

# Citizen Science

and its role in climate change monitoring

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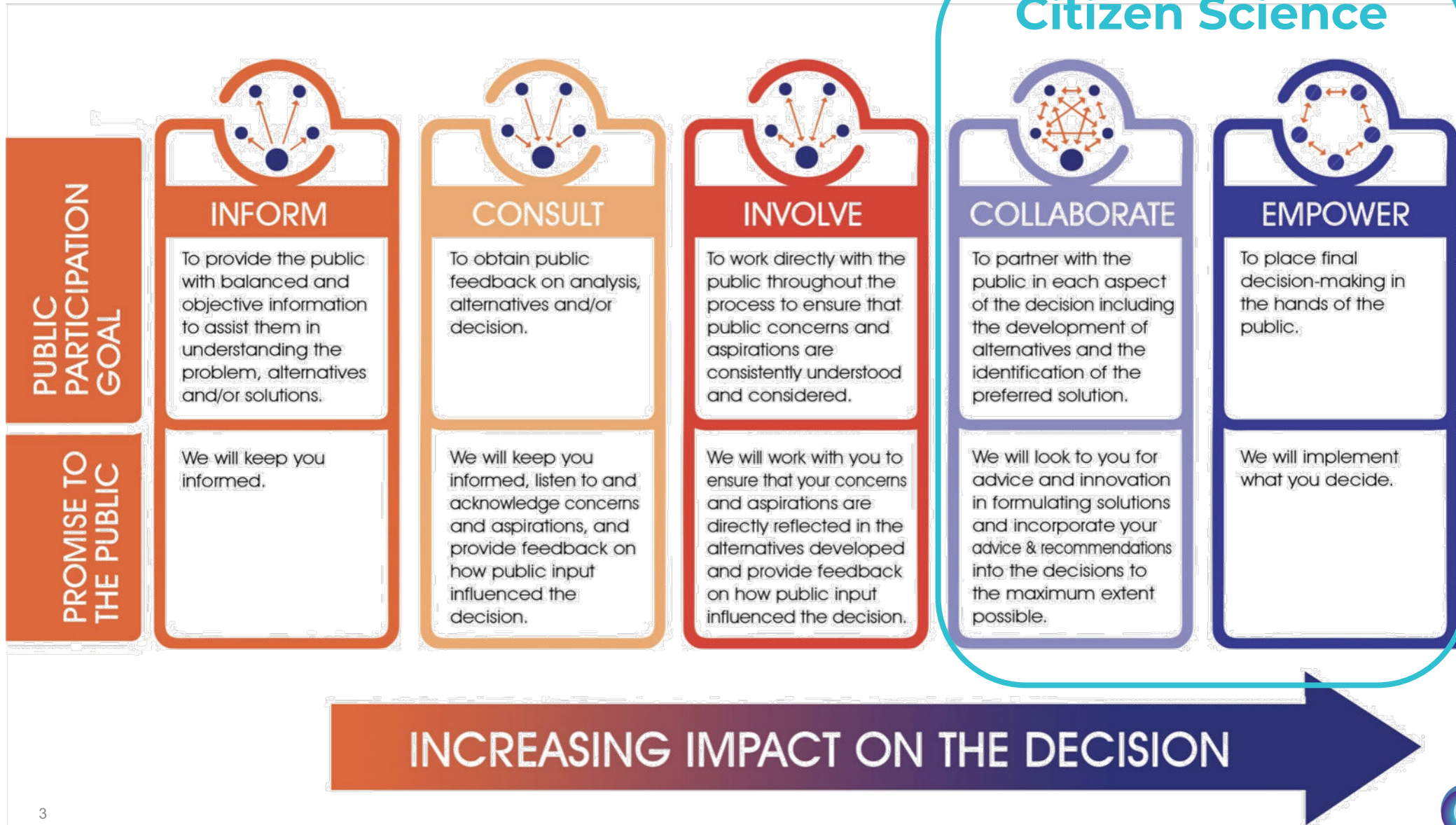
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# What is “Citizen Science”?

**Citizen science** is the term that is used to describe a wide range of activities, in which people from all walks of life **participate in a scientific project in a meaningful way** (beyond being subjects in a medical experiment, or participants in a study in the social sciences).



# What is “Citizen Science”?



# Citizen Science and Climate Change



## COLLABORATE

**Passive Sensing** relies on participants providing a resource that they own (e.g., their phone or space in their backyard) for automatic sensing. The information that is collected through these sensors is then used by scientists for analysis.



**OPERANDUM**

OPEN-air laboRAtories for Nature baseD  
solUtions to Manage hydro-meteo risks

**Volunteer Computing** is a method in which participants share their unused computing resources, on their personal computer, tablet, etc. and allow scientists to run complex computer models when the device is not in use.



**climateprediction.net**

the world's largest climate modelling experiment for the 21st century

**Environmental and Ecological Observation**, while linking participants to the oldest forms of citizen science, is transformed by the societal and technological changes such as sensors and smart phones. It focuses **on monitoring environmental pollution or observations of flora and fauna.**

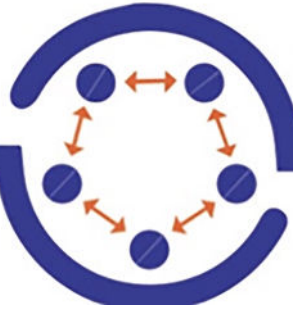


**BTO**

Looking out for birds



# Citizen Science and Climate Change



## EMPOWER

**Participatory Sensing** is similar to the previous type of observation but gives the participant more roles and control over the process. While many environmental and ecological observations follow data collection protocols that were designed by scientists, in participatory sensing the process is **more distributed and emphasizes the active involvement of the participants** in setting what will be collected and analyzed.

**Civic/Community science**, also known as **bottom-up science**, is initiated and driven by a group of participants who identify a problem that is a concern for them and address it using scientific methods and tools. Within this type of activity, the problem formation, data collection, and analysis are often carried out by community members in collaboration with scientists or established laboratories.



# Collaborate Vs Empower...what's the fuss?



The **SCIENTIST** is the center of the activities. He/she directs the research activities, coordinates the citizen scientists and analyses/uses the data for his/her research.

At the end of the project, the citizen science activities will more than likely **END**.

The **SCIENTIST** is a facilitator and support the activities. He/she provide skills and tools to the citizen scientist. The citizen have an active involvement in targeting a local issue which they care about.

At the end of the project, the citizen science activities will more than likely **CONTINUE**.

# Thank you!

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