

# Call for Code<sup>®</sup>



Call for Code  
Founding Partner



Call for Code  
Creator



Call for Code  
Charitable Partner



Call for Code  
Program Affiliate

# Call for Code: Put your skills into action for #TechforGood



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Pakistan

# What is Call for Code?



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Call for Code invites developers and problem solvers around the world to **build and contribute to sustainable Open-Source software solutions, that address social and humanitarian issues**, while ensuring solutions are deployed to make a **real difference**.

Call for Code has become the only global, **always-on** tech for good Open-Source platform to deploy & scale top projects through a host of offerings:

- Annual Call for Code Global Challenge
- University Challenge
- Spot Challenges to address urgent and unexpected societal issues facing global citizens
- Call for Code for Racial Justice
- Open-Source Projects and Deployments

Sponsors:



# Why join Call for Code?

Skill-building

Social Good

Ideas to Action

Community



**400k+** Developers

**179** Nations

**15k+** Applications

# Call for Code through the years



## Natural Disasters



## Climate Change COVID-19 Racial Justice



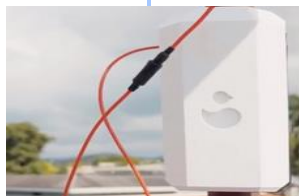
## Climate Change

2018

2019

2020

2021



Deployed Solution:

### Project OWL

Keeping first responders and victims connected in natural disasters.

**Deployment underway in Barcelona, Spain and Australia, and Puerto Rico.**

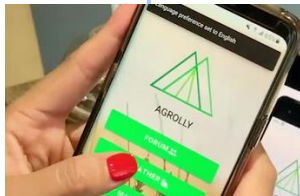


Deployed Solution:

### Prometeo

Real-time & predictive analysis of firefighter toxicity exposure.

**Deployments in Puerto Rico, Australia, and more.**

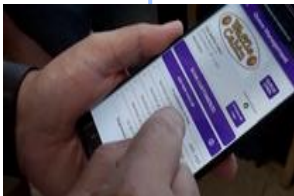


Deployed Solution:

### Agrolly

Helping farmers grasp the climate change impacts on crops to help manage their resources more effectively.

**Currently utilized in Mongolia**



Deployed Solution:

### Safe Queue

An app letting you queue at a safe distance by notifying you when it's your turn to enter.

**Deployed in NY.**



Deployed Solution:

### CFCFRJ

- Open Sentencing
- TakeTwo
- IARS
- Truth Loop
- Five Fifths Voter
- Legit-Info
- Fair Change



### Answer the Call

See your solution get deployed in 2021!

# Middle East and Africa Finalists - 2019

## Smart Irrigation System (Egypt) **WINNER**

A key factor behind droughts is poor water use by the large agricultural community. The Smart Irrigation System puts an IoT device in every farmer's field to detect moisture levels in the soil. The device informs exactly when and how much water the crops need. The device also contains machine learning models to detect new crop types and wilting.

## DR Box (Kenya)

Using a network of interconnected drones, DR Box takes images and videos of post-disaster landscapes. This data is then used to decide what locations need medical assistance or supplies. DR Box operates on the model of a fully automated fleet of supply drones as opposed to manually controlled drones.

## Cantalopa (Egypt)

Project Cantalopa aims to conserve and optimize water usage in times of drought by developing a points system through a website and mobile app. The residents' water meters are tied to their profile and are awarded points if they keep water consumption below a certain level. Residents can cash in on rewards for their good habits with things like vouchers and discounts.

## Alpha (Kenya)

After a natural disaster, there is a huge need for blood donors. With Alpha, donors and recipients track specific donations, from where it began all the way to where it ends up. Alpha also provides some details on available information on the donor's blood and sends an SMS message thanking the donor when the blood has been used.

More details on 2019 finalists: [developer.ibm.com/callforcode/solutions/2020-solutions/#regionalfinalists](https://developer.ibm.com/callforcode/solutions/2020-solutions/#regionalfinalists)

# Middle East and Africa Finalists - 2020

## **Mbali Health (Kenya)** **WINNER**

During a time of COVID-19 lockdown, it can be incredibly difficult to obtain routine medical assistance in a safe, socially distanced way. Mbali Health provides a simple chat interface that connects to care providers using the popular WhatsApp platform. The application is built using a natural language processing back end that would make it easy to extend to SMS or Facebook Messenger.

## **Online Accessible Laboratories (Uganda)**

One area that has been particularly difficult to socially distance during the COVID-19 lockdown has been lab research and study. Online Accessible Laboratories uses virtual machines to help students conduct electrical engineering labs without the need to go to the physical location. The system also includes a cloud-based upload system where students can send their reports for grading by faculty.

## **Project Natural Disaster Informant and Assistant (Nigeria)**

When natural disaster strikes, getting the right information to those who need it is crucial. This is where Project Natural Disaster Informant and Assistant helps. Using only certified news sites and social media channels, the app provides a conversational interface to answer questions using real-time data. In addition, mapping capabilities allow for routing and helping users find the nearest medical facility.

## **SMS Based Eschool Platform (Tanzania)**

The COVID-19 pandemic has had a particularly devastating effect on schooling in parts of Africa like Tanzania, where no online learning platform for students exists. Using simple SMS services, this app provides a way for students to submit assignments and receive information from online resources like the Cambridge Dictionary. The platform also allows seamless communication between student and teacher.

More details on 2020 finalists: [developer.ibm.com/callforcode/solutions/2019-solutions/](https://developer.ibm.com/callforcode/solutions/2019-solutions/)



## Call for Code 2021 Global Challenge

### Theme 1: Clean Water and Sanitation

According to WHO:

- **2.2 billion people** don't have safely managed **drinking water** services
- **4.2 billion people** don't have safely managed **sanitation** services
- **3 billion people** lack basic **hand washing** facilities

From intelligent solutions for small farmers to recycling showers, technology can make a significant impact on the availability of water and its consumption.

More details and technical resources to help you build at:  
[ibm.biz/C4C-CleanWater](https://ibm.biz/C4C-CleanWater)





## Call for Code 2021 Global Challenge

### Theme 2: Zero Hunger

According to the UN report:

- 135 million people suffer from acute hunger.
- About 690 million people regularly go to bed hungry around the world, and the number is on a rise.
- Across sub-Saharan Africa and southern Asia, about 57% of the population is unable to afford a healthy diet.
- In India, 190 million people, about 14% of the population, remain undernourished.

Technology can help by aggregating and analyzing market, transportation, demand, horticultural, and environmental data, co-ops can optimize productivity, reduce overhead and decrease volatility in the supply chain of the farming communities.

More details and technical resources to help you build at:

[ibm.biz/C4C-ZeroHunger](https://ibm.biz/C4C-ZeroHunger)



## Call for Code 2021 Global Challenge

### Theme 3: Responsible Production and Consumption

According to UN reports:

- The global Material Footprint has risen 18% from 2010 to 2017 & 66.5% from 2000 to 2017.
- In 2016, 13.8% of the food produced was lost in supply chains before arriving to a point of sale, and ended up in landfills producing methane, a greenhouse gas.
- From 2010 to 2019, electronic waste grew by 38% however less than 20% was recycled.

Technology can help by providing recommendations on energy efficiency to highlighting the carbon footprint of online purchases. A platform can be built to enable producers and consumers to build and buy products in a sustainable way for our society — by reducing waste, increasing the use of recycled materials, and improving the overall reparability of products.

More details and technical resources to help you build at:

[ibm.biz/C4C-GreenConsumption](https://ibm.biz/C4C-GreenConsumption)

# Awards

## Global Challenge

### **Grand prize: \$200K USD**

Dispersed equally across the team and solution deployment support

### **Runners up**

First & second: **\$25K USD**

Third & fourth: **\$10K USD**

## Regional prizes

### **Grand prize: \$5K USD**

Dispersed equally across the team

## University Challenge

### **Grand prize: \$10K USD**

Each student team member will receive the opportunity to interview for a potential role at IBM.

### **Runners up**

Each student team member will receive the opportunity to interview for a potential role at IBM.

# Judging Criteria

**Completeness and transferability**



**Effectiveness and efficiency**



**Design and usability**

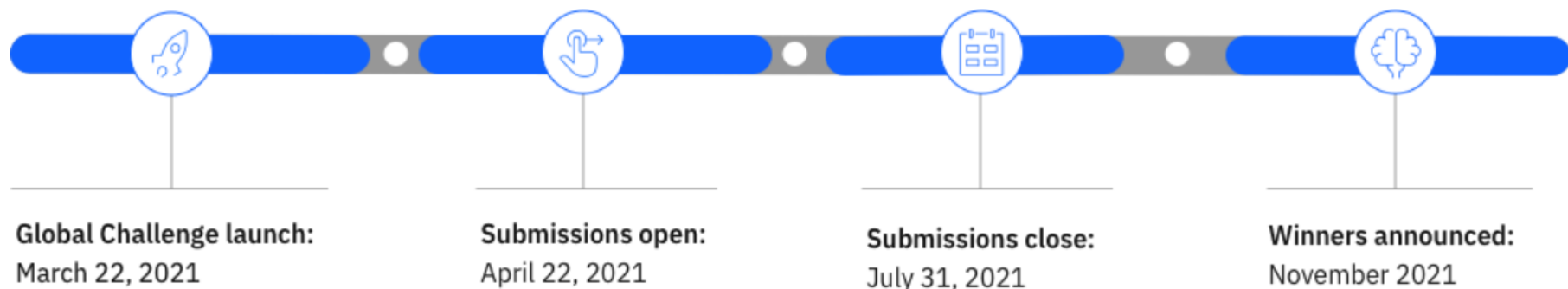


**Creativity and innovation**



# Timeline

## Call for Code Global Challenge timeline



# Rules

- **Submissions** – Must use one or more IBM Cloud services and/or IBM Systems. Use of sponsor or affiliate APIs and open-source libraries is also encouraged.
- **Application** – Must be new and built for the 2021 competition, but they may use code that was open sourced and publicly available to all other participants as of March 22, 2021.
- **Team size** – Teams of up to five (5) participants, each at least 18 years old, are allowed.
- **Joining teams** – A participant may not be part of multiple teams.
- **Participation agreement** – All team members must have accepted the 2021 Participation Agreement at the time they submit their solution to be eligible.(You accept the Participation Agreement when you register for the Global Challenge.)
- **University students** – Teams competing for the University Challenge must ensure that all team members are enrolled in an accredited institution of higher education.
- **Winners** – Winning teams will be subject to a code review after submissions close.

# Resources: Starter Kits

The starter kits provide tools and resources from our experts to help you jump-start your own Call for Code solution.

- What's the problem?
  - How can technology help?
  - Solution ideas
  - Getting started
- 
- **Zero Hunger** Starter Kit: [ibm.biz/StarterKit-ZeroHunger](https://ibm.biz/StarterKit-ZeroHunger)
  - **Clean Water** and Sanitation Starter Kit: [ibm.biz/StarterKit-CleanWater](https://ibm.biz/StarterKit-CleanWater)
  - **Responsible production and green consumption** Starter Kit: [ibm.biz/StarterKit-GreenConsumption](https://ibm.biz/StarterKit-GreenConsumption)

# Resources and Events

Call for Code Main Page:

[developer.ibm.com/callforcode](https://developer.ibm.com/callforcode)

FAQs: [callforcode.org/faq/](https://callforcode.org/faq/)

Digital Developer Conference: Call for Code Global Challenge, **April 12, 2021** Register at [ibm.biz/cfc-conference](https://ibm.biz/cfc-conference)

Office hours **Every Monday** between 2 PM - 3 PM (Dubai time) [crowdcast.io/ibmdeveloper](https://crowdcast.io/ibmdeveloper)

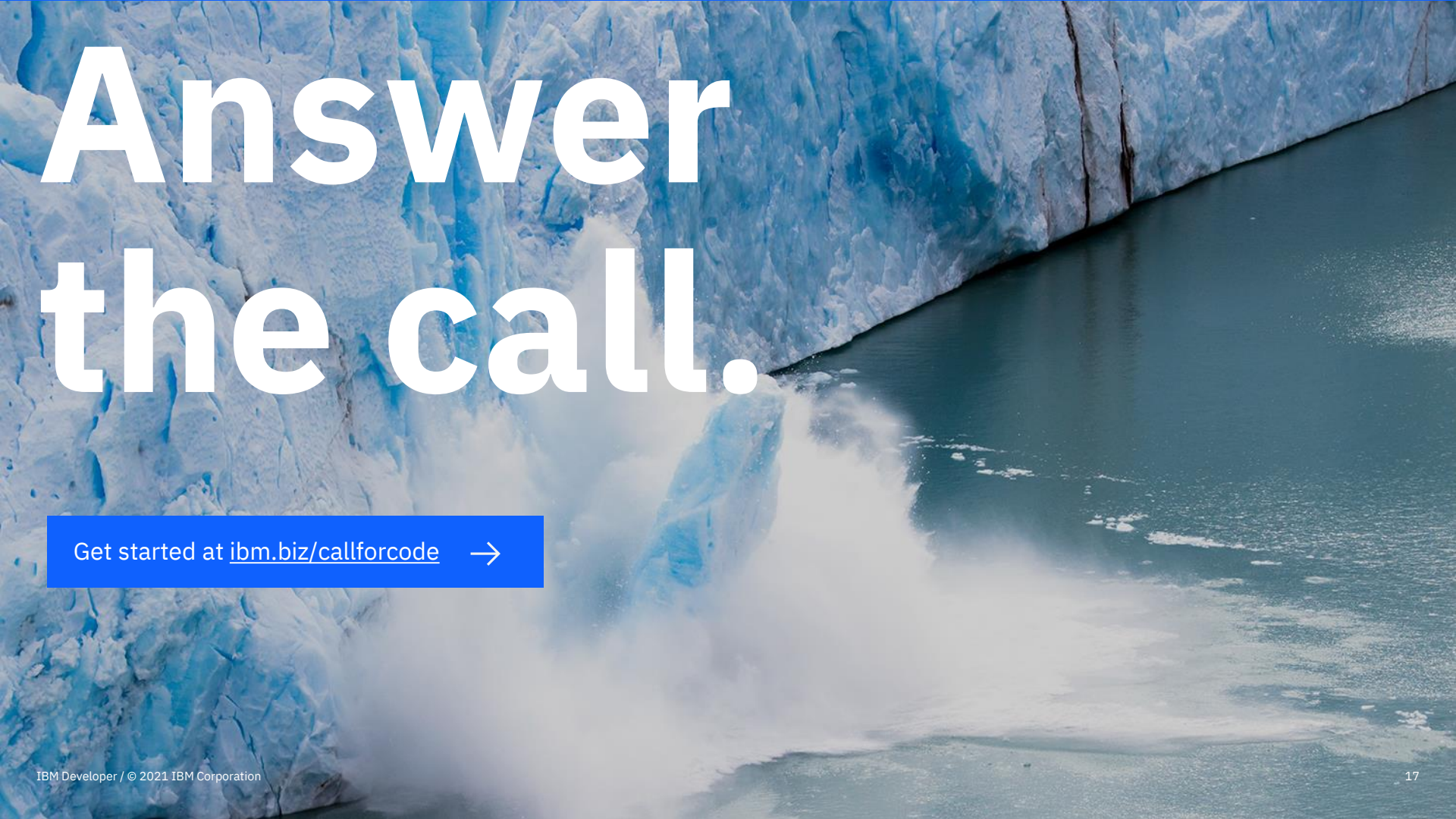


Get notified for upcoming Call for Code events by following our Meetup Page: [meetup.com/IBM-Cloud-MEA/](https://meetup.com/IBM-Cloud-MEA/)



Go to our Crowdcast page for replays of previous events that could help you: [crowdcast.io/ibmdeveloper](https://crowdcast.io/ibmdeveloper)





# Answer the call.

Get started at [ibm.biz/callforcode](https://ibm.biz/callforcode) →

