

## **AIM-ICDK WATER INNOVATION CHALLENGE**

(Atal Innovation Mission - Innovation Center Denmark water innovation challenge)

### **Background**

Atal Innovation Mission, NITI Aayog (AIM-NITI Aayog) has partnered with Innovation Center Denmark (ICDK) to engage academic institutions, industry partners, entrepreneurship cells, incubators in India to organise and prepare Indian participation for Next Generation Water Action - an initiative that will engage young talents from leading universities and innovation hub of selected countries in Africa, Latin America and Asia to build their skills and apply their technical disciplines, innovation capacity and solutions to challenge and catalyse water solutions towards smart liveable cities.

The AIM-ICDK water challenge is aimed at identifying the Indian delegations for the Next Generation Water Action challenge, and would consist of: Student team (max 3 members per team), Student Entrepreneur Team and Young Indian entrepreneur teams, working on technology-based solutions in the water domain. Next Generation Water Action aims to engage young talents from around the world to bring forward the youth perspective, current research and innovation on pressing water challenges. The initiative will provide unique opportunities for talented and driven young university students, researchers and inspiring entrepreneurs to accelerate water solutions. The program and activities are facilitated by DTU Skylab, Innovation Center Denmark and partners, and the Indian challenge is anchored by Atal Innovation Mission, NITI Aayog.

The challenge seeks to identify innovators under two tracks:

1. Young Academics track - Student team of (max 3 members per team), Student entrepreneur team (max 3 members per team).
2. Young Entrepreneur track - Entrepreneur teams of at-most Three members per team

### **Who can apply for the challenge? (Eligibility)**

#### **1. Common conditions**

- A. No applicant or team member should be older than 35 years as on 1st January, 2021
- B. Applicant must be an Indian citizen

#### **2. Specific category conditions (All the below conditions are mandatory)**

##### **A. Young academics:**

##### **I. Student team (Student A)**

- The student members must be enrolled in a Bachelor/Masters/Doctoral level course from a recognised college/university. (1st year bachelor students are not eligible)
- The applicant should provide details of a faculty guide from the Institution the applicant is currently enrolled in.

**II. Student Entrepreneurs (Student B)**

- All members must be enrolled in a Bachelor/Masters/Doctoral level course from a recognised college/university. (1st year bachelor students are not eligible)
- The applicant should be willing to register a Company/Startup before the start of the program (declaration for the same is part of the application form). If the company/startup is already registered, the same may be provided in the application form.
- The applicant should provide details of a faculty guide from the Institution the applicant is currently enrolled in.

**B. Young Entrepreneurs**

- Application should be submitted as a team, and the applicant should have a registered company. The applicant should provide any one of the below registration details:
  - Registration under Companies act
  - MSME registration
  - Registration under Limited liabilities act
  - Startup registration from DPIIT
- All team members should be under the age of 35.
- The applicant must have at least a lab validated prototype at the time of application.

**Challenge focus areas**

Challenge statement	Descriptions
Digital water management solutions	<p>IOT, mobile/satellite and sensor technologies have proven to be effective tools in water management solutions. Water management if looked through as a service offering can immensely benefit from digital management tools. The scope of challenge under ‘Digital Water Management’ with the prospective beneficiary (Farmers, Government and citizen) is listed below:</p> <ol style="list-style-type: none"> <li>I. For governments-                             <ol style="list-style-type: none"> <li>A. Government generates huge databases such as water supply, water availability, groundwater, rainwater harvesting, sewage output and household-wise drinking water source access data. Solutions using above silos of databases can be designed for effective water governance and management at the city level.</li> <li>B. Solutions for data governance platforms to allow for single-point monitoring of supply and usage of water in cities.</li> </ol> </li> <li>II. For citizens - Solutions are invited towards creating a water-smart household by informing them about the quantity and quality of water available from their nearest source to plan their daily family water budget. Solutions in this domain ideally are a mix of product innovation and management practice.</li> </ol>

	<p>III. For Farmers/ Agripreneurs – Solutions are invited to aid farmers in managing their water resources. Around 44% of Indian farming community is still dependent on the agri-activities and 93% of surface water in India is consumed by the Agri sector alone. Innovations coming through this would provide them a cost effective robust mechanism to address their irrigation challenges.</p>
<p>Solutions for monitoring and prevention of leakage in city water supply</p>	<p>It is estimated that 40% of piped water is lost to leakage across India, further, there is an evident lack of data on leakage from sewage pipes and mixing of sewage water with piped drinking water supplies in India. The issues call for solutions to address two key challenges of piped city water:</p> <ul style="list-style-type: none"> <li>I. Monitoring - solutions to actively monitor leakage in drinking and sewage water pipes.</li> <li>II. Prevention - solutions that can be retrofitted in existing water and sewage pipes to prevent leakage.</li> </ul>
<p>Wastewater management across Rural/Agri belts and Urban settlements</p>	<p>There has been a significant decrease in per-capita water supply in the country over the past few years due to the rising speed of urbanisation while an estimated 70% of wastewater goes untreated. To ensure water supply availability calls for effective monitoring, utilisation and recycling of wastewater. Solutions are invited for:</p> <ul style="list-style-type: none"> <li>I. Innovative and low-cost management of greywater at the source.</li> <li>II. Detection and prevention of drainage in water bodies.</li> </ul>
<p>City rainwater harvesting in Rural and urban settlements</p>	<p>Rainwater harvesting although a simple and old solution holds a key to water-starved Indian cities. An estimated 10-20% of rainwater is used in India; Due to the high intensity and short duration of heavy rain, most of the rain falling on the surface tends to flow away rapidly and leaves very little for the recharge of groundwater. To enable wider adoption of rainwater harvesting in cities and rural/agri belts across the country. Innovative solutions for the collection, filtration and storage of rainwater are invited.</p> <p>The solutions addressing gaps both at rural/ agri regions and city levels are welcome.</p>
<p>Safe and sustained drinking water</p>	<p>Ensuring drinking water sustainability is of paramount importance to governments across the country. Solutions are invited to address the Quality and quantity of drinking water at city household level:</p> <ul style="list-style-type: none"> <li>I. Quality - A. Tech-enabled solutions for assessing water quality. B. Low cost and efficient household water filtration solutions that can work with both the city piped supply and groundwater.</li> <li>II. Quantity - A. Solutions to address effective monitoring and control of groundwater extraction. B. Low-cost tech-driven solutions for effective desalination. C. Tech-driven solutions for deriving drinking water from air moisture</li> </ul>

## Application Process

1. The application for the challenge will only be accepted through the AIM-ICDK Challenge portal and no physical application will be accepted or required.
2. **Format for Pitch deck:** The applicant is required to submit a pitch deck as part of the application in PPT/PPTX format only. The pitch deck should follow the below mentioned structure:
  - A. For Young Academics:
    - i. Applicant/Team Introduction (1 slide max)
    - ii. Proposed solution and suitability for addressing the selected challenge (1-2 Slides max)
    - iii. Road map for development during the period of February-May (1 slide max)
    - iv. Demonstration of Prototype (if available, 1 slide max)
  - B. For Young Entrepreneurs:
    - i. Applicant/Team Introduction (1 slide max)
    - ii. Proposed solution and suitability for addressing the selected challenge (1-2 Slides max)
    - iii. Road map for development during the period of February-May (1 slide max)
    - iv. Demonstration of Prototype (1 slide max)
    - v. Plan for commercialization (1 slide max)
3. **Video pitch:** Applicants are required to submit a video pitch of duration 60-90 seconds. The evaluation team would look to derive two key outputs from the video pitch: a. Motivation of the applicant and b. Demonstration of technology/innovation. The applicant may look to use the structure defined in Pitch deck.

**Evaluations/Key parameters for selection**

The applications under both Academic and Entrepreneur categories will be screened for program eligibility and will be evaluated on below mentioned key parameters and subsequent criteria as noted below

Parameter	Criteria
Technology potential	<ul style="list-style-type: none"> <li>● How is the solution different from the existing technologies?</li> <li>● Feasibility of the idea</li> <li>● Wide-scale solution adaptability</li> <li>● Product relevance in the market</li> </ul>
Minimum Viable Product (MVP) Readiness	<ul style="list-style-type: none"> <li>● Has the product idea been validated?</li> <li>● Are there early adopter customers for the new idea?</li> </ul>
Innovativeness and Intellectual Property (IP)	<ul style="list-style-type: none"> <li>● How innovative is the product?</li> <li>● Can the IP be registered? Or is it already done?</li> </ul>
Deployment and Commercialization potential	<ul style="list-style-type: none"> <li>● Is the innovation financially feasible?</li> <li>● Is the technology/solution/ product deployable?</li> <li>● Potential for commercialization</li> </ul>
Business plan <i>(Only those who get short-listed are required to submit)</i>	<ul style="list-style-type: none"> <li>● Is the business strategy/ technology/ product realistic and financially sustainable?</li> </ul>

For any query please reach out to [aim.challenges@gov.in](mailto:aim.challenges@gov.in)