

Citizen Science and the SDGs: how can Citizen Science Support the Collection of Scientific Data

**Let's Go Green! 2023: Second NSK
International Green Libraries Conference**



Maria Cassella
Area Servizi Bibliotecari del Campus Luigi
Einaudi,
University of Turin
Zagreb, 09 November 2023

Defining a practice...

1995

- Alan Irwin publishes the volume: Citizen Science.
 - First CS Definition

Science with society: a method

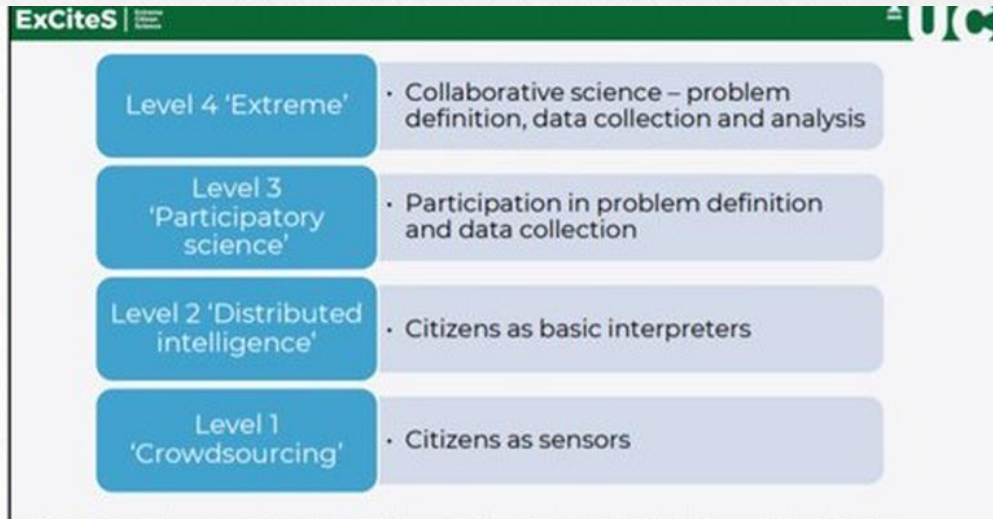
Science for society: a scope

- Referring to communities

CS is one of the 8 pillars of the European Open Science Agenda



Describing a practice... (Muki Haklay, 2013)



Citizen Science: the values

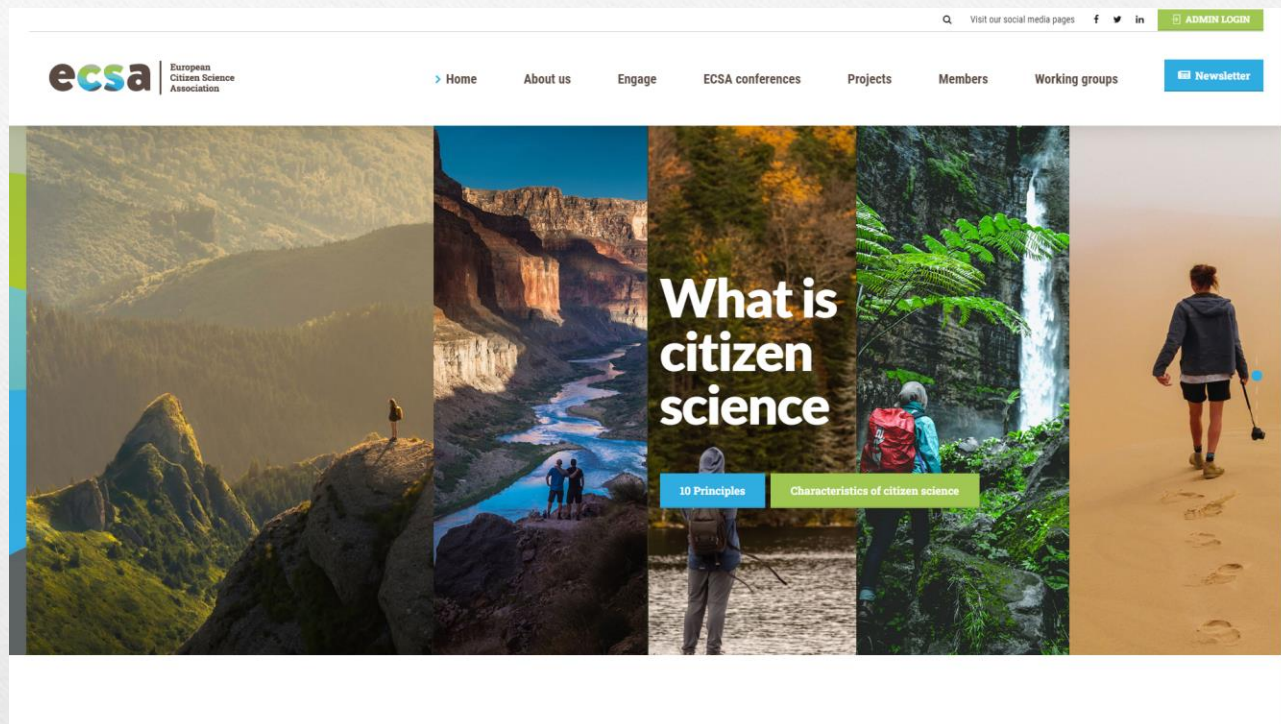
- **Democracy**
- **Inclusiveness**
- **Trust (in science)**
- **Transparency**
- **Collaboration**
- **Education**

Citizen Science: the keywords

- **Co-creation** experiences are a way to **connect** multiple stakeholders, bringing them together to discover their interests and values and using these opportunities to **discuss, develop and implement projects or ideas to achieve new, inclusive, forward-thinking research strategies.**
- As a result, co-creation experiences allow high-quality interactions and unique experiences, with those involved becoming connected, informed and empowered

(ORION Open Science Project)

ECSA



CS in practice



<https://www.youtube.com/watch?v=VIRtCPxrvHk>



Shaping the Future of Citizen Science linking Environment and Health

14th June 2022 • 9:00 (CEST)

Free event open to the public

Hybrid meeting: online and
in-person in Sapienza University of Rome.

CS in the European landscape

UE is increasingly funding CS projects (Es. COESO)

- [EU-Citizen.Science](#) is the EU portal to register CS projects
 - 249 CS projects registered

Some CS projects involve libraries as partners

- [CeOS_SE](#)
- [INOS](#)



FleboCollect

Flebocollect

Featured

Agriculture & Veterinary science

flebotomos leishmaniosis

Flebocollect is a citizen science project for educational and scietific purposes.

The Flebocollect science dissemination project is structured through a didactic sequence aimed at disseminating the consequences of the alteration ...

0 0 242



EcoVoce

Romania Ecology & Environment

environmental monitoring

Mining regions such as the Apuseni Mountains include complex environmental problems arising from their long-term overexploitation. Adequate methodologies and tools are needed to identify environmental risks and develop networks of ...

0 0 652



Slovene partisan monuments on Geopedia

Featured

Slovenia Education antifascism monuments in Slovenia ...

Partisan memorial is a general term for memorial plaques, obelisks, monuments, statues and similar objects erected after World War II to commemorate fallen partisans and hostages shot. They appear at ...

0 0 221



Report the species

Featured

Slovenia Biology

Ecology & Environment biology species identification ...

The Report a Species portal is designed for anyone eager to take an active part in exploring and preserving nature. We encourage you to document your observations of certain selected ...

0 0 263



EuroBioBlitz 2023



INOS



CitSci4All



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OBIETTIVI



PER LO SVILUPPO SOSTENIBILE



SDG Icon Pack

Linee guida loghi SDGs

Presentazione (PDF)

Agenda 2030

L'Agenda 2030 per lo Sviluppo Sostenibile è un programma d'azione per le persone, il pianeta

[nature](#) > [nature sustainability](#) > [perspectives](#) > article


Perspective | Published: 09 October 2019

Citizen science and the United Nations Sustainable Development Goals

[Steffen Fritz](#) , [Linda See](#), [Tyler Carlson](#),
[Mondardini](#), [Martin Brocklehurst](#), [Lea A.](#),
[Stephan Arnold](#), [Matthew Billot](#), [Jillian C.](#),
[Libby Hepburn](#), [Angel Hsu](#), [Deborah Lon](#)

Nature Sustainability **2**, 922–930 (2019)

37k Accesses | 318 Citations | 335 A

 An [Author Correction](#) to this article This article has been [updated](#)

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CITIZEN SCIENCE: THEORY AND PRACTICE

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The Contributions of Citizen Science to the United Nations
Sustainable Development Goals and Other International
Agreements and Frameworks

Authors: [Dilek Fraisl](#) , [Linda See](#), [Jillian Campbell](#), [Finn Danielsen](#),
[Herizo T. Andrianandrasana](#)

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Citizen Science and the Role in Sustainable Development

by  [Daniel Dörler](#) ^{1,*} ,  [Steffen Fritz](#) ² ,  [Silke Voigt-Heucke](#) ³  and  [Florian Heigl](#) ¹ 

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What can CS do for the SDGs?



HELP DEFINITION
OF NEW TARGETS
AND METRICS



RAISING
AWARENESS ON
SDGS TARGETS



COLLECTING
DATA



MONITORING
PROGRESS



DATA QUALITY
CONTROL

CS, SDGs and Data

- Majority of CS Projects collect Scientific Data
- SDGs heavily rely on Data
- **33%** of SDGs targets can benefit from the contribution of Citizen Science (Fraisl et al, 2020)
 - Direct contribution
 - Supplementary contribution

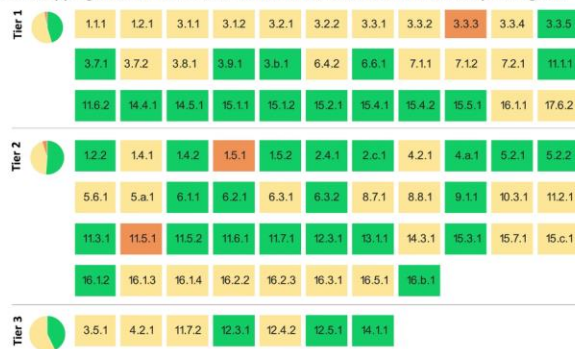
Governmental Data

- Official statistics community is demonstrating a growing interest in exploring and harnessing the potential of data produced in different ways

-
- All SDGs have at least **one** indicator to which citizen science could potentially contribute

Fig. 3

From: Mapping citizen science contributions to the UN sustainable development goals



Citizen science contributions to SDG monitoring by tier classification. The green shading denotes direct contributions, the yellow are supplementary contributions, and the orange shows indicators that have both direct and supplementary contributions. The values within each box are the SDG indicator numbers.

- Fraisl, D., Campbell, J., See, L. *et al.*
- Mapping citizen science contributions to the UN sustainable development goals.
- *Sustain Sci* **15**, 1735–1751 (2020)

CS and SDGs : 3 challenges

- Data quality
- Inclusiveness
 - Varga et al. (2023) emphasize the relationship between inclusiveness and data quality
- Lack of awareness of the SDGs and other frameworks within the citizen science community
- Sustainable funding for CS projects

Thank you for your attention!

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