EIC ACCELERATOR

Short Proposal (Step 1)

AquaClean Technologies

Company	AquaClean Technologies
Country	Denmark
Founded	2021-01-01
Employees	12
Sector	Water Technology / Environmental Deep Tech
TRL	TRL 6 → TRL 8
Funding Type	Grant_only
Grant Requested	EUR 2,000,000
Equity Requested	EUR 0

Abstract

AquaClean Technologies ApS (Denmark) has developed AQUACLEAN, a modular boron-doped diamond (BDD) electrochemical reactor that destroys PFAS and pharmaceutical micropollutants in drinking water without chemical inputs, achieving greater than 98% PFAS mineralisation at 0.76 kWh/m3 - 90% lower energy consumption than incumbent electrochemical competitors. The innovation is at TRL 6, validated in a real Danish waterworks by the Danish Technological Institute. The revised EU Drinking Water Directive creates an immediate and binding compliance imperative for approximately 10,000 EU utilities, defining a Total Addressable Market of EUR 2.1 billion. The AQUACLEAN project (24 months, EUR 2,000,000 grant) will scale the reactor from TRL 6 to TRL 8 through full municipal-scale engineering, deployment of a 5,000 m3/day pilot at a partner EU utility, and obtaining drinking water contact material certification. The project will deliver the first commercially certified, chemically-free PFAS destruction system for European drinking water utilities, supported by a dual direct-sales and OEM partnership commercialisation strategy, with Series A private co-investment of EUR 3-5 million projected to follow within 18 months of grant start.

Keywords: PFAS destruction, boron-doped diamond, electrochemical oxidation, drinking water treatment, micropollutant removal, Drinking Water Directive, deep tech, water technology, advanced oxidation, TRL 6 to TRL 8, Denmark, clean water, forever chemicals, modular reactor, EIC Accelerator

1. Technology

Novelty and Breakthrough Nature

AquaClean Technologies has developed the AQUACLEAN reactor, a modular electrochemical advanced oxidation system based on boron-doped diamond (BDD) electrode technology. BDD electrodes generate hydroxyl radicals and persulfate species in situ at the electrode surface, enabling the direct mineralisation of per- and polyfluoroalkyl substances (PFAS) and pharmaceutical micropollutants into harmless inorganic end-products (CO2, F-, SO4 2-, H2O). This mechanism is fundamentally distinct from incumbent approaches such as granular activated carbon (GAC) adsorption, which concentrates PFAS without destroying them, or reverse osmosis, which produces a highly toxic concentrate requiring further treatment. AQUACLEAN destroys the C-F bond irreversibly, producing no hazardous by-product streams and requiring no chemical dosing whatsoever.

The breakthrough resides in three co-innovated engineering advances that have never been combined at municipal scale: (1) a proprietary modular electrode stack architecture that achieves electrode active surface densities exceeding 1,200 m2/m3, dramatically reducing reactor footprint; (2) an adaptive pulsed-current control algorithm that maintains peak radical generation efficiency while preventing electrode fouling, reducing specific energy consumption to below 0.8 kWh per m3 of treated water at PFAS inlet concentrations typical of impacted groundwater (0.1 to 10 µg/L sum-PFAS); and (3) a diamond deposition process developed in partnership with a leading European thin-film laboratory that achieves coating lifetimes exceeding 10,000 operating hours, compared to 2,000 to 4,000 hours reported in academic literature for conventional BDD systems. The combined effect is a system that delivers 90% lower energy consumption per unit of PFAS removed compared to the best commercially available electrochemical competitors (e.g., Aclarity, Nuvoda), and eliminates the PFAS-laden waste streams that GAC and RO produce.

At TRL 6, the AQUACLEAN reactor has been validated in a relevant operational environment: a 500-litre-per-hour pilot module was installed at a Danish waterworks (Vandforsyning Midtjylland, under NDA) and operated continuously for 14 weeks. Results confirmed PFAS sum destruction rates above 98% (from 0.8 µg/L to below the revised EU Drinking Water Directive limit of 0.01 µg/L for PFAS sum), with energy consumption measured at 0.76 kWh/m3. The reactor was also validated against a representative pharmaceutical micropollutant cocktail (diclofenac, carbamazepine, PFOA, PFOS, GenX) achieving >99.5% removal of all target compounds. These results have been independently verified by the Danish Technological Institute (DTI) and are the subject of a peer-reviewed manuscript under review in Water Research (2025).

Deep Tech Description

The AQUACLEAN technology is rooted in electrochemical materials science and advanced oxidation chemistry. Boron-doped diamond is a synthetic wide-bandgap semiconductor that, when used as an anode under appropriate current density, generates quasi-free hydroxyl radicals (·OH) at the electrode-electrolyte interface at an efficiency and density unachievable with conventional metal oxide electrodes (e.g., IrO2, PbO2, Ti4O7). The reaction mechanism involves direct electron transfer and water oxidation at the BDD surface, producing ·OH radicals with a standard reduction potential of 2.8 V vs NHE, sufficient to non-selectively and completely mineralise the most recalcitrant PFAS congeners including PFOS and PFOA,

whose C-F bond dissociation energy (~544 kJ/mol) renders them resistant to biological, UV, and conventional chemical treatment. AquaClean's proprietary contribution is the integration of this materials chemistry into a scalable, stackable modular reactor unit that can be containerised and deployed at existing waterworks infrastructure without civil works, combined with an embedded IoT monitoring platform that provides real-time PFAS destruction efficiency data to utility operators.

Empirical Evidence

The following empirical data substantiates TRL 6 and the breakthrough performance claims of AQUACLEAN:

1. Pilot validation at Vandforsyning Midtjylland (Denmark), 14 weeks continuous operation, flow rate 500 L/h: PFAS sum reduction from 0.82 µg/L to 0.008 µg/L (>98% destruction), verified by accredited laboratory analysis (ALS Denmark, ISO 17025 certified). Energy consumption: 0.76 kWh/m3.
2. Comparative benchmarking study conducted by DTI (report ref. DTI-2024-WT-047, available on request): AQUACLEAN achieved PFAS destruction at 0.76 kWh/m3 versus 6.8 –9.2 kWh/m3 for commercially available electrochemical competitors and versus 1.5–3.0 kWh/m3 for UV/persulfate advanced oxidation, without requiring chemical inputs.
3. Electrode longevity test: accelerated ageing protocol at 2x nominal current density demonstrated electrode stability over equivalent 10,400 operating hours before coating failure, compared to a competitor baseline of 3,200 hours under identical accelerated conditions (internal data, patent-pending).
4. Pharmaceutical micropollutant panel (six compounds including diclofenac 500 µg/L, carbamazepine 200 µg/L, PFOA 2 µg/L): all compounds reduced below analytical detection limits (LOQ) within a single pass at design flow rate.
5. No formation of regulated disinfection by-products (trihalomethanes, haloacetic acids) confirmed by DTI analysis, demonstrating safety of the chemical-free approach for drinking water applications.

IP Strategy

AquaClean Technologies holds and is actively developing a layered intellectual property portfolio designed to protect all core technology layers and create durable barriers to entry:

1. Patent EP23187654.2 (filed August 2023, currently under examination at EPO): covers the modular BDD electrode stack architecture, specifically the electrode spacing geometry, current distribution design, and the associated hydraulic flow distribution manifold. Priority date established. PCT extension filed (PCT/DK2024/050194) covering EU, US, Japan, and Australia.
2. Patent application DK PA 2024 00412 (filed March 2024, national phase): covers the adaptive pulsed-current control algorithm and its integration with real-time electrochemical impedance spectroscopy for fouling detection and automated current modulation. PCT filing planned Q2 2026.
3. Trade secret protection is applied to the proprietary BDD thin-film deposition process parameters (doping concentration profiles, substrate pre-treatment chemistry) developed jointly with the thin-film laboratory partner under a joint development and IP assignment agreement that vests all IP in AquaClean Technologies.
4. A freedom-to-operate (FTO) analysis was conducted in Q4 2024 by IP firm Horten

(Copenhagen), covering 340 patent families in the electrochemical water treatment and BDD electrode space. The FTO analysis concluded with no blocking patents identified for AquaClean's current product configuration. A supplementary FTO review for the US market is scheduled for Q2 2026.

5. The company's IP strategy is designed to align with its phased market rollout: European core claims are prioritised for 2025-2027, with US and Asia-Pacific prosecution accelerated from 2027 onward as commercial activity expands to those geographies.

2. Market

Market Opportunity

The market opportunity for AQUACLEAN is both immediate and structurally driven by binding EU regulation. The revised EU Drinking Water Directive (DWD 2020/2184), transposed into national law across Member States by January 2023, sets a sum-PFAS parametric value of 0.1 µg/L and a total indicative dose (TID) limit of 0.01 µg/L in drinking water. A 2023 European Environment Agency (EEA) assessment estimated that between 20% and 30% of monitored EU groundwater bodies used for drinking water abstraction already exceed the new PFAS sum threshold. With approximately 10,000 municipal drinking water utilities operating across the EU27 serving populations above 1,000 persons (the DWD compliance threshold), the addressable installation base is substantial.

The Total Addressable Market (TAM) for PFAS and micropollutant treatment at EU drinking water utilities is estimated at EUR 2.1 billion annually by 2028, based on EEA contamination prevalence data, average treatment plant capital expenditure benchmarks from the European Water Association (EUR 180,000 to EUR 1.2M per installation depending on flow rate), and an assumed 10-year replacement and service cycle. The Serviceable Addressable Market (SAM) for AquaClean's initial target segment - mid-size waterworks treating 500 to 10,000 m3/day in Denmark, Germany, Sweden, the Netherlands, and Belgium where PFAS contamination is most extensively documented - is estimated at EUR 420 million over five years. The company's Serviceable Obtainable Market (SOM) target for Year 1 to Year 5 is EUR 18 million in cumulative revenue, representing approximately 4.3% of the SAM, achievable through the partnership and direct sales model described below.

Beyond drinking water utilities, the AQUACLEAN platform is applicable to industrial wastewater pre-treatment (semiconductor, firefighting training facilities, food processing using PFAS-containing packaging) and to groundwater remediation at contaminated military and industrial sites, which represent additional market layers totalling an estimated EUR 800 million TAM in the EU alone. These adjacencies provide a clear path to market expansion beyond the initial utility segment without requiring technology re-development.

Go-to-Market Strategy

AquaClean Technologies will enter the market through a two-track commercialisation strategy combining direct sales to water utilities and a technology partnership model with established water treatment engineering firms (EPCs and OEMs).

Track 1 - Direct utility sales (Years 1-2): The company will leverage its existing pilot relationship with Vandforsyning Midtjylland (Denmark) as a reference installation and anchor customer, targeting 3 to 5 additional Nordic utility installations through the DANVA (Danish Water and Wastewater Association) network and equivalent Nordic associations. These installations will serve as demonstration sites for European utility procurement managers. Revenue model: equipment sale (CAPEX, typical contract value EUR 180,000 to EUR 600,000 per installation depending on flow capacity) plus an annual service and electrode replacement contract (estimated 12 to 18% of equipment value per year, generating recurring OPEX-based revenue).

Track 2 - OEM and EPC partnerships (Years 2-3): AquaClean will negotiate white-label and co-branding agreements with two to three established European water treatment companies

(initial discussions underway with a major Nordic water engineering group and a German utility technology firm, names withheld pending LOI finalisation). These partners will integrate AQUACLEAN modules into their own treatment train offerings, providing AquaClean access to their existing utility customer bases and procurement frameworks without requiring AquaClean to build a large direct salesforce. Revenue model: licence fee per unit deployed plus per-electrode-set replacement revenue.

Regulatory acceleration is a key go-to-market lever: the DWD compliance deadline pressure creates a pull-market dynamic in which utilities are actively seeking certified solutions. AquaClean will pursue NSF/ANSI 61 equivalent EU drinking water contact material certification (in process via DHI, Denmark) and will engage with the European Chemicals Agency (ECHA) under the PFAS Restriction proposal process to ensure the AQUACLEAN destruction technology is recognised as a Best Available Technique (BAT) under forthcoming industrial emissions guidance.

Customer Value Proposition

For EU drinking water utilities, the AQUACLEAN system offers a directly quantifiable and compelling value proposition relative to all available alternatives:

1. Regulatory compliance guarantee: AQUACLEAN achieves PFAS sum below 0.008 µg/L, providing a 20% safety margin against the DWD limit of 0.01 µg/L (TID), protecting utilities from regulatory penalties and public health liability.
2. Total cost of ownership (TCO) advantage: Life-cycle cost modelling for a 2,000 m3/day treatment installation over 10 years shows AQUACLEAN TCO of EUR 0.09 per m3 treated, compared to EUR 0.14 per m3 for GAC (including PFAS-contaminated carbon disposal at EUR 1,200 per tonne under EU hazardous waste rules) and EUR 0.21 per m3 for reverse osmosis (including concentrate disposal). This represents a 35 to 57% TCO reduction.
3. No secondary waste streams: Unlike GAC and RO, AQUACLEAN produces no PFAS-contaminated waste requiring specialist disposal, eliminating a significant liability and operational cost for utility operators.
4. Modular, retrofittable design: Units are containerised (ISO 20ft format) and connect to standard utility pipework, requiring no civil works and enabling installation within 4 to 6 weeks, dramatically reducing deployment time versus conventional treatment plant upgrades.
5. Real-time performance monitoring: The integrated IoT platform provides utility operators with live PFAS destruction efficiency data, supporting regulatory reporting and public transparency requirements under the DWD.

Competitive Landscape

The competitive landscape for PFAS and micropollutant removal in drinking water comprises three main technology categories, none of which offers the combination of chemical-free PFAS destruction, low energy consumption, and zero secondary waste streams that characterises AQUACLEAN:

1. Granular Activated Carbon (GAC) - Market leaders: Veolia (Evoqua), Pentair, Jacobi Carbons. GAC adsorbs PFAS but does not destroy them; spent carbon becomes hazardous waste. TCO is high and rising as PFAS-specific carbon disposal regulations tighten. No barrier to regulatory compliance as contaminated carbon is transferred, not eliminated.
2. Reverse Osmosis (RO) / Nanofiltration (NF) - Market leaders: Toray, DowDuPont, IDE

Technologies. Effective at removal but produces a highly concentrated PFAS reject stream (typically 5-10% of feed volume) requiring further treatment or disposal. High energy consumption (3.5 to 6 kWh/m3 total system). Not a destruction technology.
3. Electrochemical oxidation - Direct competitors: Aclarity (USA, Series B funded), Nuvoda (Switzerland, pre-commercial). These companies use BDD or Ti4O7 anodes but have not achieved the energy efficiency or electrode longevity targets required for cost-competitive municipal scale operation. Aclarity's published energy consumption figures range from 4 to 8 kWh/m3; the company has not demonstrated continuous municipal-scale operation in Europe. Nuvoda remains at pilot scale with no commercial installations reported.
4. UV/Advanced Oxidation (UV-AOP) with persulfate or H2O2: Requires chemical dosing (persulfate, H2O2), creating secondary chemical management costs and risks. Effective for some micropollutants but not for the most recalcitrant long-chain PFAS (PFOS, PFOA).

AquaClean's sustainable competitive advantage derives from its proprietary electrode architecture and control algorithm (patent-protected), its independently validated energy efficiency and electrode lifetime data, and its first-mover position in the EU regulatory compliance market, reinforced by reference installations with European drinking water utilities.

3. Team, Financial Needs, Implementation

Team Capabilities

AquaClean Technologies was founded in 2021 by three complementary deep-tech entrepreneurs with directly relevant scientific and commercial expertise in electrochemistry, advanced materials, and water technology markets. Dr. Mette Andersen (CEO, PhD Electrochemical Engineering, DTU 2016, former Grundfos and Danfoss) leads company strategy, investor relations, and utility partnerships. Dr. Lars Kjeldsen (CTO, PhD Materials Science - BDD thin-film, Aarhus University 2015, post-doc at Fraunhofer IAF) leads all electrode materials development, reactor engineering, and manufacturing scale-up, and is the lead inventor on both patent filings. Ms. Sophie Toft (CSO, MSc Environmental Engineering, Copenhagen University 2013, 12 years water sector sales including Grundfos and a Danish water analytics start-up acquired in 2020) leads all commercial, partnership, and regulatory engagement activities. The broader team of 12 includes two electrochemical engineers, one IoT/data scientist, one regulatory affairs specialist (water sector), one EPC-experienced project manager, and three technicians. The team combines the precise scientific expertise required to advance the BDD technology to commercial scale with proven commercial and regulatory capabilities in the EU water utility sector.

Governance

AquaClean Technologies ApS is incorporated as a Danish private limited company under the Danish Companies Act. The Board of Directors comprises the three co-founders and one independent board member with utility sector executive experience (former CEO of a major Danish water utility, appointed 2023). A Scientific Advisory Board comprising two academic electrochemists (DTU, TU Delft) and one environmental regulatory expert (former Danish EPA) provides independent technical and regulatory guidance. The CEO holds executive authority over strategy and commercial decisions; the CTO over technology and IP; the CSO over revenue activities. Decisions above EUR 50,000 require board approval. The company maintains annual IP and data management protocol reviews by external legal counsel (Horten, Copenhagen).

Critical Gaps

AquaClean acknowledges three critical gaps to be addressed during the project: (1) Manufacturing scale-up expertise: transition from pilot-scale to volume production (20 units/year by Month 24) requires a Head of Manufacturing and Process Engineering, to be recruited by Month 3. (2) Multi-jurisdictional regulatory management: scaling certification across Denmark, Germany, the Netherlands, and Belgium requires a part-time senior regulatory consultant to be engaged from Month 4. (3) International commercial coverage: the OEM/EPC partnership strategy (Track 2) is designed to achieve market reach in Germany, Netherlands, and Belgium without requiring a large direct salesforce, mitigating the gap in international business development capacity. On gender balance: the founding team is 67% female (2 of 3 founders, including the CEO); the broader team is 42% female; all future hiring processes will explicitly apply the EIC gender dimension guidance.

Financial Needs Justification

AquaClean Technologies requests EUR 2,000,000 as a grant-only instrument under HORIZON-EIC-2026-ACCELERATOR-01. The total project budget is EUR 2,857,000 (grant: EUR 2,000,000 at 70%; co-funding: EUR 857,000 from company own resources). The grant funds: WP1 reactor scale-up and manufacturing development (EUR 750,000); WP2 municipal utility pilot deployment and 12-month operation (EUR 350,000); WP3 regulatory certification and IP prosecution (EUR 250,000); WP4 commercial development and market preparation (EUR 200,000); personnel for critical hires - Head of Manufacturing and regulatory consultant (EUR 350,000); project management and dissemination (EUR 100,000).

The market failure justification is explicit and documented: the AQUACLEAN system is at TRL 6 with pilot validation but no commercial installations and no drinking water certification. Private water-sector VC investors (evidenced by current Series A discussions) require either a first commercial reference contract or regulatory certification before committing scale-up capital - conditions that can only be achieved through the activities this grant funds. The combination of scale-up technical risk, regulatory certification uncertainty, and water utility procurement cycle lengths (18-36 months) creates a financing gap that private capital alone will not bridge at this stage. The EIC grant is the precise instrument designed to fill this valley of death. The company has demonstrated early investor traction (EUR 1.2M seed, 2023, Nordic Eye VC and Danish Green Future Fund) and is in active Series A discussions (EUR 3-5M target, conditional on pilot completion and certification). EIC grant success is expected to catalyse Series A closure within 12-18 months of grant start.

Investor Traction

Seed round: EUR 1.2 million closed Q1 2023, led by Nordic Eye Venture Capital (Denmark) with co-investment from the Danish Green Future Fund. Pre-money valuation: EUR 3.8 million. Seed capital used for TRL 5 to TRL 6 advancement, pilot validation, core patent filings, and commercial team build-out. Remaining undeployed seed capital of EUR 380,000 committed as partial EIC co-funding. Series A: preliminary discussions underway with a Nordic cleantech VC and a European utility-backed corporate venture fund, targeting EUR 3-5 million. Both investors have indicated interest conditional on full-scale pilot completion and drinking water certification - the outputs of this EIC project. The EIC label is expected to significantly strengthen the company's credibility and negotiating position in these discussions. Projected Series A close: Months 12-18 of the EIC project.

Implementation Plan

The AQUACLEAN project runs for 24 months across four work packages. WP1 (Months 1-12): Reactor scale-up and manufacturing development - engineering design, BDD electrode stack fabrication at 5,000 m3/day scale, control system integration, factory acceptance testing, manufacturing process documentation. WP2 (Months 8-24): Municipal utility pilot - installation and commissioning at partner utility, 12-month continuous monitored operation, performance data collection (PFAS destruction, energy, electrode lifetime, fouling), independent third-party performance verification. WP3 (Months 1-18): Regulatory certification and IP - DHI drinking water contact material certification process, ECHA BAT engagement, PCT prosecution (EU, US, Japan, Australia), FTO update for US market. WP4 (Months 6-24): Commercial development - utility customer development programme, EPC

partnership negotiations, Aquatech Amsterdam and WEFTEC participation, sales materials production. Key risks and mitigations: electrode fouling at municipal scale (mitigated by adaptive pulsed-current algorithm validated at TRL 6 and dedicated fouling protocol in WP2); permitting delays for pilot site (mitigated by early regulatory engagement in WP3 from Month 1 and parallel pathway via utility partner's existing operating licence); long utility sales cycles (mitigated by dual Track 1/Track 2 commercial strategy and early LOI development from Month 6).

Key Milestones

ID	Milestone	Target Date	Description
MS1	Mark II Reactor Engineering Design Completed	Month 4	Full engineering design package for the AQUACLEAN Mark II reactor at 5,000 m3/day municipal scale completed, reviewed by external electrochemical engineer, and approved for fabrication. Includes electrode stack design, hydraulic layout, control system architecture, and containerisation specification.
MS2	Head of Manufacturing Recruited and Onboarded	Month 3	Recruitment and onboarding of Head of Manufacturing and Process Engineering to lead WP1 electrode stack volume production activities and establish manufacturing quality management system.
MS3	Mark II Reactor Factory Acceptance Test Passed	Month 10	AQUACLEAN Mark II reactor (5,000 m3/day capacity) assembled, integrated, and passed factory acceptance testing at AquaClean's facility in Denmark. Performance benchmarks: PFAS sum destruction >98% at design flow rate, energy consumption <0.85 kWh/m3, verified by internal testing with DTI witness.
MS4	Municipal Utility Pilot Installed and Commissioned	Month 12	AQUACLEAN Mark II reactor installed and commissioned at the partner EU utility site (target: Waterschap Brabantse Delta, Netherlands, or equivalent). Site acceptance test passed. Continuous monitored operation commenced.
MS5	Drinking Water Contact Material Certification Obtained	Month 18	EU drinking water contact material certification (DHI protocol or equivalent national certification in at least one target market) obtained for the AQUACLEAN Mark II reactor, enabling formal inclusion in utility procurement processes.
MS6	Independent Pilot Performance Verification Report Published	Month 22	12-month pilot operation performance data independently verified by accredited third party (e.g. DTI or equivalent). Report confirms PFAS sum <0.01 µg/L, energy <0.85 kWh/m3, electrode lifetime >9,000 hours equivalent, no regulated disinfection by-products detected. Report used as primary commercial reference document.
MS7	Minimum 3 Utility LOIs and 1 EPC Framework Agreement Signed	Month 24	At least three signed Letters of Intent from EU drinking water utilities for post-project AQUACLEAN installations, and at least one signed framework agreement with an EPC or OEM partner for integration of AQUACLEAN modules into their product portfolio. These commercial outputs demonstrate market readiness and underpin the Series A fundraise.

Video Pitch Outline (3 minutes)

Role	Name & Focus
Speaker 1	Dr. Mette Andersen, CEO - Problem, regulation, and company introduction (0:00 - 1:00)
Speaker 2	Dr. Lars Kjeldsen, CTO - Technology breakthrough and validation evidence (1:00 - 2:00)
Speaker 3	Ms. Sophie Toft, CSO - Market opportunity, traction, and funding ask (2:00 - 3:00)

[0:00 - 1:00 | Dr. Mette Andersen, CEO] Open with the regulatory and public health reality: PFAS - the so-called forever chemicals - contaminate the drinking water of tens of millions of Europeans. The revised EU Drinking Water Directive has set legally binding PFAS limits that most existing treatment technologies cannot meet without generating toxic waste or consuming enormous energy. AquaClean Technologies has solved this problem. We are a Danish deep-tech SME and we have developed AQUACLEAN: the first modular electrochemical reactor that destroys PFAS and pharmaceutical micropollutants completely - no chemicals, no waste streams, and at a fraction of the energy cost of any competing technology. We are asking the EIC to help us scale this breakthrough to every European utility that needs it.

[1:00 - 2:00 | Dr. Lars Kjeldsen, CTO] Our reactor uses boron-doped diamond electrodes to generate hydroxyl radicals that break the carbon-fluorine bond in PFAS - the strongest bond in organic chemistry - irreversibly and completely. This is not incremental improvement. Our independently validated pilot data, verified by the Danish Technological Institute, shows 98% PFAS destruction at 0.76 kilowatt-hours per cubic metre - nine times more energy efficient than our nearest electrochemical competitor. Our electrode stacks last over ten thousand operating hours. We hold two patent filings with PCT coverage and a clean freedom-to-operate position. We are at TRL 6, proven in a real Danish waterworks. The EIC grant takes us to TRL 8, full municipal scale, certified, and commercially ready.

[2:00 - 3:00 | Ms. Sophie Toft, CSO] The market is EUR 2.1 billion and it is being created right now by regulation. Ten thousand EU utilities must comply by law. Our business model is equipment sale plus annual service contracts - predictable, recurring revenue. We have a seed round of EUR 1.2 million from Nordic Eye VC and the Danish Green Future Fund. We have a pilot reference customer, two Series A investors in discussion, and a partner utility in the Netherlands ready for our first municipal-scale installation. We are requesting EUR 2 million in EIC grant funding to complete our municipal pilot, obtain drinking water certification, and sign our first commercial contracts. With EIC support, AquaClean will be the European standard for PFAS-free drinking water.