

Thinking about the impact of COVID-19 in Science Engagement, in order to derive better support approaches to Science Engagement practitioners

The COVID-19 further increased the relevance → the needs identified by Science of the dialogue between science and society. On one hand, both mistrust in scientific evidence and vaccine hesitancy are obvious reasons why \rightarrow how can Falling Walls Engage better scientific literacy and trust in science are needed. On the other hand, the pandemic also deepened inequalities worldwide, making it crucial to This survey was answered by Science Engagement further develop Science Engagement programs that can help educate and empower communities

However, also due to the pandemic, the majority of Science Engagement initiatives were forced to shift from physical to online formats, as well as adapt tools and content to the virtual reality. To have a better insight into the impact of the pandemic in the Science Engagement landscape, as well as to foster the field according to the current challenges and needs, we prepared a survey open to Science Engagement practitioners, beyond our community, to have a better grasp on:

→ the impact of COVID-19 on Science Engagement initiatives worldwide;

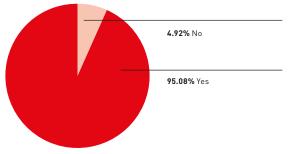
- Engagement practitioners in a pandemic and post-pandemic reality;
- support Science Engagement practitioners in their initiatives.

practitioners from all corners of the world, from diverse Science Engagement categories (e.g. science communication, science education, outreach) and types (e.g. education program, public outreach event, social media, science journalism).

Below, in figure 1, we present a summary of the results collected with the survey. This evidence will be used by Falling Walls Engage to adapt activities to the challenges and needs mentioned below, as well as learn how to better support practitioners in their initiatives. We hope that the lessons learned below also help the Science Engagement community to adapt their initiatives, where needed, during this pandemic/post-pandemic scenario.

EFFECTS ON SCIENCE ENGAGEMENT DUE TO THE PANDEMIC

95.08% of Science Engagement practitioners say \rightarrow More interest from the public in they saw effects on Science Engagement due to the pandemic, in their country of residence



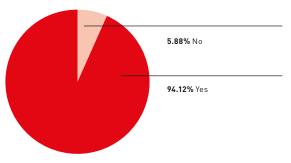
- pandemic-related science
- → More involvement from researchers and doctors in explaining pandemicrelated scientific facts to the public
- More pandemic-related scientific content produced by Science Engagement practitioners
- → Initiatives canceled and/or moved to online
- → Low local participation, but better worldwide reach due to online work
- → Low involvement in online initiatives due to too many options/requests
- → Online initiatives with better media engagement strategies
- → Great online exposure of Science Engagement initiatives and practitioners
- → Lack of collaborative projects that enable pooling of different skills

Figure 1: Impact of COVID-19 on Science Engagement initiatives worldwide

- → Several Science Engagement intitiatives reinvented themselves and new initiatives emerged
- → Low quality education due to schools closure and consequent distance learning
- → People recognize the relevance of science in their lives and its importance in decisionmaking processes

SCIENCE ENGAGEMENT CHALLENGES AND/ OR OPPORTUNITIES BROUGHT BY THE PANDEMIC

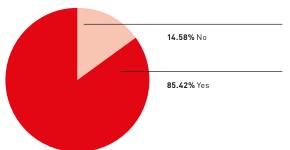
94.12% of Science Engagement practitioners \rightarrow Cancelation and/or reduced numbers say the pandemic brought new challenges and/ or opportunities to their Science Engagement \rightarrow Challenging to adapt initiatives to online initiative/s



- of physical initiatives and/or participants
- → Online initiatives with bigger reach, but with low engagement rates and lack of interaction between participants
- Worldwide connectivity, due to online work
- → Worsened inequalities: lower online accessibility in developing countries and lower availability for participation from child caretakers
- → Creation of new Science Engagement initiatives and formats
- Lack of sources of funding
- → Scientists speaking about science to the general public and acknowledging the relevance of it

CHANGES IN SCIENCE ENGAGEMENT INITIATIVES

85.42% of Science Engagement practitioners say \rightarrow Initiatives moved to online, with bigger their Science Engagement initiative/s changed (e.g. new approaches, tools, partnerships, initiatives, -> Collaboration between initiatives in etc.) due to the pandemic



- international reach
- different cities/countries
- → Creation of online Science Engagement initiatives, some associated with pandemic-related topics
- → Development of Science Engagement physical initiatives adapted to COVID-19 restrictions
- → New topics, formats and tools (more interactive media tools)
- More international collaborations/ partnerships

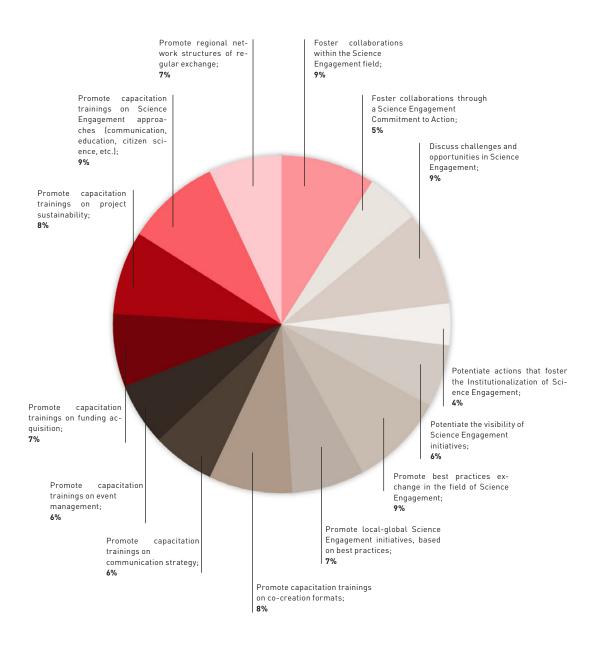
Figure 1: Impact of COVID-19 on Science Engagement initiatives worldwide

NEEDS IDENTIFIED BY SCIENCE ENGAGEMENT PRACTITIONERS IN A PANDEMIC/POST-PANDEMIC REALITY

MAKE BETTER ONLINE INITIATIVES, CONTENT-AND APPROACH-WISE	FOCUS ON HYBRID INITIATIVES THAT ENABLE LONG-TERM PLANNING, COLLABORATION, AND TARGET EXCLUDED GROUPS	IMPROVE SOCIETAL UNDERSTANDING, TRUST AND PARTICIPATION OF/IN SCIENCE
More capacity building for online initiatives	Develop more hybrid events (physical + online) to reach different audiences, based on best practices	Improve communication on the axis scientists-Science Engagement practitioners- policy-makers-society
More effective communication on social media – write simple, short and content-full posts	Create new funding schemes that support online and/or hybrid events	Develop more Science Engagement initiatives that are not focused on pandemic- related science
Develop better community building, interactive and co-creative approaches for the online reality	Implement work strategies that enable making long-term plans for initiatives	Take advantage of the engagement of pandemic-related science enthusiasts to make them interested in other scientific topics
Use/develop more/better evaluation tools/approaches suitable for online initiatives	Create/foster platforms that enable collaborative and co- creative work among Science Engagement practitioners in order to pool everyone's best skills and improve quality of initiatives	Focus Science Engagement initiatives on target groups that do not trust in science
Think/develop alternative online formats to webinars and workshops to prevent online fatigue (e.g. podcasts, initiatives that enable group collaboration and co-creation)	Improve accessibility to technology and internet towards a more inclusive Science Engagement	Literate society on the scientific process, besides the scientific knowledge
	Focus physical Science Engagement initiatives on groups that lack technology/ online accessibility	Communication between science and society needs to be more oriented to target relevant societal topics (e.g. health, environment), and more focused on promoting evidence-based policy-making

 $\textbf{Figure 2:} \ \textbf{Needs identified by Science Engagement practitioners in a pandemic/post-pandemic reality}$

HOW CAN FALLING WALLS ENGAGE BETTER SUPPORT SCIENCE ENGAGEMENT PRACTITIONERS IN THEIR INITIATIVES?



 $\textbf{Figure 3:} \ \ \text{How can Falling Walls Engage better support Science Engagement practitioners in their initiatives?}$

CONCLUSION

In order to have a better insight on the impact of the pandemic in the Science Engagement field, we prepared a survey that was answered by dozens of Science Engagement practitioners from all around the world. The survey aimed at providing a better understanding of the effects, challenges and opportunities the pandemic brought for Science Engagement initiatives. It also identified the support needed during the pandemic and how to prepare for a post-pandemic scenario.

These are the outstanding findings of the survey:

- Practitioners identified more interest from the public in science topics in general, but mostly in pandemic-related topics. They observed an increased involvement from doctors and scientists of all career levels in Science Engagement activities.
- The pandemic made very clear, for scientists, the relevance and need of speaking about science to the public.
- Online initiatives led to worldwide reach, connectivity and collaboration.
- Science Engagement practitioners gained more knowledge on interactive media tools.
- Online work led to the creation of new Science Engagement initiatives and formats, and enabled reaching out to new targetgroups.

Based on the needs for the pandemic/postpandemic reality, identified by Science Engagement practitioners, Falling Walls Engage should implement more activities that:

- Focus on capacity-building on how to make better online initiatives, contentand approach-wise.
- Use hybrid formats that enable longterm planning, collaboration, and target hard-to-engage groups.
- Improve societal understanding of, trust and participation in science.

Science Engagement practitioners ask Falling Walls Engage for support in the following points:

Increase discussions around Science Engagement challenges and opportunities.

- Increase capacity-building on Science
 Engagement approaches such as science
 communication or education, citizen science,
- Increase capacity-building on co-creation formats.
- Keep promoting best practices exchange in the field of Science Engagement.
- Keep fostering collaborations within the Science Engagement field.
- Increase capacity-building on project sustainability.

GET IN TOUCH FALLING WALLS WALLS ENGAGE

2 GET IN TOUCH



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