Imagine H2O Program advances water data innovation

Global water innovation accelerator Imagine H2O helps develop and launch innovative businesses that deliver water data and analytics solutions. Director **Nimesh Modak** reports on its 7th annual Accelerator Program and this year's Water Data Challenge finalists and winner.

Imagine H2O® (IH2O®), the water innovation accelerator, announced the results of its 2016 Water Data Challenge at its Water Gala '16 in San Francisco. The winner was Ceres Imaging, an aerial imaging and analytics platform for farmers to manage water stress and fertilizer application. Ayyeka, a modular remote monitoring solution for water infrastructure, and Apana, a commercial water use management and detection system, were both recognized as runners-up.

Ceres Imaging was one of 10 finalists chosen by IH2O from a field of 90 startups in 20 countries to participate in its accelerator, the organization's 7th annual innovation program to develop and scale promising businesses that deliver water data and analytics solutions in industrial, municipal, and agricultural markets. The 10 selected companies will join its growing portfolio of more than 60 water technology businesses worldwide.

As the world faces increasing pressure on its water systems, improved access to actionable water data and analytical tools are urgently needed. From real-time quality monitoring and analysis of heavy metals for wastewater operators to high accuracy weather forecasting for smallholder farmers, the opportunity is ripe for breakthrough data solutions that enable water users to monitor and manage water more effectively.

"It is impossible to tackle the global water challenge without basic data about our water resources," says Barry Liner, director of the Water Science & Engineering Center, part of the Water Environment Federation, based in Alexandria, Virginia, United States. "Imagine H2O has sought to inspire and empower entrepreneurs to uncover capital-efficient solutions to some of the most pressing data problems in water."

IH2O's accelerator is a proven path-to-market, with alumni that represent 1 in every 10 dollars of early stage investment in the water industry worldwide. During 2016, participating companies benefit from mentorship and advice from industry leaders, visibility in the marketplace, introductions to investors, and connections to a global network of companies and utilities committed to deploying water technology.

Applicants to IH2O's program undergo a rigorous vetting process by an independent panel of judges, including leading industry experts from venture capital firms, water utilities, and engineering businesses. Companies are assessed for their market viability, value proposition, and go-to-market strategy. Detailed feedback is provided to all who apply.

"Once again, Imagine H2O attracted an extraordinary field of startups tackling the global water challenge," says Debra Coy, partner at XPV Water Partners. "I am pleased that these 10 companies will benefit from accessing the organization's connections in the water industry and Silicon Valley."

The Data Challenge is part of a multiyear initiative at IH2O to advance water data innovation. The organization will expand its portfolio to source new water data businesses, from monitoring to sensing to software and analytics. The ten finalists for the 2016 program represent a diverse range of data solutions to critical water issues that span sectors and geographies. An overview of the incoming cohort has been included below. A selection of these companies will be showcased at the 5th annual Innovation Pavilion at WEFTEC 2016 in New Orleans, Louisiana, USA, to be held on September 24-29.

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Imagine H2O's Data Challenge Finalists

ANDalyze *Champaign, Illinois, USA*
ANDalyze has developed an EPA-validated DNA sensor technology that monitors and tests heavy metals in the field and in real time. A hand-held device can test for lead down to concentrations of two parts per billion. The company is now launching an automated and process control product for municipal water operators.

Apana *Bellingham, Washington, USA*
Apana is an analytics-based water management solution that enables commercial and industrial water users to reduce water usage by 22 percent. Apana offers real-time, actionable information

Winners of the 2016 Water Data Challenge are (l-r) Ashwin Madgavkar (Ceres Imaging), Sivan Cohen (Ayyeka), and Matt Rose (Apana). Photo by Imagine H2O

for correcting water waste events and is currently deployed in more than one hundred Costco stores in the USA.

Ayyeka *Jerusalem, Israel*
Ayyeka provides a suite of cyber-secure, modular, plug-and-play remote monitoring solutions that measures and monitors parameters throughout the entire water cycle. The company's hardware and software platform delivers field data to decision makers to optimize resource efficiency and monitor the status of critical infrastructure.

Ceres Imaging *Oakland, California, USA*
Ceres Imaging has developed aerial spectral image processing technology to measure crop variables such as nutrient status and water stress and deliver actionable data to farmers. Ceres Imaging currently helps its customers manage more than 100,000 acres of agricultural land in California and Australia.

FarmX *San Francisco, California, USA*
FarmX developed the FarmMap platform, which alerts growers about critical field available water content, plant stress indicators, and environmental pest and disease pressure. By collecting data using its proprietary soil probe, the company provides real-time analytics on key environmental variables and has reduced water usage for users up to 20 percent.

FLUID *Minneapolis, Minnesota, USA*
FLUID is an easy-to-install learning water meter that helps consumers conserve water, save money, and better understand their water use. Currently piloted in 600 households, FLUID installs in seconds, protects the property by catching leaks, and provides valuable information on how fixtures and appliances use water in the home.

Ignitia *Accra, Ghana*
Ignitia has developed the world's first highly accurate tropical weather forecast model to enable better farming decisions. Using a proprietary algorithm, Ignitia sends daily, monthly, and seasonal forecasts via SMS to smallholder farmers. The platform currently has 60,000 subscribers and has been proven to significantly increase farming income and yields.

Mapistry *Oakland, CA*
Mapistry is an online platform that streamlines compliance with environmental regulations for businesses and industrial facilities. Mapistry's first product focuses on stormwater regulations, a US$600-million revenue opportunity.

NJBSoft *Oakland, California, USA*
NJBSoft provides software for water quality management compliance. The company's suite of software products covers a full range of applications for utilities including compliance management, water quality data management, and asset management.

Sourcewater *Rye, New Hampshire, USA*
Sourcewater is the first online marketplace for transporting, recycling, and disposing of water from oil and gas production. The company's exchange, with billions of barrels of water traded online, enables energy companies to minimize their operating costs, ensure a reliable supply chain, and reduce the environmental impacts of energy production.

Author's Note
Nimesh Modak is a director at Imagine H20, headquartered in San Francisco, California, USA.

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