

Mission Model Canvas

Project title:

fluidbot AG

Created by:

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Partners & Support 🤝

Technology:

- Adaro Group AG (Inhouse)
- Robofact AG (Inhouse)

Academic:

- ZHAW

(financial) Support:

- Stiftung Startfeld
- Klimastiftung Schweiz
- SVGW - Fachverband für Wasser, Gas und Wärme -> Forschungsfond Wasser
- Innosuisse
- Branchenpartner
- Uli Lippuner AG
- Hinni AG

Pilotcustomers:

- St. Galler Stadtwerke
- SINEF (u.a. Stadt Freiburg)
- Stadtwerke Gossau
- Wasser Herisau
- Utilities Arbedo-Castione

Electronic

- Maxon AG (Förderung YEP)

Activities 🔄

Product development and innovation:

- Continuous research - Expansion of prediction models
- Inspections and data analysis:
- On-site inspection - Analysis of existing leaks
- Analysis of water parameters
- Analysis of changes to pipes
- Data management (cloud)
- Support:
- Provision of training
- Technical support
- Sustainability management
- Consultancy regarding results

Ressources 🏠

Expertise in sustainability
Network
Staff

- Broad knowledge
- Similar values
- Diverse backgrounds
- Commitment

Location

Project 🎁

At fluidbot AG, we've developed a small, autonomous robot that can inspect water pipes from the inside.

The robot moves through the pipes, captures high-resolution images and other data, and sends them to our software platform. There, everything is visualized clearly, and potential issues like leaks, corrosion, or blockages are automatically highlighted.

This allows utilities to act early, reduce water loss, and extend the life of their infrastructure—saving money and protecting one of our most important resources: water. In short, we make water infrastructure smarter, safer, and more sustainable.

Relationship, Community ❤️

- Partnership
- Long-term
- Networking events
- Intensive exchange with industry partners and customers for continuous improvement

Channels 📺

Establishing contact:

- fluidbot AG network
 - Partner network (product range expansion)
 - SVGW – Professional Association for Water, Gas and Heat
 - Aqua Suisse
 - IFAT Munich
 - Social
 - By telephone
- Maintaining contact:
- Personal visits
 - Demonstrations of new products
 - Involvement in development processes
 - Social
 - By telephone
 - Mail

Target Groups 👥

Main target groups
Municipal utilities and municipal water suppliers:

- Secure and reliable water supply
- Cost control and efficiency
- Sustainability goals
- Predictive maintenance

Service providers for water management:

- Innovative service offerings
- Competitive advantages

Industrial companies:

- Monitoring of pipe infrastructure
- Risk management
- Predictive maintenance

Secondary target groups:

- Insurance companies:
 - Risk reduction
 - Data-supported decisions
- Consulting companies in the water management sector:
- Strategic consulting for water suppliers
 - Sustainability consulting for water suppliers
- Public administrations and regulatory authorities:
- Regulation and monitoring of standards
 - Promotion of innovation
- Construction companies:
- Data-based building inspections
 - Quality seals

Budget 🌱

We expect total development costs of approximately CHF 1.2 million to bring our solution to market. Each robot costs around CHF 150,000 to build. However, our business model is not based on selling the robot itself. Instead, we provide a data-as-a-service model: our customers only pay for the analyzed inspection data they receive.

The cost of this data is significantly lower than the average damage-related costs that occur when issues like leaks, corrosion, or blockages go unnoticed. Our system helps customers:

- Avoid expensive emergency repairs
- Reduce water loss and associated operational costs
- Plan maintenance more efficiently and predictably
- Extend the lifespan of existing infrastructure
- Minimize service interruptions and public complaints

In short, our solution is not just cost-effective—it pays off by preventing much higher downstream costs while supporting a more sustainable use of water infrastructure.

Impact 🌱

1. Impact: What does your idea do for the climate? How do you measure/verify the impact?

Our solution contributes to climate protection by improving the efficiency and sustainability of water infrastructure. Leaky pipes and undetected damages result in massive water and energy losses every year—especially for treated drinking water, which requires significant energy input for pumping, purification, and distribution.

By enabling early detection of issues and optimizing maintenance, we:

- Reduce water losses, which directly cuts the energy required for water treatment and pumping.
- Minimize unnecessary excavation work, thereby reducing CO₂ emissions from construction equipment and material transport.
- Extend the lifespan of existing infrastructure, lowering the environmental footprint of premature replacements.

We measure our impact by:

- Tracking the volume of water saved per inspection compared to historical loss data.
- Calculating CO₂ savings from reduced emergency interventions and deferred construction.
- Monitoring customer infrastructure performance over time (e.g., leak frequency, maintenance intervals).

2. Scaling/Expansion/Unfolding: How to increase the impact of your project?

To maximize our impact, we pursue the following strategies:

- Partnerships with utilities and municipalities to deploy our solution across regions with aging or at-risk infrastructure.
- Modular system design, enabling adaptation to various pipe sizes and conditions, and making it suitable for both urban and rural networks.
- Data-driven benchmarking, where aggregated insights across systems help utilities prioritize interventions and share best practices.
- International rollout, starting with countries that face similar challenges in water loss and infrastructure aging.
- Integration with climate and sustainability platforms, making our data available for ESG reporting and municipal sustainability planning.

By scaling smart inspection and data use, we help build more resilient, efficient, and climate-friendly water infrastructure—locally and globally.