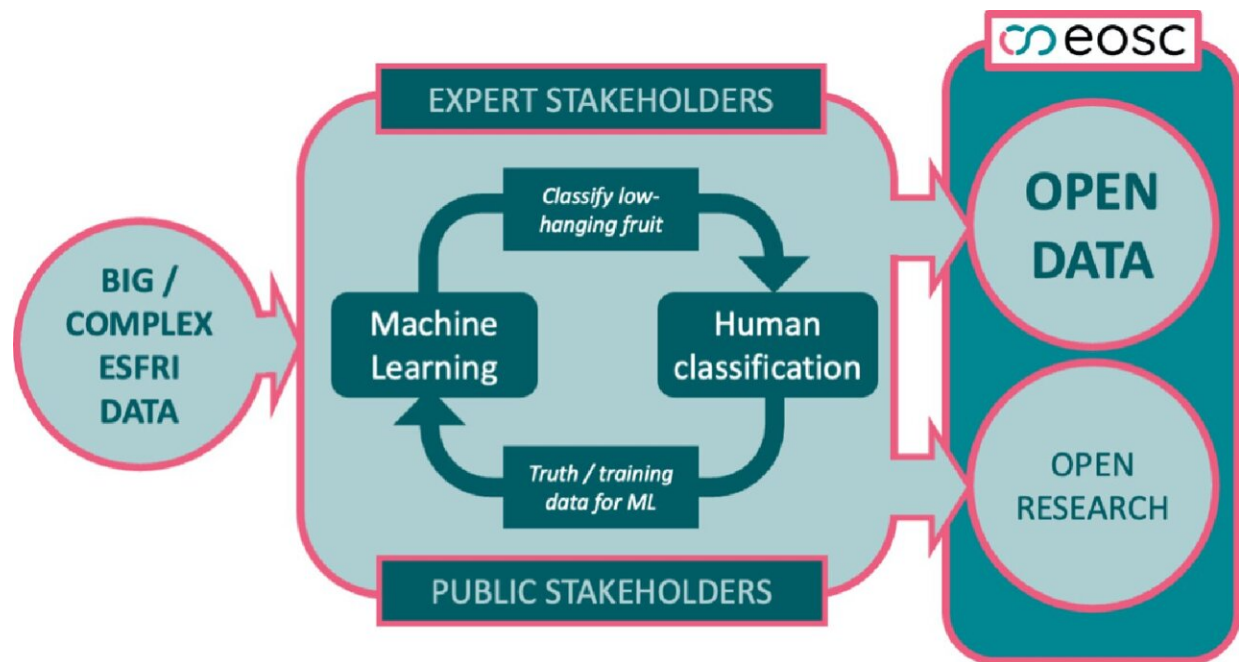


# Assessing the place of citizen science in modern research

June 26 2024, by Samuel Jarman



Schematic PERT diagram showing selected workflows of big/complex data from the European Strategic Forum for Research Infrastructures (ESFRIs), and the external context of the European Open Science Cloud (EOSC). This illustrative workflow shows the virtuous circle between human and machine learning.

Credit: *The European Physical Journal Plus* (2024). DOI:

10.1140/epjp/s13360-024-05223-x

In recent years, numerous fields of research have seen an explosion in the volume and complexity of their scientific data. To keep pace with

these changes, EU-funded research projects are increasingly crowdsourcing their data through citizen science projects, which allow the public to engage directly with their research.

Through a detailed analysis [published](#) in *The European Physical Journal Plus*, Stephen Serjeant and colleagues at The Open University present new recommendations for how citizen science should be deployed to ensure the best possible outcome for research. The team's insights could help researchers to better understand the potential impacts of this new way of doing science.

Traditionally, most major EU-funded research projects have included efforts to communicate their work to the public. However, there has long been concern that these efforts don't provide any opportunities for the science-interested public to engage directly with research or contribute to it.

As research projects became larger and more complex, this picture started to change radically. Through [citizen science projects](#), researchers are now crowdsourcing their data to public volunteers interested in their work, who are still far better suited for many classification tasks than machine learning algorithms. Today, the approach is applied across fields as diverse as genomics, social sciences, and astronomical imaging.

In their study, Serjeant's team summarize the use of citizen science in several projects funded by the EU's Horizon program, which collectively engaged hundreds of thousands of volunteers. Their analysis shows that these programs had a wide-ranging, diverse and deep scientific impact.

Altogether, the researchers present valuable recommendations for how citizen science should be deployed in future projects in physical science. They also clarify that if [public engagement](#) or outreach is the primary goal of a project, citizen science may not always be the best approach:

instead, they suggest that other, more targeted approaches could be more effective.

**More information:** Stephen Serjeant et al, Citizen science in European research infrastructures, *The European Physical Journal Plus* (2024). [DOI: 10.1140/epjp/s13360-024-05223-x](https://doi.org/10.1140/epjp/s13360-024-05223-x)

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