

IBM and Citizen-Scientists Poised to Contribute Equivalent of up to \$200 Million for Climate & Environmental Research

Researchers worldwide challenged to propose up to five environmental science projects, for which IBM will provide cloud resources, weather data, and crowdsourced supercomputing

ARMONK, N.Y., July 10, 2017 [PRNewswire/](#) -- As climate change accelerates, IBM (NYSE:[IBM](#)) is galvanizing the global science community with a massive infusion of computing resources, weather data, and cloud services to help researchers examine the effects of climate change, and explore strategies to mitigate its effects. IBM pledges to help direct the equivalent of up to \$200 million for up to five climate-related projects judged to offer the greatest potential impact, and will then broadly share the experiments' results.

IBM is inviting members of the global science community to propose research projects that could benefit from [World Community Grid](#), an IBM Citizenship initiative that provides researchers with enormous amounts of free computing power to conduct large-scale environmental and health-related investigations.

This resource is powered by the millions of devices of more than 730,000 worldwide volunteers who [sign up](#) to support scientific research. World Community Grid volunteers download an app to their computers and Android devices, and, whenever they are otherwise not in full use, the computers automatically perform virtual experiments, with the aim of dramatically accelerating foundational scientific research.

Scientists who submit proposals for climate-related experiments may also apply to receive free IBM cloud storage resources, so that they can work with their experiment data in a secure, responsive, and convenient manner. They may also apply to receive free access to data about historical, current, and forecasted meteorological conditions around the globe from [The Weather Company](#), an IBM Business.

The in-kind, donated resources offered by IBM can support many potential areas of inquiry. These might include gauging the impacts on watersheds and fresh water resources; tracking and predicting human or animal migration patterns based on changing weather conditions; analyzing weather that affects pollution or clean-up efforts; analyzing and improving crop or livestock resilience and yields in regions with extreme weather conditions, and more.

IBM's World Community Grid has previously hosted numerous environment-related projects led by scientists around the world. For example, Harvard University [identified](#) 36,000 carbon-based compounds with the potential to perform at approximately double the efficiency of most organic solar cells currently in production.

"World Community Grid enabled us to find new possibilities for solar cells on a timescale that matters to humanity--in other words, in a few years instead of decades," said Dr. Alán Aspuru-Guzik, Professor of Chemistry and Chemical Biology, Harvard University. "Usually, computational chemists who try to do this type of thing are studying 10 or 20 molecules at a time. World Community Grid allowed us to screen about 25,000 molecules every day. We had to start thinking in terms of millions of molecules and formulate new ideas based on this massive scale."

Other environmental initiatives hosted on IBM's World Community Grid have included [a project](#) led by Tsinghua University in China, which uncovered a phenomenon that could lead to more efficient water filtration using nanotechnology. Scientists have also used IBM's World Community Grid to better understand [crop resiliency](#) to extreme weather, and to [model the impact](#) of water management practices on sensitive watersheds.

IBM has a long history of environmental leadership. Just last week, IBM [announced](#) that it achieved two major commitments four years ahead of schedule in its effort to help combat climate change. Earlier this month, IBM also [reaffirmed its support](#) for the

Paris Climate Agreement and signed on to the [#WeAreStillIn](#) pledge, expressing its commitment to help continue leading the global fight against climate change.

"Computational research is a powerful tool for advancing research on climate change and related environmental challenges," said Jennifer Ryan Crozier, Vice President of IBM Corporate Citizenship and President of the IBM International Foundation. "IBM is proud to help advance essential efforts to combat climate change by providing scientists with free access to massive computing power, cloud resources, and weather data."

IBM will select up to five projects to receive support. Proposals will be evaluated for scientific merit, potential to contribute to the global community's understanding of specific climate and environmental challenges or development of effective strategies to mitigate them, and the capacity of the research team to manage a sustained research project. Resources provided are valued at up to \$40 million per project, for a total of approximately USD\$200 million.

IBM will accept applications [here](#) on a rolling basis, with a first-round deadline of September 15, 2017. Scientists from around the world are encouraged to apply. Up to five winning research teams will be announced beginning in Fall 2017.

Since its founding in 2004, World Community Grid has supported 28 research projects on cancer, HIV/AIDS, Zika, clean water, renewable energy and other humanitarian challenges. To date, World Community Grid, hosted in IBM's Cloud, has connected researchers to one half-billion U.S. dollars' worth of free supercomputing power. More than 730,000 individuals and 430 institutions from 80 countries have donated more than one million years of computing time from more than three-million desktops, laptops and Android devices. Volunteer participation has helped researchers to identify potential treatments for childhood cancer, more efficient solar cells and more efficient water filtration.

To learn more about World Community Grid and volunteer to contribute your unused computing power, please visit <https://www.worldcommunitygrid.org/>

To learn more about IBM Cloud, please visit <https://www.ibm.com/cloud-computing/>

For more information about The Weather Company, an IBM Business, please visit <http://www.theweathercompany.com>

Contact(s) information

Ari Fishkind

IBM Media Relations

fishkind@us.ibm.com

914-499-6420

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