



CitSci.org: Advancing and Mobilizing Citizen Science Data through Integrated Sustainable Cyber-Infrastructure



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We power citizen science projects all over the world

4,958 people

572 projects

796,158 data points

66,775 locations

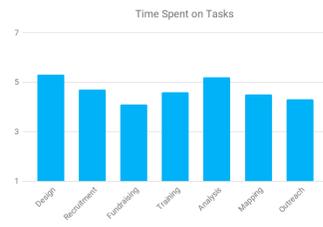
2,099 protocols

know your audience

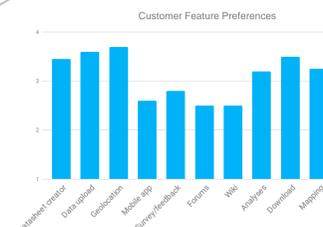
build relevant software

Project Overview

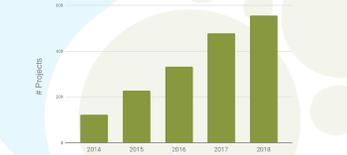
- Open citizen science support platform
- Projects create their own projects in a do-it-yourself (DIY) approach: they define what they wish to measure, how they measure it, and build customized datasheets for real-time data entry online and via mobile apps
- Saves projects costs and hassles associated with creating their own front- and back-end systems and custom apps
- Provides integrated suite of volunteer management, data exploration, communications, and data visualization tools for real-time trends, relationships, and comparisons
- Supports structured data – rigorous protocols for observing natural phenomena that follow experimental designs enabling statistically significant scientific comparisons
- Facilitates sharing of protocols, measurements, data, and ideas for meta-analyses and interoperability



- project design tools
- analysis tools
- 120+ customer discovery interviews



- coordination/logistics help
- offline apps
- navigation services



partner for sustainability

Results & Progress

- 120+ I-CORPS customer discovery interviews
- Improved system performance & optimization
- Moved CI system to cloud for scalability
- Integrated GitHub into software development lifecycle
- Adopted fully open source stack
- Created REST APIs & Docker container for portability
- Created universal data collection mobile app (beta)
- Converted code to more modern frameworks
- Improved automatic alerts/notifications
- Adopted 'Build-Measure-Learn' agile processes
- Obtained better understanding of pains/gains/needs

Goals

- Broaden the inclusivity, accessibility, knowledge, and reach of citizen science (CS)
- Improve CS software and data usability, scalability, interoperability, and sustainability
- Mobilize CS data to enable cross-discipline research & meta-analyses
- Elevate the value and rigor of CS software and data

Integrations & Interoperability



Future Directions

- Integrate real time precipitation data
- Integrate field based CS with online CS
- Offer design/implementation/coordination/logistical/evaluation support services