



MOMENTUM

CLEAN WATER ASSETS

March 2024

CONFIDENTIAL

EVERYONE DESERVES ACCESS TO CLEAN AND SAFE WATER

Content & Summary

Background and Objectives (p.7)

Momentum began shaping their vision for cleaner water in 2006. A decade later, in 2016, they acquired their first key asset. Momentum's approach is unique, combining artificial intelligence with globally scalable solutions and technologies, all supported by a strong intellectual property portfolio.

1. Problem (p.8)

The world faces a looming water crisis with immense consequences for health, agriculture, industry, the environment, and even social stability. Water scarcity, characterized by insufficient access to clean and safe water, is a growing threat across the globe. This includes Europe and even the Netherlands. In fact, the Netherlands currently struggles with some of the poorest water quality in the EU, including a significant issue with PFAS contamination.

2. Solutions (p.25)

The biggest challenge is ensuring everyone has easy access to enough clean and safe water by:

- Developing new water sources
- Improving access and management
- Ensuring water quality

Momentum Clean Water assets focuses on the root of the problem: water quality.

3. Momentum Clean Water Assets (p.28)

With a specialized team and specific investment criteria Momentum Clean Water Assets is building a portfolio of companies focused on:

- AI-powered water solutions.
- Water treatment solutions.

Resulting in two current assets:

- WAIAI: an integrated AI system for water quality management to revolutionize the water sector.
- Sudoc: a producer of a new class of patented chemical molecules that outperforms toxic chemicals, improves water treatment and reduces the climate footprint of key industries.

We actively research and maintain a list of potential ventures and partnerships.

Everyone deserves access to clean and safe water

Background and Objectives

Background

Although water is of vital importance, the availability of proper clean and safe water is becoming increasingly limited due to a growing world population, pollution, and climate change. Momentum began shaping their vision for cleaner water in 2006. A decade later, in 2016, we acquired our first key asset. Our approach is unique, combining artificial intelligence with globally scalable solutions and technologies, all supported by a strong intellectual property portfolio.

In this sector, we focus on the polluter, in particular on decentralized water purification solutions and technology for large consumers; industrial operators who still make permitted but unacceptable discharges. Wastewater discharges should be avoided. Clean water is a scarce resource, and wastewater should be prevented or treated directly on location as much as possible. This is an agreement we want to make and keep with the

appropriate business partners, with whom we can invest in groundbreaking solutions and technologies that prevent contamination of groundwater and surface water.

Objectives

Investing in intellectual property and solutions and technologies for cleaner and safer water in a unique combination of:

- Artificial Intelligence for diagnosing the problem of water pollution and developing better applications for water purification.
- Purifying and preventing polluted water through applied and globally scalable technologies with Intellectual Property.

1. Problem

1. Problem

**A looming water crisis of immense proportions.
Why we must act now to save our water.**

*A secure supply of affordable,
clean and safe water is no longer a guarantee.*

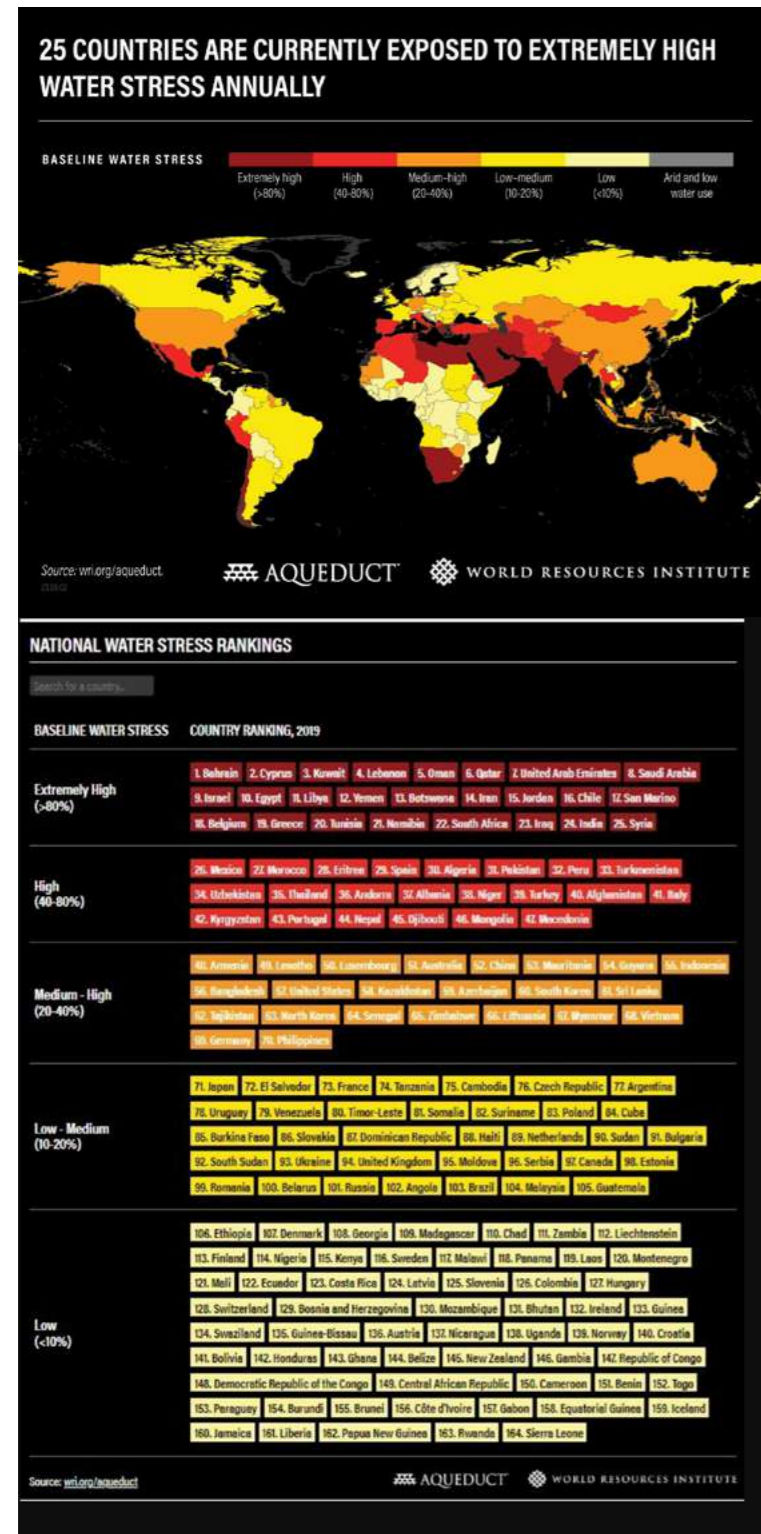
For many of us, access to abundant, affordable, clean and safe water has always been a given. We used to simply turn on the tap without a worry about its source or the future of this precious resource. But this reality is undergoing a dramatic shift as a confluence of threats - including climate change, a growing world population demanding ever more water for drinking and sanitation, manufacturing, and increasing pollution - is pushing our once-reliable water supply towards scarcity and is becoming a global crisis of immense proportions.

*Threats for clean and safe water: climate change,
a growing world population demanding ever more
water for drinking, sanitation, and manufacturing, and
increasing pollution.*

*Currently a quarter of the world's population, living in 25 countries,
faces extreme water scarcity every year.*

Recent data from the WRI's [Aqueduct Water Risk Atlas](#) reveals a critical situation. A quarter of the world's population, living in 25 countries, faces extreme water scarcity every year. This means they're constantly using up nearly all their available water supply. The situation is even more concerning when we consider that half of the global population, roughly 4 billion people, experience severe water stress for at least one month annually.





Water stress trends indicate a significant escalation in the years to come.

The world's water situation is on a precarious path and the outlook is bleak. Global water demand is projected to surge by 20% to 25% by 2050, while the reliability of our supplies dwindles. This imbalance poses a significant threat, particularly in regions like the Middle East and North Africa, where the entire population is expected to face extreme water stress. World Resources Institute (2023) states that even in optimistic scenarios where global temperature rise is limited, an additional 1 billion people are expected to face severe water stress by 2050.

The cascading costs of water scarcity.

The impact of water scarcity extends far beyond a mere lack of water from a tap. The consequences are felt throughout society and the economy, with far-reaching and costly repercussions:

Health

Limited access to clean and safe water for sanitation and hygiene increases the risk of waterborne diseases. A [World Health Organization \(WHO\) Bulletin](#) article from September 2023 highlights the ongoing public health threat from poor water, sanitation, and hygiene (WASH) services. WHO estimates up to 1.4 million deaths annually could be prevented with improved access to these vital services.

Each year, an estimated 7.2 million people get sick, 120,000 are hospitalized and 7,000 die from a waterborne disease (source: CDC)

Agriculture

Drought has a direct impact on agriculture, the backbone of our food supply. Crop failures, disrupted supply chains, and price hikes for essential products are the consequences. This threatens food security and pushes up food prices. According to the Food and Agriculture Organization of the UN (FAO) agriculture faces enormous challenges in the coming decades. By 2050, it will need to produce 60% more food to feed a population of nine billion. A critical factor in meeting this demand will be water. Agriculture is currently the world's biggest water user, accounting for roughly 70% of all freshwater withdrawals globally.

Industry

Dwindling water supplies threaten a diverse range of production processes and business continuity in various sectors. This can lead to factory closures, diminished production output, and shrinking revenue streams.

Climate change is intensifying water scarcity, posing a major threat to economies worldwide. While developed regions like the EU face challenges, rapidly developing economies in Asia, particularly India and China, are especially vulnerable due to their booming industrialization and urbanization, which require significant water resources. The demand for fresh water is expected to be much higher than what's available in just a few years. [By 2030, the world faces a potential water crisis as demand for fresh water is projected to be 40% to 50% higher than available supplies.](#) Experts warn that water scarcity is a critical issue that will impact Asia's entire economy, not just specific industries.

Environment

Water scarcity is a major threat to biodiversity. As habitats dry up due to dwindling water supplies, species disappear, and genetic diversity within populations shrinks, making them more vulnerable. Disrupted ecosystems, where water plays a critical role, can entirely collapse. This cascade of effects disrupts vital natural services like pollination, threatening agricultural yields and the availability of essential raw materials. The environmental consequences are immense and can be extremely costly.

Social unrest

Water scarcity acts as a destabilizing force for entire regions. Limited freshwater triggers cascading crises – conflicts, social unrest, and refugee surges. As people fight for basic needs like water and food, economic hardship and resource competition escalate tensions, leading to violence and displacement. This is particularly concerning in the Middle East and North Africa, already the world's most water-scarce region. Here, a growing population and insufficient renewable water threaten their way of life.

The challenge of water scarcity:

When access, quantity, or quality is insufficient.

Water scarcity can be divided into physical water scarcity and economic water scarcity.

Physical water scarcity

Physical water scarcity occurs when there's simply not enough natural water available to meet all human and environmental needs. This is common in dry regions like Central Asia and North Africa. It can also happen in areas with seemingly abundant water if resources are overused for irrigation or power generation.

Economic water scarcity

Water scarcity isn't always about a lack of water itself. Even with sufficient safe water available, poor management, distribution, and a lack of investment can exacerbate scarcity. This phenomenon is known as economic water scarcity – a situation where people lack the infrastructure or resources to access the water that exists. The United Nations Development Programme identifies economic water scarcity as the most common culprit. While most regions have enough water to meet household, industrial, agricultural, and environmental needs, the problem lies in the lack of infrastructure and resources needed to deliver this water in a readily available way.

Water quality

Beyond availability, water quality is equally critical. Even with sufficient water access, poor quality renders it unusable, posing health risks to humans and harming the environment.

Clean and safe water

Access to safe drinking water, sanitation, and hygiene (WASH) is fundamental for health and well-being. However, simply having clean water isn't enough. Truly safe water meets health standards by being free of harmful contaminants and containing the right minerals for our bodies to function properly.

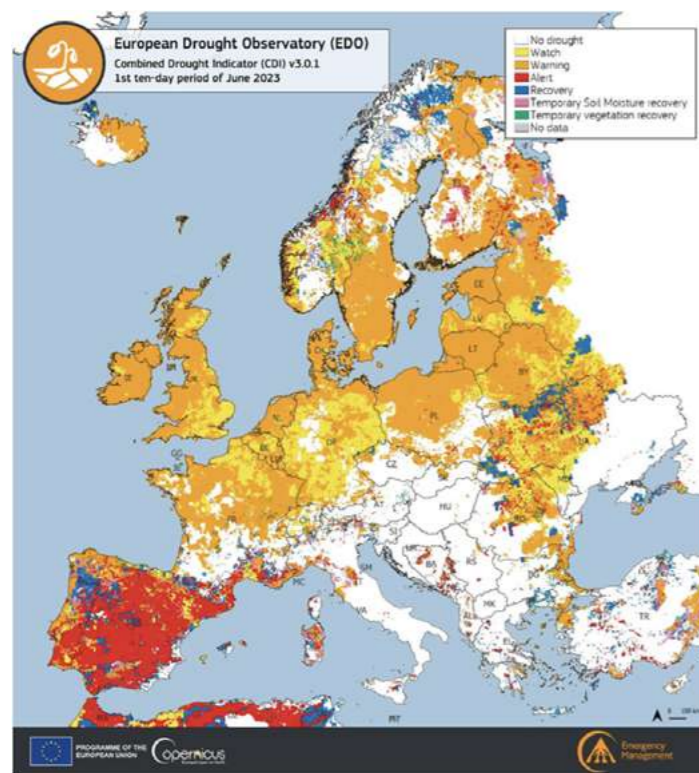
Safe water standards vary by location and are a collaborative effort between governments, regional authorities, and international organizations. These standards are informed by scientific research and public participation. [The World Health Organization \(WHO\)](#) sets

international guidelines that serve as a foundation for national standards, all with the primary goal of protecting human health through science-based recommendations.

Europe dries up: Europe’s water security threatened.

The truth is that water stress and scarcity have also become an increasing threat to Europe in recent years.

For a long time, water stress was a problem that seemed far away from us. We considered it a problem of developing countries, far removed from our comfortable European reality. However, the truth is that water stress and scarcity have also become an increasing threat to Europe in recent years.



Europe is facing a growing problem with droughts and water scarcity. These are no longer uncommon events, and on average, they affect about one-fifth of Europe’s land area and one-third of its population every year according to a report (2021) by the European Environment Agency (EEA). Climate change is expected to worsen this situation, with droughts becoming more frequent, severe, and impactful.

According to Politico, a U.S. based politics focused digital newspaper company, an EU Commission leaked document exposes the bloc’s inadequate preparations for climate change, despite projections of a staggering 7% loss of economic output by 2100. The Commission urges member states to ramp up efforts, highlighting the dangers posed by water shortages. These shortages threaten everything from food production and public health to infrastructure and basic economic activities. Since 1980, droughts have cost the EU an estimated €9 billion a year. Furthermore, increased competition for dwindling water resources could even spark conflicts within and between member states, with existing tensions in Spain and France serving as worrying examples.

The effects of drought and pollution are becoming increasingly visible in the Netherlands as well. The Dutch National Institute for Public Health and the Environment (RIVM) has published a report warning of problems with producing enough drinking water. The report states that without measures, there will be shortages throughout the Netherlands in 2030 while currently shortages are already occurring regionally.

Is water quality the next nitrogen (‘stikstof’) crisis for the Netherlands?

By 2027, the Netherlands must comply with the European Water Framework Directive (WFD), but current efforts fall short. Missing the 2027 deadline could result in significant fines from the European Union, potentially reaching tens of millions of euros annually. Experts warn of a potential crisis similar to the current nitrogen impasse (‘stikstofcrisis’) faced by the Netherlands.

EU’s Water Framework Directive (WFD)

Clean water is the lifeblood of Europe. It sustains our communities, ecosystems, and industries. Recognizing this, the European Union established the Water Framework Directive (WFD) in 2000. This landmark legislation has become the cornerstone of water protection across Europe.

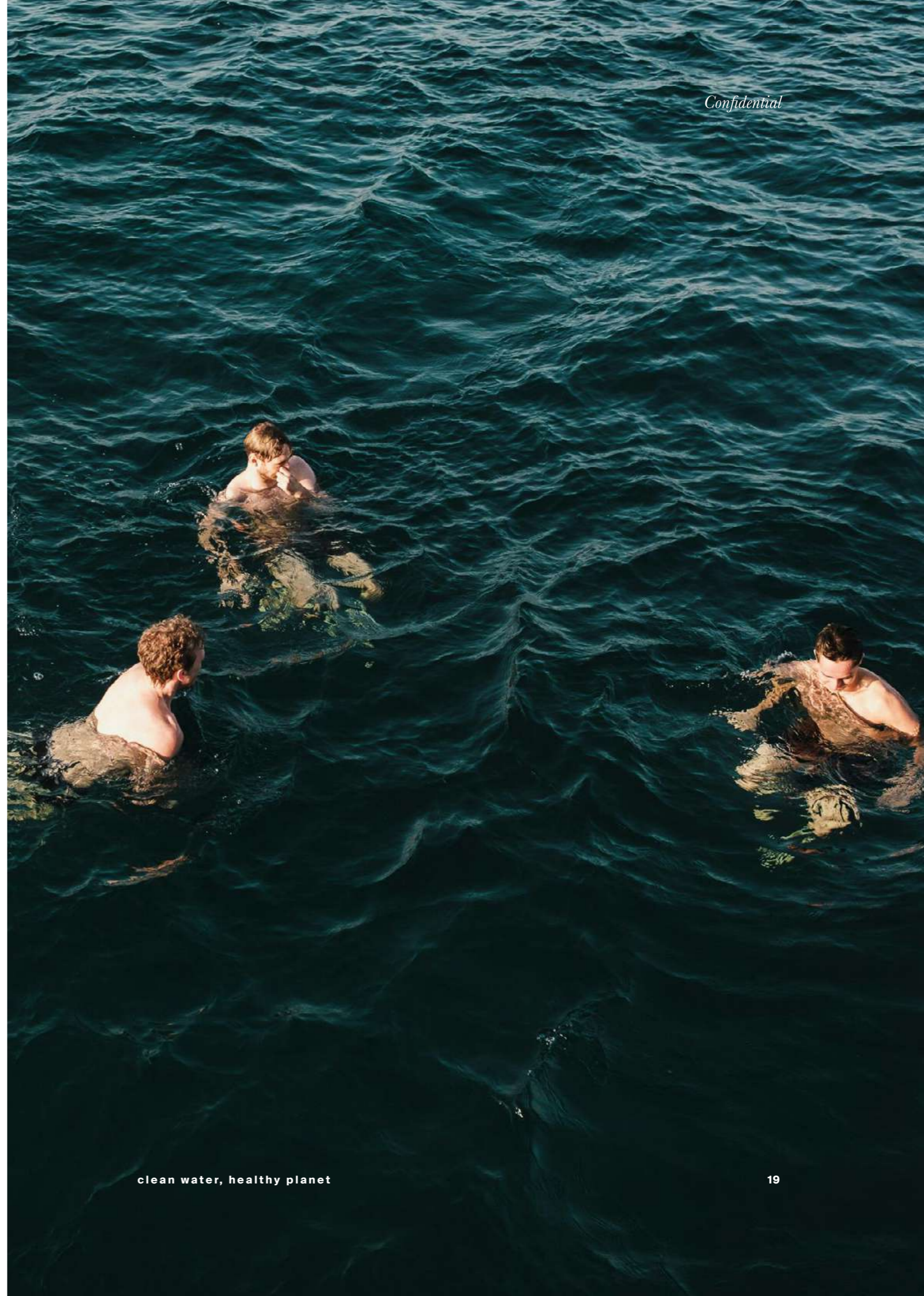
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The WFD takes a comprehensive approach, encompassing rivers, lakes, groundwater, and even coastal waters. Its ambitious goal: to achieve “good ecological status” and “good chemical status” for all these water bodies by 2027.

What does this mean? Good ecological status translates to healthy ecosystems teeming with diverse plants and fish. Good chemical status signifies minimal pollution from harmful substances.

So how will Europe achieve this vision? The WFD empowers member states with River Basin Management Plans (RBMPs). These plans act as roadmaps, detailing how each region will manage its water resources holistically, across entire river basins. Regular monitoring of water quality and setting strict pollution limits are crucial parts of this strategy.

To support the WFD, two “daughter directives” were created. One focuses on safeguarding groundwater, while the other tackles surface water quality. The WFD also maintains a prioritized list of harmful substances that require close monitoring and control. These lists and quality standards are constantly reviewed and updated to reflect the latest scientific understanding.



The Netherlands swimming in trouble
EU's worst water quality.

Wageningen World magazine by Wageningen University & Research (WUR) in 2022, highlights the concerning state of water quality in the Netherlands. With only 1% of its waters classified as “good,” the country faces the very real possibility of failing to meet the European Water Framework Directive (WFD) by the 2027 deadline.



The Netherlands has been struggling with water quality issues for over 15 years, consistently receiving low marks in reports. While some progress was made in the 1980s with improved water treatment and manure management, recent years have seen stagnation and even regression. Agriculture, sewage treatment plants, industry and traffic all contribute to the pollution and poor water quality in the Netherlands.

Factors contributing to this decline include:

- Increased agricultural emissions of nitrate and phosphate.
- The presence of new industrial pollutants not previously monitored.
- Legacy pollutants like polycyclic aromatic hydrocarbons (PAHs) from past industrial activity.
- Micropollutants like PFAS and microplastics entering waterways.

PFAS: the forever chemicals

Europe grapples with widespread PFAS pollution.

Per- and polyfluoroalkyl substances (PFAS), also known as “forever chemicals”, are man-made chemicals grabbing headlines due to their extreme persistence in the environment.

PFAS are found in a wide range of everyday products due to their unique properties like water and stain resistance. Some common applications include:

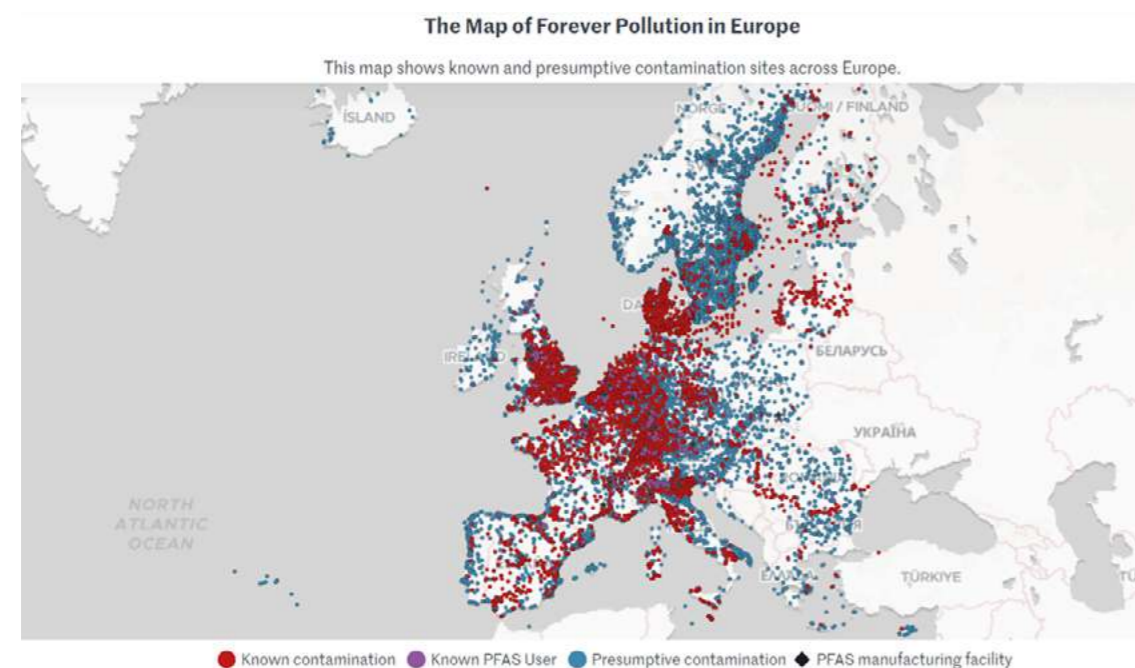
- Non-stick cookware
- Food packaging (including pizza boxes and microwave popcorn bags)
- Stain repellents for clothing and carpets
- Firefighting foams
- Cleaning products

This widespread use contributes significantly to PFAS contamination. These chemicals take decades or even centuries to break down, accumulating in our bodies and the environment over time. This bioaccumulation effect allows PFAS to reach dangerous concentrations within animals and humans, potentially leading to a number of health problems including cancer, thyroid issues, and even birth defects. PFAS contamination isn't a distant threat; it's a global issue detected in drinking water sources worldwide.

The growing public concern about PFAS contamination is reflected in recent legal actions. In the Netherlands, [a class-action lawsuit is being filed against the government regarding PFAS contamination in soil](#), highlighting the potential for legal action to hold polluters accountable.

Europe and the Netherlands: A closer look.

Similar to the global trend, Europe faces challenges in addressing PFAS contamination. The recently updated European Drinking Water Directive sets stricter limits on PFAS levels in drinking water, but effective monitoring and treatment solutions are crucial for



implementation. Conventional water treatment methods are often ineffective, and while advanced technologies like activated carbon filtration or reverse osmosis show promise, they can be expensive and have limitations.

Case Study: The Netherlands

[Recent research in the Netherlands](#) revealed widespread PFAS contamination in both surface water and groundwater sources. While current drinking water meets EU standards, some locations exceed safety thresholds set by the European Food Safety Authority (EFSA). This highlights the need for stricter regulations, improved source protection, and potentially advanced treatment methods. Dutch authorities are working on removing PFAS from water sources and advocating for a Europe-wide ban to prevent future problems.

Data Gaps and the Need for Action

Although [a recent map by Le Monde](#) provides valuable data on PFAS contamination levels in Europe, significant data gaps remain. With only twenty of the thousands of PFAS substances regulated in drinking water production, there's a high chance other types simply haven't been measured yet. This lack of comprehensive data makes it difficult to assess the true scope of the problem. Addressing PFAS contamination effectively requires a multi-pronged approach, including stricter regulations, improved monitoring, and the development of more effective and affordable treatment solutions.

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2. Solutions

2. Solutions

Our biggest challenge is ensuring everyone has easy access to enough clean and safe water.

Although water scarcity presents a growing challenge, we can overcome it through a comprehensive three-pronged approach. Simplified, these efforts focus on:

- **Developing new water sources:** exploring and implementing solutions to increase the overall amount of available water.
- **Improving access and management:** enhancing access to existing water sources and implementing better management practices for sustainable use.
- **Ensuring water quality:** making sure water meets all water quality standards, suitable for all our daily needs.

Momentum Clean Water assets focuses on the root of the problem:

Water quality

Momentum believes that everyone deserves access to clean and safe water, and is committed to make this a reality.

The mission is clear: invest and develop solutions that significantly increase the availability and supply of clean and safe water.

In the fight against water scarcity, Momentum Clean Water Assets takes a strategic approach by focusing on water quality, a root cause of the issue.



3. Momentum Clean Water Assets



3. Momentum Clean Water Assets

For Momentum two focus areas within those solutions have been identified: leveraging data for AI-powered water solutions, and developing advanced water treatment technologies.

Data: AI-powered water solutions, a game-changer.

The water sector faces a critical challenge: maintaining and improving water quality. While historically cautious in adopting new technologies, there's a potential game-changer on the horizon: Artificial Intelligence (AI).

AI is a branch of computer science focused on creating intelligent machines that can mimic human capabilities like problem-solving and learning. Despite the excitement surrounding AI, its practical applications in water management are substantial.

By embracing AI responsibly, a new era of data-driven decision-making may be unlocked. Investing in AI solutions now will position the water sector for a more sustainable, efficient, and resilient future, ensuring clean and safe water for all.

Water treatment solutions.

By purifying water from various sources, treatment allows us to utilize previously unusable water resources for drinking, irrigation, or industrial purposes. This effectively expands the available freshwater supply.

Here are some specific examples:

- **Treating potable water:** ensuring safe drinking water.
- **Treating surface water:** makes potentially contaminated rivers, lakes, or streams viable sources for drinking water or irrigation.

- **Treating groundwater:** allows tapping into aquifers that might contain naturally occurring minerals or bacteria, making them unsuitable for direct consumption without treatment.
- **Treating wastewater:** provides opportunities for treated wastewater reuse for non-potable applications like toilet flushing or irrigation, reducing reliance on freshwater sources.
- **Desalination:** creating freshwater from seawater.

Key investment areas and current standing.

Momentum Capital hit the ground running in early 2024 by forming a dynamic team of relevant specialists dedicated to two key investment areas:

- AI-powered water solutions.
- Water treatment solutions.

Momentum Clean Water Assets innovation team



Martijn van Rheenen



Martijn Dekker



Gilda Amaya



Niels Bot



Roger Berry



Prof. Sampsam Samila



Mels van Rheenen

Martijn van Rheenen
Martijn van Rheenen is founder and majority shareholder of the Momentum Group. Momentum is a family of entrepreneurial impact investors focused on creating social, environmental and financial value, mainly in companies with ambitions for European or global growth. For two decades, Momentum has founded or participated in technology scale-ups and multiple industrial and leisure

projects, in which a total of more than 300 people are employed. This includes lighting innovation company Seaborough, theme park company Momentum Leisure, climate tech company Perpetual Next and the initiation of Momentum Clean Water Assets. Together with its business partners, joint ventures, and co-investors, Momentum has created more than €1 billion in

enterprise value. Martijn and Momentum are committed to continuing to change these sectors for the better, for the benefit of our planet and future generations. Furthermore, Martijn is the initiator of several non-profit initiatives and supports charities, especially focused on youth care.

Martijn Dekker
After a PhD in Physics in 1993,

Martijn joined Philips research and developed simulation tools for display tube design. Next followed assignments in the area of EUV for ASML, Blu-ray disc (together with Sony) and LG.Philips Displays and later in the area of Consumer Lifestyle. Martijn worked for several start-ups and scale-ups such as LED start-ups Lemnis, Carus and Seaborough. Martijn is also an inventor with many patents to his name and author of scientific publications and conference contributions. Early 2020 Martijn became CTO of climate tech company CEG, now part of Perpetual Next where he is still CTO.

Gilda Amaya

Gilda Amaya is a seasoned international legal counsel and business strategist and responsible Director for asset management and reporting at Momentum. With a foundation in law from Universidad Católica Andrés Bello, a Master's in Business Administration from EADA Business School, a Transfer Pricing program from ITC

Leiden University, and Executive Education from IESE Business School, including an Artificial Intelligence for Executives program, Gilda possesses a unique blend of legal acumen and business expertise.

As Senior Legal & Commercial Manager, she lead successfully the restructuring of largest pension fund in Latin America, driving substantial cost-efficiencies across 10 markets, provided counsel to private equity funds and corporate investors on complex legal matters, managing a diverse portfolio of client relationships across industries.

Gilda's professional journey has taken her across the globe, from Venezuela to England and Italy, from Spain to The Netherlands, enriching her understanding of different legal systems and business cultures. With fluency in Spanish, English, and intermediate proficiency in Dutch and Italian, Gilda is adept at engaging with diverse stakeholders to drive sustainable growth and create value in dynamic multicultural environments.

Niels Bot

Niels joined the Momentum Capital organization in 2013 as Head of Research & Strategic Development Support where he played a key role in the strategic rollout of various investments for over ten years. Since the start of 2024, Niels is a Strategic Advisor at Momentum to focus specifically on drinking water technology and AI.

In previous years, he was actively involved in various strategic initiatives from Europe and the United States involving Brazilian offshore and maritime sector developments. While living in Rio de Janeiro, Brazil, Niels also worked for a boutique consultancy and studied in the evening hours at Business University IBMEC-RJ. In the following period, he worked for W&O Supply (PON North America Group) from Houston, Texas. In 2011 and 2012 Niels was active in the maritime sector for another two years. Niels holds an MBA in Shipping & Logistics.

Roger Berry

The more than two decades of experience with investing in and leading companies with a focus on sustainability has prepared Roger for his current role in building a transformative sustainable chemistry company in Sudoc.

Before that Roger was a Partner with TEM Capital, an early-to-growth stage fund manager focused on clean energy and sustainable resources. On behalf of TEM, Roger served as CEO of two businesses including CEG, a company with proprietary clean energy technology (now part of Perpetual Next). Roger was Head of Group Funds and Investor Relations for Climate Change Capital, a fund manager with over \$1.6 billion of assets. Roger is an honors graduate of Harvard University (1990)

Sampsa Samila

Professor of Strategic Management, Academic Director of the AI Institute IESE Business School

Sampsa Samila received his

PhD from Columbia University (New York, NY, USA) and his MSc from Helsinki University of Technology. He has taught previously at Columbia Business School, Brock University, and the National University of Singapore.

At IESE, Sampsa teaches artificial intelligence, innovation strategy, and competitive strategy in a range of programs from MBA and EMBA to senior executives. He is particularly focused on how new technologies like AI enable new business models, the challenges of organizing to develop the capabilities and deliver the value, and how to change the mindset of executives to understand the changes brought by these new developments. He is the Academic Director of the AI and the Future of Management Initiative and leads the AI for Executives open enrollment program for senior executives.

Mels van Rheenen

Especially for Clean Water Assets we've invited young generations to realize impact for their generation and generations to come. Mels is an enthusiastic young man, currently working on water research and water data collection and the applications for AI. He is very much interested in and specializing himself in AI in combination with Clean Water Assets.

Mels is graduate from Ichthus Lyceum, with a soon to come Cambridge English certificate and will continue his studies in AI technologies. As a precise worker, Mels would love to contribute for a better and successful future with the new (AI) technologies.





Portfolio: current and potential assets

Investment criteria

For current and potential investments in the Clean Water Assets portfolio the following investment criteria are key.

- Investing in intellectual property and technology and solutions for cleaner water in a unique combination of:
 - Artificial Intelligence to unlock deeper insights and empower the development of practical, data-driven solutions.
 - Purifying and preventing polluted water through applied and globally scalable technologies and solutions with Intellectual Property.
- Potential (environmental & social) impact on a scale from 1 to 10: 10
- Potential financial equity value creation exceeds 15% benchmark per annum
- Team: right character and fit in the entrepreneurial family
- Clear risk analysis and mitigation

Current assets

Currently, the portfolio consists of two companies and counting:

- WAI AI
- Sudoc

WAI AI

An integrated AI system for water quality management has the potential to revolutionize the water sector.

The water sector is awash in data. Hundreds, if not thousands, of databases, datasets, and statistical reports are published by governments, NGOs, knowledge institutes, and businesses worldwide. The focus of this data varies widely, spanning local to global scales and encompassing diverse water sources like tap water, surface water used for recreation, groundwater that supplies wells, and even vast stretches of seawater.

The range and frequency of quality parameters measured is equally extensive, and data collection methods are just as varied. For instance, scientists might collect on-site samples from a specific lake to be analyzed in a lab for chemical content. Remote sensing satellites might track chlorophyll levels in oceans, indicating algal blooms. Continuous monitoring sensors could be installed in rivers to provide real-time data on factors like temperature and pollution levels. Biomonitoring programs might use the presence or absence of certain fish or insect species to assess a stream’s health. Citizen science initiatives could involve volunteers collecting basic water quality data from local ponds. Finally, computer models can be used to simulate water quality conditions and predict future trends.

While the sheer volume of high-quality data is impressive, WAI AI believes even greater potential lies in a more comprehensive approach. WAI AI envisions a powerful AI system that acts as a central hub, integrating these diverse data sources. This would enable a more holistic understanding of water quality and empower the development of a wide range of practical and efficient solutions.



Potential benefits of an integrated AI system:

- **Improved data accessibility and usability:** an integrated system would make it easier to find, access, and use relevant data, regardless of its source or format.
- **Enhanced data analysis:** AI can identify patterns and trends that would be difficult to detect using traditional methods. This would enable more accurate predictions and better decision-making.
- **Optimized water management:** AI can be used to optimize water treatment processes, reduce water use, and prevent water pollution.
- **Improved public health:** AI can help to identify and address potential health risks associated with water quality.

Building an integrated AI System.

Building an integrated AI system for water quality management would require a collaborative effort from various stakeholders, including among others:

- **Data providers:** Governments, NGOs, knowledge institutes, and businesses would need to make their data accessible and usable.
- **AI developers:** AI experts would need to develop and deploy AI algorithms that can effectively analyze water quality data.
- **Water sector stakeholders:** including a wide range of different actors involved in water management, from utilities and irrigation authorities to government agencies and environmental groups.

Progress and Potential: Advancing AI-Based Water Solutions

The first steps towards developing AI-based water solutions have been taken. The possibilities are vast, with potential for multiple solutions to emerge from this initial process. These solutions could address diverse needs and have a wide range of potential markets, users, and applications.

WAIWI's Journey.

WAIWI was founded in early 2024 and has begun its journey towards developing impactful AI-based water quality solutions. The initial focus is on mapping the vast landscape of available data. This critical first step involves identifying and understanding the wealth of information currently collected on water quality, infrastructure, environment, and socioeconomics. Once this data landscape is charted, WAIWI will strategically select the most relevant and high-quality data providers and datasets based on the chosen focus area.

This focus area selection is a crucial step, guiding the direction of WAIWI's efforts. With a clear target in mind, WAIWI can then leverage the power of AI to analyze the chosen data sets. This analysis will unlock deeper insights and empower the development of practical, data-driven solutions. The ultimate goal is to progress towards a future where comprehensive AI water solutions are implemented on a large scale.



Sudoc

Chemistry in Balance with Nature

There are over 350,000 chemicals in common usage, and this volume creates a chemical burden that impacts all of us. Chemicals are everywhere in our lives, including our cleaning products, water treatment, and industrial processes. Today, we rely on high volumes of chemical or energy-intensive heat to make reactions stronger, but this is expensive, can damage the materials they are applied to, are difficult to work with, and chemical burden impacts life (reducing fertility, increasing disease states, and impacting behavioral development), and excessive use of heat is driving climate change for our planet.

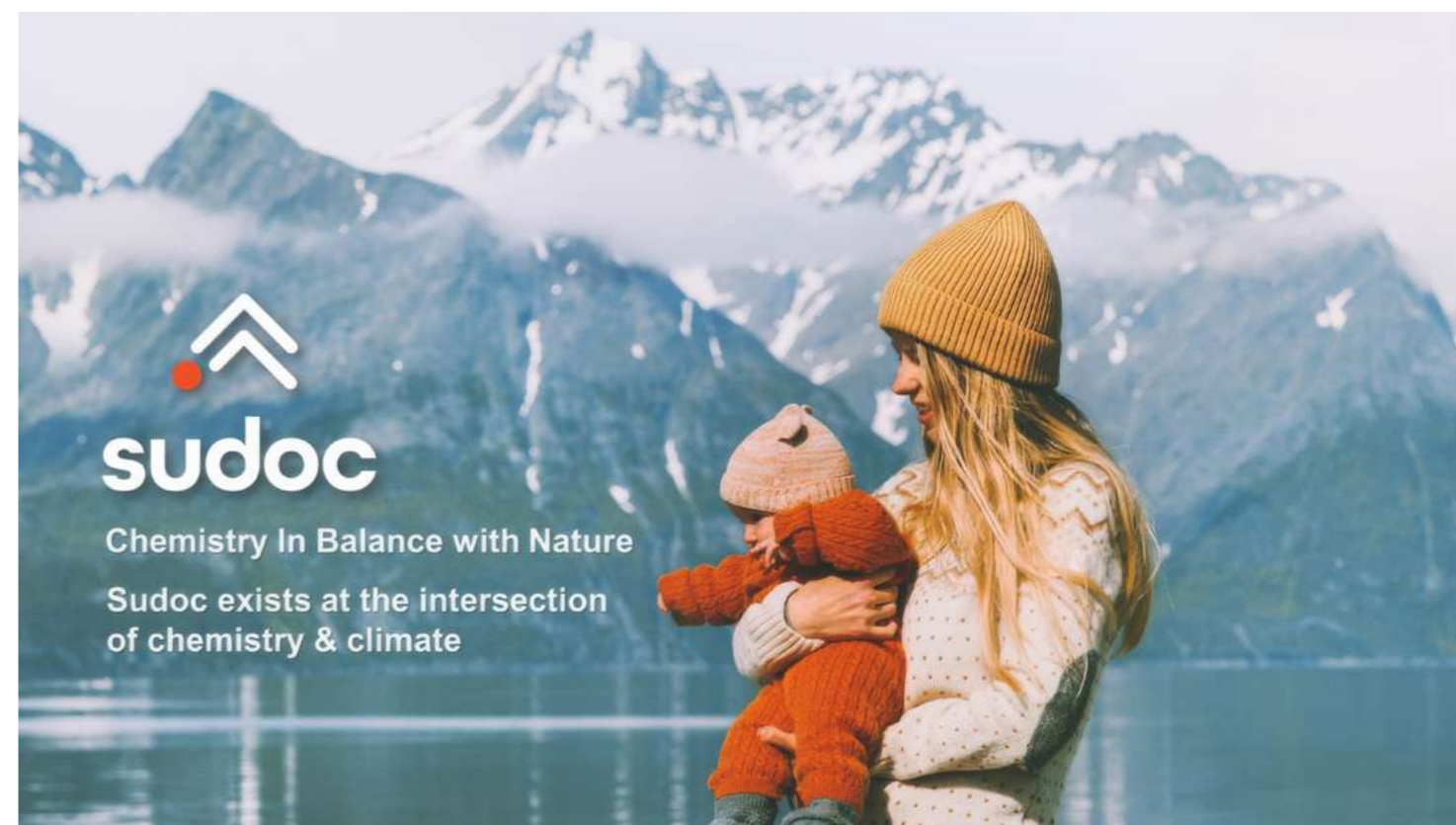
A new class of chemistry that outperforms toxic chemicals

Sudoc is developing a remarkable chemistry platform invented by Dr. Terry Collins at the Institute for Green Science at Carnegie Mellon University (Pittsburgh, Pennsylvania). Sudoc's mission is to outperform toxic chemicals so we can do more with less and bring chemistry in balance with nature.

The Company controls a platform of patented molecules that biomimic the active site of enzymes in your body and make chemical reactions exponentially more efficient. This means they can do a lot more with a lot less chemical while also reducing the need for heat in a range of household cleaning and industrial water treatment processes.

Over the past three years Sudoc has built a first class team, launched multiple low-chemical cleaning products under the brand **Dilute Oxidation Technology (Dot)** and advanced work in water treatment **under the brand NEAT**.

Sudoc invented TAML®, a catalyst solutions that can replace and eliminate toxic chemicals in many possible applications. Inspired by nature's evolution of highly efficient



chemical processes in living beings, TAML has a form that is different from any other catalyst. TAML pairs with commonly available oxidants, steals an oxygen atom, and delivers it to oxidize the target. This biomimics how peroxidase enzymes work in your body, and it's a highly evolved form of chemistry. When their work is done, TAML catalysts break down into their natural elements so that they no longer remain active in the environment.

Do more with less chemicals, improve water treatment and climate footprint

TAML molecules are crystalline structures that dissolve in water that make chemical reactions exponentially more powerful. So, we can do more with less, which means:

- Decrease the amount of chemicals in cleaning products.
- Increase the efficiency of water treatment processes.
- Change the climate footprint of key industries.

Sudoc has been honored to receive a series of awards. To date, they have been recognized by [Chemical & Engineering News](#) as a Top Ten Start-Up to Watch, by [Fast Company](#) magazine as a World Changing Idea, by the Biomimicry Institute as a [Top Ten Nature Inspired Invention](#), as the Most Disruptive Water Tech Innovation of 2023 by the BlueTech Forum, as the Imagine H2O CrocTank winner for water innovation at WEFTEC, and most recently as the Aquatech winner for Green Chemistry Innovation.

Applications: stronger cleaning products and better water treatment

Sudoc applies their catalyst solutions in cleaning products, wastewater treatment and remediation. Sudoc markets two brands:

- dot.** • To make strong cleaning products using exponentially less chemical & heat
- neat.** • To make water treatment more efficient and less energy intensive



IP

In 2023, Sudoc advanced key patent filings applications, which continue to build Sudoc's IP portfolio. In 2024, Sudoc will advance a patent based on the provisional patent filed in 2023 on the enhancement of electrochemical water treatment.

3-Year Objectives

Sudoc's three-year goal (set in 2023) is to create enough progress to be valued above \$200m+ in 2025. This includes following drivers:

- Grow branded sales and initiate partnership sales.
- Internationalization (multiple continents)
- Continue R&D on new catalysts

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Team

Board of Directors

- Lionel C. Johnson – Chairman of the Board
- Dr. Terry Collins – Creator Inventor, Founder
- Roger Berry – Founder & CEO
- Dr. Pete Myers – Founder
- Hunter Lewis – Founder, Investor, Board Advisor

Sudoc Leadership Team

- Roger Berry – Founder & CEO
- Ramon Rivera – CFO
- Alyssa Gilbert – Director of Strategy
- Matt Mills – Director of R&D

Contact

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Potential Assets

Based on the defined investment criteria a list of potential acquisitions and participations is available and monitored by the team.





MOMENTUM



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