



Our world – our goals: citizen science for the Sustainable Development Goals

We, the authors, call on European institutions, EU member states and their research and innovation funding and performing organisations, private companies and civil society to make citizen science a key factor across all policies and activities relevant to the SDGs, including in shaping and implementing the European research agenda.

To achieve these, we make the following recommendations.

Recommendations

1. Harness the benefits of citizen science for the SDGs

- Through citizen science, citizens must be supported and encouraged to generate new scientific knowledge to support the SDGs, in collaboration with policy-makers, academia, research institutions, research funding agencies, researchers, citizens and civil society organisations and according to recognised and tested standards.
- Academia, universities and research institutes must be supported to restructure and open up to give space and opportunity for citizen involvement. Citizen science needs organisational forms to provide the approach with a route and framework and at the same time guarantee for quality.
- Policy makers and research funders should provide strategic and financial support to citizen science networks, capacity-building activities and initiatives, as well as to changes in research organisations, whilst also supporting the active engagement of EU citizens in implementing the SDGs.

2. Strengthen citizen science and its connections with other communities

- Citizen science networks and communities must interact more closely with thematic research communities that produce scientific knowledge and technological innovation for the different SDGs, such as R&I for the environment, health R&I, food R&I, energy and transport R&I. Policies should be put in place to encourage

and support citizen science networks and communities of practice focused on sustainability to enhance networking with diverse stakeholders (e.g. research organisations, non-governmental organisations, civil society organisations, policy-makers and private companies), and help to align citizen science activities with policy and research needs.

- To promote and create synergies, systems should be established to increase the coordination and exchange of citizen science information and tools relevant to the SDGs, across countries and at the global level, and across thematic areas.
- To ensure and increase the usability and acceptance of citizen science data and evidence in efforts to achieve the SDGs, citizen science communities should communicate transparently on the methodologies they use, potential bias in the data they generate, and their data quality management strategies.
- Authorities across Europe should further promote, encourage and support the application of data-management and data-sharing principles (e.g. FAIR¹ and open data), and the release of technologies and tools that are open source and open access in citizen science initiatives, in order to ensure that citizen science data, technologies and tools are fit for science and policy purposes and, eventually, policy implementation.

3. Strengthen future citizen science systems

- Citizen science should be mainstreamed across the new Horizon Europe framework programme; this programme should also incorporate lessons from citizen science projects, and advice from citizen science experts, including on issues related to the European Green Deal.
- Curricula related to citizen science and the SDGs need to be developed for schools, higher education institutions and lifelong learning programmes, and adapted to different target groups. EU funding bodies should set up actions: support training and education institutes in incorporating citizen science; provide technical and legal support for citizen science practitioners; and reach out to local communities and schools.
- Funding for research into the science of citizen science is needed to advance the field, and how it can help achieve the SDGs and build expertise in a sustainable way.
- Funding for citizen science should allow for the special requirements of citizen science initiatives, including (among others) support for series of often small-scale experimentation, as well as for exploring different routes for the upscaling and long-term sustainability of initiatives aiming for social change.

1 Findable, accessible, interoperable, reusable.