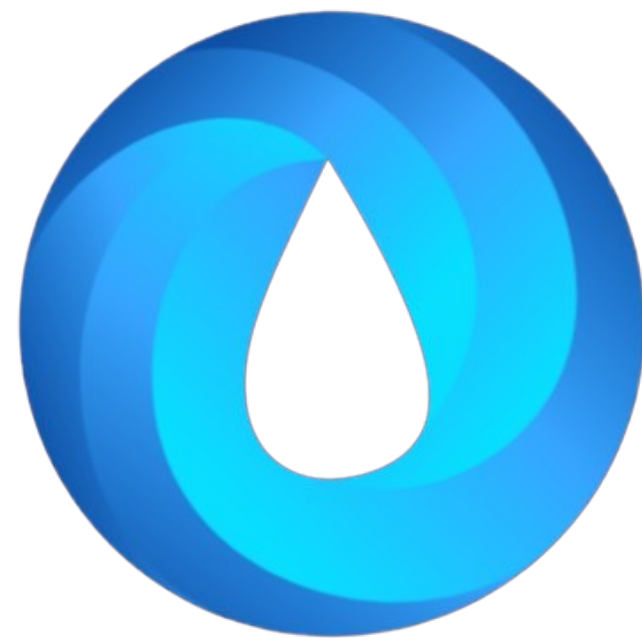
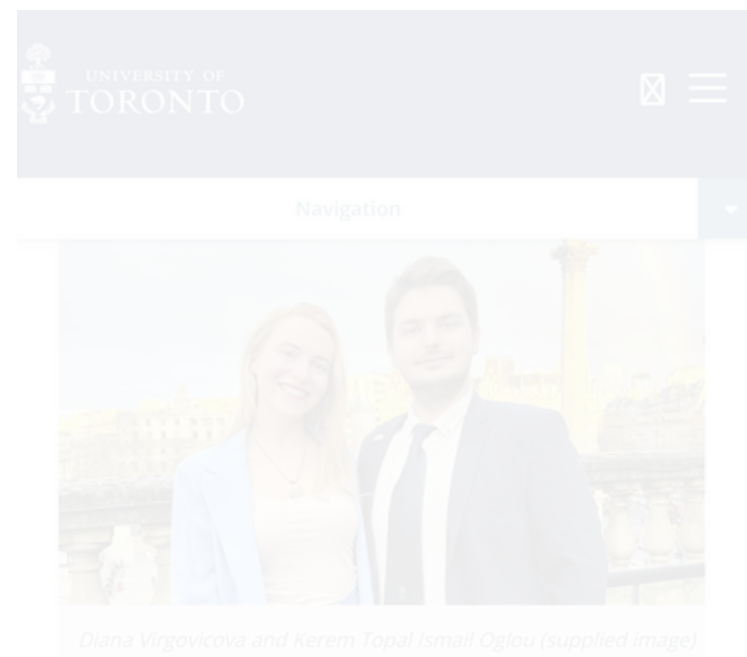


AWS Program Funds Proof-Of-Concept Efforts Of 4 Climate Startups

Anne Field Contributor @



Xatoms

AI と光による次世代の水浄化

Purifying the world's water using AI & light.



Business co-founded by Ivey student wins Startupfest, named Hult Prize finalist

Aug 7, 2024



betakit Canadian Tech & Startup News

With \$3-million pre-seed round, Xatoms launches pilot projects to purify water with quantum chemistry

BY ISABELLE KIRKWOOD / MAY 7, 2024

XATOMS IS PLANNING A QUANTUM LEAP TO CLEAN THE WORLD'S WATER

Mining water treatment: Photocatalysis could redefine risk and resilience



\$400B

水処理および排水処理に対する世界全体の支出額

global spent on water and wastewater treatment

>80%

産業排水は未処理のまま排出

industrial wastewater is discharged untreated.

200+ 種類

2015年以降、新興汚染物質が増加

new emerging contaminants increasing since 2015.

革新的な光触媒技術：数分で水を浄化

Innovative Photocatalyst: Purify Water in Minutes



知的財産 (IP) は100% Xatomsが保有
IP 100% Owned by Xatoms

Xatoms は「光」で水を浄化します

Xatoms Purifies Water Using Light



汚染された水
Contaminated
Water

Xatoms 光触媒
Photocatalyst

**あらゆる光源
(LED)**
Any Light Source
(LED)

安全な水
Safe Water

Xatoms の AI 主導型材料開発は、 高速・低コストで、新興汚染物質にも柔軟に対応可能

Xatoms AI-Driven Discovery: Efficient, Low-Cost, and Built to Keep Up With Emerging Contaminants

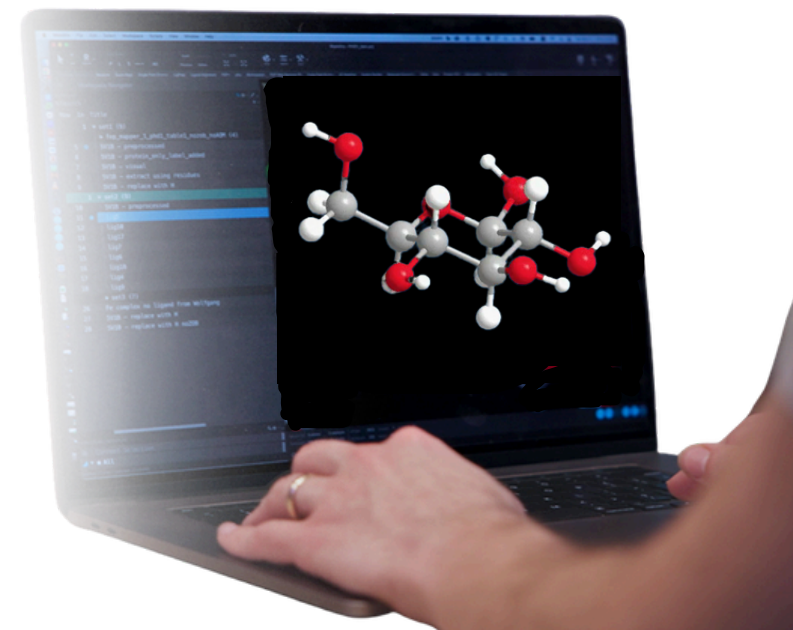
従来の材料開発 Traditional Method

- ✗ 研究室での開発に 2~10年
- ✗ 候補材料は ランダムに選定
- ✗ 失敗の繰り返し
- ✗ 高コスト・低速な改良プロセス

- ✗ 2-10 yrs in lab
- ✗ Random candidate selection
- ✗ Repeated failures
- ✗ High cost and slow iteration



Xatoms のアプローチ Xatoms Method



AI × 量子化学による材料発見
AI & Quantum Chemistry

New Materials

汚染物質を除去 Removing Contaminants



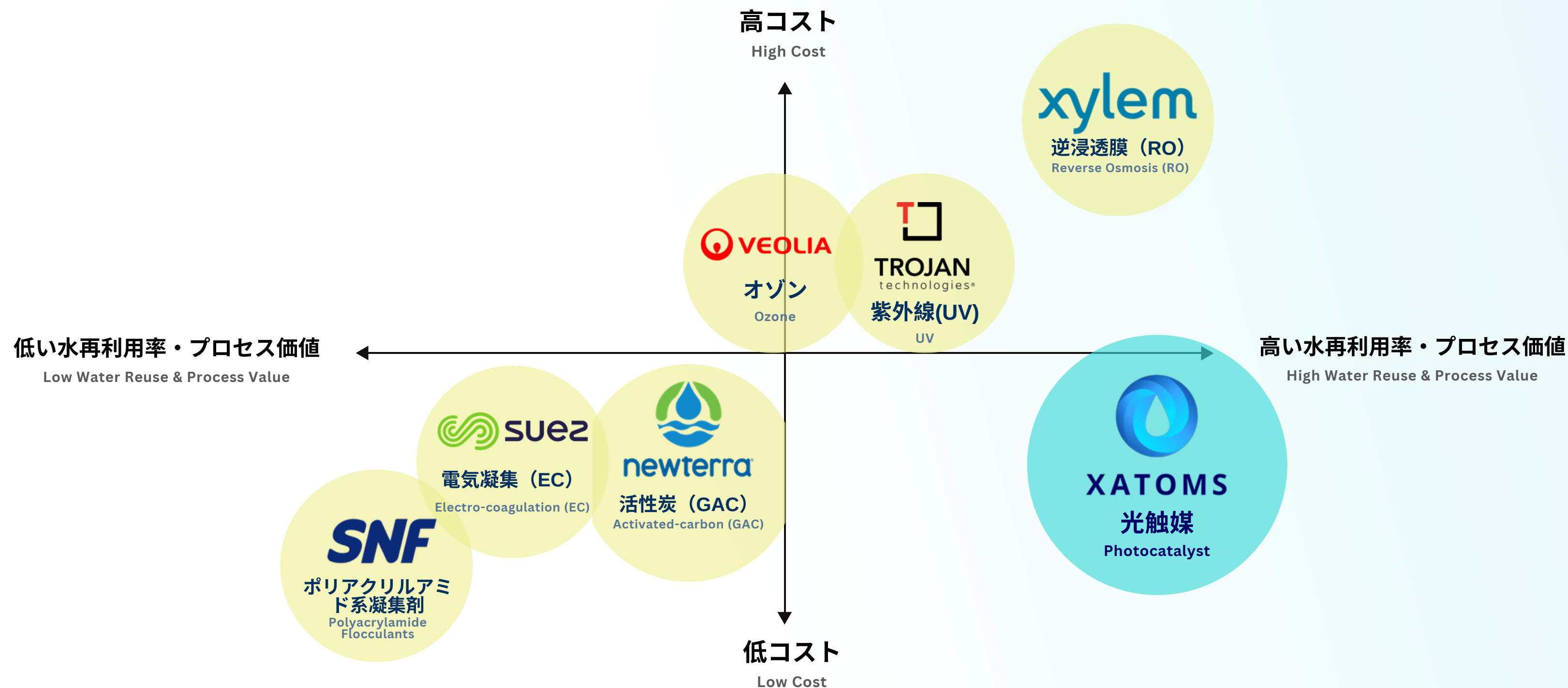
処理前の汚染水
Polluted Sample



Xatoms光触媒処理後
After Photocatalysis

Xatoms と従来の三次処理技術の比較

Xatoms vs Conventional Tertiary Treatments



従来手法 Conventional methods

RO は最大75%の水を濃縮排水として無駄にする
RO wastes up to 75% of water as concentrate
UV は細菌を殺すのみ — COD・染料は残存
UV only kills bacteria - COD and dyes remain
EC・GAC は汚染物質を移すだけで分解しない
EC & GAC transfer contaminants, don't destroy them

Xatoms の 優位性 Xatoms advantage

- ✓ 汚染物質を移すのではなく分解する
Destroys contaminants, not transfers
- ✓ 低消費電力・低コストのLEDランプ
Lower energy consumption and lower cost LED lamps
- ✓ 二次廃棄物（汚泥）が発生しない
No secondary waste streams (no sludge)
- ✓ 汚染物質ごとにAIで最適化
AI-optimized per contaminant

顧客ニーズに応じた水処理ソリューション

Customized Water Treatment Solutions for Clients' Needs

1

エンジニアリングチームとの協働
Collaborate with engineering teams

現場ごとの課題、運転条件、目標値を正確に把握
Understand clients' unique challenges, site conditions and goals

2

最適化されたソリューション提供
Deliver tailored solutions

最も困難な水処理課題を解決し、
ESG目標達成を支援
Designed to solve your toughest water issues and support ESG targets



技術ロードマップ：対象汚染物質の拡大

Technical Roadmap: Contaminant Expansion

現在の重点 / Current Focus
染料・有機物
Dyes & Organics



市場インサイ

- 米国内に12,700以上の工場
12,700+ U.S. mills
- 罰金：1日あたり \$2.5K~\$50K
Fines: \$2.5K-\$50K/day
- 規制圧力が高い
High regulatory pressure

主な汚染物質 KEY CONTAMINANTS

BOD

COD

合成染料

将来の展望 / Future Horizon
新興汚染物質
Emerging Contaminants



新興の脅威

- PFAS関連物質を4000種類以上特定
4000+ PFAS variants identified
- 人口の99%から検出
Present in 99% of population
- 浄化コスト：推定 \$175B 超
Cleanup cost: Est. \$175+B

主な汚染物質 KEY CONTAMINANTS

PFAS

VOCs

6-PPDQ

シアン



事例研究：染料・有機物

CASE STUDY FOR DYES & ORGANICS:

繊維工場

Textile Mills

800+ mg/L

COD濃度が上限を超過

COD Levels Exceed Limit

\$40,000/year

規制による罰金

Regulatory Fines

1,000 m³/day

排水流量・排出量

Flow & Discharge Rate



✓ COD濃度を自治体の課徴金基準である800mg/L未満まで低減

Reduces COD levels below 800mg/L municipal surcharge threshold

✓ COD・BOD・色度を含む複合的な汚染物質を除去

Removes complex contaminants including COD, BOD, and colour

✓ 水とエネルギーの使用量を削減

Reduces water & energy use

✓ 罰金と処理コストを削減

Lowers fines and treatment costs

充実した顧客パイプライン

Strong Customer Pipeline

商談中
Engagements

契約
Contracts



繊維

Textile



新興汚染物質

Emerging Contaminants



Government of Canada



TOKYU LAND CORPORATION



研究パートナー
Research Partners



THE UNIVERSITY of
NEW ORLEANS



日本での実績

Our Traction in Japan



東京プラグアンドプレイで登壇

Pitching at Plug and Play Japan — Tokyo, Jan 2026

GREEN VALLEY SHIBUYA

採択企業

Selected Startup

Tokyu Land × Tokyo Met. Gov.



東急不動産



NRI

×



東京都

TOKYO SU TEAM

ACCELERATOR SUPPORT

アクセラレーター

Accelerator Partner

Global innovation platform

PLUGANDPLAY

JAPAN MARKET ENTRY

市場参入支援

Market Entry Support

Japan trade promotion agency

JETRO

Japan External Trade Organization

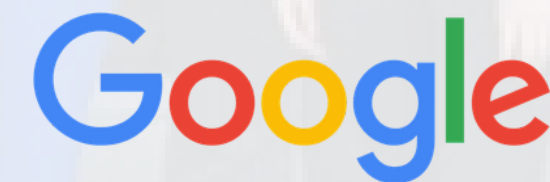


TEAM CANADA
TRADE MISSION
TO JAPAN



Xatoms 中核チーム

Xatoms Core Team



Forbes 30 Under 30 選出者およびトップ大学出身者を中心とした国際チーム
Google および AWS の厳選アクセラレータープログラムに採択



水業界で200年以上の知見を結集したアドバイザー

Advisors with 200+ Years of Experience in Water

Tech



Ted Mao
Water Tech Advisor



Lisbeth Kaufman
Compute for Climate & Tech Commercialization



Alain Blais
Xatoms Director



Prof. Madjid Mohseni
Scientific Advisor



Prof. Frank Gu
Industrial Water Purification

Business



Henk Ovink
Water Expert



Patricia Dorne
Go-to-Market Advisor



Felicity Meyer
Deep Tech Commercialization



Tony Redpath
Agtech Commercialization



Harold Gervais
Financial Advisor



40以上のメディア掲載・300万ドル調達

40+ Media Coverage and \$3M Raised

国連「Goal House」公式レポート掲載

Featured by UN Goal House

PURIFYING WATER AT SCALE:

DIANA VIRGOVICOVA AND THE LAUNCH OF XATOMS

GOALS HOUSE
Impact Report 2024

IMPACT SPOTLIGHT:
Purifying Water at Scale

DIANA VIRGOVICOVA
Founder, Xatoms

GOALS HOUSE

An exciting technology start-up in the water and sanitation sector, **Xatoms** deploys quantum chemistry software and AI to discover new molecules that - after the absorption of sunlight or another light source - can clean water of different contaminants.

While **Diana Virgovicova** was inspired to set up the company when she visited Asia as a child and saw river pollution first-hand, her experiences at Goals House have helped transform her business vision into a reality.

After receiving a \$100k scholarship from Goals House attendee **Alexis Ohanian**, Co-Founder, **Reddit** and Founder, **Seven Seven Six**, and becoming a **776 Climate Fellow**, Diana attended a panel event at Goals House UNGA in 2023, featuring **Matt Damon**, Co-Founder, **Water.org** and **Henk Ovink**, Special Envoy for International Water Affairs, Kingdom of the Netherlands. During the Q&A, Diana asked a question about the available technologies in the water space and how they could be deployed more effectively.

Following the event, Henk Ovink invited Diana to meet with him and introduced her to many of his connections in the water industry, including **Tilly Stroo-Smit**, Founder, **Wavemakers United** (a youth-led organisation focused on climate resilience).

With significant partnerships in place, **Xatoms** went on to raise over \$1.5 million and is expected to generate \$1.8 million in revenue in 2025. While the company's water technology has already impacted the lives of 106,000 people through pilots in Kenya, South Africa, and the USA, **Xatoms** has set itself the ambitious target of providing 3.5 million people with clean water by 2028.

In 2023, Diana became Canada's Youth Entrepreneur of the Year, and she and her team have been recognised as part of Forbes 30 Under 30 North America 2025.

プレシードで300万ドルを調達

\$3M Raised

detakit Canadian Tech & Startup News

With \$3-million pre-seed round, Xatoms launches pilot projects to purify water with quantum chemistry

By Madison McLauchlan / June 19, 2025

QUANTACET **Genesis Ventures** **bdc**



Xatoms、世界経済フォーラム年次総会2026にて トップ水イノベーションに選出

Xatoms Named as a Top Water Innovation at the World Economic Forum 2026



カナダ首相マーク・カーニー氏と、イノベーションの未来について意見交換を行いました。

Met with Canadian Prime Minister Mark Carney to discuss the future of innovation.



当社CEOのDianaは、Xylem社CEOのMatthew Pine氏と同じパネルに招待され、登壇しました。

Our Co-founder & CEO, Diana, was invited to speak on the same panel as Matthew Pine, CEO of Xylem.



Xatoms 提案:

- 実排水を用いた共同パイロットのご相談
- 導入検証、商用化、製造スケールアップの検討
- 2026年 Seed ラウンドに向けた連携

メール: shirley@xatoms.com

ウェブサイト: www.xatoms.com

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776 FOUNDATION

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