

Citizen Enhanced Open Science, a definition

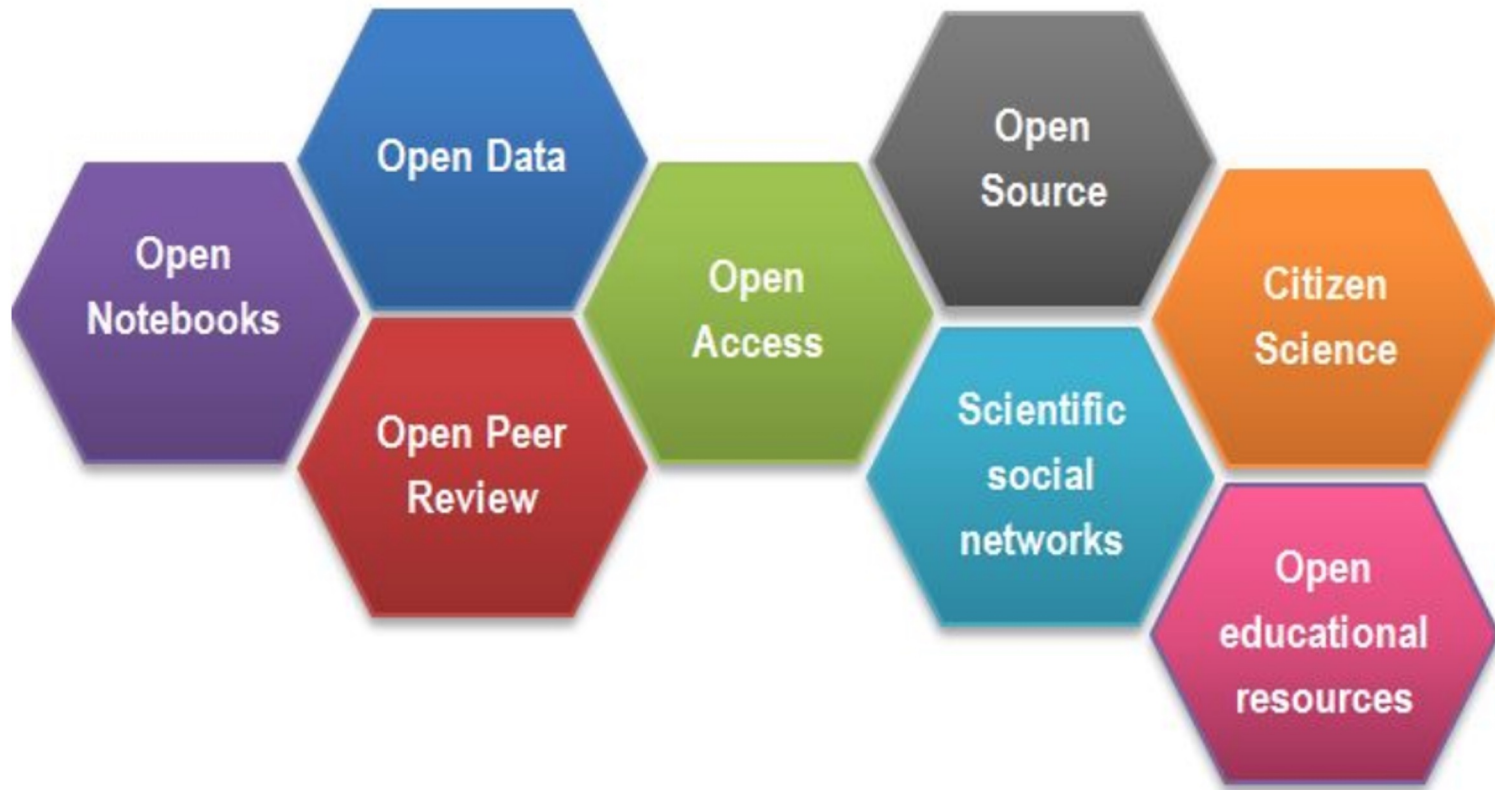
Katerina Zourou, Ph.D., Web2Learn
March 24, 2023

CitizenHeritage is co-financed by the Erasmus+ Programme of the European Union,
project number 2020-1-BE02-KA203-074727

Society
Science

Society
Science

Open science as advocacy for a “better” world



Cf. FOSTER project

Citizen science as advocacy for a “better” world

CITIZEN SCIENCE FOR POLICY ACROSS EUROPE



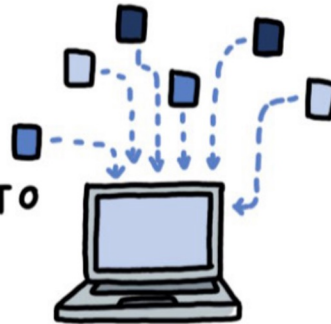
eu-citizen.science

SVEN SCHADE CURRENT STATE OF CITIZEN SCIENCE ACROSS EUROPE

EUROPEAN COMMISSION

CITIZEN SCIENCE FOR POLICY

- ① CONNECTING DATA TO POLICY MAKERS
- ② FEEDBACK
- ③ MONITORING



CO-CREATION AND CO-DESIGN



POLICY FOR CITIZEN SCIENCE



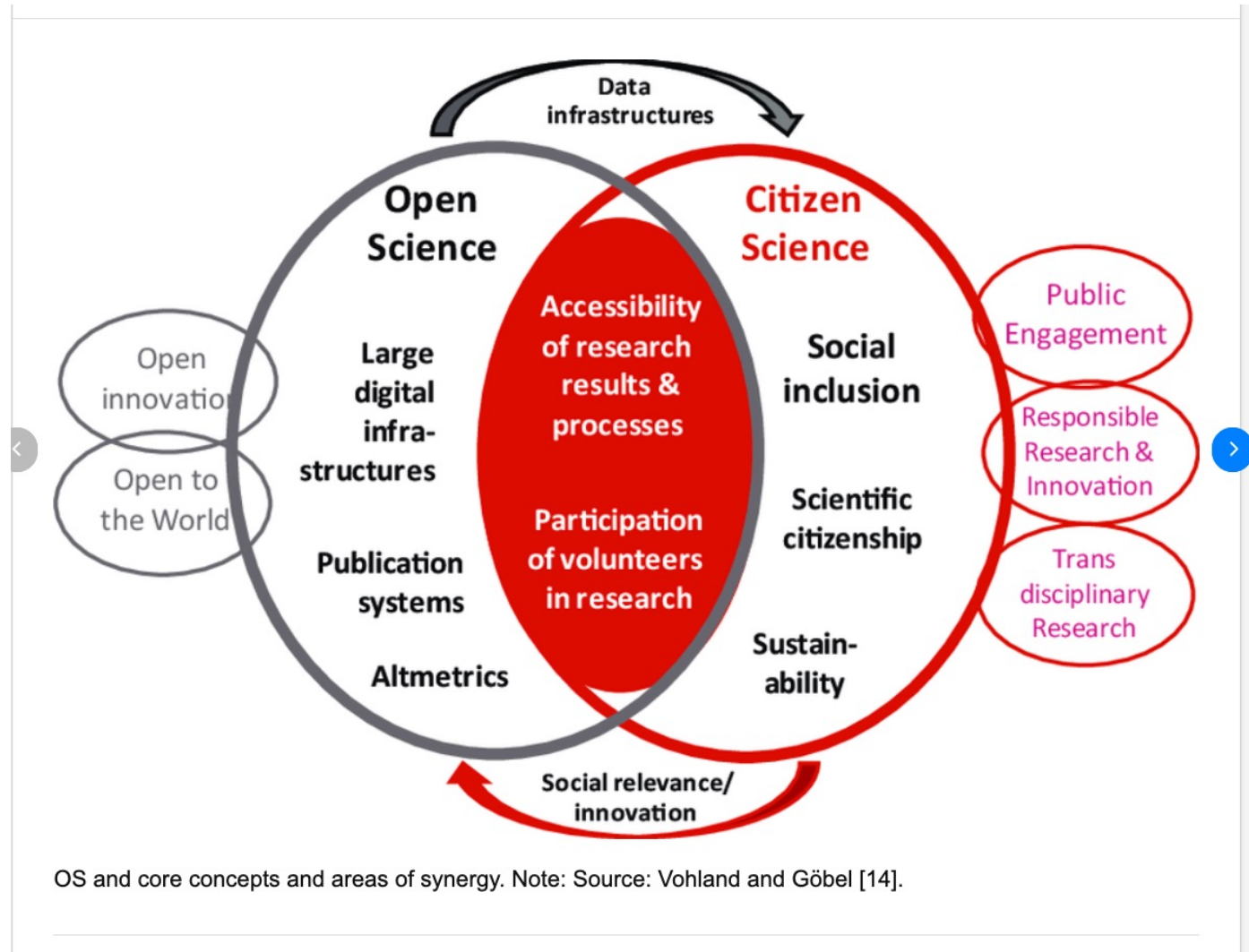
DIFFERENT IN EACH COUNTRY

DIFFERENT TERMS AND PRACTICES

SCALING

IMPROVING THE INTERPLAY BETWEEN SCIENCE AND SOCIETY

THESE APPROACHES WORK



Vohland, K., Göbel, C. (2017) Open Science und Citizen Science als symbiotische Beziehung? Eine Gegenüberstellung von Konzepten. TATuP – Zeitschrift für Technikfolgenabschätzung in Theorie und Praxis 26 (1/2) 18-24. Available at: <https://www.tatup.de/index.php/tatup/article/view/21>

Citizen enhanced open science- in practice?

Who we are ▾What we do ▾Our Network ▾Resources ▾Events & Webinars ▾ [Get involved](#)

CeOS_SE Project — Citizen-Enhanced Open Science in Southeastern Europe Higher Education Knowledge Hubs

Funded by the European Union's Erasmus+ Programme under *Cooperation Partnerships in Higher Education*, the CeOS_SE project aims to raise awareness of mainstream Open Science (OS) and Citizen Science (CS) practices in Southeastern Europe.

Timeframe
01-01-2022 – 31-12-2024

Website
<http://ceosse-project.eu/>

Social Media
Facebook LinkedIn Twitter YouTube Zenodo

LIBER libraries whose institutions participate in CeOS_SE



- ✓ University Library of Southern Denmark, Denmark
- ✓ Università Degli Studi di Torino, Italy
- ✓ Panepistimio Patron, Greece
- ✓ Belgrade University, University library "Svetozar Markovic" Serbia


https://libereurope.eu/project/ceos_se-project-citizen-enhanced-open-science-in-southeastern-europe-higher-education-knowledge-hubs/


Check also: <https://web2learn.eu/citizen-enhanced-open-science-some-reflections/>

Full paper

Full paper

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July 21, 2022

Project deliverable

Open Access

Citizen Enhanced Open Science in Cultural Heritage - Review and analysis of practices in Higher Education

 Zourou, Katerina;  Ziku, Mariana


This publication addresses open and citizen science dimensions in the field of cultural heritage, by emphasising the role higher education institutions can play.

Some of the questions this study tackles are:


- How can universities act as citizen science incubators?
- How to connect civic engagement with open science?
- How to move towards active public engagement models in scholarly research, all with an application in the cultural heritage field?

Cite as:
Zourou, K. & Ziku, M. (2022). *Citizen Enhanced Open Science in Cultural Heritage - Review and analysis of practices in Higher Education*. <https://doi.org/10.5281/zenodo.6875125>.

528


 views

265


 downloads

[See more details...](#)

Indexed in



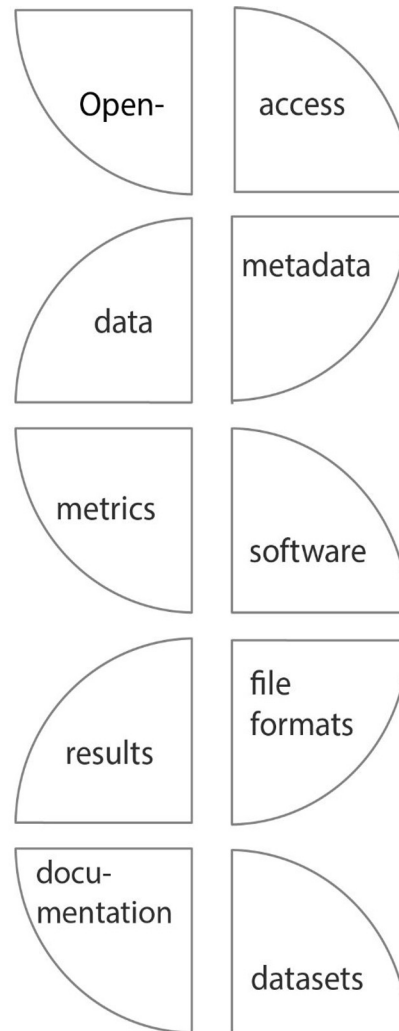
Publication date:
July 21, 2022

DOI:
 [10.5281/zenodo.7221794](https://doi.org/10.5281/zenodo.7221794)

<https://zenodo.org/record/7221794#.ZB10oBVByPc>

Mapping “Openness”

9-factor typology against which the citizen science projects are analyzed



Open- access

Policies and statements for content sharing and provision for sustainable open access



Open metadata

Information about data licensed and shared independently from the data they are attached to



Open source software/hardware

Technological components and their software licensing framework as free/libre/open for software



Open file formats

The provision for open, standardised and international file formats, suitable for long-term preservation



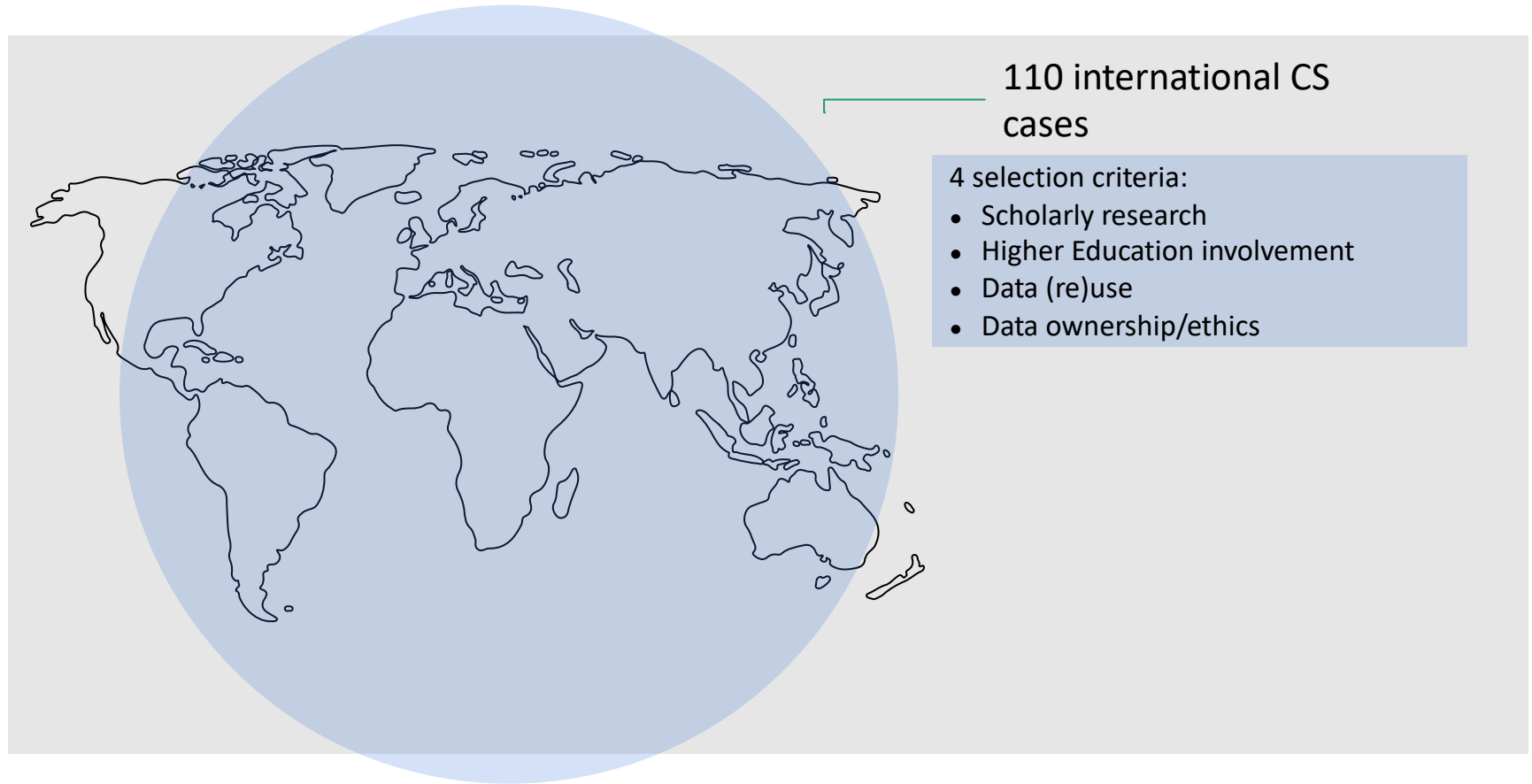
Open datasets

Datasets can be shared via data dumps, APIs for dataset download, web-based git and research repositories

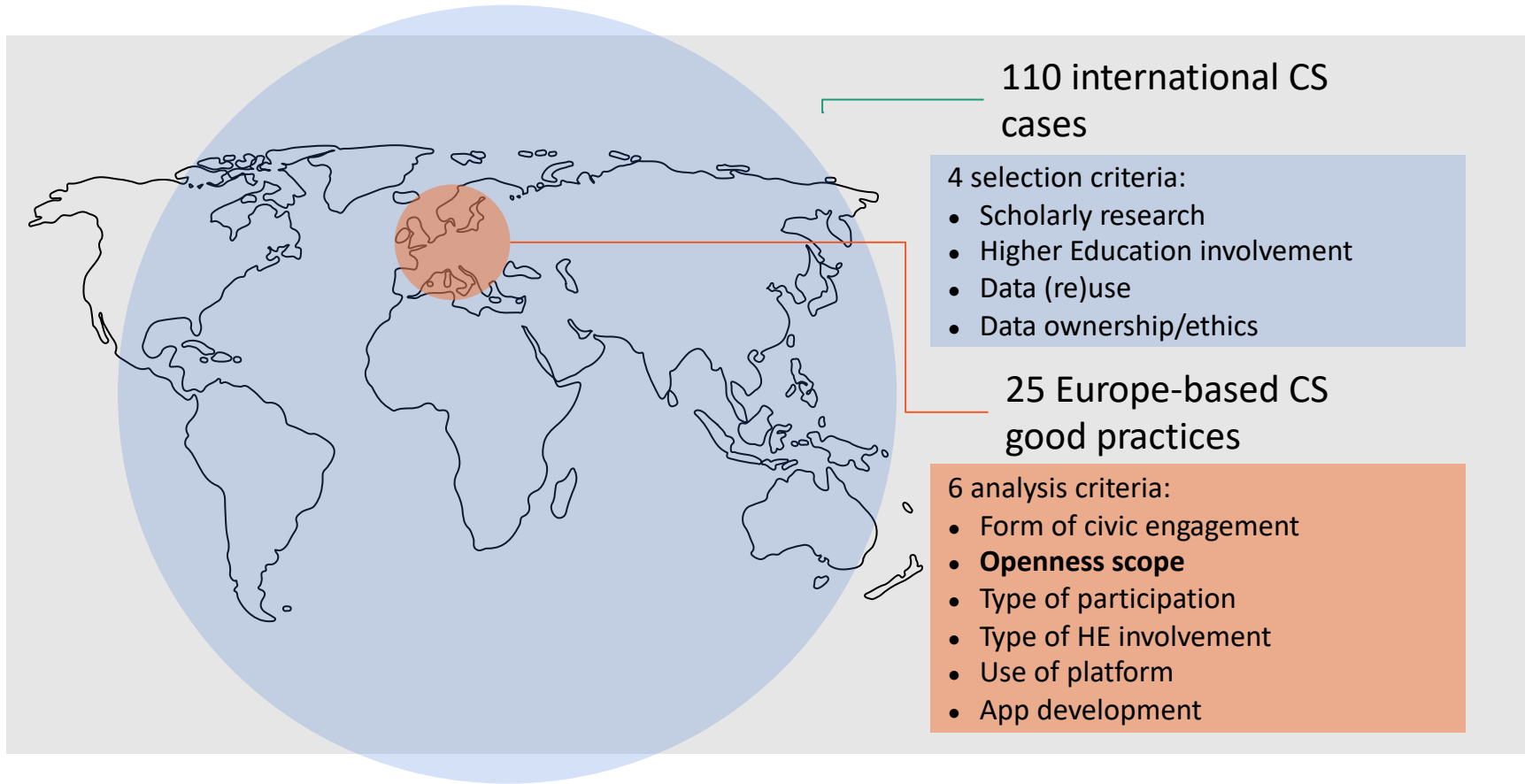
•Fig. 1. Openness scope in citizen science, nine-factor typology (infographic). In Zourou & Ziku, 2022. CC BY 4.0

Zourou, K. & Ziku, M. (2022). *Citizen Enhanced Open Science in Cultural Heritage - Review and analysis of practices in Higher Education*. <https://doi.org/10.5281/zenodo.6875125> .

Selection of CS practices in Cultural Heritage



Selection of CS practices in Cultural Heritage

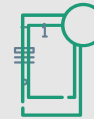


List of 25 selected European-based citizen science practices

1	Living with Machines	8	Listening Experience Database	15	Heritage Quest	22	Topotheque
2	Micro-Pasts	9	Fifties in Europe Kaleidoscope	16	Dodiom	23	Accurator
3	ArcheoSITAR project	10	World Architecture Unlocked	17	Art Pluriverse: A Community Science Series	24	PAGODE
4	Transcribe Bentham	11	PHACS: Participatory Urban Projects	18	CrowdHeritage: Fashion Garment's Type	25	REACH
5	Hanse, quellen, lesen!	12	ARTigo	19	Ajapaik		
6	Transcribathon: Europeana 1914-1918	13	Memória para todos	20	SuALT: Finnish Archaeological Finds		
7	SCAPE: Scotland's Coastal Heritage at Risk	14	Meithal Dúchas.ie: Community transcription	21	WeAre#EuropeForCulture		

Methodology: Data analysis & Visualisation

Five-step data workflow



Data compilation

Initial set of quantifiable data

Data modelling

Create machine-readable structured data

Data filtering

Further mapped to bring a richer understanding

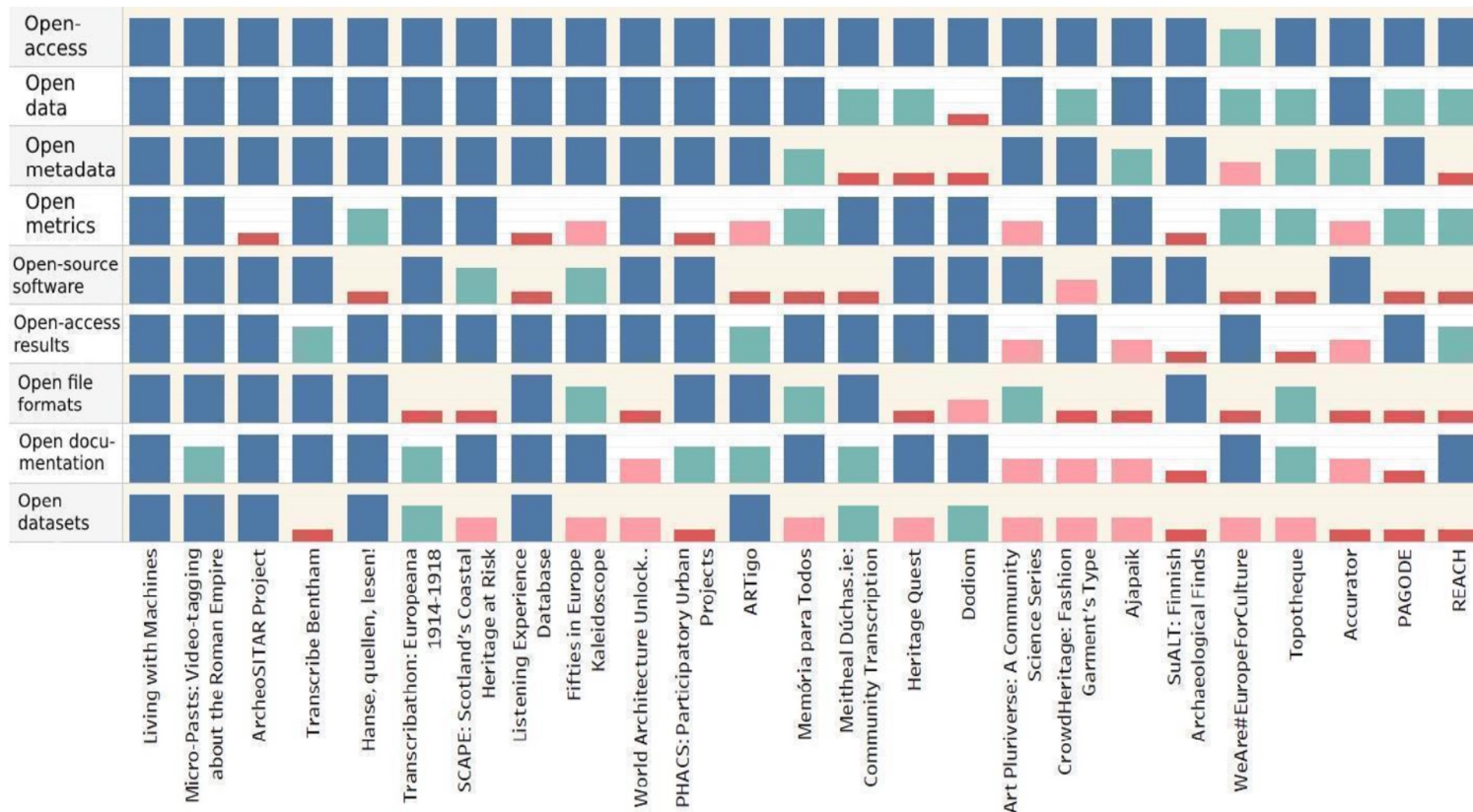
Parameter settings

Include attributions e.g. color scheme, shapes, sizes

Visualisation rendering

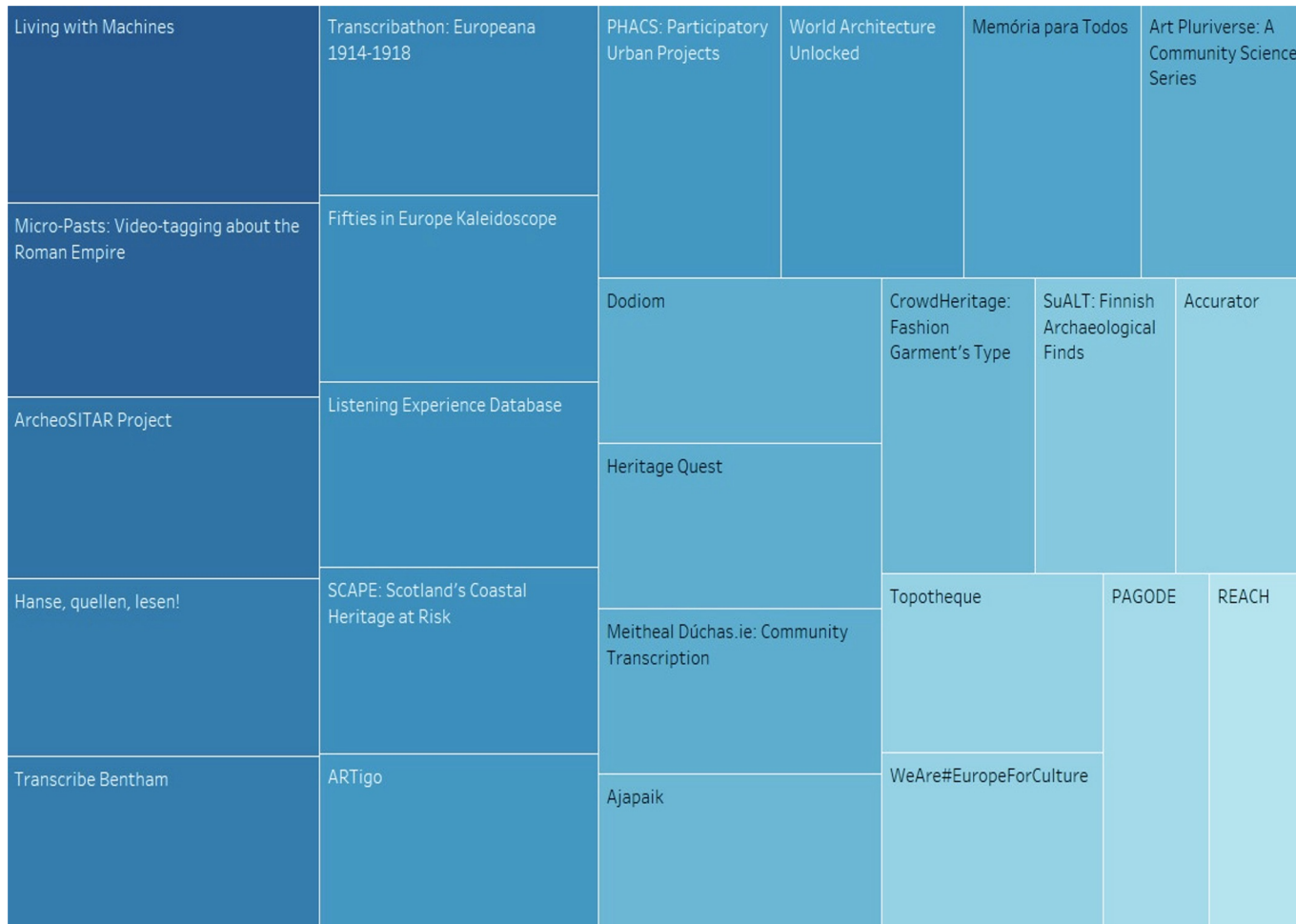
Use of software interface

Openness scope assessment of 25 CS initiatives



Assessment of the openness scope against the 9-factor typology taking four values, “good” (blue), “partly good” (green), “not clear” (pink), “weak” (red). In Zourou & Ziku, 2022. CC BY 4.0

Openness scope assessment of 25 CS initiatives



Treemap view of the 25 selected citizen science practices, sorted according to their openness scope based on the 9-factor typology. In Zourou & Ziku, 2022. CC BY 4.0

FAIR data assessment of 25 CS initiatives

	Accurator	Ajapaik	ArcheoSITAR Project	Art Pluriverse: A Community Science Series	ARTigo	CrowdHeritage: Fashion Garment's Type	Dodiom	Fifties in Europe Kaleidoscope	Hanse, quellen, lesen!	Heritage Quest	Listening Experience Database	Living with Machines	Meitheal Dúchas.ie: Community Transcription	Memória para Todos	Micro-Pasts: Video-tagging about the Roman Empire	PAGODE	PHACS: Participatory Urban Projects	REACH	SCAPE: Scotland's Coastal Heritage at Risk	SuALT: Finnish Archaeological Finds	Topotheque	Transcribathon: Europeana 1914-1918	Transcribe Bentham	WeAre#EuropeForCulture	World Architecture Unlocked
Findable	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Accessible	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Interoperable	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Reusable	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes

Assessment of the FAIR dimension taking two values, "yes" (dark blue), "no/not clear" (light blue). In Zourou & Ziku, 2022. CC BY 4.0