



Co-creating youth-friendly societies through Citizen Social Science

Recommendations for decision-makers in the European Union on how citizen social science can contribute to address the challenge of social inclusion for young people in Europe



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101005931



YouCount
Youth Citizen Science

Towards a new understanding of social inclusion

Current policy at the United Nations (UN), European Union (EU) and national levels reflects this new conceptual understanding of social inclusion, defining it in terms of social participation and equal opportunities for participation. For example, the UN report [Leaving No One Behind](#) defines social inclusion as a process of improving participation in society through enhanced opportunities, access to resources, voice and respect for rights. The YouCount project builds on this current understanding of social inclusion and acknowledges the multidimensional nature and complexity of this concept (Yang et al., 2019). Thus, social inclusion is both a process, and a goal.

Citizen social science (CSS) is a term associated with citizen science activities as a form of citizen science in the social sciences or one that has a specific focus on the social aspects of citizen science (Albert, A. et al, 2021). CSS is a novelty in the research field, thus it might be interpreted as a social innovation as well as a tool of fostering social innovations. Both social innovation and citizen science (CS) aim at social change. They both might address wicked social problems, for example social exclusion and inclusion, in order to generate and implement innovative solutions, and CS in particular, might be used to generate innovations through empowering people for exploring social issues. Thus, social innovation and citizen science both might contribute to positive social impacts such as social inclusion.

YouCount perspective: Key insights on citizen social science for social inclusion



Social inclusion is both a process and a goal and it is often referred to as the social exclusion-inclusion continuum



Social inclusion as a process improves participation in society and as a goal delivers the needs of individuals



Youth empowerment is an effective mechanism to pursue social inclusion



Citizen social science activities are an innovative way to empower youth



Citizen social science might be interpreted as social innovation or as a tool aiming at social innovation



Citizen social science builds on traditional participatory action research perspective and is aligned with the basic principles of Responsible Research and Innovation



In order to understand the social impact of citizen social science, evaluation adopts a two-fold process and outcome strategy

Recommendations

Acknowledging youth as key citizens in Europe and meaningfulness of Youth-Citizen Social Science (Y-CSS) for social inclusion

EU strategic documents emphasize the need to support youth citizenship and involvement in policymaking and research and foster youth social inclusion in general. However, these aims are not achieved yet, in particular, considering youth from socially vulnerable groups. There is a lack of knowledge of what are innovative ways to facilitate social inclusion of youth. YouCount project seeks to show that Y-CSS might be an effective and sustainable way to achieve these ambitions.

- #1** Y-CSS can be one of the most innovative and effective mechanisms to achieve the overall policy ambitions of social inclusion as outlined by EU parliament and SwafS programme by engaging youth into CSS and in this way building more inclusive societies across European Union countries.
- #2** The potential of Y-CSS needs to be more investigated on the national, European and global levels as there is still a lack of substantive knowledge about the youth potential to meaningfully contribute to science.
- #3** There are many ways to acknowledge the importance of youth in building the future of the Europe and meaningfulness of youth participation in science. Embracing this role YouCount recommends to celebrate the importance of youth as key citizens in Europe by announcing 2023 as a **YEAR OF YOUNG CITIZEN SCIENTISTS**.

Fostering CSS in the countries where this practice is lagging behind

The concept of social inclusion is relevant on different levels: from the individual level to the global. Citizen science is mainly concentrated in advanced economies, especially the US and Western and Northern Europe, but it is currently starting to get recognition in Central and Eastern Europe as well. However, the number, maturity and development of citizen science projects still varies significantly across countries. The development of citizen science projects has had different roots in different countries. By developing the case studies, the YouCount project found that CSS practices and even Participatory Action Research (PAR) approach is very unevenly understood and widespread among different European countries. Some case studies are developing very fast and smooth because of the policy and social environment which is positive and welcoming CSS. The countries where CSS practices are more commonly used in general, show results of better involvement of youth into CSS compared to the cases where CSS is a very novel practice and general public is not aware of CSS.

- #4** The more efforts on policy level should be put into the dissemination and funding actions by European and national public authorities for fostering more equal and even recognition of CSS across European Union countries.

Setting up Y-CSS in more inclusive ways: no one is left behind

The scientific vision of YouCount is to strengthen the transformative and participatory aspects of CS and social science, by enabling citizen participation in all facets, reaching out for a more egalitarian way of conducting science. Thus, YouCount is employing co-creative approach to involve different stakeholders and youth from vulner-

able social groups (migrants, youth from rural areas, etc.) into the hands-on CSS. Some of YouCount cases show up the great potential of co-creative Y-CSS by creating engagement, supporting sense of social inclusion when it works, creating potential for communication, leadership and scientific skills development and social science literacy among youth. These case studies present good practice examples of how young people have to be (or been) engaged in co-creative way. These examples can serve as a catalyst for other projects and researchers inspiring them to engage youth in co-creative CSS. The YouCount experience shows that you need to involve young people into shaping the CSS project right from the start.

#5 Co-creation is often stated as an important value and aim for EU policymaking and research & innovation (R&I) activities; however, it is not easily implemented in practice. More joint efforts are needed to foster co-creative approaches in day-to-day practice across European Union countries and among different institutions.

Addressing Responsible Research & Innovation (RRI) practices while engaging youth in science

The YouCount project is built on a traditional participatory action research perspective and aligned with the basic principles of RRI (ethics, governance, public engagement, science education/communication, gender equality and open access). The YouCount project adopts the basic normative principles for the RRI by aiming to conduct scientific practices that are diverse, inclusive, flexible and reflexive. It does this by envisioning and reflecting on the underlying assumptions, values and purposes to better understand the implications and impact of the R&I undertaken. Further, by being open and transparent by communicating research in meaningful and accessible ways that enable public scrutiny and dialogue and that are responsive to change by modifying methods in response to changing circumstances, knowledge and perspectives. This approach is particularly important when working with youth from vulnerable groups.

#6 Y-CSS needs to be further supported and developed through R&I programmes over a longer period of time, with a special attention to the countries with lower tradition for RRI, open science, participatory action research and CSS in order to improve research quality and utilize the potential of Y-CSS

Motivating youth to engage in CSS

The implementation of hands on co-creative activities requires hard work in practice, employing a variety of recruitment and engagement strategies, planning and finding suitable and adjusted facilitation methods to youth, and in particular, vulnerable youth, building relationships and trust, finding a suitable research role and time for the youths. This comes together with using a variety of motivational factors and rewards especially if young people are supposed to work over a long period of time. Literature review shows that different young people need different motivational incentives to keep their long-term engagement. YouCount case studies shows that the project tries to engage youth in CSS offering them opportunities for meaningful and serious leisure time activity.

#7 It is important to acknowledge CSS as a serious and meaningful leisure time activity, encouraging the motivation of participation by diverse sets of motivational incentives, including non-financial and financial incentives and addressing direct needs of young people, counting their voices about the best means that motivate them to join CSS activities.



Addressing risks of exploitation

This recommendation is informed by the research ethics principles of beneficence, justice and care. Beneficence accounts for the need of proper compensation for research participants, also ensuring the principle of justice. Compensation of costs safeguards against the exploitation of, often volunteer, citizen scientists (Tauginienė et al., 2021) and realises the relational principle of the ethics of care in practice. The YouCount project found that it would be effective to introduce some financial incentives to encourage youth from vulnerable groups to spend time CSS instead of doing the other activities. A full engagement into CSS project requires extra work from youth, and it takes time as well as knowledge and other resources. The project gains from young people's intelligence, time and valuable experiences. Yet, some EU projects are not allowed to foresee budgets for compensating citizen scientists for their time and effort in research or impact-making (e.g. social change) activities. This makes project management complicated for professional researchers whose institutions may be short of the funding for citizen scientists. Hence, projects may ex-ante presuppose the possibility of exploitation of young citizen scientists, which should be discontinued.

#8 To address the issue of exploitation when considering youth involvement into CSS. Also, consider rewards including the perspectives and voices of the young people, the diverse sources of expertise that these people bring together, also considering changes in the financial regulations of research fundings bodies

Assuring ethics in Y-CSS: responsible way towards social inclusion

These two recommendations draw on the principles of research ethics involving human subjects, which include autonomy, dignity, justice, beneficence/non-maleficence, and care ethics (Koeppell, 2017). As a rule, the researchers and their institutions are responsible for ensuring that citizen scientists in the role of research participants retain autonomy in decision making, stay respected and not harmed, which is handled via informed consent process and respective documentation. Based on the experience of the YouCount project, it is obvious that there is need for clear guidelines for institutional research ethics commissions how to evaluate youth citizen science activities.

#9 There is a need for guidelines for institutional research ethics commissions how to evaluate youth citizen social science activities. This particularly applies to the use of open digital data collection devices (e.g., CS apps) involving young people and social issues

Another noteworthy aspect where the European Commission's (EC) official perspective or guidelines for national states are needed is addressing differences of citizen scientists from traditional research participants. Although being research participants at the same time, young citizen scientists are also researchers who may co-create research problems and design, collect, analyse and interpret the data. Thus, there is a need to strengthen recognition of youth as a trustful researchers. This aspect has been highlighted by the community of professional researchers doing citizen science (Rasmussen, 2021). Moreover, the principles of protecting minors and requirements of parents' consent for those under 18 years of age may prevent or exclude young people from participating in CS activities and thus not get access to the benefits from this participation such as recognition, learning experiences, etc. This can particularly apply to vulnerable social groups who are in most need of these benefits. Early results of the YouCount project also indicate that different national regulations and practices concerning ethics and General Data Protection Regulation (GDPR) understanding can be an obstacle to conduct

#10 There is a need of clear guidelines concerning ethics that recognize the differences between citizen scientists and traditional research participants. Guidelines may assure the balance between benefits and potential harm for young citizen scientists by securing the principle of non-harm/beneficence but also opening opportunities for them to participate as researchers.

References

Koepsell, D. (2017). *Scientific Integrity and Research Ethics: An Approach from the Ethos of Science*. Springer.

Rasmussen, L.M. (2021). Research Ethics in Citizen Science. In Iltis, A.S., MacKay D. (eds.) *The Oxford Handbook of Research Ethics*. DOI: 10.1093/oxfordhb/9780190947750.013.36.

Tauginienė, L., Hummer, P., Albert, A., Cigarini, A., Vohland, K. (2021). Ethical challenges and dynamic informed consent. In K. Vohland et al. (Eds.) *The Science of Citizen Science*, Springer, pp. 397-416.

Yang, Z., Wang, Y., & Liu, Z. (2019). *Improving socially inclusive development in fast urbanized area: Investigate livelihoods of immigrants and non-immigrants in Nansha Special Economic Zone in China*. *Habitat international*, 86, 10-18. <https://doi.org/10.1016/j.habitatint.2019.02.005>

Butkevičienė, E., Pučėtaitė, R. Budrytė, P., Vaičiūnienė, J., Norvoll, R., Canto, P., Lorenz U., Juricek, S., Freiling, I., Matthes, J., Jørgensen, M. S., Pataki, G., Czeglédi, A., Gatti, F., Procentese, F. (2021). D1.2. *Report on the conceptual, innovative, evaluation and ethical framework for youth citizen social science*, doi. 10.5281/zenodo.5810259

Authors

Eglė Butkevičienė¹, Raminta Pučėtaitė¹, Reidun Norvoll², Patricia Canto³

¹ KTU, Kaunas University of Technology, Kaunas, Lithuania

² OsloMet, Oslo Metropolitan University, Oslo, Norway

³ Orkestra/FD University of Deusto



YouCount
Youth Citizen Science

www.youcountproject.eu

#YouCount