



Österreich *forscht*  
[www.citizen-science.at](http://www.citizen-science.at)

# How can you involve the public?

Citizen Science  $\neq$  Science Communication

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What is citizen science?

# What is citizen science?

Citizen science is the active involvement of citizens in scientific projects.

Depending on the project, this involvement can be organized in different ways.



Based on Sanz F.S., Holocher-Ertl T., Kieslinger B., et al (2014):  
White Paper on Citizen Science for Europe



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Based on Sanz et al. 2014, **White Paper on Citizen Science for Europe**, European Commission

# Collective Intelligence

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## Galaxy Zoo (University of Oxford)

- Classification of galaxies based on their shapes
- Shapes tell us how old a galaxy is, how it was formed etc.
- 150.000 participants made 50 Mio classifications in the first year



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Based on Sanz et al. 2014, **White Paper on Citizen Science for Europe**, European Commission

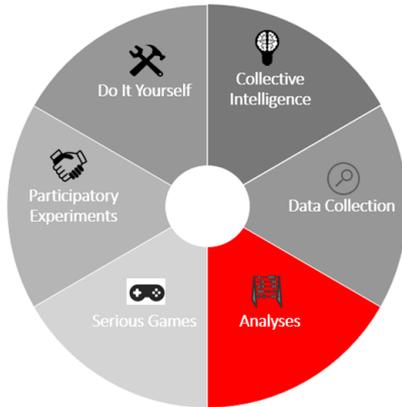
# Data Collection

## Project Roadkill (BOKU)

- Participants report road-killed animals
- ~ 8.000 reports from 6 continents
- 3 peer-reviewed publications in the last 2 years



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Based on Sanz et al. 2014, **White Paper on Citizen Science for Europe**, European Commission

# Analyses

## C.S.I. Pollen (University Graz)

- Pollen diversity collected by honey bees
- Beekeepers collect pollen from bees and classify them according to colour
- Colour diversity correlates with plant species diversity
- More diverse nutrition leads to healthier bees



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Based on Sanz et al. 2014, **White Paper on Citizen Science for Europe**, European Commission

# Serious Games

## Fotoquest Go (IIASA)

- Investigation on land use changes
- Players help with on-site pictures to verify „ground truth“ data on land use, which can't be obtained by satellite images
- Players are guided to new sites via an app (similar to Pokémon Go)



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Based on Sanz et al. 2014, **White Paper on Citizen Science for Europe**, European Commission

# Participatory Experiments

## Mapping for Change (University College London)

- Participants are involved from the beginning of the project until the end
- Projects that create positive sustainable transformations in their environment
- Participants set the agenda and develop and conduct projects together with scientists



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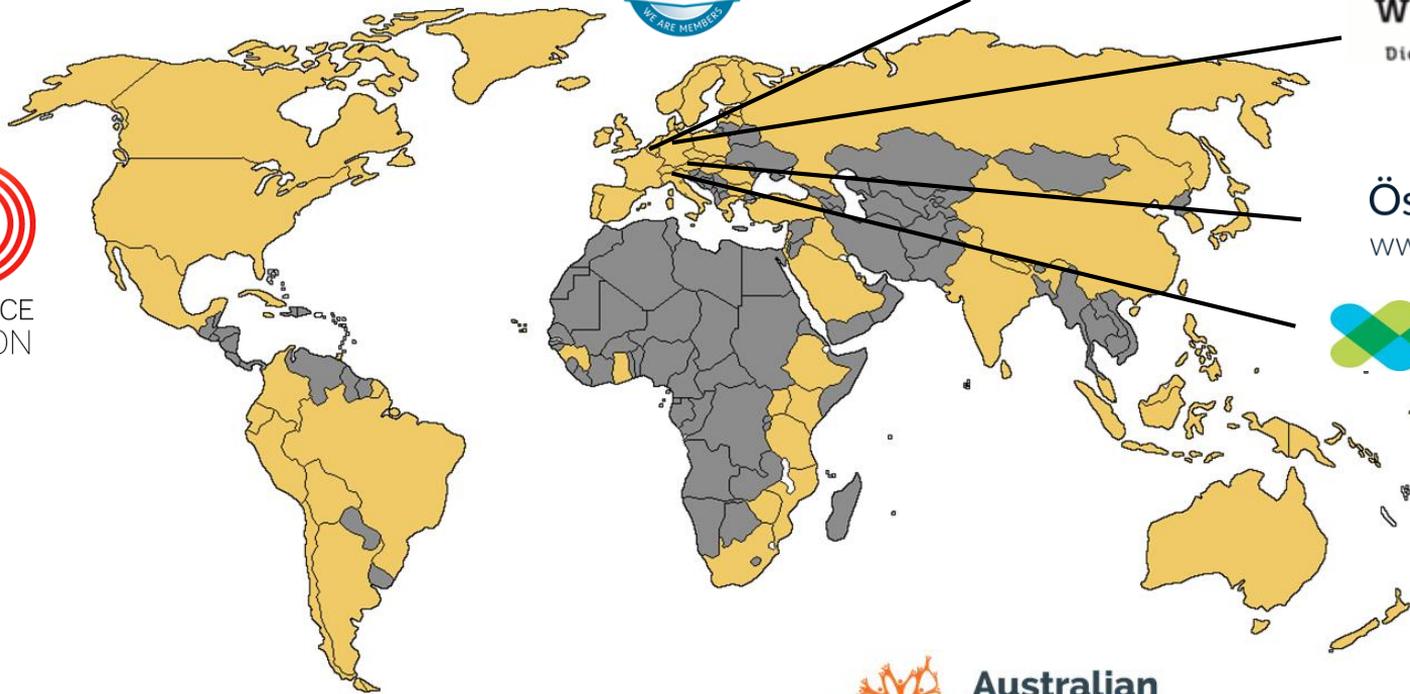
Based on Sanz et al. 2014, **White Paper on Citizen Science for Europe**, European Commission

# Do It Yourself

## Project Safecast (originated in Japan)

- Radioactivity measures with self-built radiation sensors
- Participants take radioactivity measurements or use measurements from others to make their own analyses

Citizen Science international

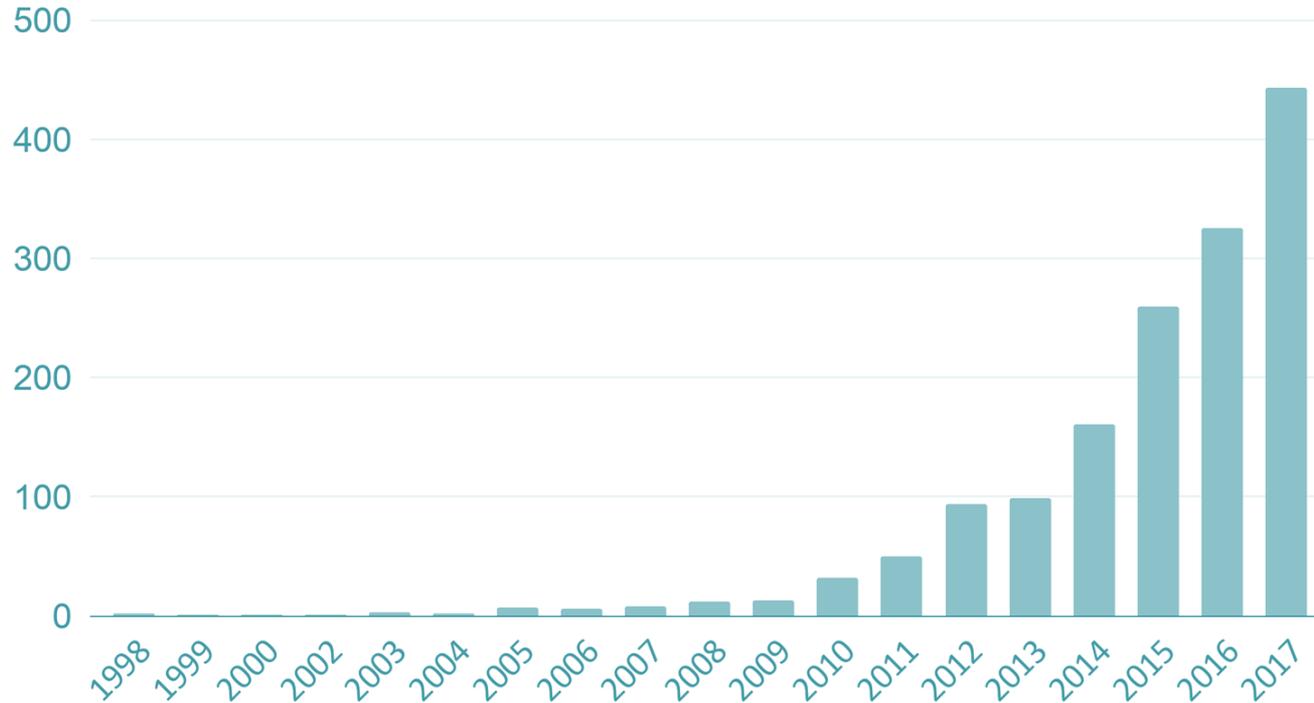


EOS  
WETENSCHAP  
iedereen wetenschapper  
burgers helpen onderzoekers





# Publications on citizen science



Based on a search on Web of Science with "citizen science" as topic.

# Citizen Science Austria

## Citizen Science

Citizen Science wird weltweit unterschiedlich definiert. Einen Überblick der Konzepte und Ideen finden Sie unter "Was ist Citizen Science?"



Anzahl: 57

## Projekte

### Teilnahme:

- Teilnahme offen
- Teilnahme geschlossen

### Thema:

- Nahrungsmittel
- Pflanzen
- Tiere
- Wetter
- Gesundheit
- Geschichte
- Pilze
- Katastrophen
- Politik
- Wirtschaft
- Medien



### Gesichter der Migration

Jugendliche aus Tirol erforschen gemeinsam mit ihren (Groß)Eltern, Lehrer\*innen und Freund\*innen ihre familialen Migrationsgeschichten und suchen nach Spuren der Mobilität

**Thema:** Geschichte, Kultur, Sprache  
**Medium:** Analog, Homepage



### Tea Bag Index

Kann Tee trinken uns helfen den Klimawandel zu verstehen? Ja, aber wir brauchen ihre Hilfe! Nehmen Sie am größten Experiment zu Zersetzungsprozessen im Boden teil.

**Thema:** Landnutzung  
**Medium:** Analog, Homepage

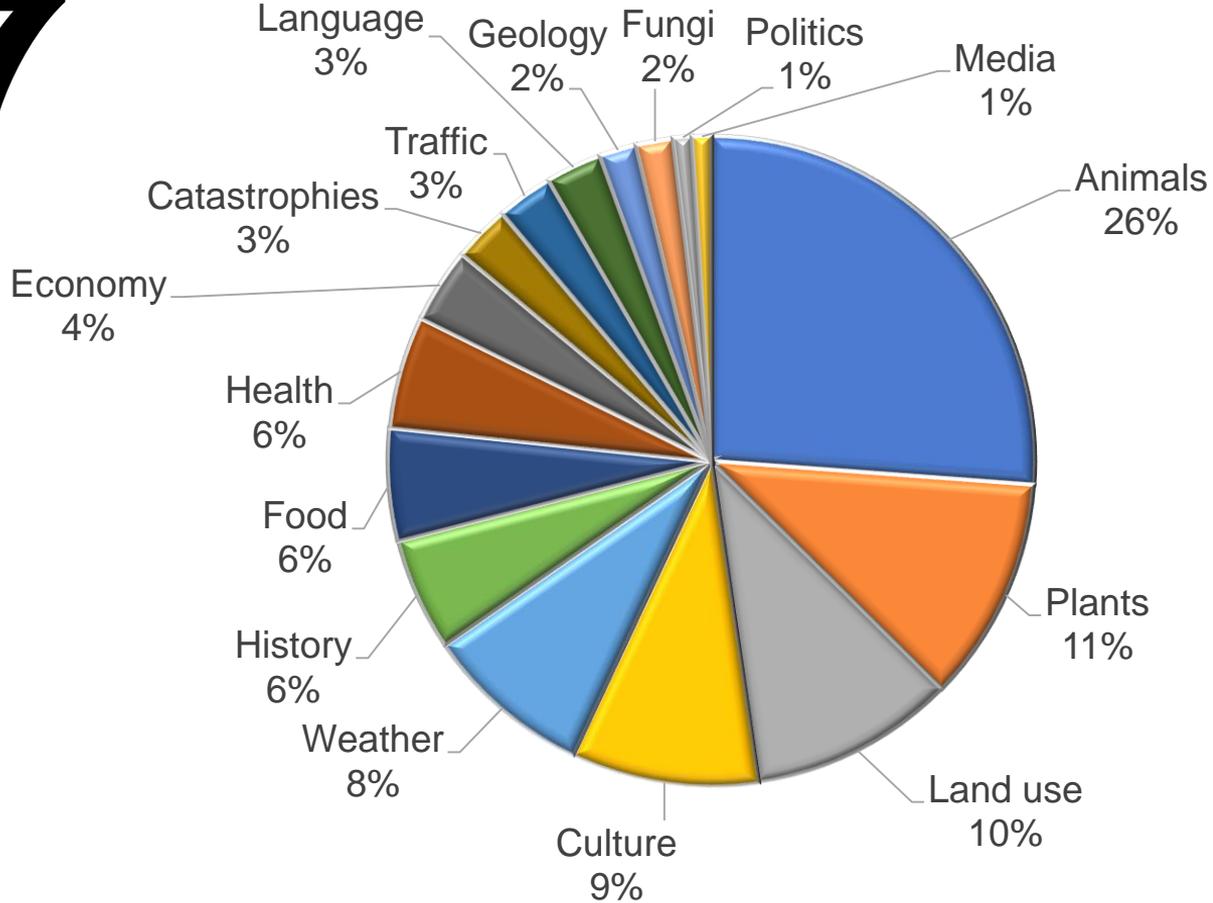


### Mineralvorkommen Österreichs

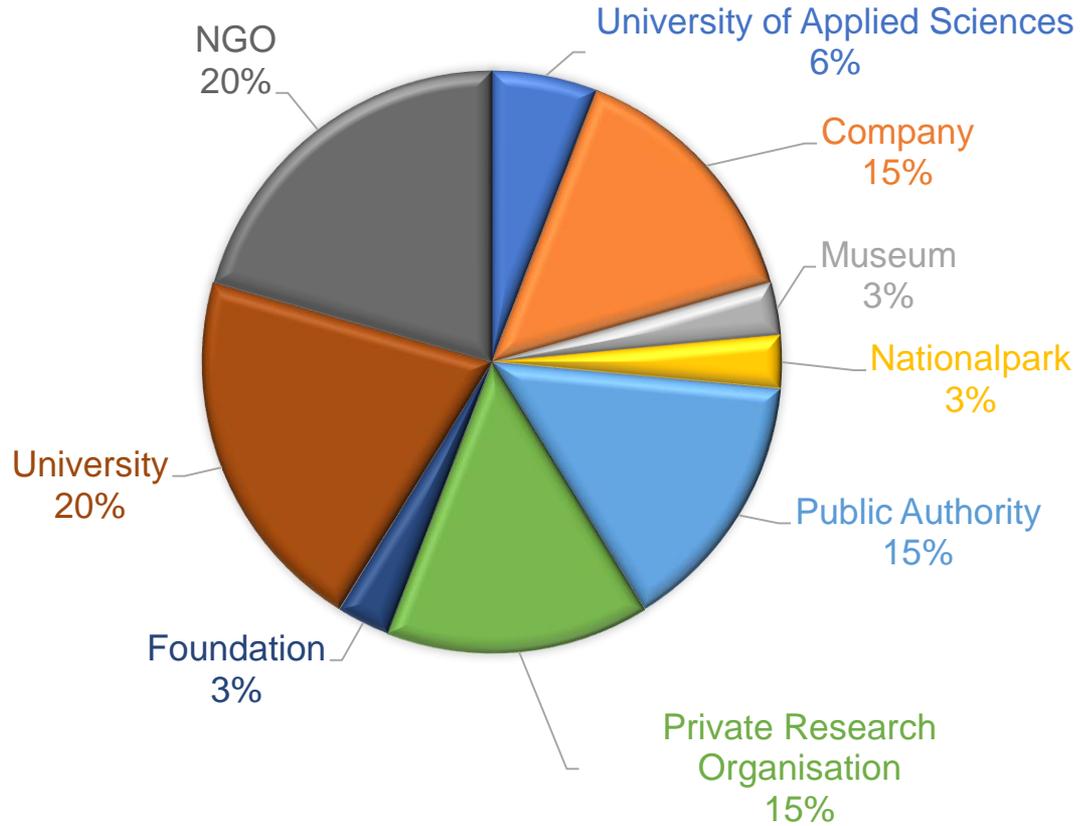
Citizen Scientists können mit Sammeln von Mineralien und der Dokumentation von Mineralfundstellen sowie der Bereitstellung von Proben die Forschung unterstützen.

**Thema:** Geologie  
**Medium:** Analog

# 57



# 34



# Working groups

- Wg on quality criteria
- Wg on legal aspects in citizen science
- Wg on the annual Austrian citizen science conference
- Wg on synergies and innovation
- Wg on open science
- Wg on open biodiversity databases

# Austrian Citizen Science Conference

- **2015:** University of Natural Resources and Life Sciences, Vienna
- **2016:** WasserCluster Lunz, Lunz am See
- **2017:** Austrian Agency for Health and Food Safety, Vienna
- **2018:** University of Salzburg, Salzburg
- **2019:** University of Innsbruck, Obergurgl

Annual meeting point for german-speaking citizen science community with > 200 participants.

# Citizen Science at BOKU

# Citizen science at BOKU



**Universität für Bodenkultur Wien**  
University of Natural Resources and Life Sciences, Vienna

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# Thank you!