

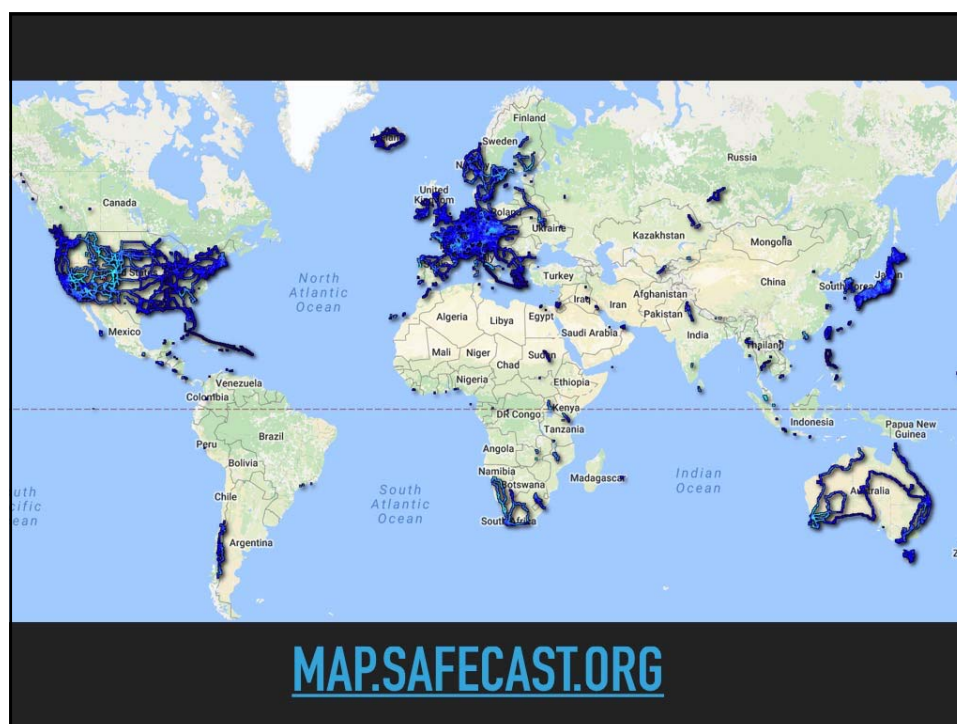
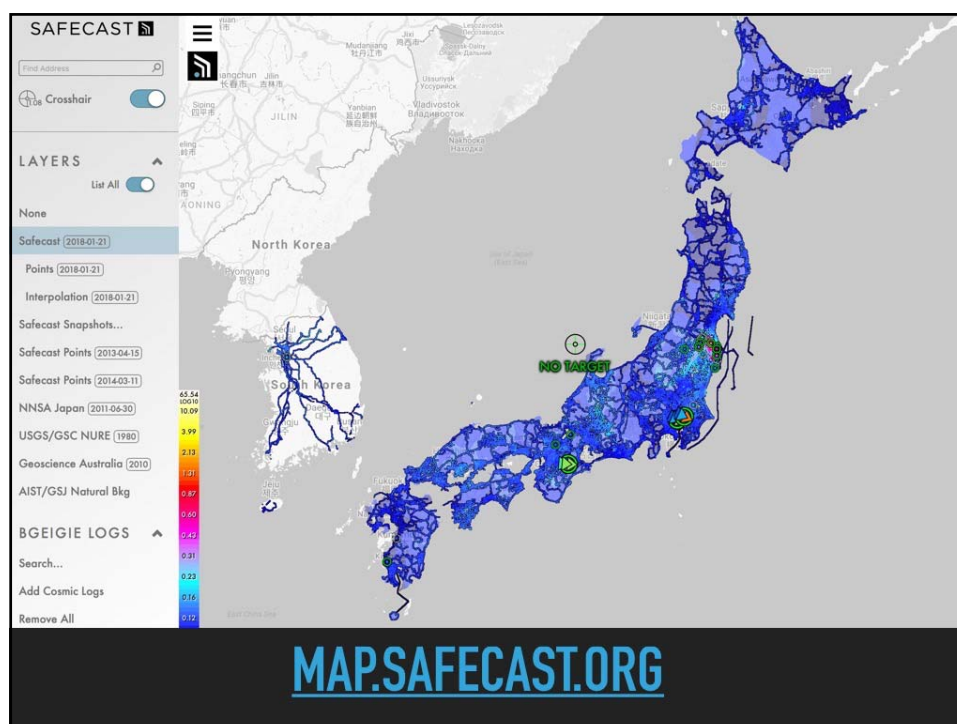
Enhancing transparency and public
accountability through innovative
radiation monitoring programs:
The experience of Safecast seven
years following the Fukushima
Daiichi NPP disaster

Azby Brown, SAFecast
RICOMET 2018
Antwerp, June 13-15, 2018



**SAFecast STARTED 7 YEARS AGO
IN REACTION TO THE LACK OF DATA
ABOUT THE SPREAD OF RADIATION
AFTER THE FUKUSHIMA DISASTER**

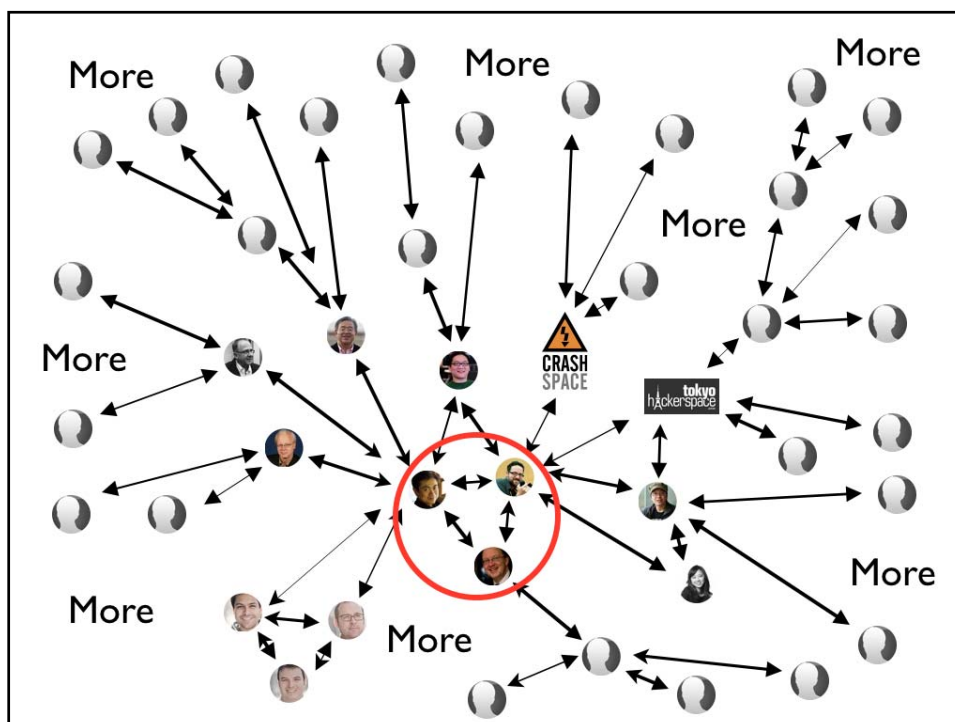
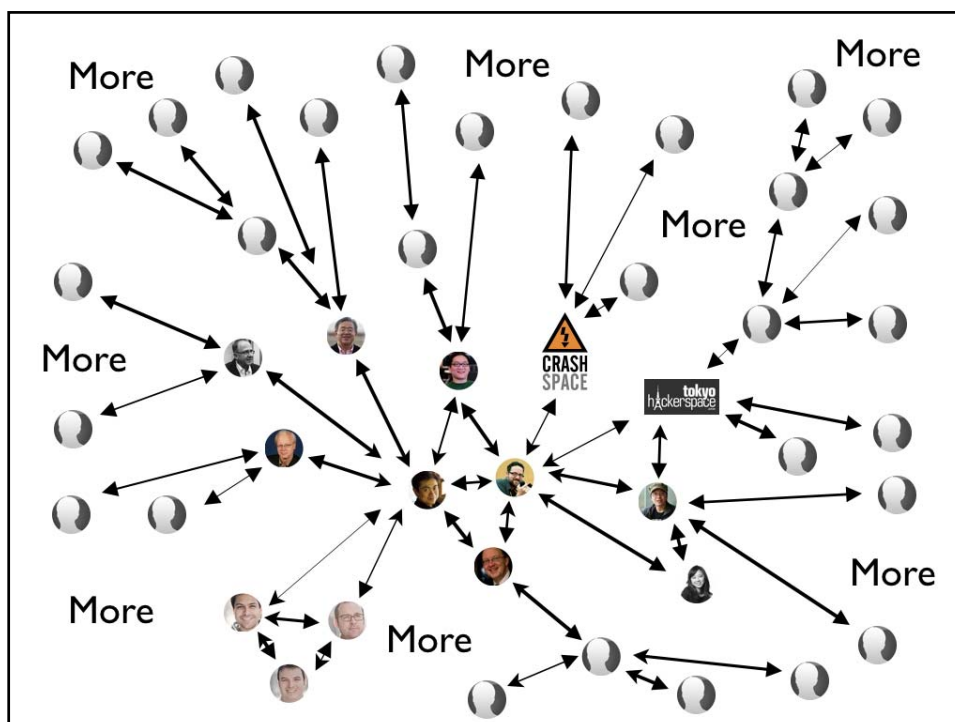


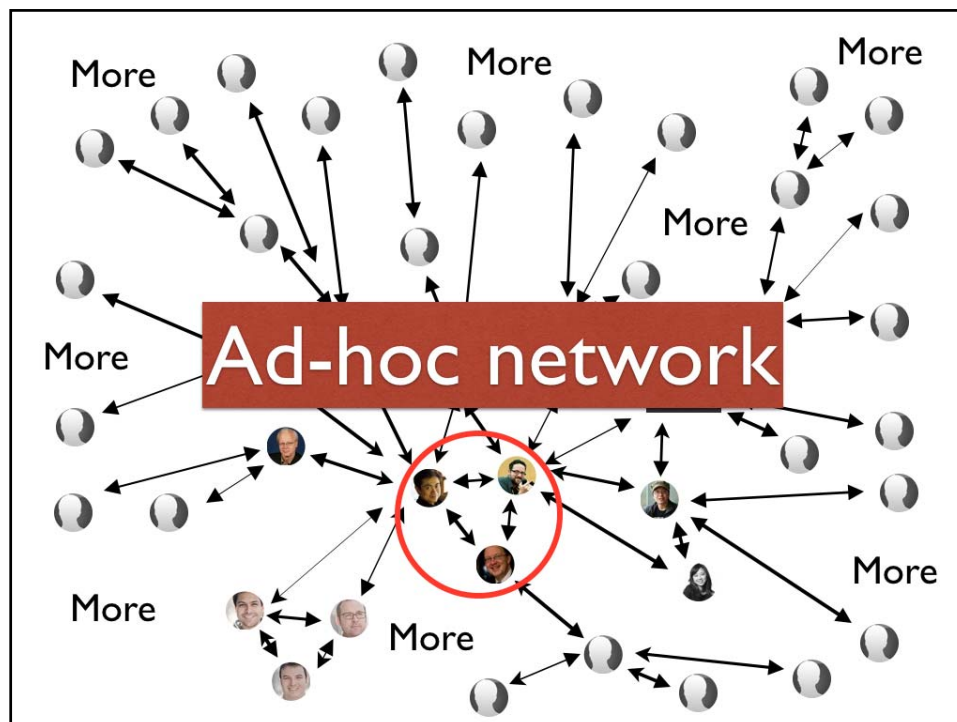




MAIN PRINCIPLES:

- Open-source
- Open data
- Crowdsourced
- Independent
- Inclusive, volunteer-based
- Objective and non-ideological





‘With appropriate protocols,
training, and oversight, volunteers
can collect data of quality equal to
those collected by experts’

(Rick Bonney, 2014)

Early indications of official attitudes: “Fake News Law”

April 6, 2011: Ministry of Internal Affairs and Communications:

東日本大震災に係るインターネット上の流言飛語への適切な対応に関する電気通信事業者関係団体に対する要請

“Requests to telecommunications carrier related organizations concerning false rumors on the Internet regarding the Great East Japan Earthquake”

http://www.soumu.go.jp/main_content/000110048.pdf

Early indications of official attitudes: “Fake News Law”

“...the Japanese government is keen on prosecuting those who spread "rumors" about the quake/tsunami/nuke plant disasters on the Internet and by word of mouth that are “harmful”.”

EX-SKF blog, March 27, 2011

Early indications of official attitudes: Academic Supression

Several academic researchers in Japan reported having been ordered by their institutions not to publicize their radiation measurements in the weeks and months following the start of the disaster.

Example:

*"The Prometheus Trap:
Order to Suspend Radiation Monitoring"*
Asahi Shimbun, Feb 6, 2012

Gradual acceptance:

UNSCEAR: Dec. 2012

"Actually the experts involved in the UNSCEAR assessment were aware of your website, and had already looked at the information there over the past year. The Safecast activities reflect a strong community interest in radiation levels so they have not ignored them. The collection of data is impressive, and your network of volunteers is to be congratulated."

Gradual acceptance:

DARPA: Aug. 2013

“We at RAND are doing a study for DARPA of the technical challenges of responding to a nuclear disaster...

....XXXXX has suggested to me that I reach out to you as he thought that Safecast's efforts to monitor and measure radiation dispersal might be interesting to us as we study these questions. I agree with him, and would like to talk if you have time.”

IAEA, 2014



IEM6: International Experts' Meeting: Radiation Protection after the Fukushima Daiichi Accident - Promoting confidence and understanding (Vienna, Feb, 2014)

IEM6 DRAFT REPORT:

"But crowdsourcing, for example in the collection and dissemination of radiation data, can also help to instill confidence in information from official sources. But to continue to be effective, these public groups need to maintain their independence; to be seen to work too closely with the authorities will diminish their effectiveness, and consequently also their credibility, making them redundant."

cont'd

"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."

PROBLEM: No Guidelines for Official Inclusion!

In Japan institutional structures have no clear guidelines for including citizen groups in monitoring and decision-making, which has hindered cooperation on radiation monitoring even when parties on both sides have been willing.

Nevertheless groups such as Safecast have found informal work-arounds that enhance transparency to the benefit of the public and other stakeholders.

TEPCO



In Dec. 2017, TEPCO allowed Safecast to use bGeigies onsite at Fukushima Daiichi and publish the data openly.

This process began with RICOMET 2017!

We began an informal frank dialogue about transparency with TEPCO staff at RICOMET 2017.

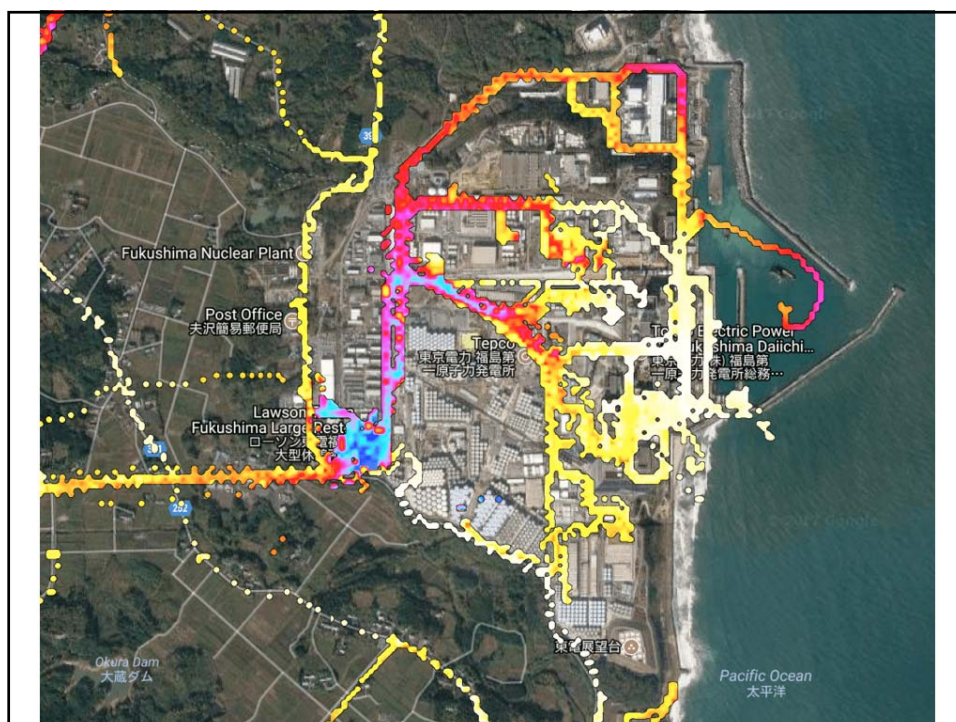
The development of mutual trust was gradual and based on honesty.

Initial meetings were quite informal, and one executive became a crucial advocate.

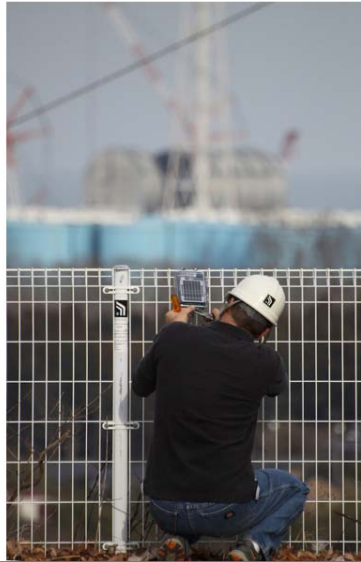


Futabaya Inn, Odaka, Fukushima Oct. 2017





Fukushima Prefecture



In January, 2018, Fukushima Pref. gave permission for Safecast to install a realtime sensor at a site inside the exclusion zone in Okuma, 2km from Fukushima Daichi NPP.

This process was also informal

No process existed for accepting requests for placing an independent monitoring device on public property inside the exclusion zone.

A Fukushima Prefecture official who clearly understood the value of demonstrating efforts towards transparency played a key role by taking personal responsibility and cutting through red tape.

This successful effort now serves as a precedent.



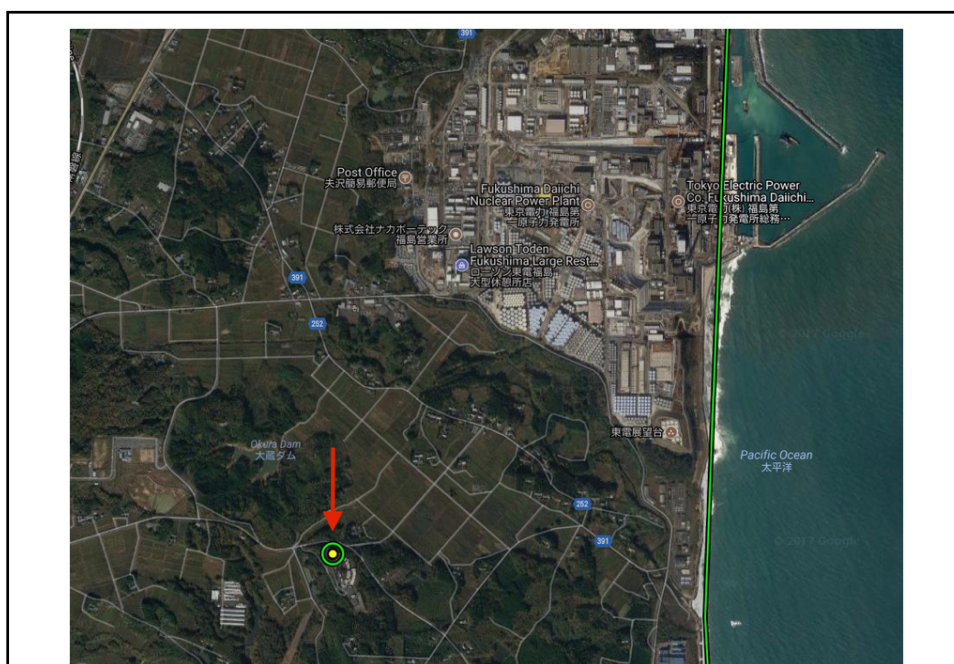
SOLARCAST
NANO

Deployed:
late 2017





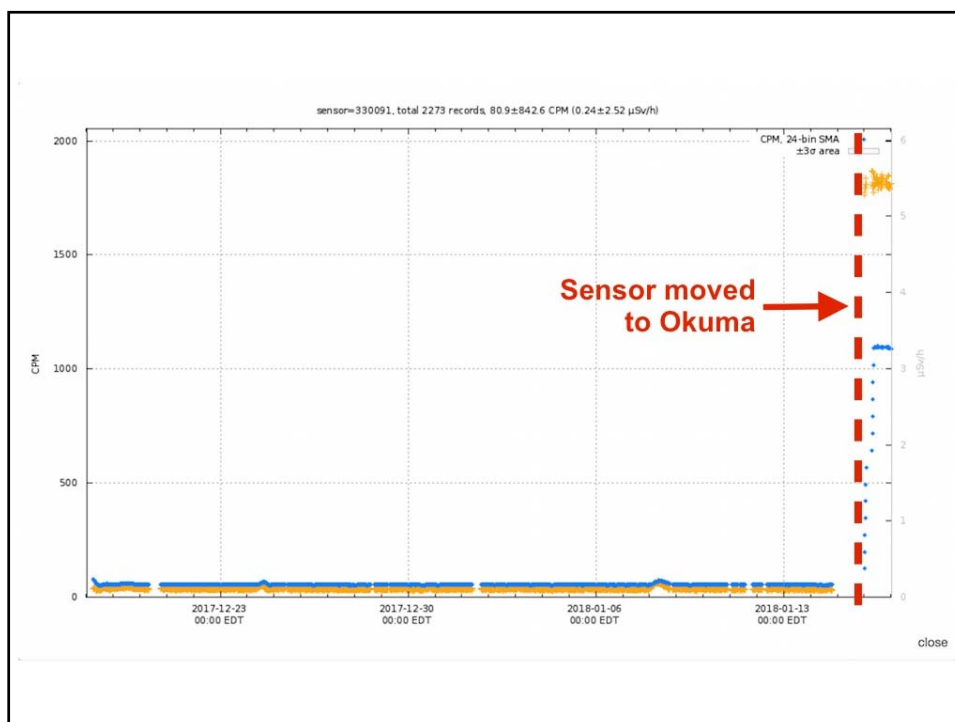
The site is at an abandoned elderly facility.



2km from Fukushima Daiichi



Image from Safecast drone



TRUST

In every case where Safecast has found receptivity within government or other “establishment” institutions, it has been because we were able to develop trust with one open-minded person who then became an advocate.

Usually these people are motivated by an awareness of the failings and limitations of their institutions, and a willingness to seek innovative solutions to these problems.

We think it is a mistake to avoid interaction with these organizations, but from the start have taken great care to maintain independence and avoid compromise.

RECOMMENDATION

Explicit advisory guidelines for the inclusion of citizen-science based monitoring activities in a broad context are required.

