



COVID-19 AT-ANYWHERE DIAGNOSTICS Design-a-thon



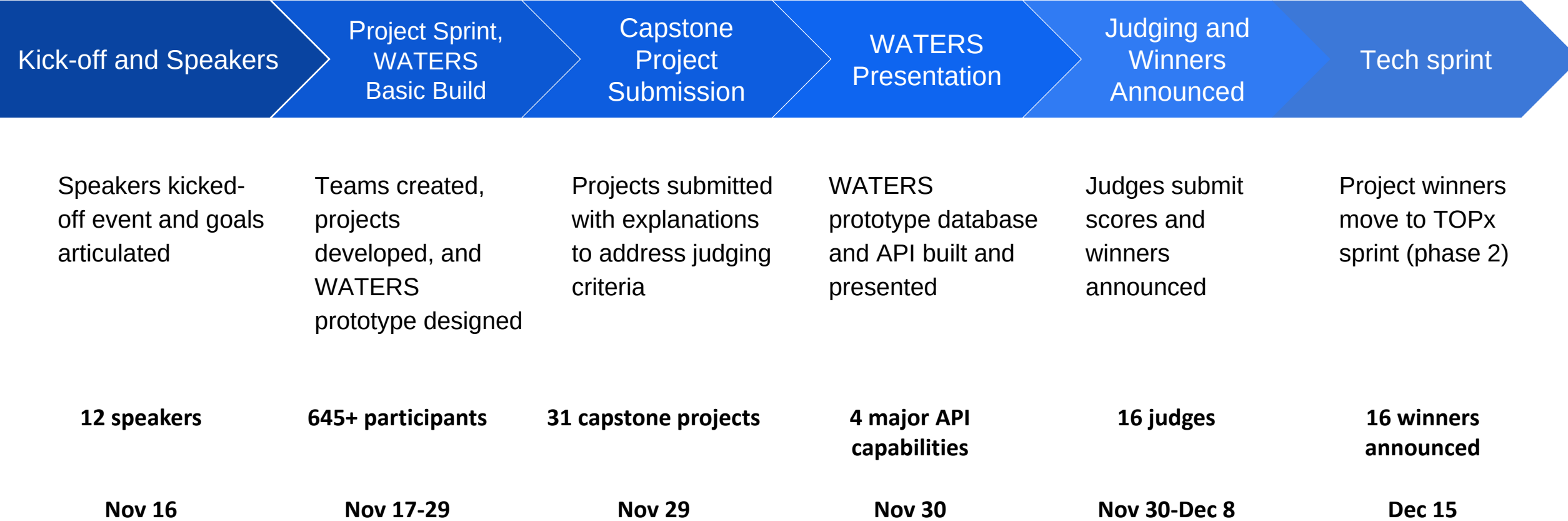
Developing digital solutions for data capture, harmonization, and reporting from diagnostic tests

*Phase 2 of the Design-a-thon: public-facing, open-innovation technology sprint with industry that aims to develop **device-integrated software** for **automatic data capture** and **wireless transmission directly from in vitro diagnostic devices (IVDs)**.*

January 19, 2020

**“COVID-19 TOPx” Technology Sprint for
At-Anywhere Diagnostics**

Overview of the Design-a-thon process



COVID-19 At-Anywhere Diagnostics Design-a-thon (DAT)

- 645 Participants
- 31 Final Capstone Submissions
- 16 External, high-level judges
- Winners to be announced Dec 15
- Winners in multiple technology “tracks” will advance to 6-week TOPx sprint with Census, HHS, FDA in January 2021



Categories for the Design-a-thon Capstone Projects

Category 1:

Test individuals for Covid-19
(2 submissions)

Category 2:

Capture test data from applied tests
(4 submissions)

Category 3:

**Aggregate data from multiple sources
and transmit to target destination**
(11 submissions)

Category 4:

**Enable secure and traceable data
exchange, storage, and ownership**
(3 submissions)

Category 5:

**Track patient tests, provides health
passport, orchestrates patient care**
(8 submissions)

Category 6:

**Analyze and present data for
actionable insights**
(2 submissions)

Category 7:

**Provide feedback from individuals on
the performance of specific tests and
clinical outcomes**
(1 submission)

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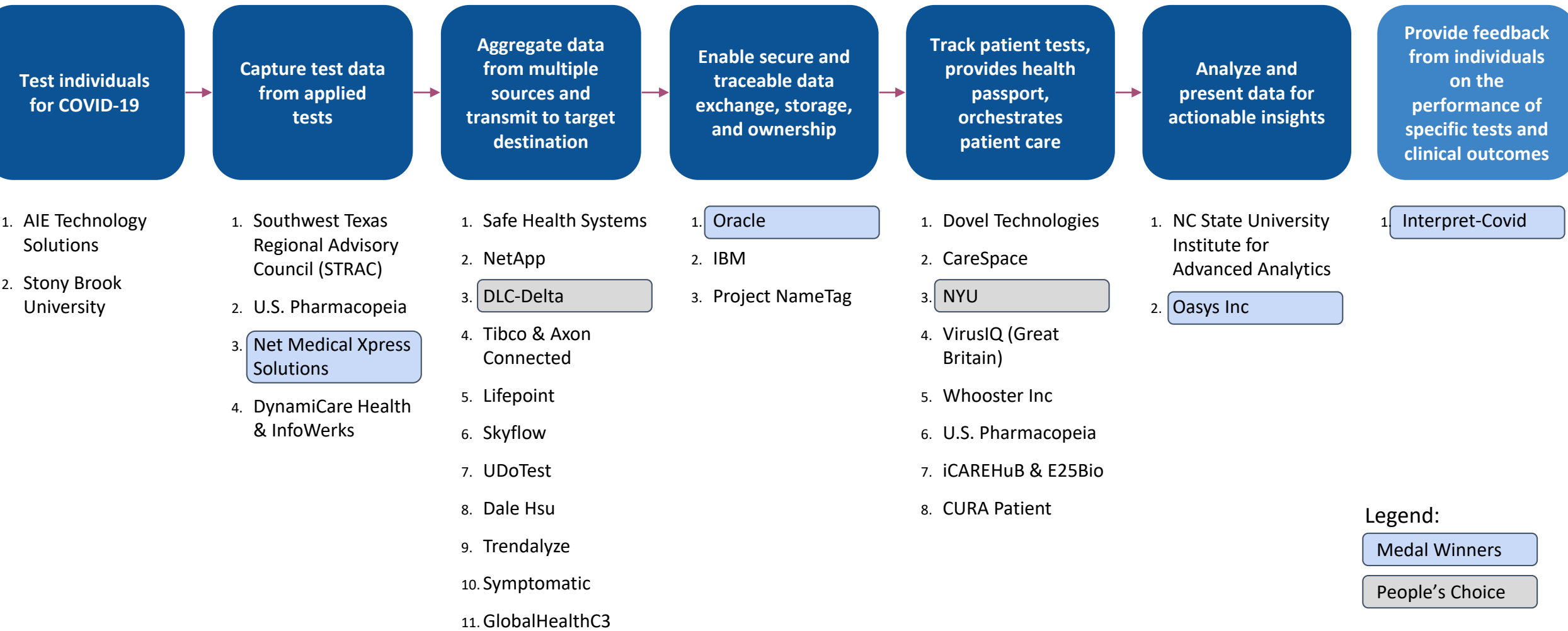
Design-a-thon

Developing digital solutions for
data capture, harmonization, and
reporting from diagnostic tests

#COVIDdesignathon



Capstone project participants medal winners



Capstone project winners and honorable mentions will participate in TOPx (The Opportunity Project)

Purpose

Develop capabilities for SARS-CoV-2 diagnostic tests:

- That alleviate data collection and reporting burdens for patients, providers, anyone administering/using tests, labs through which data is routed
- For data capture and reporting when at-home, non-prescription, and over-the-counter tests are authorized and begin saturating the market. On December 15, 2020, the FDA authorized an antigen test as the first over-the-counter fully at-home diagnostic test for COVID-19

Description

- Design-a-thon winners and honorable mentions participate in a virtual tech sprint (TOPx) to expedite development of SARS-CoV-2 diagnostic tests that have built-in, automated, harmonized data capture and wireless transmission capabilities
- Data will be transmitted to the WATERS prototype

Timing / Activities

- 6-week sprint starting in January 2021
- Culminates in a public-facing "Demo Day," which will showcase many potential solutions and products from different organizations



The Opportunity Project (TOP) brings together technologists, government, and communities to rapidly prototype digital products—powered by federal open data—that solve real-world problems for people across the country.

opportunity.census.gov

TOPx Sprints

TOPx sprints allow federal agencies to address national challenges by adapting the TOP process to their own timelines and topics.

This TOPx sprint will focus on enabling COVID-19 diagnostic tools, on an expedited 6-8 week timeline, so that tools can get into American's hands as soon as possible, while still benefiting from the networks, collaboration, and data access of a TOP sprint.



COVID-19 TOPx Sprint

Sprint for At-Anywhere Diagnostics

COVID-19
TOPx
TECHNOLOGY
SPRINT

Developing digital solutions for
data capture, harmonization, and
reporting from diagnostic tests
#TOPxCOVID

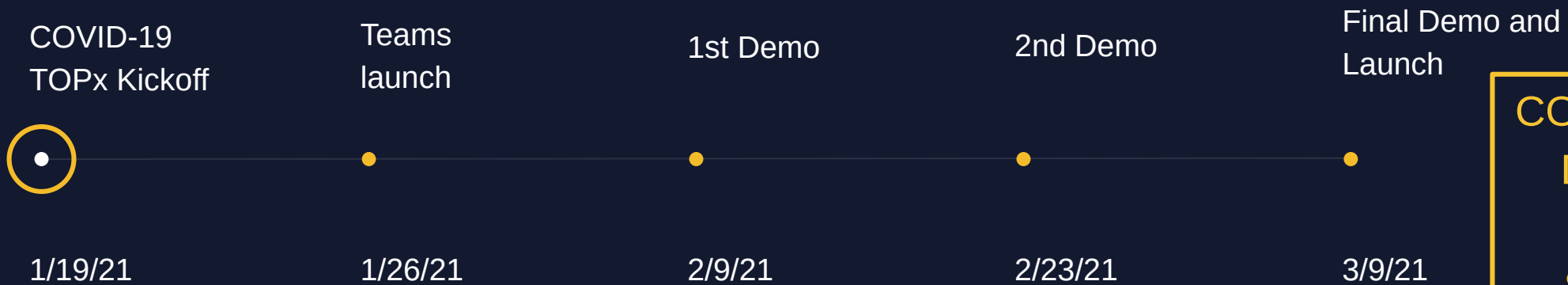


- **Tech Teams:** 16 design-a-thon winners
- **Goal:** Expedite development to ensure that SARS-CoV-2 diagnostic tests have built-in, automated, harmonized data capture and wireless transmission capabilities
- **Timeline:** 6 weeks
 - Milestone calls on Zoom will be opportunities to show progress and get feedback/questions
 - Milestones will be open to the public in listen-mode

Government Framework

Our “COVID-19 TOPx” technology sprint will use the methods of The Opportunity Project (TOP), which is a **fast-paced technology development sprint** that bring technologists, communities, and government together to solve key national challenges using open data.

Agile Development Sprints with Biweekly Demos



COVID-19 TOPx
DEMO DAY

Sprint 2021

COVID-19 TOPx Tech Sprint

Participating teams will embrace **three TOPx best practices**

TOPx Rule #1: **Each team will use federal open data standards**



- Data.gov
- HealthData.gov
- COVID-19 Diagnostics Data

Standards and FAQs:

<https://www.hhs.gov/sites/default/files/hhs-diagnostic-data-faqs.pdf>

COVID-19 TOPx Tech Sprint

Participating teams will embrace **three TOPx best practices**

TOPx Rule #2: **Each team will engage with users, receive feedback in demos, and respond to user-centered feedback**



- TOP website:
<https://opportunity.census.gov/>
- TOPx Toolbox:
<https://www.hhs.gov/sites/default/files/hhs-diagnostic-data-faqs.pdf>

COVID-19 TOPx Tech Sprint

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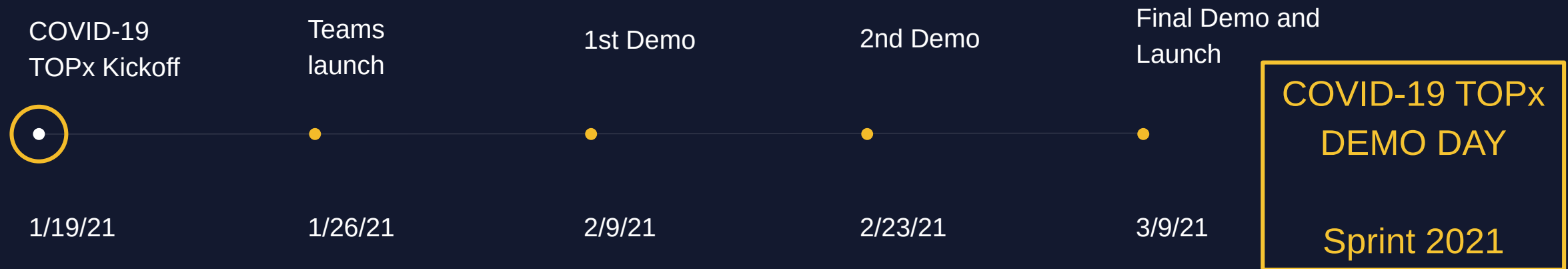
TOPx Rule #3: **Agile, collaborative iterations, now in the open!**



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COVID-19 TOPx Schedule

Participate in biweekly demos to share progress and feedback



Calendar Invites to come

Updates will be posted to Waters.Crowdicity.com

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Q & A