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Citizen science as a planning ally to facilitate public-civic collaboration

By Tom Goosse, PhD candidate (UGent-RUGroningen)

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Potential of citizen science

“*Valuable plurality*” (Van Oudheusden, 2023)

- # working arrangements between public, civic and academic partners
- # themes depending on partners’ concerns and interests

Towards innovative socio-political practices (Von Gönner et al., 2023)

Four interfaces with spatial planning (Goosse et al., 2025):



Monitoring



Dissemination



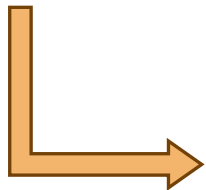
Consensus building



Action-oriented

Citizen science as planning ally?

Haklay (2011)	LEVEL 1	Crowdsourcing	Citizens as sensors
	LEVEL 2	Distributed intelligence	Citizen as interpreters
	LEVEL 3	Participatory science	Citizens participate in problem definition
	LEVEL 4	Extreme Citizen Science	Citizens participate in data analysis
Kythreotis et al. (2019)	LEVEL 5	Citizen Social Science	Citizens as agents in research actions and policy formulation



How can citizen science serve as planning ally towards public-civic collaborations in the face of complexity?

Planning strategies and co-creative research

Planning navigation techniques (Devos, 2021)

Tracing

- Understanding and framing problem
- Identifying key-actors

Mapping

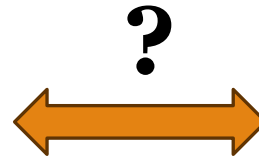
- Searching for matching interests and joint opportunities
- Making relationships

Diagramming

- Concretizing actions
- Identify tensions and resistance
- Blueprint of solution

Agencying

- Institutionalisation of collaboration
- Introduction to planning instruments



Methodological foundations for citizen social science (Thomas et al., 2021)

Creating space for encounters

- Facilitation of match-making
- Relating actors to another
- Definition of joint problem statement

Communicative practices

- Exchange of different perspectives
- Data collection
- Generalisable findings

Processes of self-understanding

- Summarizing research results
- Transcend boundaries of subjectivity

Engaging in public discourses

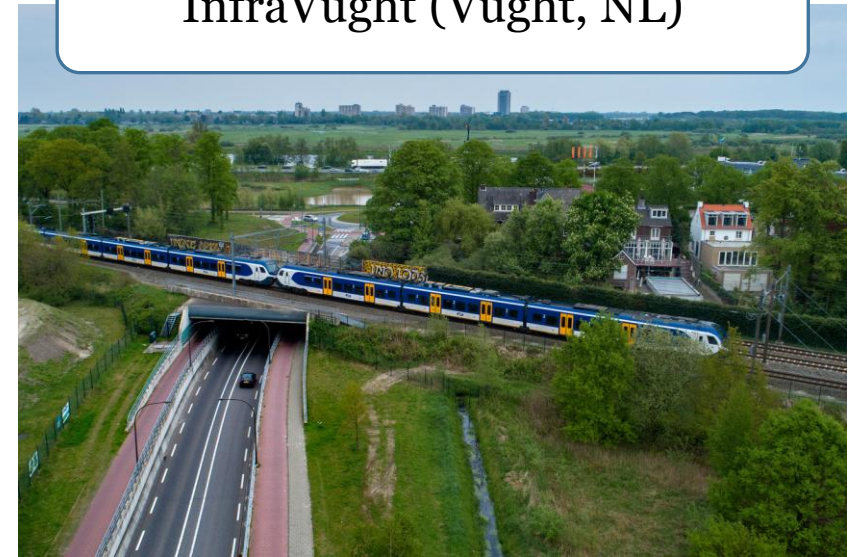
- Use results to engage in social discourse
- Gain political influence
- Advocate for specific solutions

De Grachtwacht (Leiden, NL)



https://www.degrachtwacht.nl/images/events/_eventImage/sch.jpg

InfraVught (Vught, NL)



CurieuzeNeuzen (Antwerp, BE)



https://static.nieuwsblad.be/Assets/Images_Upload/2016/04/30/3f6f55da-f81e-11e5-8000-988ea077399f_web_scale_o_1310371_o_1310371_.jpg

Stiemerlab Genk, BE)



<https://stiemerlab.be/over-stiemerlab/>

Citizen science to facilitate public-civic collaborations

Planning strategies	
Tracing	Outside of institutional attention, generally issues with cross-responsibilities
Mapping	Alignment with institutional agenda to enable collaboration
Diagramming	Findings seen as complementary or threatening
Agencying	Between formal and informal agreements
Co-creative research	
Space for encounters	Some contributed to the creation of space, others benefitted from it
Communicative practices	Partners share views and use scientific data as evidence AND advocacy tool
Engaging in discourse	Use of evidence to strengthen positions and argumentations

Citizen science to facilitate public-civic collaborations

Spaces for encounters can be important tools

- to find matching interest (mapping)
- to enable formal and informal agreements (agencying)

The research process and its findings contributes

- in revealing and concretizing existing tensions (diagramming)
- in creating a common ground or contestation (public discourse)

The type of partnerships impacts the viewed legitimacy and recognition

Public discourse is a key moment towards further agreements



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Reference list

- Boelens, L., & Goethals, M. (2016). Planning tactics of undefined becoming—Applications within Urban Living Labs of Flanders' N16 corridor, Belgium. In *Actor Networks of Planning: Exploring the Influence of Actor Network Theory* (Yvonne Rydin&Laura Tate, pp. 186–202). Routledge.
- Devos, T. (2021). Government Planners and Critical Planning Practices as Allies: Tactics for Socio-Spatial Planning Innovations. *disP - The Planning Review*, 57(2), 30–45. <https://doi.org/10.1080/02513625.2021.1981009>
- Goosse, T., Lamker, C., & Devos, T. (2025). The potential benefits of citizen science for spatial planning: An exploratory analysis of 22 Belgian and Dutch cases. *European Planning Studies*, 1–19. <https://doi.org/10.1080/09654313.2025.2530754>
- Kythreotis, A. P., Mantyka-Pringle, C., Mercer, T. G., Whitmarsh, L. E., Corner, A., Paavola, J., Chambers, C., Miller, B. A., & Castree, N. (2019). Citizen Social Science for More Integrative and Effective Climate Action: A Science-Policy Perspective. *Frontiers in Environmental Science*, 7(10), 1–10. <https://doi.org/10.3389/fenvs.2019.00010>
- Thomas, S., Scheller, D., & Schröder, S. (2021). Co-creation in citizen social science: The research forum as a methodological foundation for communication and participation. *Humanities and Social Sciences Communications*, 8(1), 244. <https://doi.org/10.1057/s41599-021-00902-x>
- Van Oudheusden, Michiel, Anna Berti Suman, Tine Huyse, Huib Huyse, and Fabien Medvecky. 2023. 'The Valuable Plurality of the Citizen Sciences'. *Science & Technology Studies*, June. <https://doi.org/10.23987/sts.126210>.
- Von Gönner, Julia, Thora M. Herrmann, Till Bruckermann, Michael Eichinger, Susanne Hecker, Friederike Klan, Julia Lorke, et al. 2023. 'Citizen Science's Transformative Impact on Science, Citizen Empowerment and Socio-Political Processes'. *Socio-Ecological Practice Research* 5 (1): 11–33. <https://doi.org/10.1007/s42532-022-00136-4>.

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