H2O HACK
Solving water challenges from space
11 – 15 October 2021

Problem Statement

Australia's water security is being significantly influenced by climate change, with droughts, heat waves, and floods making it perpetually difficult to manage water across the country.

The Centre for Entrepreneurial Agri-Technology (CEAT), ANU Institute of Water Futures, and Canberra Innovation Network (CBRIN), in collaboration with the ANU Institute for Space, CSIRO and Charles Sturt University are calling for ambitious researchers, innovators and entrepreneurs to come together to participate in a virtual hackathon – 'H_2O Hack - solving water challenges from space' – to collaborate, innovate and create new solutions to address Australia's water challenges using space technology.

Participants will focus on applications of space-based technologies such as Earth observation, geolocation and connectivity to improve water management in agriculture, farming and regional communities, whether in flood or drought. Examples of space technology already in use in regional areas include virtual fencing, soil moisture measurement programs and remote monitoring of water supplies. However, there are many more possible applications of space technology to address water challenges.

'H_2O Hack - solving water challenges from space' is your opportunity to develop novel ways of using existing and emerging space technologies to secure Australia's future water security.

H_2O Hack will provide an opportunity for ambitious researchers, innovators and entrepreneurs to develop space-based solutions on:

- Resilience: improving the sustainability and resilience of water supplies across Australia
- Efficiency: helping agriculture increase water-efficiency while maintaining productivity and profitability
- Quality: ensuring water quality and maximising environmental, economic and societal outcomes
- Regionality: turning arid regional areas into sustainable and productive agricultural regions, and reducing effects of flooding
- Collaboration: enabling different sectors to collaborate in optimising water use in regional communities
- Connectivity: overcoming connectivity issues in regional areas to enable improved water management

To compete, participants are required to form a team of up to five individuals before the event. Single entrants will be able to register but will not be guaranteed a place in the hackathon.

You can register for the H_2O Hack here (https://h2ohack.cbrin.com.au).

Please feel free to contact cameron.ritchie@cbrin.com.au if you have any questions.

Centre for Entrepreneurial Agri-Technology
CANBERRA INNOVATION NETWORK
Australian National University
CSIRO
Charles Sturt University

Messaging + Social Media

H_2O Hack – solving water challenges from space

Event hashtag: #H2Ohack

About the hackathon

By bringing together a range of experts from a diverse array of backgrounds, H_2O Hack aims to:

- explore how space-based technologies can be used to quantify water management challenges across Australia
- create a space-technology based idea which improves water management and efficiency in Australia's agriculture, fisheries and forestry industries and has potential to be commercialised
- create a forum for industry, academia and government representatives to exchange perspectives and collaborate
- enable research to be applied in novel ways to create real-world impacts
- increase public awareness of water scarcity and the need for effective water management
- provide opportunities to get advice from expert mentors about taking an idea from concept to delivery through Canberra's innovation ecosystem.

The H_2O Hack looks to develop innovative satellite-enabled solutions that improve water sustainability and management across regional Australia. Solutions can range from high-impact research project outcomes to delivery of new products with sustainable and scalable business models. Projects that use policy and social initiatives to improve water management – alongside applications of space technologies - are also encouraged. Proposed solutions will be judged on their potential for commercialisation and impact.

The virtual hackathon will be held over a five-day period, 11- 15 October, 2021, with an Induction session on the 7th of October and innovative online workshops and facilitated sessions taking place Monday 11 October, Wednesday 13 October and Friday 15 October. Teams are encouraged to collaborate outside of scheduled hackathon sessions to help them progress and finesse their project ideas.

Guidance will be available from mentors with expertise in research, business and start-ups, policy and agriculture.

What's in it for you?

Participants can use 'H_2O Hack - solving water challenges from space' as an opportunity to develop ideas and technologies that have potential to generate significant environmental, economic and societal impacts. Last year's H_2O Hack winners have go on to create a business based on their hack-winning entry.

Along with a first place cash prize (size to be announced), highly ranked teams will be provided with ongoing support to make their idea a reality, including opportunities to access the Idea2Impact workshop program and coworking at CBRIN, attend

CEAT-mediated workshops to develop linkages with researchers and industry, and participate in the CEAT Innovation Hub.

Sign me up!

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