

SUPPORTING WATER UTILITIES IN
**SECURING DRINKING WATER
QUALITY DURING CLIMATE
CHANGES**

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CEO & Co-founder

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 AQUA ALARM

PROBLEM

RANDOM WATER QUALITY CHECKS & MANUAL DATA ANALYSIS

Only 1 glass out of 60,000,000 glasses of water supplied daily is tested



Over 50% of drinking water quality failures are bacteriological



Failures are detected after consumers are exposed



Public health risk

37% of gastro illness cases originate in water networks. Ref3

Increasing regulatory fines for water utilities

\$50M for a utility serving a 1M population. Mean UK case

Significant increase in utilities operational costs

In the US, total opex to increase by 25%, 2018–2027. Ref 1

Diminishing consumer's trust in tap water quality

Global bottled water market CAGR 8.3%, 2021–2027. Ref 4

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WHY NOW:

'Securing an adequate supply of clean water despite the damaging effects of climate change is one of the world's most urgent challenges.'

World Economic Forum, 2022



Climate
change



Cyber-physical
attacks



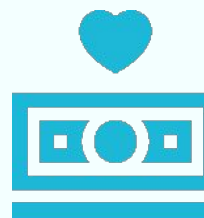
Aging
infrastructure



Stricter
regulations



Rising customer
expectations



Customer
Affordability

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SAFEGUARDING WATER IN REAL TIME

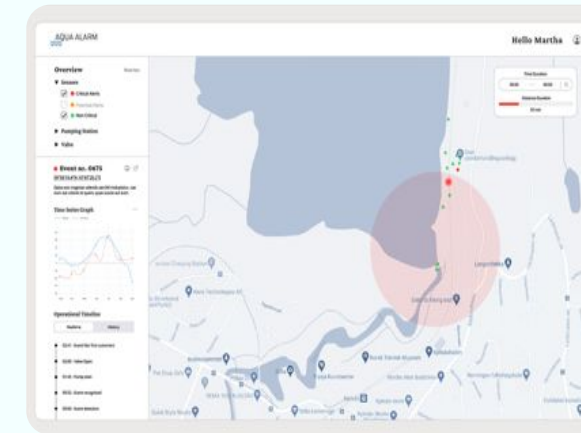
WATER UTILITY MANAGEMENT SOFTWARE SUPPORTED BY NOVEL SENSING + CUSTOMER DATA + RISK AND PREDICTIVE MODELS



Continuous real-time
monitoring*



Real-time anomaly detection
and characterisation



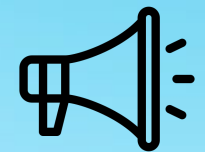
Actionable advice.
Predict and prevent
water quality risks

*Spectrofluorometry technology

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CUSTOMER JOURNEY

Aqua Alarms Solution Delivery



Awareness

A water utility reaches out to Aqua Alarm via their channel partner

“Chlorination costs are huge and rising.

We need data to better steer our chlorination processes.”



Consideration

Problem analysis and identification

Channel partner and Aqua Alarm analyzes and identify the most vulnerable part of the distribution network.

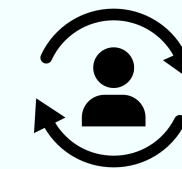


Product / Solution Delivery

Sensor installation and data delivery

3-5 sensors, 2 samplers are installed.

Water Utility receives software with risk and microbial status data and adjusts chlorination levels accordingly.



Customer Satisfaction & Retention

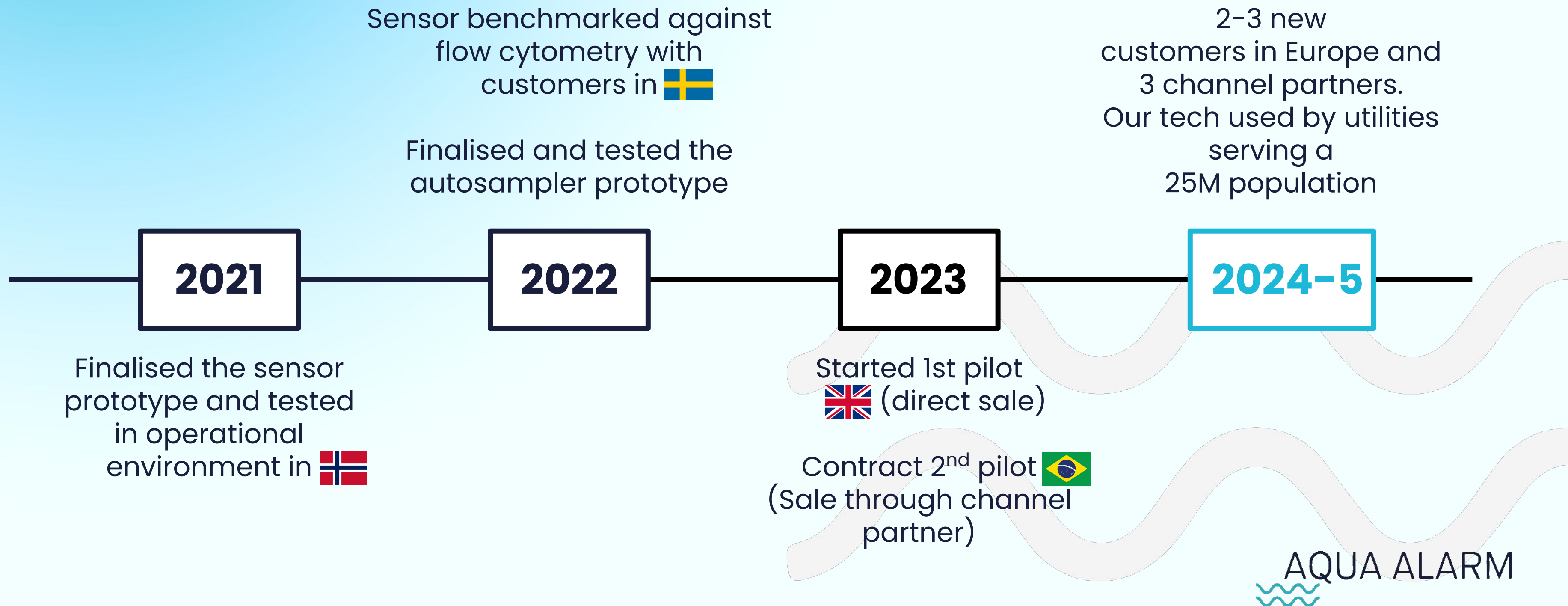
Significant cost savings and follow-up plans

A water utility serving 1 mil population **can save up to \$6M annually with Aqua Alarm charging 1.8Mn** of this in licence fees.

The relation develops as the water utility observes how risk level varies and reaches out to Aqua Alarm again to search for understanding and solutions.

TRACTION

NOW BREAKING THROUGH



OECD market (BOTTOM-UP ESTIMATE)

SOM – OECD 2029

Based on UK numbers
– projected to OECD

Scaling through partnering
with international water
industry tech providers
wanting our software into
their portfolio

\$2,4Bn

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BUSINESS MODEL

VALUE-BASED PRICING

B2B SaaS

\$1.8M

**ARR per 1 million
population served,**
charged as a licence
fee at 30% of savings or
value delivered to
utilities

Reduction in customer
Opex and regulatory
penalties

Our licence fee includes
hardware & software



\$240Mn

ARR total 2029

Sales through 10 global
channel partners

Serving 100 large water
utilities worldwide

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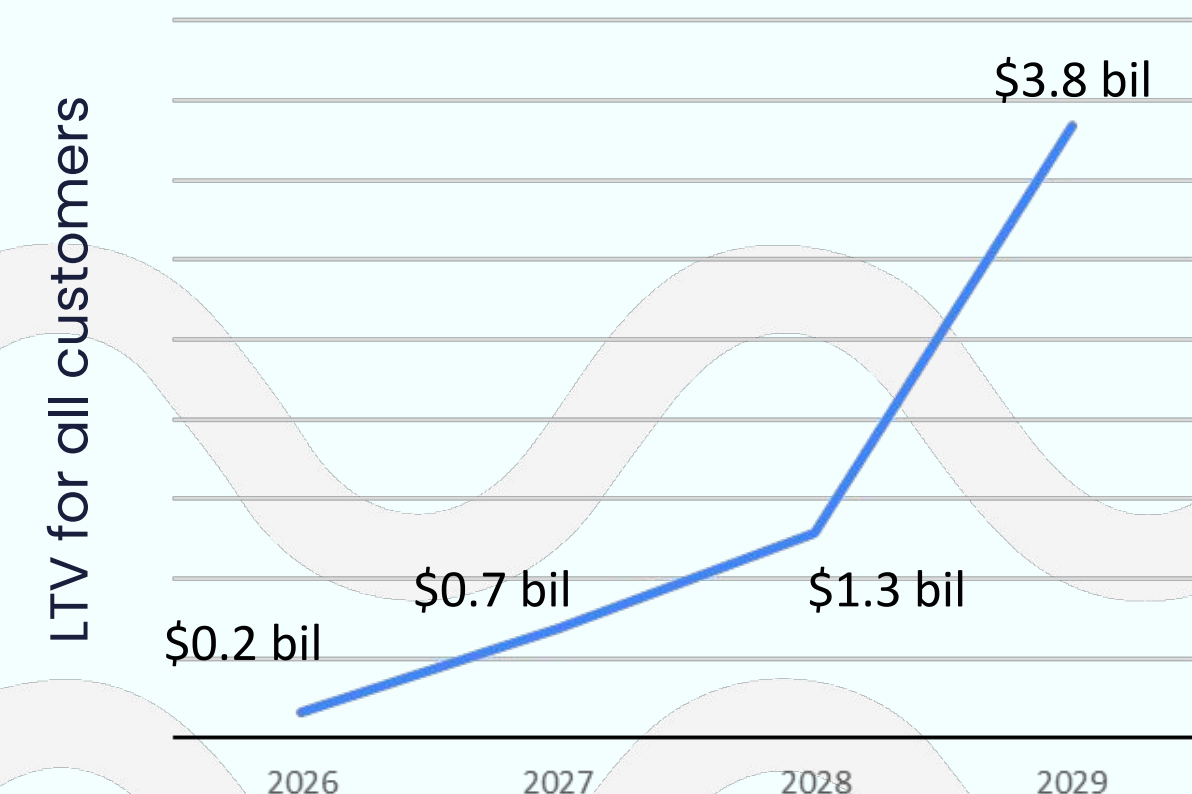
A STRONG BUSINESS MODEL

SOUND ECONOMICS, QUICK GROWTH AND HIGH STICKINESS



Strong gross profit margin for AI supported software alone.	70%
Hardware <ul style="list-style-type: none">- needed data for bacterial status- increase our competitiveness- central for stickiness	-10%
Selling through water industry solution providers / channel partners <ul style="list-style-type: none">- needed for high growth, global scaling and \$1Bn value	-25%
Sum Gross profit margin	35%

Lifetime Values (LTV) quickly reach \$1Bn



Lifetime Value (LTV) is the aggregate value of all customers created during their entire relationships with the company

Assumption:
Average customer lifetime = 15 years

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Competition landscape

WE SEE THE SOLUTION DIFFERENTLY

Low-cost, high-resolution monitoring is crucial, not specificity.
Management insight is what utilities need, not raw sensor data.

Online microbial water quality monitoring technology

Specification & offerings	*Current culture-based manual lab analysis used by water utilities	**TLF (Aqua Alarm sensor)	Flow cytometry	***ATP	Enzyme-based
Specificity ¹	High	Medium	Medium	Medium	High
Time between two consecutive measurements (at best)	2-3 Days	Instant	30 mins	1 hour	1 - 20 hour
Need for consumables and/or producing waste	Yes	No	Yes	Yes	Yes
Capital cost of a unit (£) ²	N/A	Low	High	High	High
Operational cost of a unit in 1 year (£) ³	High	Low	High	High	High
Vendors offering advanced data analytics & software ⁴	N/A	Yes	No	No	No
Business model	N/A	SaaS	Sale or hire	Sale or hire	Sale or hire
Fully automated measurements	N/A	Yes	Yes	Yes	Yes
Suitable for online drinking water network monitoring	N/A	Yes	No	No	No

1 Specificity: Low (no direct microbial measurements), Medium (microbiological activity measurement but no speciation), High (speciation like E. Coli)
2 Capital cost: Low (up to £5,000), Medium (up to £20,000), High (over £20,000)
3 Operational cost: Low (up to £5,000), Medium (up to £20,000), High (over £20,000)
4 Predictive/diagnostics analytics for drinking water supply system management

* Not an online technology - for reference only
** Tryptophan-like Fluorescence
***Adenosine triphosphate



AQUA ALARM CORE TEAM

HIGHLY EXPERIENCED AND COMPETENT BUSINESS/TECHNICAL TEAM



HASSE STOREBAKKEN

CEO & Co-founder

Serial entrepreneur in safety and software solutions for international customers in oil & gas.



DR HOOMAN ARMAND

CTO & Co-founder

Chartered Water and Environmental Manager with PhD in smart water networks and +15 years experience in the water industry.



KETIL A. WIIG

Finance and strategy

35 years of int. experience in strategy, business modelling, & deal structure. 9 years in Silicon Valley. Has been top level manager in Deloitte Norway.



THRON BERG

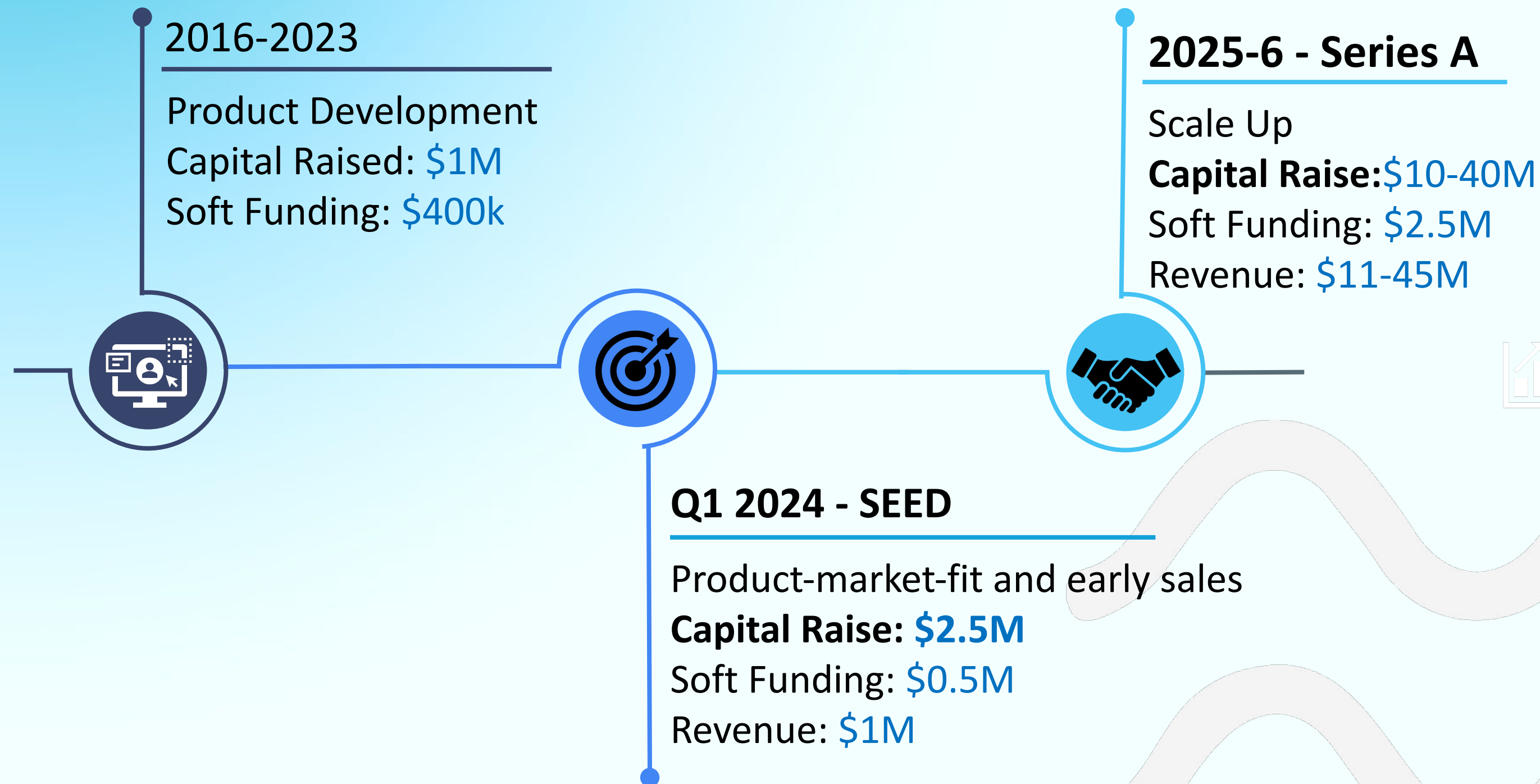
Chairman

Investment advisor at Startup Norway. Retired from Accenture as Partner/Managing Director.



THE ASK

SHORTLY STARTING – SEED INVESTMENTS AND SERIES A PRESCRIPTIONS



USE OF PROCEEDS

PREPARATION FOR INTERNATIONAL SCALING

65% Pilots preparing for commercial contracts
25% From Freedom to Operate to Patent
10% Sales

EUROPE

Select & run x2 more deliveries with high commercialisation potential (negotiations ongoing)

BRAZIL

Run a short pilot at a water utility serving 11 Mn consumers

Delivery through an international channel partner

With a **\$3Mn ARR** potential for technology roll-out after the pilot



UNITED KINGDOM

Run a part paid pilot at a water utility serving 3Mn consumers

With a **\$3.5Mn ARR** potential for technology roll-out after the pilot

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EARLY EXIT OPPORTUNITIES THROUGH CHANNEL PARTNERS FOR MINORITY SHAREHOLDERS

Consultancy
engineering
firms

 **ARCADIS** | Design & Consultancy
for natural and
built assets

 **BLACK & VEATCH**

JACOBS

 **Stantec**

Emerging
software solution
providers

 **wavin**

 **Schneider
Electric**

SIEMENS

 **AUTODESK**

Established
software solution
providers

 **xylem**
Let's Solve Water

 **Bentley**
Advancing Infrastructure

 **suez**

 **VEOLIA**

We are in dialogue with 5 of these
and expect they will buy out
minority shareholders in 3-4 years.

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Join us in providing the world with safe tap water

**HASSE
STOREBAKKEN**



CHIEF EXECUTIVE OFFICER

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[LinkedIn](#)

- Urgent global problem
- Defendable and unique solution
- Has a viable scaling strategy
- A strong core team
- Impressive traction, customers and channel partner

Aqua Alarm will be a major international actor in the water industry!

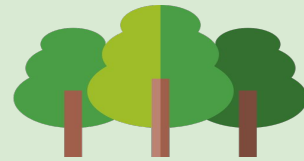
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APPENDIX

Aqua Alarm ESG potential

Our solutions contribute into 7 of UN sustainable development goals

Environment



Carbon Footprint

Reduce greenhouse gas emission related to asset shutdowns and investigations of water quality failures

Resource Management

Reduce disinfectant chemical use and treated water waste due to failures

Plastic Reduction

Reduce bottled water consumption by increasing public trust in tap water quality

Climate Adaptability

Understand & reduce risk of water quality failures imposed by climate change (e.g. changes in water source quality, rise in temperature, increased asset failures)

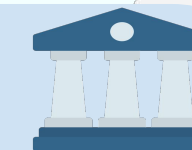
Social



Public Health and Satisfaction

Protect public health from naturally-occurring or un/intentional contamination incidents

Governance



Regulatory Compliance

Enable risk assessment & proactive management, leading to increased compliance & reduced regulatory penalties

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Key Financials, Profit & Loss Statement in \$

Year	2024	2025	2026	2027	2028	2029
ARR Pilot Projects						
UK Water Utility I	190 000	120 000	900 000	3 500 000	3 500 000	3 500 000
UK utility II	140 000	120 000	900 000	2 400 000	3 300 000	6 300 000
Wavin Channel partner Brazil I and II	245 000	430 000	1 295 000	2 940 000	6 940 000	8 940 000
Estimated ARR from new Channel Partners	350 000	2 440 000	7 880 000	35 000 000	70 000 000	220 000 000
Consultancy to Channel partners	45 000	55 000	230 000	2 300 000	2 300 000	2 300 000
Total Revenue	970 000	3 165 000	11 205 000	46 140 000	86 040 000	241 040 000

Total Cost of Goods Sold	938 000	1 700 000	2 800 000	11 000 000	17 000 000	41 000 000
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Operating Expenses

General and Administrative	55 600	650 000	3 831 600	8 469 000	11 469 000	12 469 000
Research & Development	346 000	800 000	2 154 400	2 459 000	2 959 000	3 459 000
Sales & Marketing	55 000	55 000	55 000	55 000	55 000	55 000
Total Operating Expenses	1 394 600	3 205 000	8 841 000	21 983 000	31 483 000	56 983 000

Operating Profit	-	424 600	-	40 000	2 364 000	24 157 000	54 557 000	184 057 000
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Liquidity Covered by

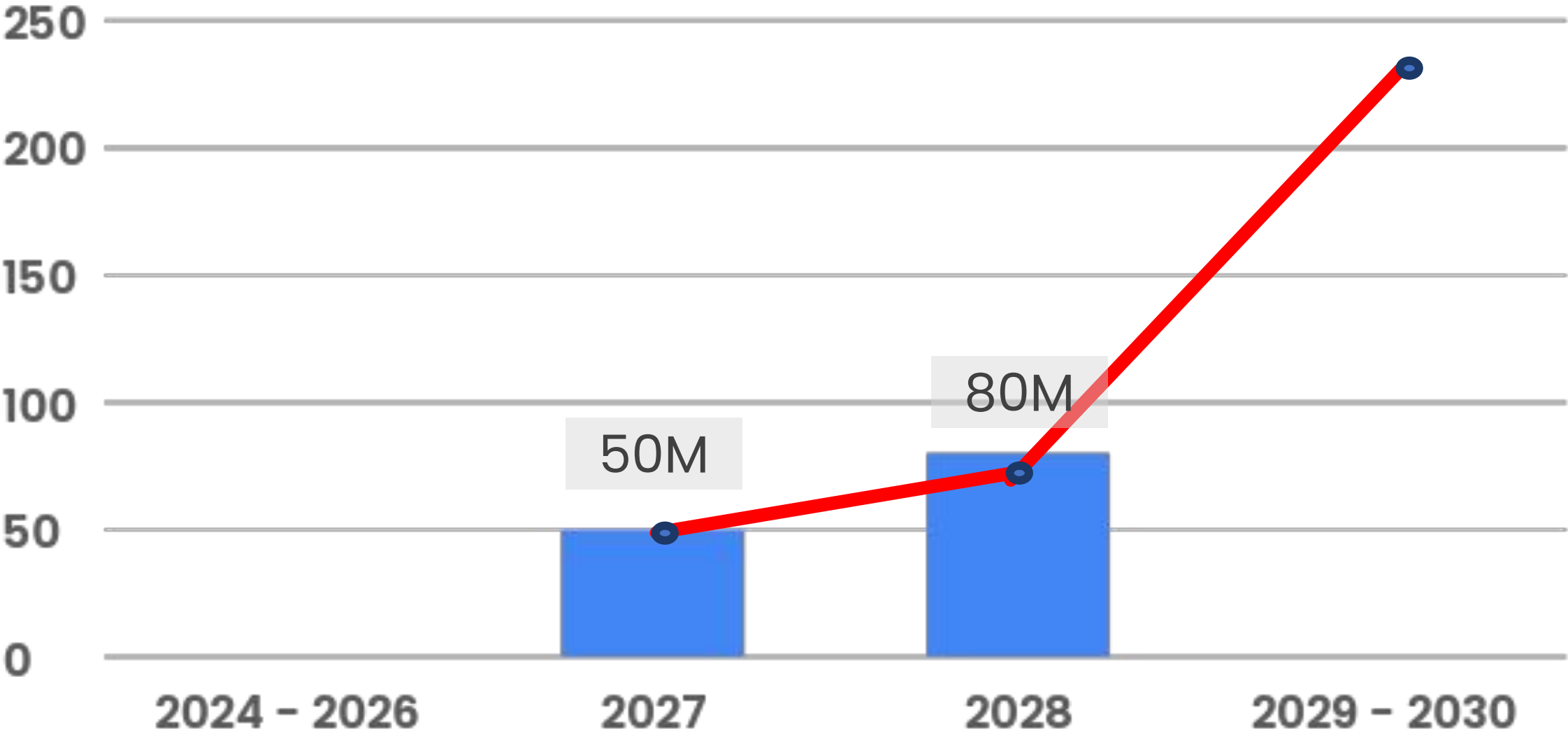
Private Placement	2 000 000		20 000 000			
Norwegian Gvt Guaranteed Bankloan		500 000				
R&D funding / Grants	500 000	500 000	500 000			

Central KPI's

Headcount	15	25	40	50	60	55
Number of channel partners	4	8	10	11	12	12
Number of end customers / water utilities	6	15	60	80	90	100
Number of utilities in our Channel partners	750	1 200	2 000	2 300	2 800	2 800
Life Time Value (ARRx15)	15M	46M	0.2Bn	0.7Bn	1,3Bn	3.8Bn

Early Exit Opportunities

Annual Recurring Revenue (ARR) in millions



Year	2027	2028
ARR \$	50M	80M
ARR Multiple	5x	8x
Company Value	250M	640M

References

1

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2

Allaire M., Wu H., Lall U. (2018) National trends in drinking water quality violations, PNAS 115 (9): 2078–2083

3

Save-Soderbergh M., Bylund J. et al. (2017) Gastrointestinal illness linked to incidents in drinking water distribution networks in Sweden, Water Research 122: 503–511.

4

[BlueWeave Consulting & Research \(2021\) accessed online](#)

5

[ICS-CERT report \(2016b\) via online access](#)

6

<https://www.bluefieldresearch.com/research/the-digital-water-revolution-global-digital-water-market-forecast-2022-2030/>

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