Environmental and Sustainability Impact

February 2022

Sustainable Decentralized Water Solutions

Leading ESG Impact in Water Treatment

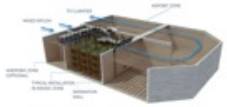
Committed to UN SDGs

- Fluence technologies are highly energy efficient (MABR, desalination) and lower CO_2 and other harmful contaminants
- Many wastewater treatment technologies emit Nitrous Oxide (N_2O): 300x worse than CO_2 – Fluence MABR emits nitrogen: **installed systems currently save 314 tons/year of N_2O emissions, equivalent to 93,600 tons of CO_2**
- A decentralized approach using Fluence MABR to solve the world's wastewater needs would result in increased access to clean water and wastewater → **Potential annual energy savings of 2 TWh, equivalent to 150 million tons CO_2**
- Fluence is committed to ESG and delivers on 9 of the 17 UN SDGs

Sustainability Impact from Fluence's Installations

MABR & NIROBOX





32 GWh / year

in energy savings compared to conventional technologies

Equivalent to 23,100 Tons CO_2 / year

Reuse	Water	Wastewater
		
17Bn Liters Water Recycled / year	*158Bn Liters Drinking Water Produced / year*	*253Bn Liters Wastewater Treated / year*

- ✓ *MABR installations remove >2,100 tons of nutrient pollution/year*
- ✓ *Lowers Nitrous Oxide emissions by 314 tons/year*

Source: EPA, research, Company analysis.

Environmental and Sustainability Impact:

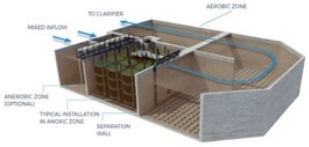
Smart Product Solutions

Wastewater Treatment Products - MABR

300+ plants sold

aspiral™

subre



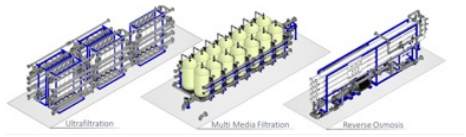
- ✓ *11,800 tons CO_2 emission savings*
- ✓ *314 tons/year of N_2O emission savings, equivalent to 93,600 tons of CO_2*
- ✓ *15.9 GWh/year energy savings*
- ✓ *Over 114,800 m^3/d wastewater treated*

Desalination & Water Treatment Products

120 units, 30 plants sold

NIROBOX™

NIROFLEX



- ✓ *11,300 tons CO_2 emission savings*
- ✓ *16 GWh/year energy savings*
- ✓ *Over 109,600 m^3/d water produced*

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Fluence Solutions Enable Rapid Deployment of Water Solutions

China leadership in decentralized wastewater treatment

Aspiral Micro treats home cluster, Liaoning province

Aspiral S1 near homes, Hefei, Anhui province

Buried Aspiral plant, Hangzhou, Zhejiang province

Highway rest stop Aspiral L4 plant, Xiaogian, Hubei province

Rural Aspiral plant, Luoyang, Henan province

Control console manages remote, automated plants

4 Aspiral L4's, Xie Lin Gang, Hunan province

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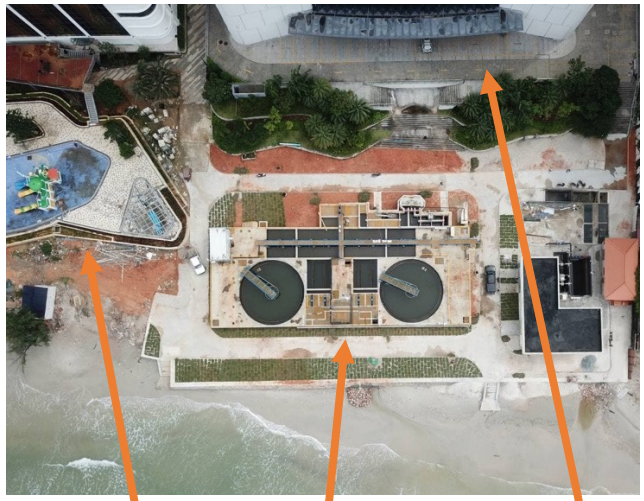
Fluence Solutions Enable Rapid Deployment of Water Solutions

Cambodia's first biological wastewater treatment plants support 260,000 people: includes world's largest MABR plant



Operating MABR plant
Capacity: **40K people**

Luxury villas

Operating MABR plant
Capacity: **60K people**

Design for world's largest MABR plant
Capacity: **160K people**

Quiet Odor-Free Operation Enables Plant Location Near People

Fluence Impact on UN Sustainable Development Goals

- The UN's Sustainable Development Goals (SDGs) are a collection of 17 global goals designed to be a "blueprint to achieve a better and more sustainable future for all".
- Fluence's innovative solutions contribute to the conservation of resources, energy savings and reuse of water
- Fluence's technologies are highly energy efficient (MABR, desalination) and generate energy (Waste to Energy solutions)
- A decentralized approach using Fluence's MABR to solve the world's wastewater needs would result in increased access to clean water and wastewater

Sustainability Goal Delivered

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Fluence Impact on UN Sustainable Development Goals

- Water demand doesn't merely increase with population growth, it increases proportional to a country's GDP
- Eliminating poverty requires economic growth which requires more clean water, particularly for industry

Proper water infrastructure enables people to pursue better jobs than carrying water, involving technology and expertise, encouraging growth and reducing poverty

- Clean water and health are closely linked, water pollution kills more than wars and all violence combined
- Each year, 3.4 million people, mostly children, die from water-related diseases, and 80% of diseases are waterborne

Fluence treats 253 Bn Liters of wastewater annually, and removes dangerous contaminants from the environment

- Lack of local water infrastructure means that 2.1 billion people worldwide have to carry water
- This task means mainly women and girls have to spend their days walking on average 6 km and carrying 50 kg of water

Fluence's distributed water treatment and reuse provides local water access. Local, clean water infrastructure frees women from this labor.

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Source: WHO

Fluence Impact on UN Sustainable Development Goals

- Water scarcity affects more than 40% of people, an alarming figure that is projected to continue to rise as temperatures do
- By 2050, it is projected that at least one in four people will suffer from recurring water shortages

Fluence's strategy and goals are aimed at solving this goal – improving sanitation and water accessibility, especially in places with severe water stress.

- Water and wastewater treatment today follows an outdated model from the early twentieth century
- Giant centralized plants and enormous in-ground piping networks are needed to connect to these plants

Decentralized treatment is more affordable, easier to maintain, and makes water reuse very easy and close to the people

- Today's cities often have thousands of kilometers of piping infrastructure to maintain, many over 100 years old
- Replacing these is prohibitively expensive given all the streets and buildings above

Overlay of decentralized system can bypass the old network, and deployment is fast and simple

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Source: WHO

Fluence Impact on UN Sustainable Development Goals

- Water and wastewater treatment use enormous amounts of energy
- The world's wastewater treatment today uses more electricity than what is consumed by the entire country of France

Energy-efficient or energy-positive solutions are needed. In addition, over-extraction of water from aquifers leads to their collapse, preventing future natural storage of water.

- Fish are a vital source of protein worldwide
- Discharge of inadequately treated wastewater causes algal blooms, which kill fish

Fluence's wastewater solutions provide reliable effluent quality, removing harmful nutrient pollution that induce deadly algal blooms

- Increasing urbanization and industrialization reduces the amount of land available for farming
- The world's population is predicted to hit 9.7 billion by 2050

Climate change means more frequent and severe droughts, meaning more food has to be produced from less land, using less water. Water treatment and reuse efficiency are a key objective.

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Source: WHO

Sustainability Impact By the Numbers

Wastewater Treatment

Treating wastewater – for municipalities, communities, industries, and remote sites – with a portfolio of sustainable solutions and market-leading technologies

Fluence's Wastewater Solutions Annually Treat 253 Bn Liters, Lowering Nitrous Oxide emissions by 314 tons/year

Drinking Water

Fluence provides decentralized, standard water treatment solutions that reliably deliver safe drinking water to municipalities and government entities

Fluence's Drinking Water Solutions Annually Provide 158 Billion Liters

Reuse

Treating wastewater for reuse has become an accepted and reliable technical solution to address water scarcity problems around the world

Fluence's Reuse Solutions Recycle Annually 17 Billion Liters

Nutrient Removal

Nutrient pollution is one of the world's most widespread, costly and challenging environmental problems, caused by excess nitrogen and phosphorus

Fluence's MABR solutions Remove Annually 2,100 Tons of Nutrients

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Source: Fluence Corporation booked projects list, EPA, NREL


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