

Science *by, with, or for* citizens? Reframing “citizen science” through radiation monitoring in post-Fukushima Japan

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But what for?
To where?



Need for reliable, actionable data NOW!

Breach of public trust in
formal science and policy



Citizen Science 2.0 (and beyond)

- More devices, databases, detectors
- More citizen-driven science initiatives
 - aligned with open, participatory science
 - strong focus on community building
- Increased interest in CS (in Europe)
 - shifting “commons”: bottom-up, not top-down
 - independent from institutions...
...but open to collaboration!



Institutions are paying attention

*“For government authorities and agencies, crowdsourcing certainly is the “genie that will not go back in the bottle”. It is necessary to accept that this technology is here to stay and that **empowerment of the public is not necessarily a negative development.**”*

- IEM6 DRAFT REPORT (2014)



Shifting institutional attitudes

- How can we educate the public? → Why are we not getting through? → What are publics telling us?
- Are the data accurate? → Can we use their data? → Which data and why? → Can we generate data together?

Science *for* society → science *with/by* society



Lessons for emergency response

- **What** are we responding to?
 - Accident / incident / disaster / crisis
- **How** are we responding?
 - Data management
 - Needs recognition
 - Reflexive learning
 - Two-way (or more-way) communication
 - ...
- Shift towards *anticipatory* governance (Guston 2013)
 - Not about predicting the future
 - But imagining plausible scenarios and preparing for them
 - With institutions?
 - With science and with citizens



...the public is no longer prepared to sit idly by if their needs are not being met – they simply go out and organize things themselves. ...”

IEM 6 DRAFT REPORT (2014)