VU VRIJE UNIVERSITEIT AMSTERDAM

Citizen Science

17/06/2024

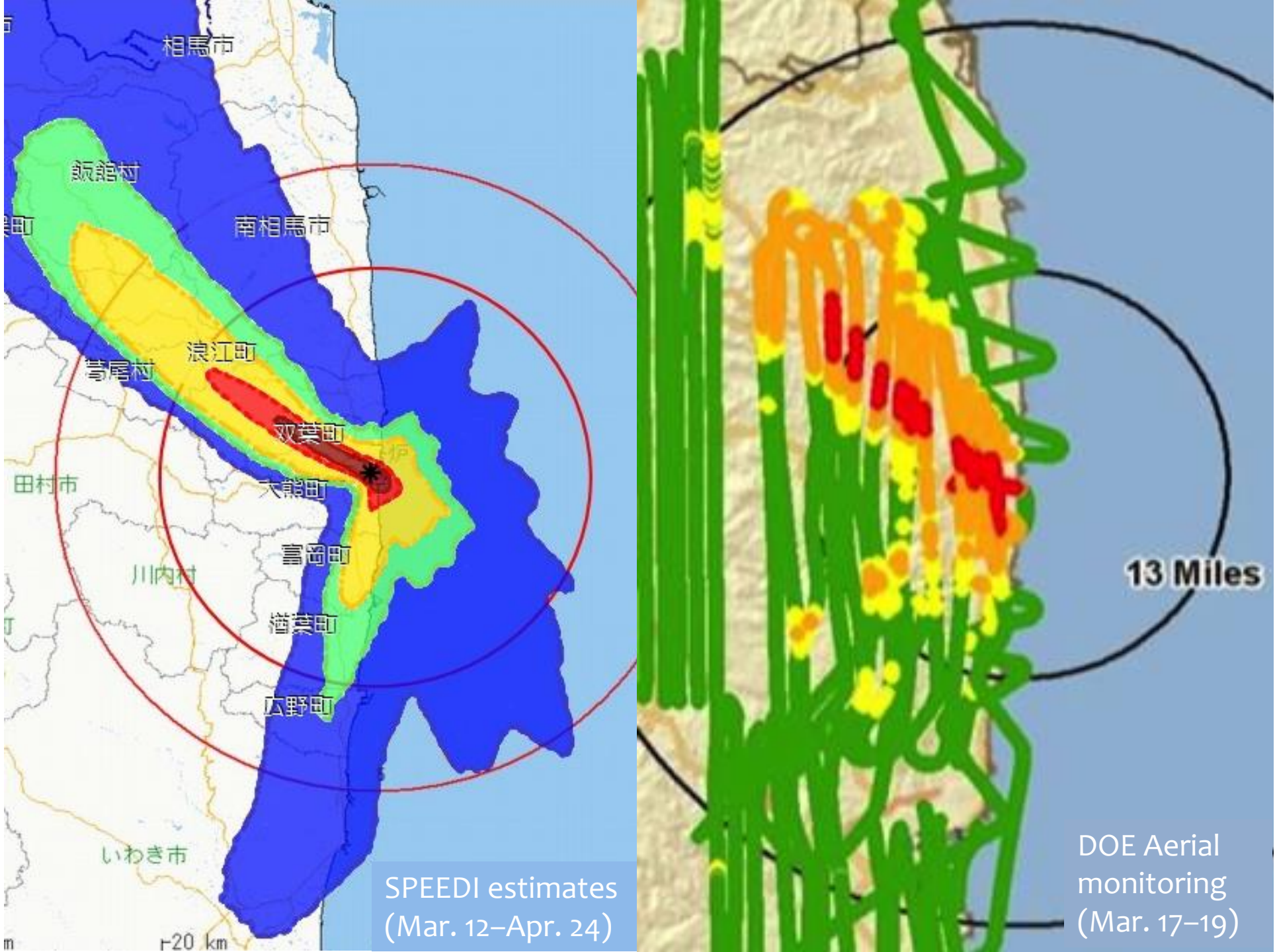
Michiel van Oudheusden


川井魚店
2013
30
Panasonic
神谷巌商店
酒
米


Lichten!


川井魚店
Panasonic
酒米
神谷酒商店


JAPAN

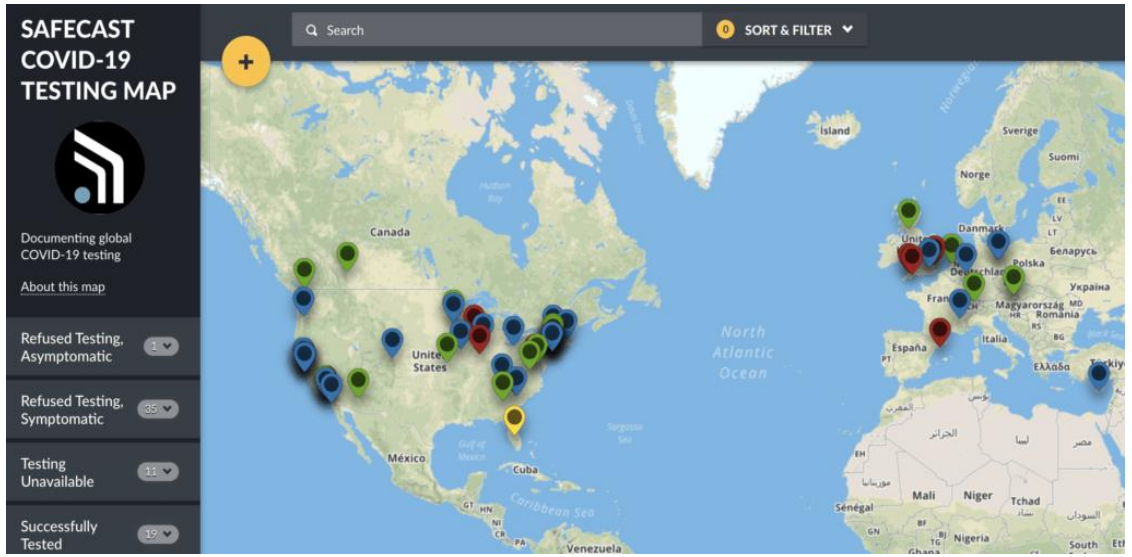

相馬市
飯舘村
南相馬市
浪江町
葛尾村
双葉町
大熊町
田村市
富岡町
川内村
楢葉町
広野町
いわき市
20 km
SPEEDI estimates
(Mar. 12–Apr. 24)
13 Miles
DOE Aerial
monitoring
(Mar. 17–19)

Do-it-yourself Citizen Science

Need for reliable,
actionable data NOW

Breach of public trust in
formal science and policy

Safecast



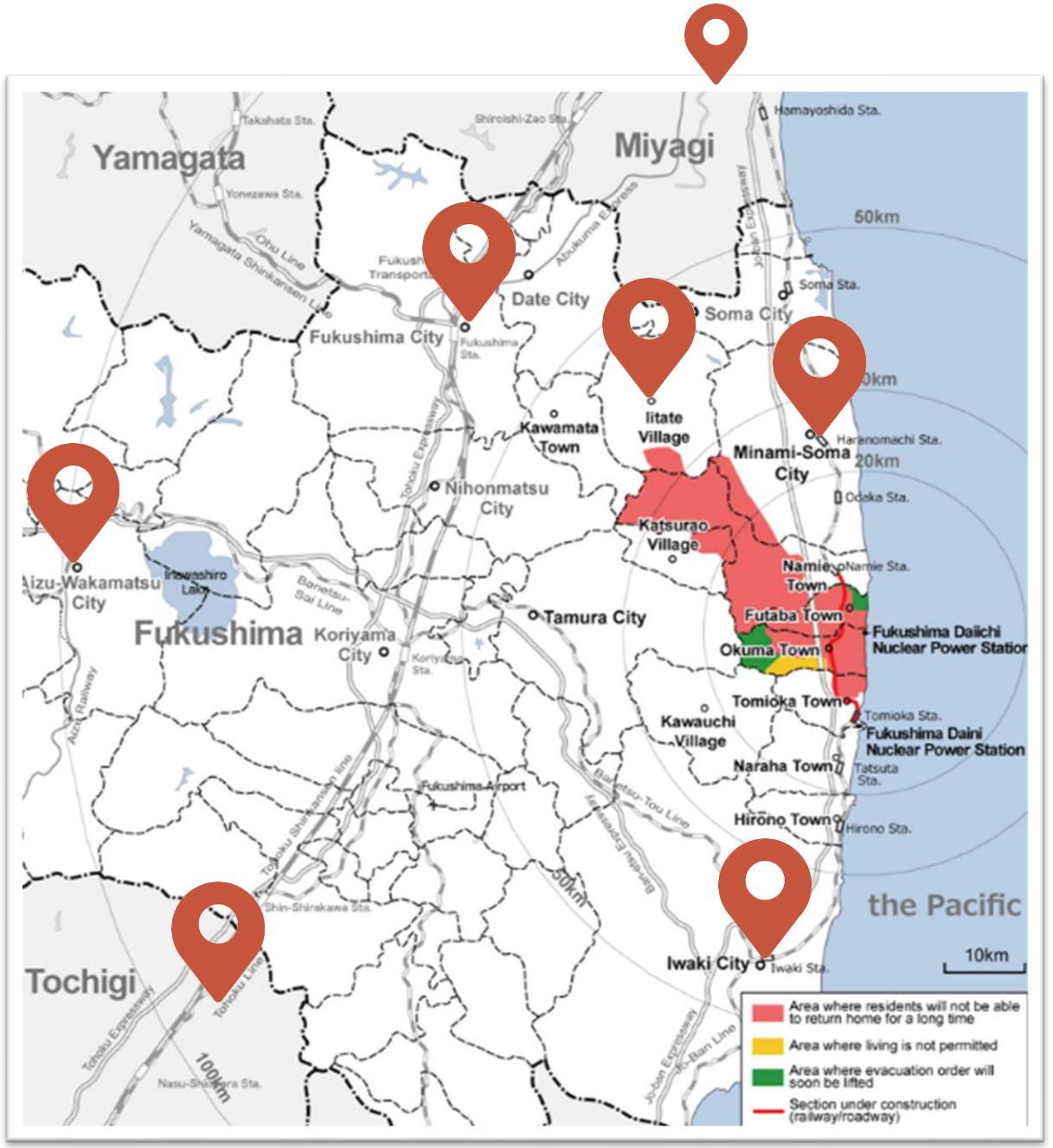
SAFECAST

Shalom Disaster Support Center (Fukushima city)

Fukushima 30 Year Project (Fukushima city)

Aizu Radiation Information Center (Aizu Wakamatsu)

The Fortress of Hope in Nasu (Nasu)



Source: http://www.jaif.or.jp/en/fukushima/

Small Flower Independent Radiation Measurement Lab (Sendai)

Radiation Measuring Center, Todokedori (Minami-Soma)

Iwaki Radiation Measuring Center, Tarachine (Iwaki)

Iitate Farm (Iitate)

Flanders, Belgium


AIRBEZEN


AiRbezen
MEETSTATION
"Hier meten we fijn stof!"


CURIEUZE NEUZEN
VLAANDEREN
Alle info op curieuzeneuzen.be
Universiteit Antwerpen
vito

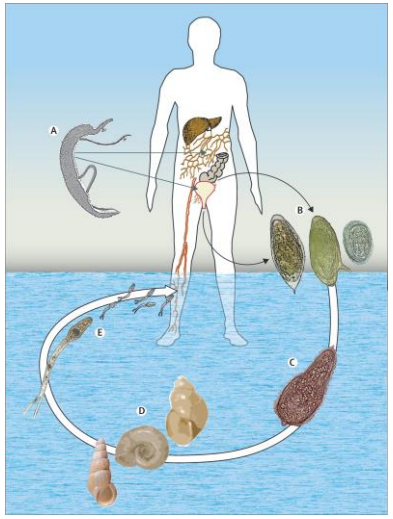

RINGLAND
CURIEUZE NEUZEN
ONDERZOEKEN HIER DE LUCHTKWALITEIT
NO2
MET DE STEUN VAN
Universiteit

Scientific and societal impact

- CuriousNoses Flanders: largest citizen science project on air quality to date
- 20.000 citizens measuring NO_2
- Enormous interest
  - Media reporting
- Hundreds of spin-offs
  - Example: Ireland: Let's Clear the Air
- New air pollution policies in cities
  - Low Emission Zones
  - More biking, public transport
  - Continuous measuring and monitoring

Uganda: ATRAP

- Africa: over 400 million people lack access to safe water. Every time they fetch water, they expose themselves to vector-borne parasitic diseases
- Schistosomiasis (bilharzia) caused by parasitic flatworms
- A key element in the disease's life cycle: **snails**
- ATRAP engages community members in scientific activities, specifically snail monitoring, but also in the design of community led intervention campaigns



https://pubmed.ncbi.nlm.nih.gov/33158719/


Hét *grootste*
tuinonderzoek
van Nederland!


IN EEN VOGELVLUCHT
De Nationale Tuinvogeltelling
Alle tellers bedankt!
Bekijk alle resultaten
Quiz
Herkennen
Vogelgids
Hoe werkt het?
Resultaten
Contact
Over de app

Flanders and the Netherlands

deGroteGriep&CoronaMeting

DE VIRUSSEN IN KAART GEBRACHT VOOR NEDERLAND EN BELGIË

Log in

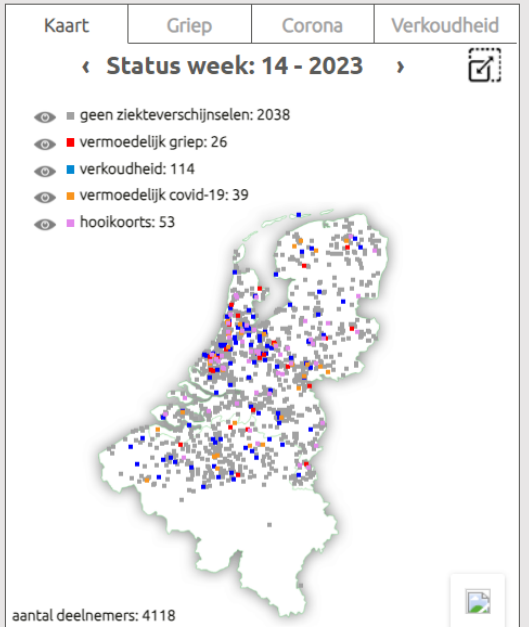
Home | Over griep | Over Corona | Resultaten | Griepvaccinatie | Het project | Archief | Contact

De Grote Griep&CoronaMeting

Beste mede-meter,
In het najaar van 2020 zijn wij gestart met de Grote Griep&Coronameting. Daarmee hebben we met circa 4.000 meters de verspreiding van het griep- en coronavirus gemonitord.
De meting is een burgerinitiatief van de Stichting Citizen Science. Het is een vervolg op de Grote Griepmeting. Beide projecten zijn met eigen middelen gefinancierd.

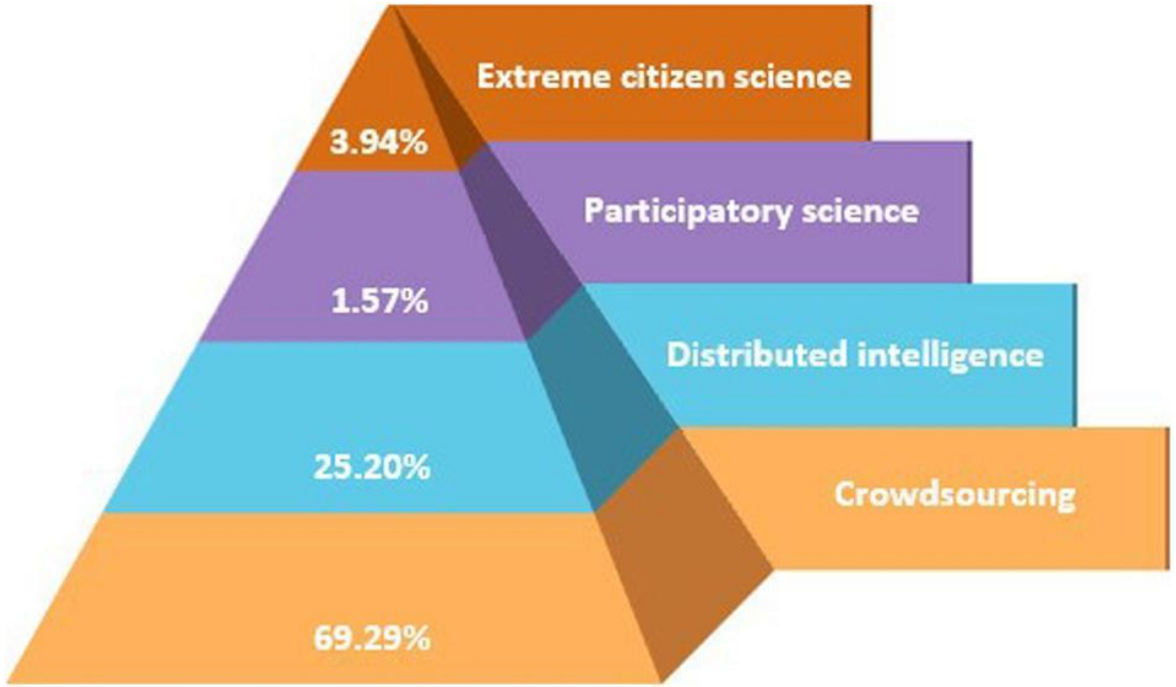
Het griepseizoen is nu bijna voorbij. Het coronavirus is nog wel actief, maar levert nog maar in beperkte mate besmettingen op. De maatregelen om verspreiding van het coronavirus actief tegen te gaan, zijn niet meer geldig.

Gezien de beperkte financiële middelen en de geringe prevalentie van beide virussen hebben we besloten de Grote Groep&Coronameting met ingang van



Various types of citizen science

- Crowdsourcing
- Distributed intelligence
- Participatory
- Extreme (Co-created)



Front. Mar. Sci., 24 March 2021 Sec. Ocean Observation Volume 8 - 2021 | https://doi.org/10.3389/fmars.2021.621472

Top-down

Bottom-up

Definitions

- **Dominant definition:** Involving amateur scientists and lay people in scientific activities such as data collection (Bonney, 1996: 7-15).
- **Alternative definition:** 'Opening up' science and science policy to wider publics (Irwin 1996).
- **Co-creative citizen science,** where citizens participate in all levels of a project, from designing the research question to analyzing data (Shirk et al., 2012).
- "Public engagement is meaningful when it contributes to the *democratisation* of knowledge development" - Moving Forward Together with Open Science, Rathenau Institute

Institutionalization has kicked in

CS-NL
Citizen Science Nederland

NATIONAL
OPEN SCIENCE
FESTIVAL

EUROPEAN
CITIZEN SCIENCE
ASSOCIATION

European Commission

JRC TECHNICAL REPORTS

Citizen Science and Smart Cities

Report of Summit
Ispra, 5-7th February 2014

Max Craglia and Carlos Granell (Eds.)
2014

Joint Research Centre

European Commission

*"As I see it, European success now lies in sharing as soon as possible, (...). The days of **open science** have arrived."*

Speech at "Presidency Conference Open Science", 04 of April, 2016, Amsterdam

socientize

RRI
RESPONSIBLE RESEARCH AND INNO
SHAPING NEW HORI

Open Innovation
Open Science
Open to the World

CITIZEN SCIENCE COMES OF AGE

Efforts to engage the public in research are bigger and more diverse than ever. But how much more room is there to grow?

BY AISLING IRWIN

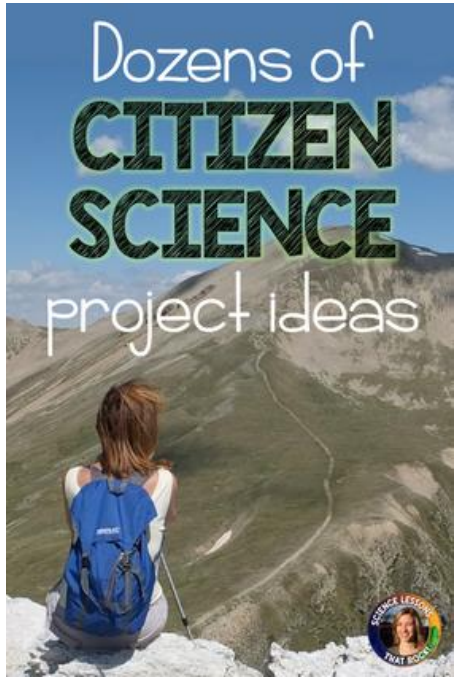
Valuable plurality of the citizen sciences

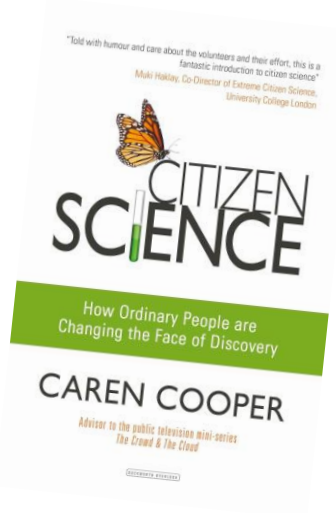
- Citizen science is a multilayered concept
- Involves the public in science and technology – and data collection
- Role of citizens can be expansive or limited
  - *Citizen science projects actively involve citizens in scientific endeavour that generates new knowledge or understanding. Citizens may act as contributors, collaborators, or as project leader and have a meaningful role in the project* (ECSA, 10 principles of CS, https://osf.io/xpr2n/)
- Guiding idea: Scientists and citizens benefit
  - But this is not always the case
- Value to be found in all citizen science approaches

Van Oudheusden, M., Berti Suman, A., Huyse, T., Huyse, H. and Medvecky, F. (2024) "The Valuable Plurality of the Citizen Sciences", Science & Technology Studies, 37(1), pp. 10–20. https://doi.org/10.23987/sts.126210

Citizen science fields

- Art
- Astronomy
- Biodiversity
- Conservation
- Ecology
- Environment
- Health
- History
- Libraries
- Pollution
- Smart cities
- Social sciences
- …





Resources

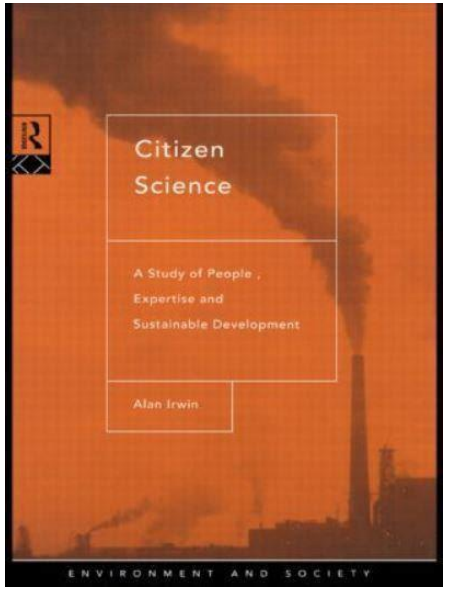
- Open Science NL https://www.openscience.nl/
- European Citizen Science Association (ECSA) https://www.ecsa.ngo/
- Citizen Science & Theory [journal] https://theoryandpractice.citizenscienceassociation.org/

easst 4s 2024 Amsterdam 16-19 July making and doing TRANSFORMATIONS

Friday 19 July

Panel on citizen science: possibilities, tensions, and transformations

Convenor: Shachi Mokashi
Chairs: Alan Irwin and Michiel van Oudheusden



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Haklay M (2013) Citizen Science and Volunteered Geographic Information: Overview and Typology of Participation. In: Sui D, Elwood S and Goodchild M (eds) Crowdsourcing Geographic Knowledge. Dordrecht: Springer, pp. 105-122.

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