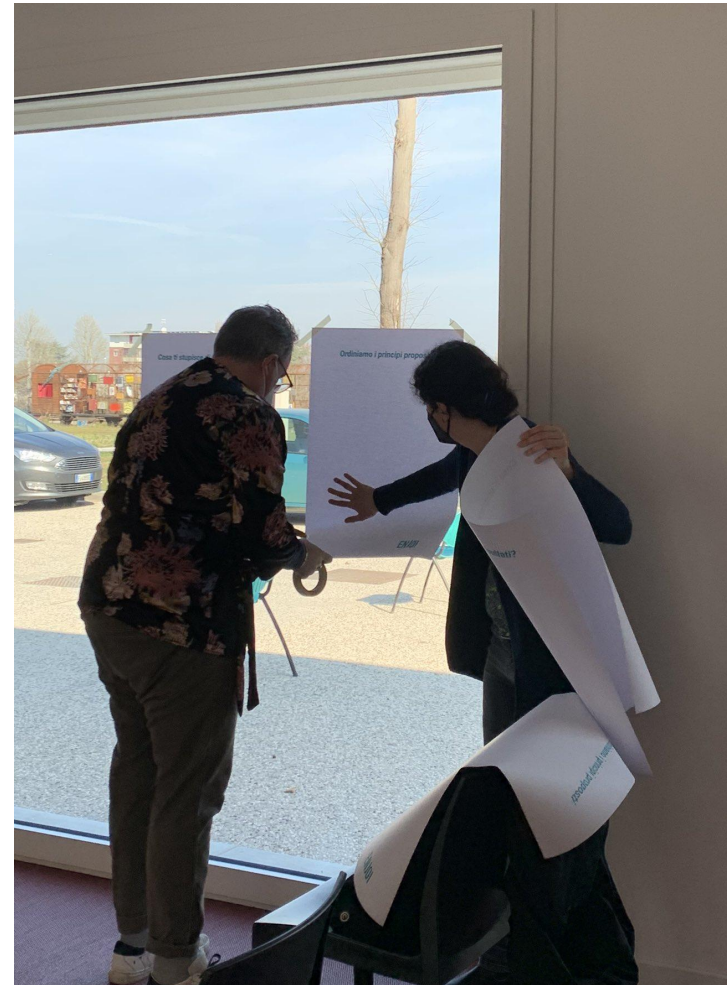
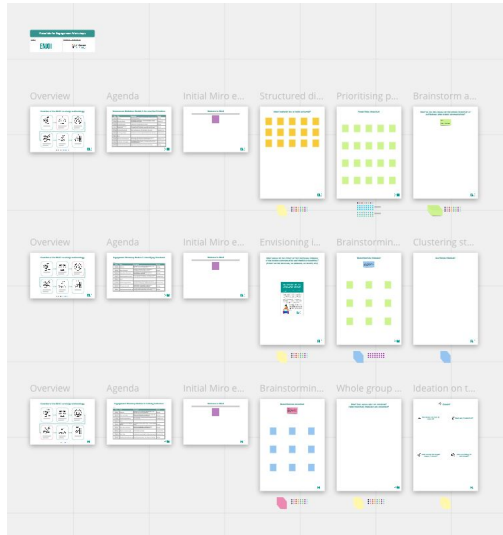
SALUS Space, Bologna

11.3.2022



Workshop set-up

- **Easy-to-use** material
- Simple and **effective**
- Single steps very **clear**



Introduction (outside)

Welcome: SALUS space, general context, why you (quick round)
19 participants from different backgrounds (all stk covered)



Introduction (inside)

Quick presentation:

The ENJOI project,
goals of the workshop

Atmosphere: Informal,
relaxed, collaborative
since the beginning

Chatham House Rule:
Applied





Citizens survey

- More than 60 answers
- Considering the Italian answers, this question was a bit confusing: *Please think about a **situation** in which it was important to communicate about science research. Can you give a successful example of science communication that worked well in that situation?*

What science communication means in one word:



Situations that people consider important to communicate about science research:

Pandemic **14**

Vaccines **8**

Climate change **4**

Nuclear **3**

Prevention **3**

Public Health **2**

Space exploration **3**

Researchers **3**

Smoke **1**

Transplant **1**

Food **1**

Higgs Boson **1**

What worked well? -> Citizens' PRINCIPLES

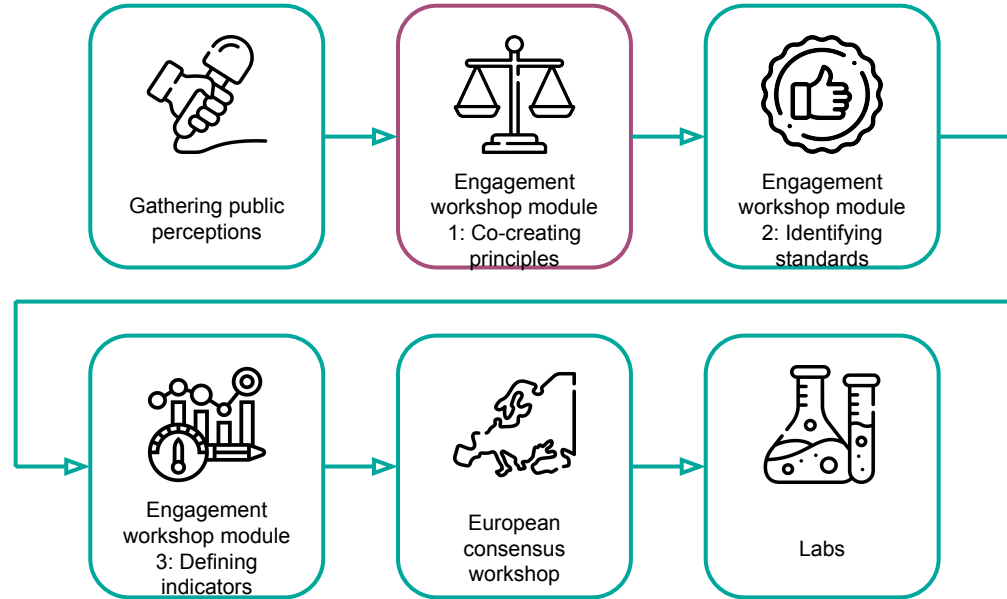
Competence
Engagement
Coherence
Reliability
Emotion

Reassurance
Images
Rigour
Effectiveness
Synthesis



Introduction: TIPS

- Keep the introduction **short**
- Don't spend too much words in explaining the **methodology**: it will become clear step by step
- Prepare the **groups** in advances (we used coloured pens) and **change** them in the 3 modules
- From the survey, try to extract citizen's **principles**
- If there are **controversial** ones, keep them



Module 1: Co-creating principles

What surprises you in the surveys' outcomes?

Used just as a first input.
Focus on **PRINCIPLES**
(groups added their own)

Discussion: Very cooperative in all the 4 groups, enthusiastic approach



Co-creating principles: TIPS



- Consider not to use the strict distinction “principles useful for **science**” VS “principles useful for **society**”
- **Free** use of sticky notes and sticky dots
- Include the **ENJOI principles** after the clustering (third step)
- Leave enough time for the plenary **discussion** (particularly relevant in the principles module)

Module 2: Identifying standards

Most difficult part!

The scenario, while useful to give a practical perspective, proved to be a bit **confusing** and slowed down the process in our groups.

The term **'impact'** proved to be confusing as a couple of groups questioned the term itself in the previous Principles' session.

Confusion between **Principles** and **Standards**

ENGAGEMENT WORKSHOP - ENJOI

Collaborative partnership to envision ideal outcomes of open science communication scenarios

Carla, 35 years old, journalist for an independent newspaper

Hi, my name is Carla, I am 24 years old and I am a Youtuber. I have had my channel for two years and so far I have 600.000 subscribers. My next video will be about insomnia and the effects on the body. I would like to present the causes, what consequences can have bad sleep or what to do if you sleep badly, but I also want to share a little of my experience and what I learned in one of the most complicated moments of my life.



My audience is between 15 to 35 years old. I am the person that writes the script and also edit the video. Now I need your help, what will success look like for my story?

ENJOI

Identifying standards: TIPS

- Foster the discussion on the **definition** of STANDARD itself (Some reactions from our participants: *“Do we even need standards?”*; *“I’d rather call them models”*; *“I hate standards!”*)
- If needed, the clustering part (third section) can be eliminated: more time for discussion
- **PROPOSAL:** How about using the scenarios for the indicator session?

Module 3: Defining Indicators

This part went smoothly

Nice **presentation** from each group and interesting **discussion**

Tools selected:

- Audience “thermometer”;
- Training for journalists;
- Young board for excellent scicomm;
- Events for the public



General feedback

- Overall, the EW experience was a **success**
- Participants quickly entered the experience and their willingness to **cooperate, share, and listen** to each other was impressive.
- The identification of principles for excellent science communication and journalism was felt as a **real need**
- **Network**: willingness to be in touch and participate in the ENJOI Observatory



THANKS!



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Annex 9.8.2

Mutual Learning Presentations: Belgium



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Engagement Workshop BELGIUM



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Atelier des Tanneurs,
Brussels
29.3.2022



Workshop set-up

- Lots of material!
- Wall space
- Space to “park” ideas
- Space for upcoming events



Participants

150 invited

20 confirmed

12 participants..!

Language imbalance :(



Participants

- Practitioners
- Academics
- Journalist(!)
- Policy-makers
- Scientists
- NGOs

Also made us rethink our mapping...

Academics in science communication	GHENT UNIVERSITY
Academics in science communication	ULB & WALLONIA-BRUSSELS FEDERATION
Academics in science communication	Antwerp Universiteit
Academics in science communication	KULeuven
Public authority	Sciensano
Public authority	Fonds voor Wetenschappelijk Onderzoek (FWO)
Science magazine editor in chief	EOS
University outreach department	VUB
Scientist	Be Wise & KULeuven
Scientist	UZLeuven & KULeuven
Scientist	Ekoli and VUB
Science communication practitioner	SCIMINGO (SCRIPTIE VZW)

Introduction

Quick presentation:

The ENJOI project,
goals of the workshop

Warm-up: Self-portrait

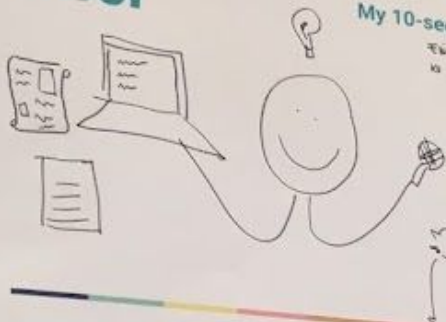
Chatham House Rule:
Applied



ENJOI

My 10-second portrait

Elke Nijman
is online



ENJOI

My 10-second portrait



ANN VOS

ENJOI

HANNELORE

My 10-second portrait



ENJOI

My 10-second portrait



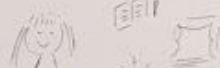
RAF

ENJOI

ELS

LOUIE
ANTWERP

My 10-second portrait



ENJOI

My 10-second portrait



Atmosphere: TIPS

- Short presentations
- Varying types of interaction
- “What’s in it for me?”
- Don’t underestimate how much people like to talk!
- Social time





Citizens survey

We got responses from more than 60 citizens in Belgium (aged 25 y.o. to 65+).

What science communication means to you:



Situations that people consider important to communicate about science research:

Covid-19 vaccines (12)

The pandemic (10)

Climate change awareness (5)

Recycling (3)

Air pollution (2)

AIDS research (1)

Radioactivity (1)

Breast cancer research (1)

Cloning (1)

Human body (1)

The place of women in science (1)



Examples that worked well:

Infographics

Graph about air pollution in Brussels

Scientists Van Ranst and De Gucht became familiar faces

The book on surveillance capitalism by Shoshana Zuboff

"The conversation" articles on Covid

TED talk about the human body



What made these examples work well?

Clarity of the information (8)
Reliability of the content and source (7)
Trustworthiness (4)
Graphic elements (3)
Coherence of the message (3)
Personal stories of scientists (3)
Widespread presence (2)
Collaboration of multiple scientists (2)
Honesty
Encouragement to question information

Not oversimplifying science
Empathy
Free from jargon
Good humour
Transparency of sources
Contextualising complexity
Playfulness



Module 1: Co-creating principles

What surprises you in the surveys' outcomes? Skipped
- we did a simple
prioritisation

Brainstorm and clustering principles

Cooperative approach, lively
discussion

Avoiding overly broad
principles (“quality”,
“goal-oriented” etc)



Co-creating principles



- We also dropped “principles useful for **science**” VS “principles useful for **society**”
- **6** sticky dots for prioritisation
- **ENJOI principles** came out naturally in the titles

- **Evidence base (13)**
- **Transparency (13)**
- **Engagement (12)**
- **Clarity (11)**
- **Appealing format (9)**
- Dialogue (8)
- Goal-orientation (8)
- Balance/representativeness (4)

Module 2: Identifying standards

Positives:

- Engaging discussions
- Constructive outcomes

Points to consider:

- We only worked on top 5 principles
- We shortened the ideal outcomes activity = less “ideal”!
- More specific scenarios = engaging discussion
- Broader scenarios = more applicable standards



Identifying standards: TIPS

Push for “ideal” outcomes! For society, for research, for policy

Avoid too much discussion around the definition of standards, principles and indicators

Open up the conversations: “What standards would you like to see applied more broadly at Marta’s newspaper?”



Module 3: Defining Indicators

Reduced to half-hour breakouts Only on three highest-prioritised principles

- Constructive, lively conversations
- Less detail in outcomes



Module 4: Tools

ENJOI Tool title
Scicomm research network

ENJOI Target audience
Who should this tool be aimed at?
Interdisciplinary social scientists with a focus on scicomm
Involving existing networks - POST
Risk analysis stakeholders
Flemish network scicomm LI
WIN
Liesbeth Aerts BESciComm

ENJOI Objectives
What should this tool aim to achieve?
Advancing scicomm practice by applying new knowledge
Creating new knowledge
Broadening network of scientists interested in scicomm.

ENJOI Content
What should this tool include?
Network of scientists - researchers in scicomm
- expert databank

ENJOI Format
What should this tool look like?
In-person meetings
Linking national + international level

ENJOI Content
What should this tool include?

- Showcasing best practices and good examples (+ impact)
- Concrete steps and recommendations
- Identification of challenges + barriers, needs
- Manifesto / commitment charter
- Setting the scene

General feedback

- We were happy with how it went!
- Positively surprised by participants' enthusiasm and willingness to get stuck in
- Quality of outcomes...
- ...but little focus on dialogue
- Added value for participants and for Stickydot
- Flexibility of methodology
- Keen for next steps!





THANKS!



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Annex 9.8.3

Mutual Learning Presentations: Spain



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ENJOI

Mutual learning Engagement Workshop SPAIN



ENJOI - Engagement and Journalism Innovation for Outstanding Open Science Communication

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Barcelona 28.05.2022



Workshop set-up

- Recommended printing the materials at least two days before.
- There is also the work of writing down the principles for each group in the post its.
- Prepare the groups in advance.
- We did not change them to save time and maintain the flow of thought between the dynamics.



Participants

14 participants from different backgrounds (all stakeholders covered)

2 observers (Anne and Enric)

4 facilitators (one per group)

1 moderator



Introduction

Quick presentation:

- The ENJOI project
- Goals of the workshop
- Advantages for the participants
- Agenda
- Chatham House Rule



Icebreaker

- Participants had post its to draw their hobbies, profession and write down the first word that came to their mind. Then present it to the group they were.
- They had the breaks to talk to people from different groups.






Citizens survey

- More than 70 answers.
- People that do not work with communication or journalism.
- It was done in January 2022.

Situations that people consider important to communicate about science research:

- **COVID-19 Pandemic (18)**
- **Vaccine COVID-19 (17)**
- **La Palma Vulcan (4)**
- **"I don't remember" (4)**
- **AIDS (3)**
- **Cancer (3)**
- **James Webb Telescope (2)**
- **Climate change (2)**
- **Human being goes to the moon (2)**
- **Cosmos (2)**
- **DNA (1)**
- **Meteorology (1)**
- **Galileo Galilei (1)**
- **Polio vaccination (1)**
- **Alzheimer (1)**

What worked well? -> Citizens' PRINCIPLES

- Democratization of information
 - Veracity
 - Language
 - Newsworthiness
 - Close perspective
 - Continuity (problem tracking)
 - Rigour
 - Visual format, attractive
 - Narrative
 - Reliable sources
 - Proximity
 - Credibility
 - Impact: Many people have been vaccinated
- 

Co-creating principles:



- We left time for them discuss about the survey as a way to warm up into the subject.
- We didn't use "principles useful for **science**" VS "principles useful for **society**"
- We did put a limit on the number of sticky dots.
- Left the ENJOI best practices available on the table, but just shared after they had time to co-create their principles first.

Module 2: Identifying standards

- The scenario worked well in our case, they had some doubts, but we instruct them to focus on “In the first part you identified certain principles. What would be the best practices to accomplish them in this situation?”
- They had the definitions of the SPIs on the table, but we tried not to be too specific, because the standard and principle can be tricky together.
- They thought the standards were a bit repetitive comparing with principles.
- We came up with the words rules and requirement and they were able to develop a bit more.

Module 3: Defining Indicators

This part went smoothly even though it was the one where participants diverged more on the opinions.

For example: the **indicators on social media** and the **sources**. Should journalists also consider interviewing academics in different stage of the career?



Module 4: Tools

It was a very creative moment that they had fun thinking about all of the possible tools. Some people were worried about the maintenance after the project.

Tools selected:

- Checklist of best practices of communication with the indicators.
- Workshops and videos.
- Database of research centers and experts divided by area.
- Database of people that work with science communication and journalism.

General feedback

- **Atmosphere:** Energetic, relaxed and collaborative
- The **plenary** worked really well after each module to present what each group did, but the cluster was not possible because of the time,
- We had the total minutes for each dynamic, some people mentioned having a count down or an alarm, but in order to keep the relaxed environment we suggest to use the facilitators as allies to bring attention to the next dynamic.
- **Network:** willingness to be in touch and participate in the ENJOI Observatory



Post event

- Survey about the EW and how they wish to keep being part of the project.
- Results so far: one of the participants from a research group shared the best practices and the students did and infographic.
- Certificate



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Annex 9.8.4

Mutual Learning Presentations: Portugal



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ENJOI

Mutual learning
EW Portugal
25/05/2022 10-16h

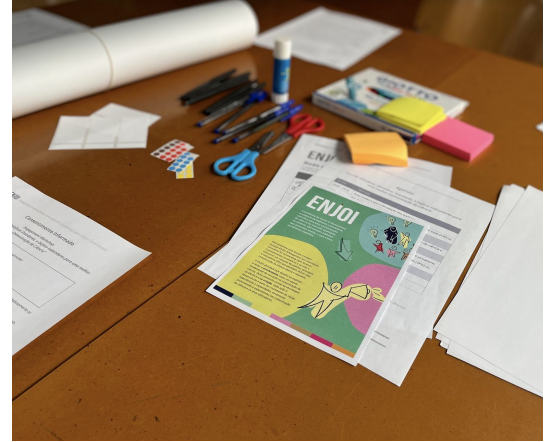


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National Museum of Science & Natural History (Lisboa)



Workshop set-up

- **Printed materials:** agenda, informed consent, best practices, leaflet, DIN-A1 posters, printable icons (to work on the tools for WP6)
- **Participants:** 13 (19 confirmed - COVID-19 and last minute issues)
 - Journalists (environment; fact-checking; visual storytelling, social issues) = 4
 - PhD and master students (engineering, maths, astrobiology & content producer in social media) = 3
 - Institutional communication (astrophysics and biology/chemistry) = 2
 - Medical doctor (also content producer in social media) = 1
 - Museum curator (natural sciences) = 1
 - Media editor & researcher/lecturer in journalism = 1
 - Media literacy association representative, journalist & researcher/lecturer in journalism = 1
- **Work dynamic:** 3 groups (4-5 people) - prepared in advance to ensure diversity of profiles
- **Facilitators/observer:** 3 (moving around tables)
- **Brunch and coffee break**

Workshop structure

- **Same introduction as in Spain and Belgium:** practical information, agenda, ENJOI presentation, previous EWs, diversity of participants' profiles (and why they), ice breaker (introduce yourself through drawings), and presentation of survey results
- **BUT with some differences...**
 - We gave them an example of an SPI and asked them why this is an SPI



Accuracy (Principle)

To measure using the same instrument/known length (Standard)

Measure (in cm) (Indicator)

- We gave them the definitions of SPIs
- We worked in parallel with the Principles and Standards
- We didn't use the scenarios

Co-creation of Principles and Standards



- Brainstorming of Principles and Standards (40 min)
- Clustering and prioritization (TOP3 Principles and their associated Standards) (20min)
- Presentation and discussion of results (30 min... 40-45 min!)

Positive aspects: easier to understand the link between Principles and Standards, avoided discussions about definitions, freedom to think about their needs/work reality (no scenarios - no restrictions), fruitful and interesting discussions

Co-creation of Indicators



- Brainstorming of Indicators (TOP3 Principles and associated Standards) - 3 rounds to work on others' indicators (3 x 10 min, 30 min)
- Clustering of indicators (15 min)
- Presentation and discussion of results (10 min... 15-20 min!)
- Voting of most relevant SPIs (5 min) (3 votes per person)

Positive aspects: they had the opportunity to contribute to others' ideas (brainstorming)

Co-creation of Tools



- Brainstorming, selection of one idea per group and design of prototype (50 min)
- Presentation of prototype (10 min)

Positive aspects: very creative activity, resulting in three innovative tools (online game for science communicators; a series of workshops addressed to journalists, researchers and general public; and an online platform to help journalists to understand the structure and content of scientific articles)

THANK YOU!



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Annex 9.9

Survey: Feedback from Participants about the EW



ENJOI

Thank you for your contributions to the ENJOI EW in Spain! We hope it was a productive time for you and that you had a good time.

We want to know how your experience was and if you are interested in continuing to be part of the ENJOI community. That's why we encourage you to take part in a short survey, it will only take you a few minutes.

*Obligatorio

1. Correo *

2. 1- What did you like most about the ENJOI workshop?

3. 2- What could we improve in the workshop?

4. 3-The duration of the workshop was:

Selecciona todos los que correspondan.

- Long
 Sufficient
 Short

5. 4- How would you rate the level of work involved in the engagement workshop?

Marca solo un óvalo.

- It was difficult to get everything done
- More than expected, but manageable
- What I expected
- Less than expected

6. 5- Did you learn any useful information about science communication in the workshop?

7. 6- Would you like to comment on the principles, rules, indicators and/or tools?

8. 7 - Were your expectations from the workshop met?

9. 8- How would you like to continue to be part of the ENJOI community?

10. 9- What do you think could contribute to a better interaction between the participants of the ENJOI community? Is there a tool/format/channel you prefer?

11. 10- Would you like to share your email among the people who were in the workshop? *

Selecciona todos los que correspondan.

Sí

No

12. 11- Would you like to share your social media among the people who were in the workshop? if so, please share with us the social media and your profile.

13. 12-Would you like to add any comment?

Este contenido no ha sido creado ni aprobado por Google.

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