



Revolutionizing Water Quality Management Through Technological Innovation

CLUIX Private Limited

Technology Transforming Tomorrow

About Us

We are a cleantech startup driven by **innovation**, we are committed to developing ground-breaking solutions that **surpass conventional limitations**.

Our solutions not only incorporate **cutting-edge advancements** but also prioritize:

Affordability | Reliability | Sustainability

Vision:

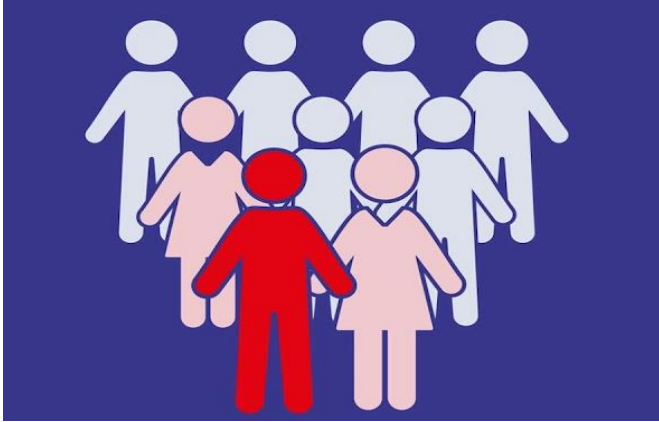
We aim for a sustainable future with innovations.

Mission:

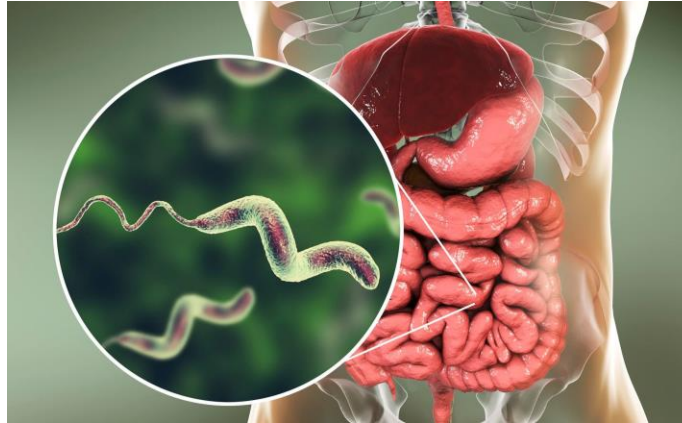
Innovating and deploying disruptive, yet affordable, solutions accessible to all.



Contamination in Drinking Water – A Global Challenge



One in nine people worldwide drinks unsafe water, which is about 771 million people



Unsafe water is the reason for estimated 4 Billion cases of diarrhoea annually, leading to 2.2 Million deaths



163 Mn lack access to safe drinking water in India, ~21% of communicable infections are due to use of unsafe water

Over 3 billion people are at risk of waterborne diseases due to lack of data on water quality

Problem That Is Being Addressed

What are we solving ?

Traditional water quality monitoring methods:

- Labs (manual, slow, expensive)
- Manual Field Test Kits (Highly unreliable due to human error)
- No Real Time Data
- Technical Expertise
- Extensive Training

Result following Impact ?

- Unsafe Drinking water
- Inefficient Resource Management
- Environmental Damage

Who is Impacted ?

Everyone!

From individuals, communities to businesses and governments.

Clean water is fundamental to health, sanitation, food security, and economic development.

Government of India – National Jal Jeevan Mission

Press Information Bureau
Government of India
Ministry of Jal Shakti

25 DEC 2020 2:05PM by PIB Delhi

National Jal Jeevan Mission Launches Innovation Challenge for Developing Portable Devices to Test Drinking Water Quality

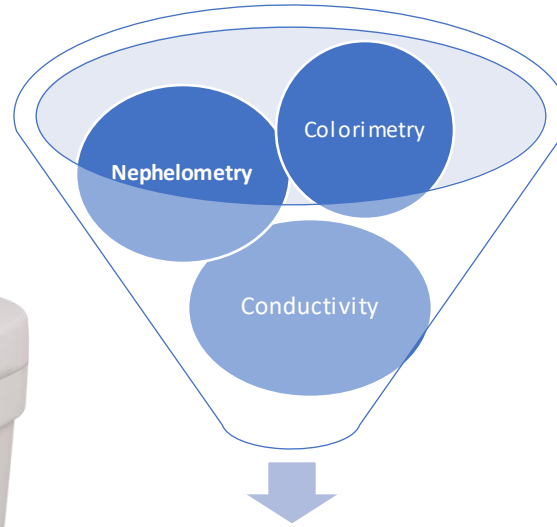
The National Jal Jeevan Mission has launched an innovation challenge in partnership with Department of Promotion of Industry and Internal Trade to develop portable devices for water testing. The main objective of the exercise is to bring an innovative, modular, and cost-effective solution to develop portable devices that can be used at the household level to test the drinking water quality instantly, easily and accurately.



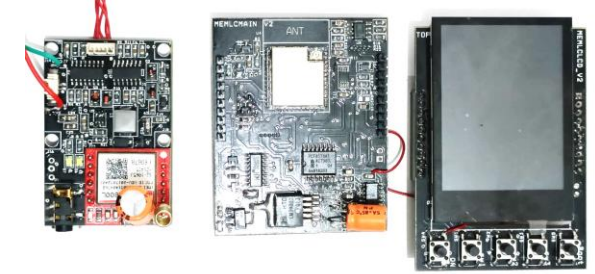
Water quality testing is one of the priority areas under Jal Jeevan Mission, the flagship programme of Union Government. The aim of the innovation challenge is to ensure that water sources are tested at various locations, at different levels; thereby, helping the policy framers to design programs which address the water contamination issues.



Our Solution



Science Behind



Innovation in Hardware:

- Lightweight and low-cost design.
- Hardware capable of processing AI & ML algorithms.

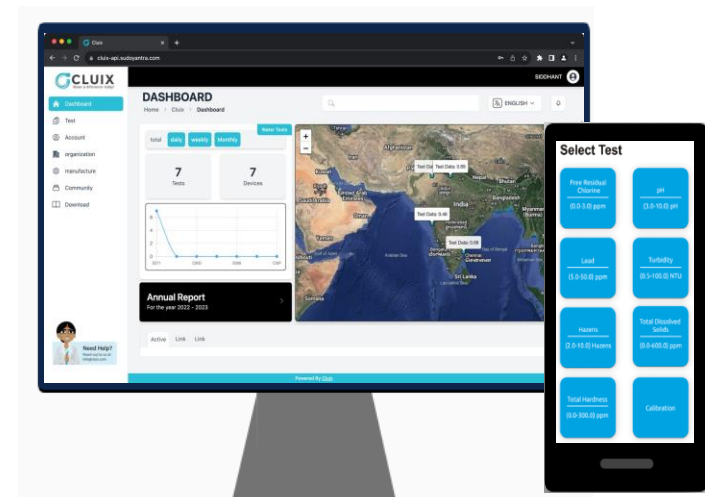
Innovation in Working Principle:

Our innovative method of converting RGB color values to CIE Lab (Lab*) values. This conversion allows for more accurate colorimetric analysis compared to traditional methods.

Current Critical parameters as per WHO and BIS standards

Potential of hydrogen (pH) • Free residual Chlorine (FRC) • Total Hardness (TH) • Pt/Co-Hazens (Color) • Turbidity • Total dissolved solids(TDS) • Electrical conductivity (EC) • Lead (Pb) • Iron (Fe) • Fluoride (F) • Nitrate (No₃)

New critical parameters to be added in the device with firmwarer upgrades through OTA



Competitive Landscape

Comparative Parameters	CLUIX	ELICO	HANNA	CANON	HACH
Multi-Parameter Device	✓	✓	✓	✓	✓
IOT (Connected Device)	✓	✗	✗	✗	✗
GPS Tagged Report	✓	✗	✗	✗	✗
Realtime Report Upload	✓	✗	✗	✗	✗
New Parameter Updates	✓	✗	✗	✗	✗
Easy to Use for Layman/Non-Tech	✓	✗	✗	✗	✗
Affordable for Mass Adoption	✓	✗	✗	✗	✗

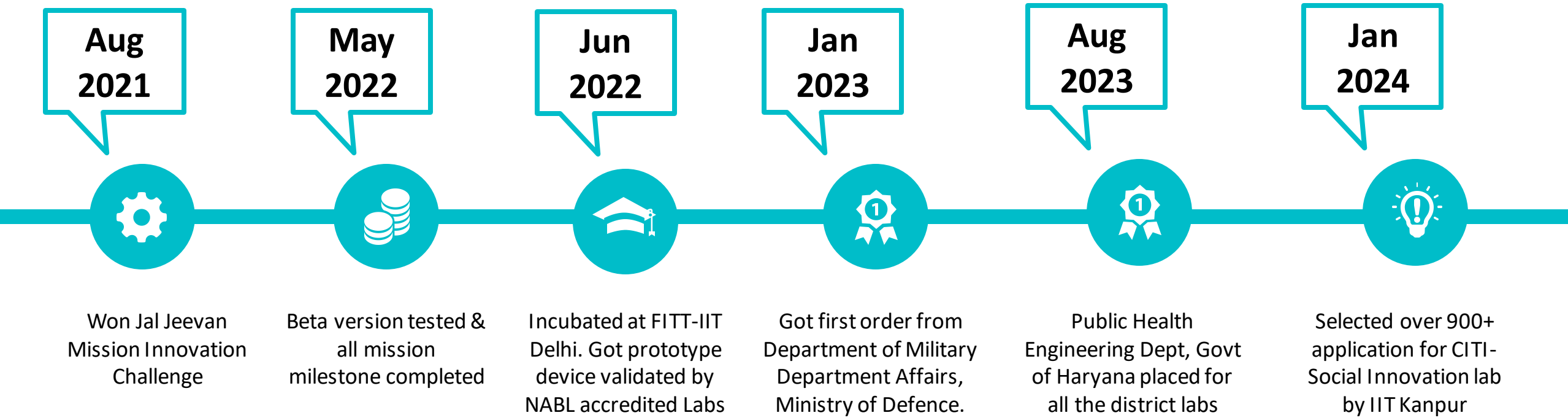
ACCESSIBLE | AFFORDBALE | SCALABLE | SUSTAINABLE

Customer Persona



Customer	Needs	Benefits
Government Department	Reliable, portable, and easy-to-use tool for on-site water quality testing to ensure compliance with regulations	Improved efficiency in water quality monitoring, faster response time to water quality issues, and data to support policy decisions.
Development Agency	Affordable, rugged analyzer to test water quality in remote locations with limited resources	Ability to quickly assess water quality needs, identify contaminants, and implement appropriate solutions
Industries/Factories	Accurate and reliable analyzer for real-time monitoring of various water quality parameters in industrial processes.	Improved control over wastewater quality, reduced risk of environmental violations, and cost savings through optimized water treatment.
Commercial Establishment (IT Park/Malls/Hospital Rail/Bus/Airport)	User-friendly analyzer for routine monitoring of pool, fountain, or aquaponic system water to maintain proper sanitation and hygiene.	Ensures customer safety and regulatory compliance, reduces costs associated with waterborne illness outbreaks, and simplifies water quality maintenance tasks.
Educational Institutions Schools/Colleges	Safe, affordable analyzer for educational purposes that is easy to use by students with limited scientific background.	Enables hands-on learning about water quality, fosters environmental awareness, and provides data for student research projects.
Residential/ High Rise Societies	Easy-to-use analyzer for basic water quality testing at home to ensure safe drinking water.	Peace of mind regarding water safety, ability to detect potential contaminants early, and empowers informed decisions about water treatment options.

Our Journey



Our Marquee Customers



रक्षा मंत्रालय
MINISTRY OF
DEFENCE



Market Research

Total Available Market (TAM)	\$ 10.89 Billion
Serviceable Available Market (SAM)	\$ 7.50 Billion
Serviceable Obtainable Market (SOM)	\$ 2.38 Billion

Ministry of Jal Shakti aims to ensure that every citizen has access to clean drinking water, the Department has been allocated **Rs 77,223 crore for 2023-24**, a 29% increase over the revised estimates of 2022-23.

3% of the Annual Budget is spent on Water Quality Initiatives

Description	Devices Required
Government - Rural	6,68,597
Government - Urban (1 Mn+ Cities)	77,322
Educational Institution - India	2,39,551
Development Agencies	91,500
Commercial Establishment	6,66,739
Defence	13,500
Custom Solutions - WQM/WLM	22,65,000
India	40,22,209

Product Pricing:

Retail Price – Rs 50,000

Recurring Revenue:

- Reagent Kit (100 test) – Rs 10,000
- Annual Maintenance Charges – Rs. 4000/kit/year
- Upgrades - Customized

There is a captive demand of 4 Mn Water Quality Analyzers just in India

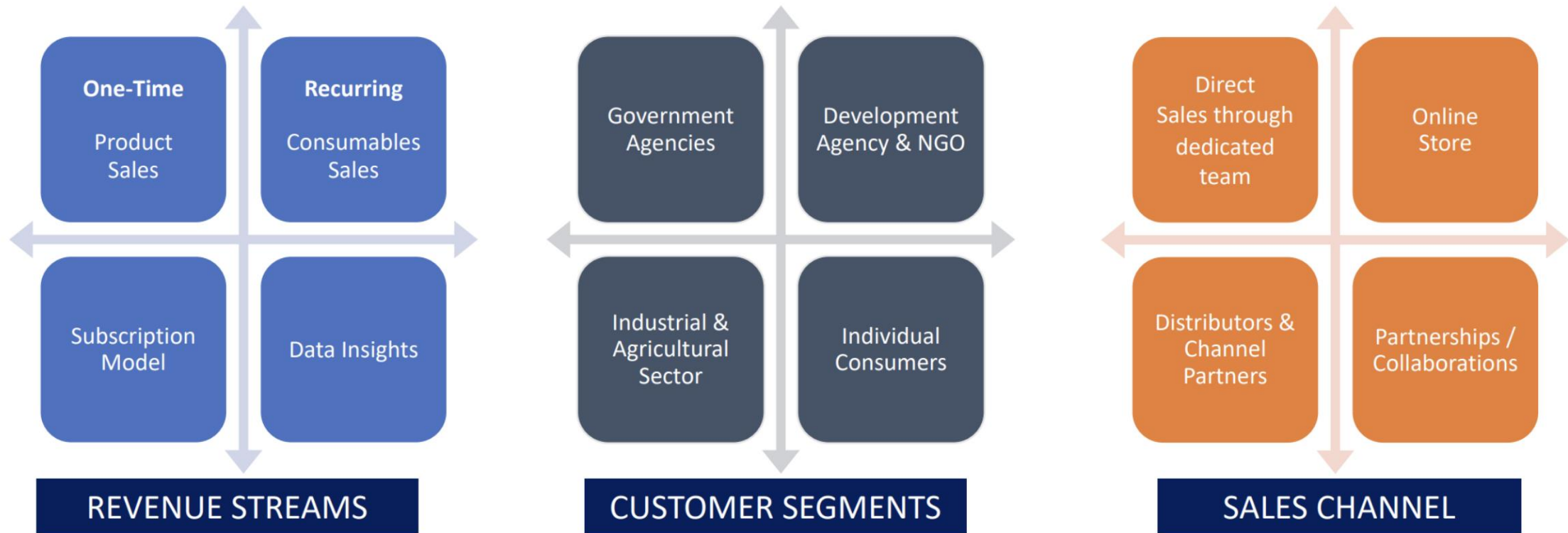
Gross Margin

Retail Price – 65%

Recurring Revenue:

- Reagent Kit (100 test) – 80%
- Annual Maintenance Charges – 65%
- Upgrades – 70-80%

Business Model



65 % Margin on product sale, with higher scale margins to increase 85%. Reoccurring sale of consumables, with 80% Margin on consumables.

Customer Journey for an IoT-based Water Quality Analyzer



Our Team



Robin Singh

Founder & CEO



Chitransh Singh

Founder & CSO



V R Rajesh

CRO



Dr. Anju Mehra

R&D Lead



Dr. Tapan K
Gandhi

Advisor



Dr. Aseem
Bhatnagar

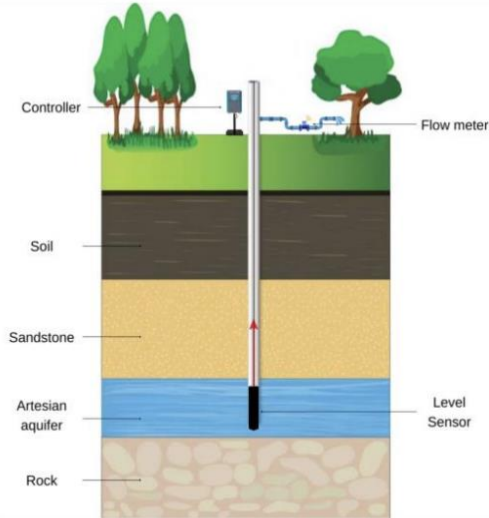
Mentor



Future Roadmap

1

Borewell water level monitoring system with triggers



3

In line TDS meter for R.O Filters developed in partnership with Microchip



2



CLUIX C012 – Next gen version with higher accuracy and optimization, designed for widespread adoption and aimed to be placed at every village in India, to replace the current FTKs.

In addition, our R&D team is working to introduce additional capabilities, such as detecting bacteriological contaminants (coliform) and reducing the time required from 24 hours to 5-6 hours.

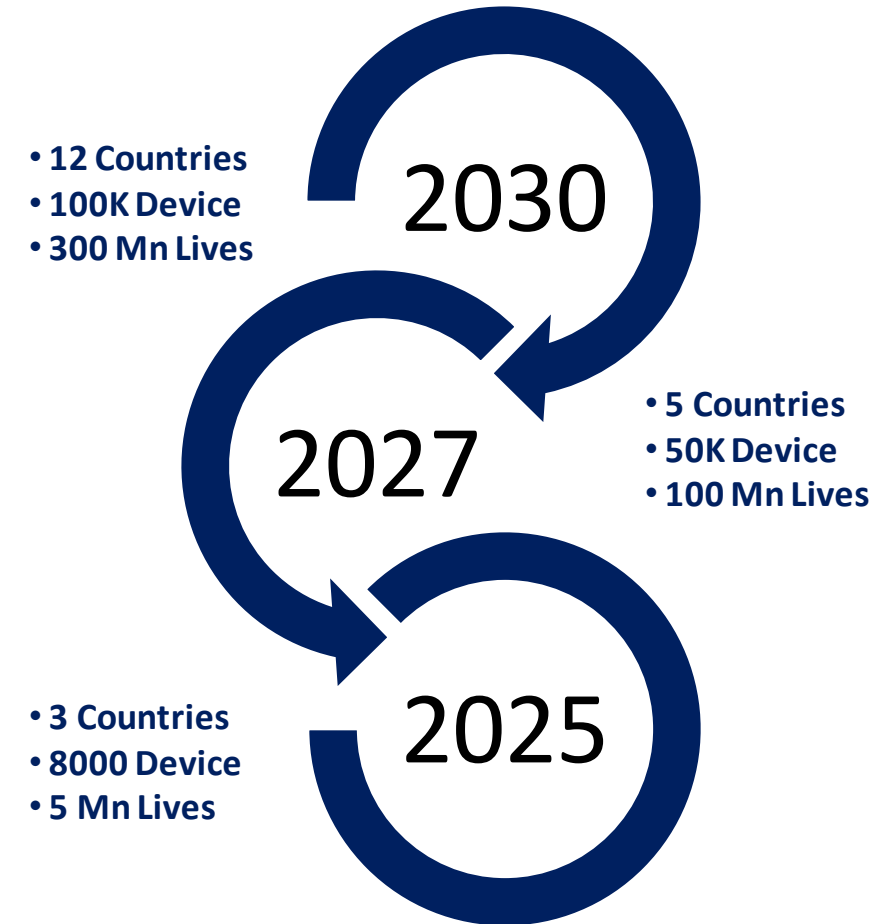
Developed borewell water level monitoring system, which will accurately monitor changing levels of water in bore and will provide correct extraction rate as per the recovery time of water in a bore.

Impact Matrix

- 01 **Access to Safe & Clean Water**
- Improved access of safe community
 - Reduces the risk of waterborne diseases
 - Ensures basic human right
- 02 **Community Empowerment**
- Encourage community participation
 - Education and awareness about safe water
 - Community to take ownership of the initiative
- 03 **Economic Development**
- Reduces healthcare cost on associated with waterborne illnesses.
 - Enhances economic opportunities
 - Reduces health disparities
- 04 **Environmental Sustainability**
- Encourages conservation and protection
 - Promote sustainable water management practices
 - Supports ecosystems and biodiversity



Next Milestones



Awards and Recognitions



**National Innovation Challenge 2021 by
Jal Jeevan Mission & Startup India**



**National Award for Innovation 2023 in Water Quality Management by
CII-Triveni Water Institute**

Awards and Recognitions



Selected as Super 25 @Startup Conclave, Delhi University



Winners of CITI Social Innovation Lab (Cohort 2 –Cleantech) SIIC-IIT Kanpur

Financial Projection

Particulars	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29
tal Revenue	16,04,92,506	30,50,89,041	75,90,19,775	1,23,26,49,652	1,44,61,47,382
Direct Expenses	6,27,76,293	12,33,41,525	30,64,42,809	50,55,65,200	60,69,89,319
Gross Profit	9,77,16,213	18,17,47,516	45,25,76,966	72,70,84,452	83,91,58,063
Gross Profit % to sales	61%	60%	60%	59%	58%
Indirect Costs	5,15,66,439	9,55,48,122	23,24,56,715	37,54,25,702	44,05,34,776
Employee Cost	1,62,36,000	2,52,21,240	3,42,59,940	3,33,81,480	3,33,81,480
Other Expenses	32,09,850	45,76,336	1,13,85,297	1,23,26,497	1,44,61,474
Sub-total	7,10,12,289	12,53,45,697	27,81,01,952	42,11,33,679	48,83,77,729
EBITDA	2,67,03,924	5,64,01,818	17,44,75,014	30,59,50,774	35,07,80,334
EBITDA %	17%	18%	23%	25%	24%
Depreciation & Amortisation Interest & Bank Charges	16,21,250	15,39,563	14,75,328	14,24,889	13,85,344
Profit Before Tax (PBT)	2,50,82,674	5,48,62,256	17,29,99,686	30,45,25,885	34,93,94,990
PBT %	16%	18%	23%	25%	24%
Provision for Tax	62,70,668	1,37,15,564	4,32,49,922	7,61,31,471	8,73,48,748
PAT	1,88,12,005	4,11,46,692	12,97,49,765	22,83,94,413	26,20,46,243
PAT %	11.72%	13.49%	17.09%	18.53%	18.12%

Fund Ask

Pre-Money Valuation
INR 40 Cr*

As on Date Revenue – INR 38 Lac

Total Requirement
INR 5.0 Cr

Current Sales pipeline : INR 12.70 Cr

Committed
INR 2 Cr

Investment Received : INR 102 Lac *

USAGE OF FUNDS

INR 2.0 Cr

Research & Development

- Adding new quality parameters
- New Product Development specific to Industry
- Product validation POC with clients

INR 2.5 Cr

Manpower

- Hire R&D Scientist and Embedded System Engineers
- Sales & Mktg Team – Market expansion
- Compliance Team for statutory requirement

INR 3.5 Cr

Manufacturing & Production

- Scaling up manufacturing and production capabilities to meet increasing demand
- sourcing in high-quantity to reduce the input cost
- Quality Assurance & Testing

Note: * KIIT-TBI has invested additional Rs. 40 lac for 1% equity at the valuation of Rs. 40 Cr

*“If you can’t measure it,
You can’t manage it”*

Peter Drucker

Thank you

V R Rajesh | Chief Revenue Officer
+91-9485883388 | rajesh@cluix.in



Proudly made in India for solving the global challenges

Annexure Slides

Only if Required

Customer Testimonial



OFFICE OF THE CHIEF CHEMIST
PUBLIC HEALTH ENGINEERING DEPARTMENT
STATE WATER TESTING LABORATORY, KARNAL-132001
(NABL ACCREDITED)



E-mail:-chiefchemist.hr@phedharyana.gov.in, chiefchemist.phedharyana@gmail.com

To Whomsoever it may Concern

I am writing this letter to confirm that PHED Haryana has conducted a pilot trial for the deployment of portable water quality analyzer (CLUIX C011) to test the quality of the household tap water samples at the Anganwadi/Gram Panchayat level in Two villages i.e. **Birachpur & Jaani** of the district of Karnal.

I am pleased to state that the project was successfully piloted, and we achieved the desired outcomes within the given timeframe. The piloting experience provided us with valuable insights and lessons learned, which I believe will be beneficial for future programs to keep water purity within safe boundaries on a real-time basis.

Project Start Date: 22nd August, 2022

Project End Date: 07th September, 2022

Please feel free to contact me if you require any further information or clarification on my experience.

Thank you for considering my letter.

Sincerely,

Dated: 03.04.2023


Amit Kr. Singh 03.04.2023

Chief Chemist - PHED

Govt of Haryana




THOUGHT LEADERSHIP WITH

**Mr. Amit Singh, Chief Chemist,
PHED, Govt. of Haryana.**

<https://youtu.be/S0bZV9-njj4?si=Fhq9f65ahTXnzspo>



Customer Testimonial



Centre for Microfinance & Livelihood (CML)
An Initiative of TATA TRUSTS
5th Floor, Divine Plaza, Dispur Super Market, G.S Road, Guwahati-781006, Assam
Email: cmladmin@tatastrusts.org Tel: 91-361-2229367

Date : 07/08/2023

To Whomsoever It May Concern

I am writing this letter to confirm that CML/Tata Trusts has conducted a pilot trial for the deployment of portable water quality analyzer (CLUIX C011) to test the quality of the household tap water/ bore well/handpump water samples at Gram Panchayat level in nine villages i.e. Chawardia NC, Kursala, Lakadubi, Satabari, Simina, Kaimari, Jamugiri, Sanipara and Bankakata villages of Kamrup (Rural) district of Assam.

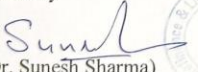
I am pleased to state that the project was successfully piloted and achieved the desired outcomes within the given timeframe. The piloting experience provided us with valuable insight and lesson learned, would be useful in the future.

Project Start date: 30th June, 2023

Project End date: 2nd July, 2023

Please feel free to contact me if you require any further information or clarification on my experience.

Thank you for considering my letter.

Sincerely

(Dr. Sunesh Sharma)
Manager- WaSH
CML/Tata Trusts

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+91-381-2329228
www.cmlnortheast.com

Regional Office
Manipur Regional Office
2nd Floor, Keishamthong Hodam Leirak,
Airport Road, Opposite Tiddim Oil Pump,
Imphal, West-795001, Manipur
+91-385-2443895



FIELD TRIALS FOR DRINKING WATER QUALITY TESTING

DISTRICT : KAMRUP
STATE : ASSAM

DATE : 30TH JUNE - 1ST JULY' 23



TH 0-300 ppm Total Hardness	EC 0-1413 µs/cm Electrical conductivity	TDS 0-700 ppm Total dissolved solids	Pb 5-50 ppm Lead - Heavy metal
TUR 0-10 NTU Turbidity (NTU)	FRC 0-3 ppm Free residual Chlorine	HU 0-10 HU Colour - Hazen Unit	pH 3-10 pH Potential of hydrogen



https://youtu.be/rXJB-xlOS_8?si=SjUgYDyzTJVaATPO



Dhubar Gaon, Assam, India
397G+J9Q, Gumi - Goroimari Rd, Dhubar Gaon, Assam 781141, India
Lat 26.06471°
Long 91.375881°
30/06/23 11:53 AM GMT +05:30

Business Model Canvas

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
<p>Incubators FITT IIT Delhi KIIT- TBI Bhubaneswar</p> <p>Supported by Ministry of Jal Shakti Invest India (DPIIT)</p> <p>Vendors PCB Manufacturing and assembling.</p> <p>Mechanical enclosure manufacturer.</p> <p>Electronic Component suppliers.</p> <p>NGOs and Corporate CSR Tata Trust Ambuja Foundation</p>	<ol style="list-style-type: none">SalesManufacturingR&D, NPDSocial media marketing.	<p>We are a deep tech startup who aims to reduce the consumption of contaminated drinking water and the associated diseases in 6.4 lac gram panchayats across India.</p> <p>Therefore, we developed an easy to use hand-heled IOT based multi-parameter water quality analyzer that requires no scientific training to used and works as a decentralized lab in gram panchayats to be used by anganwadi women workers.</p> <p>Our unique innovations in AI algorithms to utilizee microcontrollers as microprocessors allowed us to created this affordable and scalable solutions for the masses.</p>	<ol style="list-style-type: none">To guide them and keep them updated with best practices.Helps field trials in new geographies.	<ol style="list-style-type: none">Industries & Commercial EstablishmentGovernment & Private LaboratoryNGO & Development AgencieGovernment : PHE / JJMInternational MarketResearch and Academic Institutions
	Unique Proposition <ol style="list-style-type: none">Technology IPFully developed, tested and commercialized product.Low cost IOT technology development blueprints for any NPD and scalability, especially for affordable solutions with high accuracy.		Channels <ol style="list-style-type: none">Direct saleOnline StoreDistributor/Resellers:Partnerships/Collaboration <p>Decentralized - Sales & Service Points for last mile servicing</p>	Customer / Pipeline List
				<ol style="list-style-type: none">Govt of AssamGovt of MaharashtraKent ROLiv PureDrink PrimeSmart City MissionAmbuja FoundationTATA TrustAga Khan Foundation
Cost Structure <p>Manpower : 4.5 lac per month Lab rental : 0.20 lac per month Lab consumables : 0.40 per month</p> <p>R & D (Prototyping NPDs) : 0.40 to 0.60 lac per month</p> <p>Manufacturing cost per device : 14,000 INR Reagent Kits and accessories cost : 4,000 INR</p>		Revenue Streams <ol style="list-style-type: none">Product sale. (Gross Margin - 65%)Consumables and Accessories. (Gross Margin - 80%)Data Insights/Analytics service. (Gross Margin - 80%)Maintenance and Support. (Gross Margin - 70%) Product Pricing: <p>Retail Price – Rs 50,000 with one year Warranty</p> Recurring Revenue: <p>Reagent Kit (100 test) – Rs 10,000 AMC – Rs. 4000/kit/year Upgrades - Customized</p>		

Market Research

PHASE 1 - INDIA	Description	Devices Required	Market (USD Mn)	Market (USD Bn)
	Government - Rural	6,68,597	868	0.87
	Government - Urban (1 Mn+ Cities)	77,322	100	0.10
	Educational Institution - India	2,39,551	311	0.31
	Development Agencies	91,500	119	0.12
	Commercial Establishment	6,66,739	866	0.87
	Defence	13,500	18	0.02
	Custom Solutions - WQM/WLM	22,65,000	98	0.10
	India	Total	2,379	2.38

- Note:**
- 1 Above TAM, we have included of only Indian Subcontinent Market
 - 2 Urban Market - Only 1 Mn+ Cities included
 - 3 RWPF & Leading NGOs incuded in the Development Agencies, whereas there are multiple other international Agencies to be targeted

PHASE 2 - GLOBAL	Market (USD Bn)		
	Description	2022	2030-2032
	IOT based Water Quality Analyzer	5.55	10.80
	Biotechnology reagents & kits	18.20	35.24
	Global		

Additionally, some reports estimate the broader water quality testing market (including equipment, services, etc.) to be significantly larger, ranging from USD 40 billion to USD 70 billion globally.

