# Introduction

**Citizen science as a scientific discipline is inevitably linked to the creation of data: identifying which data may answer your questions by using citizen science, attracting citizens and other stakeholders interested in the data, collecting data, telling the story of the data, and repurposing data. Citizen science can increase scientific literacy by use of data.**

*By Jitka Stilund Hansen, Technical University of Denmark, ORCID iD:* [*0000-0002-5888-1221*](https://orcid.org/0000-0002-5888-1221) *e-mail:* [*jstha@dtu.dk*](mailto:jstha@dtu.dk) *Article DOI:* [*10.25815/rr9w-cw53*](https://doi.org/10.25815/RR9W-CW53)



In this section, you will learn which skills can support a citizen science project across its life cycle and facilitate its success. These skills relate to project management, communication, management of research data and integrating scientific literacy into the project. Identifying persons and resources to the different tasks of the project already from the beginning may be a daunting task. However, realising and incorporating skills is a huge step towards creating a project that brings quality to not only the data, but also an experience of quality participation to the citizen scientist.

It is important to note that citizen science belongs to the open science domain, and is therefore perceived as a method, where research data are shared at large with open access to publications and full transparency of data availability. However, data use has to comply with ethical and legal obligations, such as GDPR, and with the expectations of the citizens. Accordingly, the FAIR principles do also have a role to play for citizen science data. The principles can help navigate the open science expectations and engagement of the citizens with the actual possibilities for sharing and reuse.

How to obtain good quality citizen science data is not addressed in this section, but it is inevitably linked to the possibility of reusing the data. A task of the research librarian is also to convey to the researcher or project holder, why project management and good research data management practices are important: Quality data emerges from good management. If the citizen experiences that the project produces quality data fit for reuse and creating impact, this could empower the citizen and is a strong motivation factor.

The skills highlighted in the section may due to their diversity not all be embedded in the research library initially. Therefore, the intention is to help clarify which support is already present and which skills should be developed or sought elsewhere. Hopefully, this guide can create momentum for the development of library services directed at citizen science. Academic researchers and project managers should be able to extract useful knowledge about management of citizen science projects and their data, and where to obtain more information.

**This section will help you:**

* Learn how **citizens and other stakeholders** have a role to play at many points during the project life cycle:
  + how they are involved in project management and co-creation,
  + how communication with them could be handled, and
  + what are the obligations pertaining to the data and knowledge provided.
* Get practical advice on **project management** and **communication planning**.
* Identify elements of **FAIR data**that require particular attention in citizen science projects.
* Understand how **scientific literacy** can be used for co-creation and education in citizen science.

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