



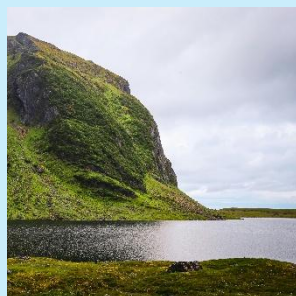
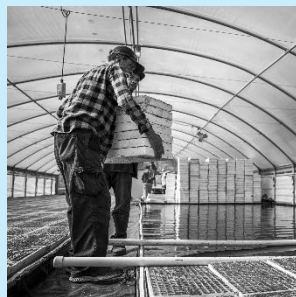
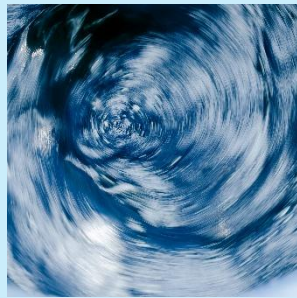
bluecon

INNOVATIVE & MODULAR PHYSICAL WASTEWATER TREATMENT TECHNOLOGY



water the world

www.bluecon.nl



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+20

Bluecon
AQUA+
countries
in 5 continents

+20

Bluecons
running in 2025

+100.000

people Blueconizing
wastewater in 2025

About us

Bluecon, founded in 2016, is a **Dutch water technology company** dedicated to transforming the water cycle by turning domestic wastewater into clean, reusable water.

Our passion is; unlocking the potential of wastewater for a cleaner, greener future and promoting sustainable development worldwide.

Our innovative technology “**Blueconizing**”, physically treats wastewater through a decentralized, modular process. One single unit can serve communities of 500 up to 5,000 inhabitants, enhancing local resilience and quality of life.

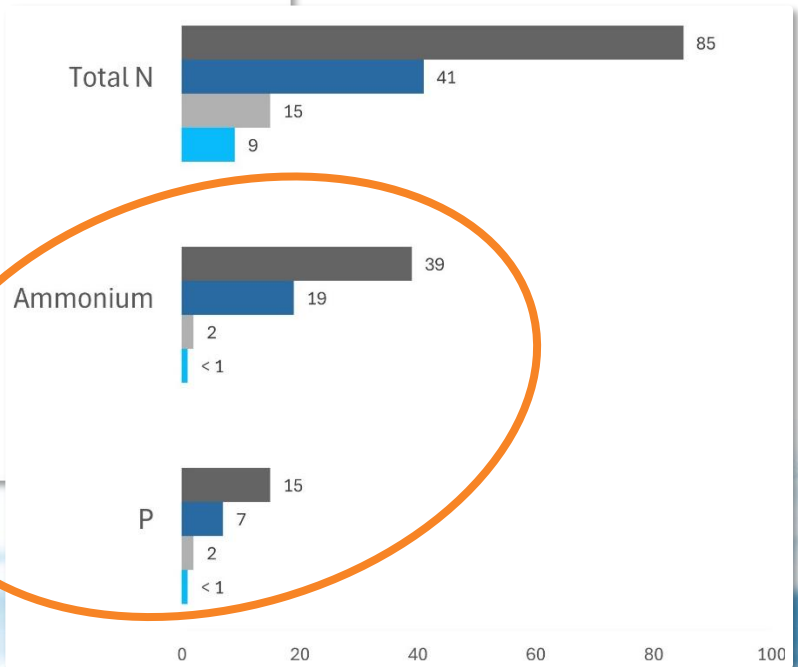
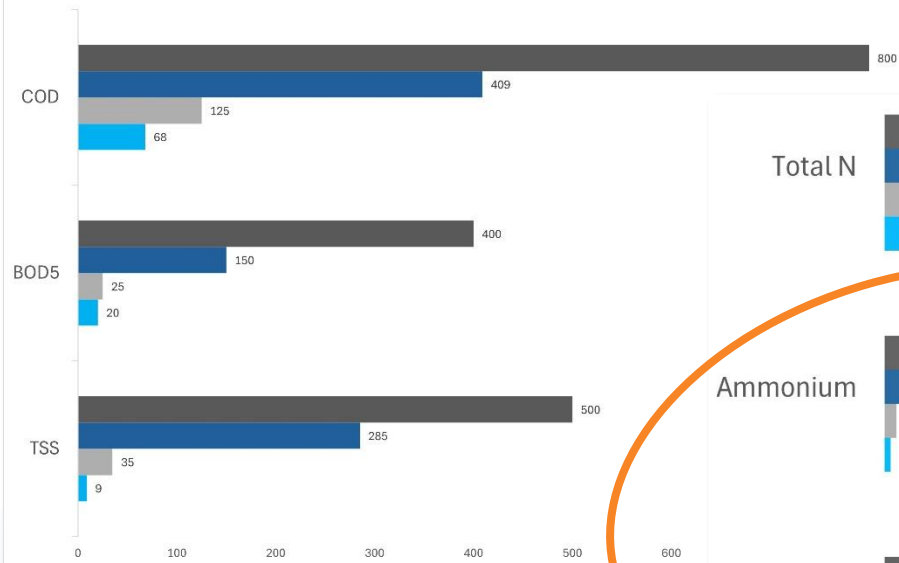
End drought, clean rivers and oceans, enhance global ecosystems, and provide drinking water for all, in line with the 2015 UN Agreement!

Join us in revolutionizing wastewater treatment for a better tomorrow.

Water the World!

AVERAGE BLUECON DISCHARGE RESULTS comparing to EU norms and directives

- Maximum norm for basic influent water EU (mg/l)
- Avg. influent water quality global Bluecon experiences
- Effluent norm EU 2020/741 + EEG 91/271
- BLUECON effluent result with global avg. influent



**Guaranteed reusable
water quality**



**Reduction
of CO2**



**Circular water
management ready**



**Quick delivery,
installation and
operation**



**Easy to operate by
local employees
and operators**



**Prefab production
and on site
finetuning**

Unique and versatile

Bluecon units are suitable for communities (500 – 20K i.e.), villages and expanding urban areas, to resorts and hotels. Its robust and compact containerized design ensures high-quality clean water for reuse, promoting environmental sustainability and providing a practical solution for enhanced wastewater management.

The Bluecon method is designed for a wide range of applications. Its unique versatility makes it ideal for villages, city extensions, smart city initiatives, resorts, and hotels.

Bluecon 24/7, all seasons proof!

As cities expand, efficient wastewater management becomes crucial. Bluecon's decentralized approach suits new city extensions and smart city initiatives, promoting sustainable urban growth. The system's ability to treat wastewater into high-quality clean water 24/7/365, supports environmental sustainability and resource conservation.

Traditional centralized wastewater treatment plants work well, but bacteria need attention, consistency and regularity. Unfortunately in rural areas with smaller communities, changes in occupancy or weather conditions, biological treatment are less efficient. The compact, containerized Bluecon units offer a cost-effective and scalable solution, ensuring efficient wastewater treatment.

Down the street or just outside the area

Housed in a robust 40ft high cube container, the Bluecon can be installed permanently or temporarily, depending on local regulations. This adaptability makes Bluecon ideal for transportation and replacing or relieving biological wastewater treatment plants. In crisis situations, earthquakes, floods or warzones, each Bluecon installation can be fully operational within hours. Without the need of major infrastructural adjustments Bluecon can connect to the sewage systems provided and clean wastewater before it leaves the area.



"We are dedicated to have a significant positive impact on water quality and sustainability, fostering a healthier planet and a brighter future for all." - Bert Jan Pit



Nature First Principle

At Bluecon, our actions are guided by a singular vision: **prioritizing nature in every decision we make.** This "Nature First Principle" underscores our commitment to sustainable development and environmental stewardship, aligning seamlessly with global goals for a healthier planet and equitable access to resources.

Harmonizing with Global Initiatives

Our principle reflects and reinforces the aspirations of leading international organizations:

- UN Sustainable Development Goals (SDGs): Bluecon supports SDG 6 (Clean Water and Sanitation) and contributes to sustainable cities (SDG 11) and climate action (SDG 13).
- UNICEF: Clean water is a fundamental right for every child.
- World Health Organization (WHO): By treating wastewater at its source, we prevent waterborne diseases, aligning with WHO's mission to ensure health equity worldwide.
- Global Climate Agreements: Our decentralized systems reduce the energy demand, carbon footprint, and nitrous oxide (N₂O) emissions commonly associated with conventional water infrastructure, supporting climate resilience and ecological balance.



Water Risk Filter

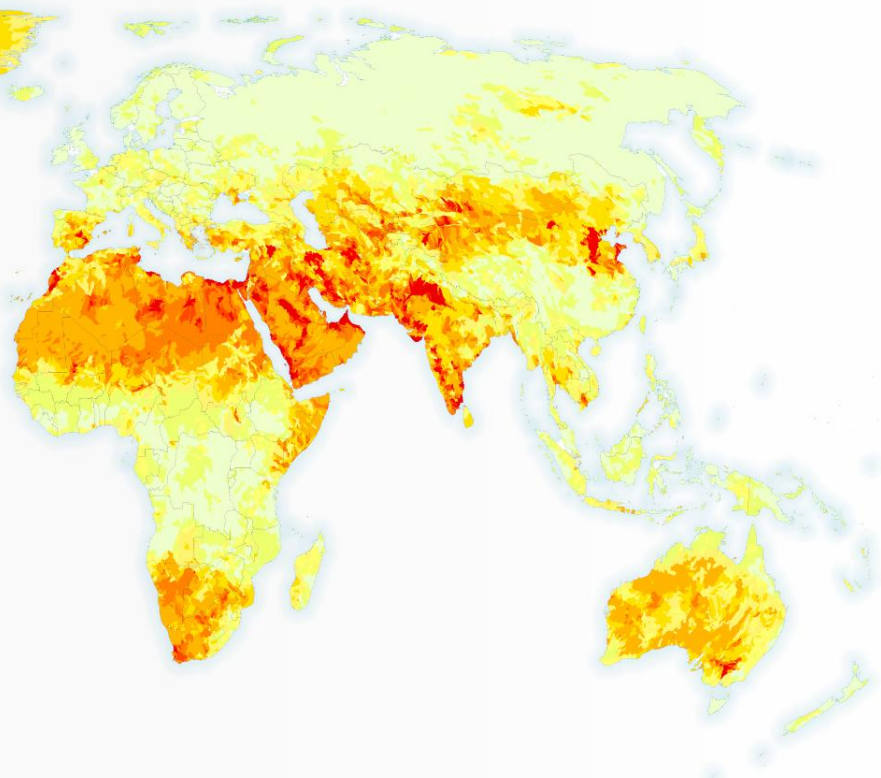
Bluecon AQUA-D areas

Advanced Quality Upgrading Areas - the Drylands



PHYSICAL WATER RISK
WATER AVAILABILITY

Very low risk Very high risk



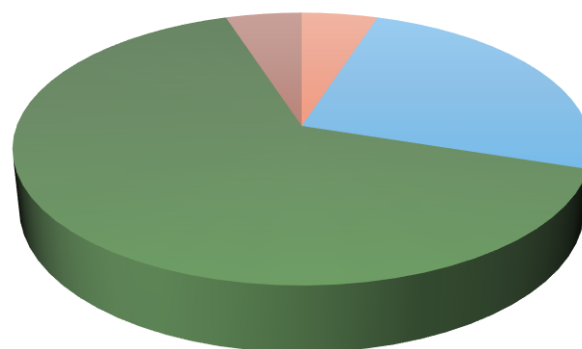
PR and Business as unusual

Resorts and hotels, particularly in remote or ecologically sensitive areas, benefit from Bluecon's compact design. The treated water can be reused for irrigation, household, and industrial purposes, aligning with the hospitality industry's sustainability goals.

The process is eco-friendly, sustainable, odourless and easily adapted to the landscape.

Choosing for Bluecon is caring. Invest in the community, the planet, the people. health and sustainability is key to a brighter future.

Beneficiaries of Blueconized wastewater to reuse



- 5% household ready
- 25% to flush toilets
- 65% irrigation and process water
- 5% waste

BENEFITS

- **Plug-and-Play Installation:**
Ready for operation with minimal setup time.
- **Quiet, emission- and odor safe labor:**
A cleaner, safer working environment.
- **Scalable Solutions:**
Serves 500 – 5,000 inhabitants per unit (cost-effective up to >20,000)
- **Compact & Space-Efficient:**
Small plant footprint (<150m²) with robust containerized housing.
- **Flexible for Various Conditions:**
Adapts better than traditional systems to changes in influent volume and conditions.
- **Supports Local Employment:** Simple to operate with basic training
- **Energy & Cost Efficient:** Up to 50% CapEx savings and 70% OpEx savings.
- **Sustainable Water Reuse:** Reduces pressure on drinking water supplies, ensuring safe reuse 24/7, year-round.
- **Rapid Deployment:** Ideal for events, crisis management, and emergencies.
- **Low Maintenance:** Operates with locally available, universal spare parts.



Blueconizing | The Process

Bluecon engineers developed a unique treatment process that convert sewage water of domestic origin into clean reusable water.

“Blueconizing” is an innovative physical technology to treat wastewater without the disadvantages of the usual biological treatment with bacteria. In a few steps domestic wastewater is converted into clean surface water or irrigation water.

Bluecon volume types and modular steps

BLUECON TYPE	MAX CAPACITY	DAILY PURIFICATION	INHABITANTS (avg.120l/p.p.p.d)
BC -05	5m ³ /h	120m ³	< 1000
BC -10	10m ³ /h	240m ³	1000 - 2000
BC -15	15m ³ /h	360m ³	2000 - 3000
BC -20	20m ³ /h	480m ³	3000 - 4000
BC -25	25m ³ /h	600m ³	4000 - 5000

- 1) Coagulation
- 2) Flocculation
- 3) Flotation
- 4) Filtration
- 5) Disinfection (disinfection is not applicable in the Bluecon process for clean disposal, and only provided if required by law or the client)
- 6) Oxidation & polishing (depending on the effluent goals)

"Bluecon: Perfecting water treatment with innovative technology."

1. COAGULATION



2. FLOCCULATION



3. FLOTATION



4. FILTRATION



5. DISINFECTION



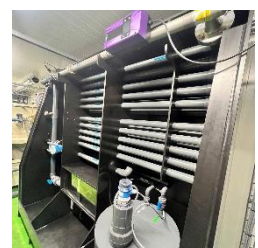
6. OXIDATION & POLISHING



Our solution



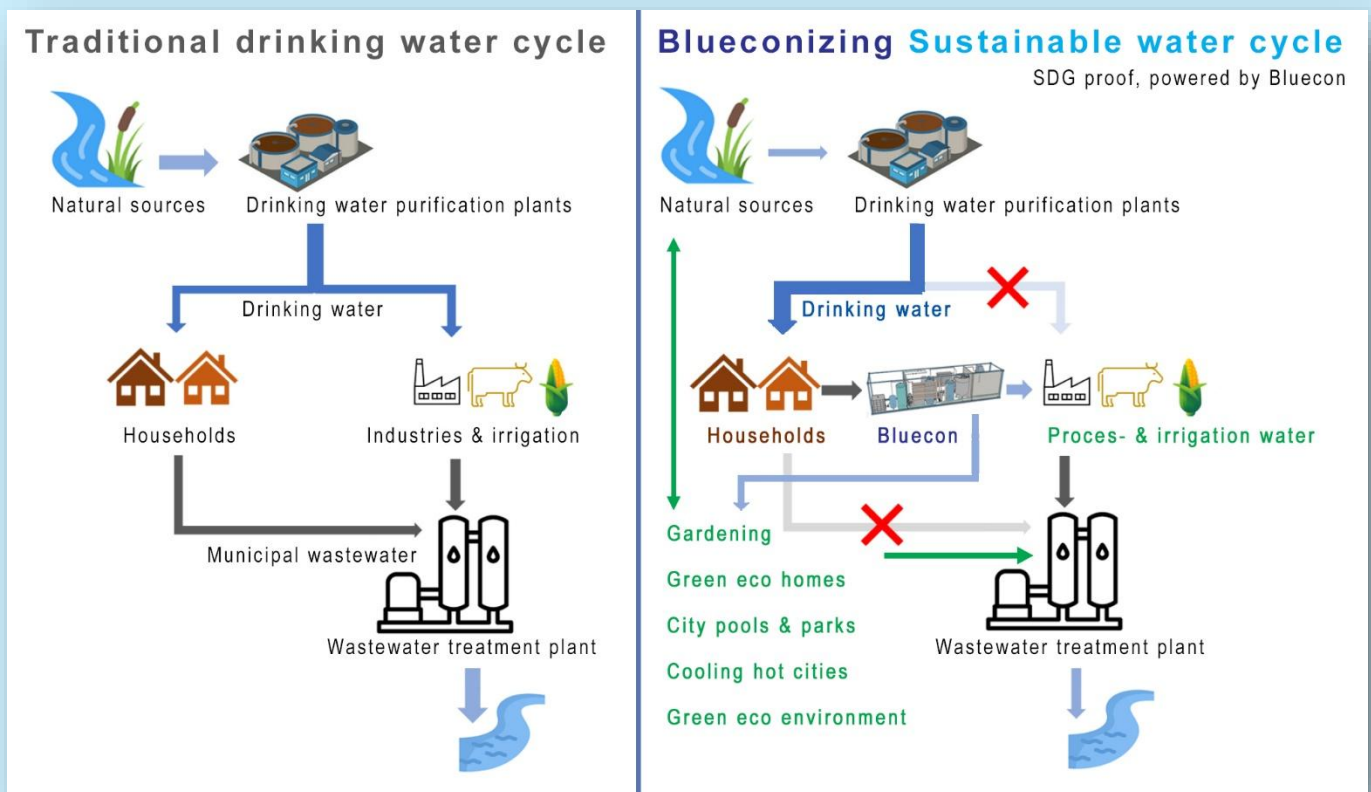
1. After removal of coarse material in the pre-screen, wastewater is treated in the first process step: **coagulation**. Wastewater is destabilized on molecule level to form flocs. A coagulant (iron or aluminium salt) is used to neutralize the charge and induce coagulation of the impurities. This process is controlled by sensors and smart software.
2. For maximum removal of the coagulated impurities, a special eco-friendly polymer is added. This is called the **flocculation** step. All impurities are glued together to form big flocs (sludge) resulting in a clear water phase with low turbidity.
3. In the Bluecon **flotation** module the sludge is separated from the water. A unique process with micro bubbles lifts the sludge to the surface of the flotation tank for mechanical removal with a skimmer. The sludge is collected in a sludge buffer and ready for dewatering without any further pretreatment. COD, BOD, TSS, phosphate and organic nitrogen are removed.
4. Water from the flotation is **filtered** in a two-step operation to take out micro flocs and other small particles like micro plastics and paper fibres. A project suited precision filter takes out the larger flocs (1-5 mm) and acts as a safeguard for the flotation process. A sand filter filters down to sub-micron level to take out the smallest suspended solids.
5. In the **ammonium oxidation** module ammonium-nitrogen is removed to any desired level, regardless of the influent level, water temperature or climate. A special oxidation agent, OxiBlue, oxidizes the ammonium to nitrogen (g). The oxidation agent **disinfects** the water and is ready for direct and safe re-use. Sensors control the module and provide online data for 24/7 monitoring of water quality.
6. In cases where the influent wastewater is very extraordinarily polluted or there are strict effluent requirements, several **polishing** modules can be installed. With **ozone**, **UV solutions** and **adsorbents**, COD/ BOD levels are optimized. These modules can be applied to remove substances like medicines, hormones and PFAS.



Vision and mission

Optimize the water cycle

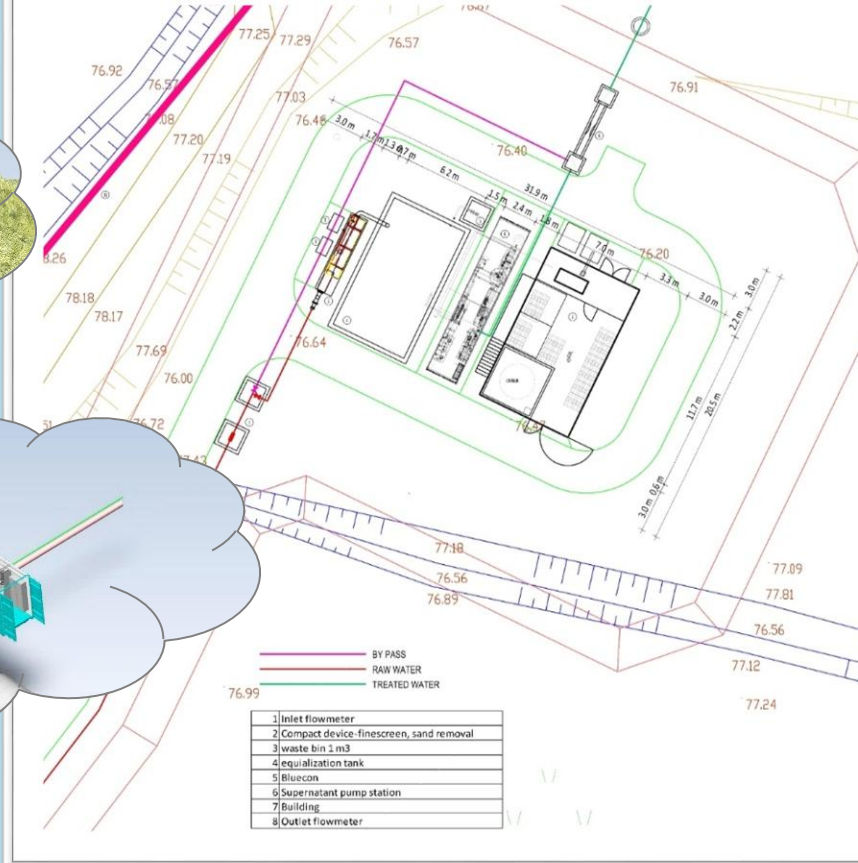
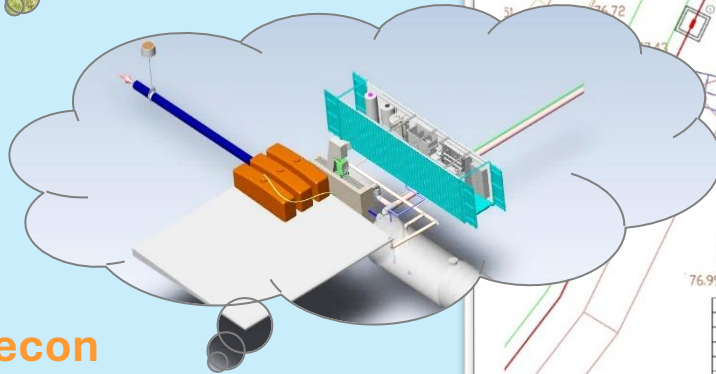
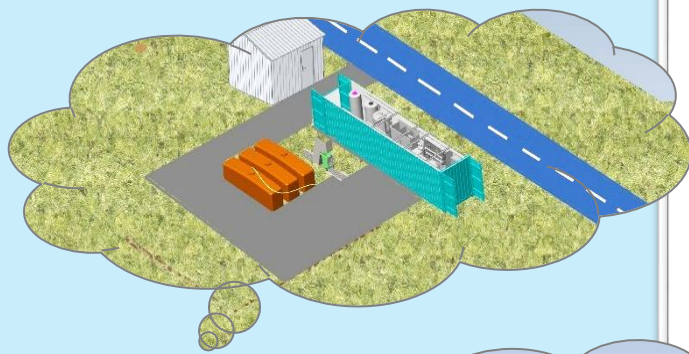
Our vision is to optimize the water cycle by developing a method which enables wastewater to be treated into clean, reusable water. Bluecon was founded to unlock the potential of wastewater for sustainable development by resolving the issues around small scale wastewater treatment in regions worldwide.



Being able to reuse wastewater for sustainable development will change the world of waste water treatment to enhance the quality of life of local communities.

"At Bluecon, our mission is to revolutionize wastewater treatment with our dedicated partners through innovative, decentralized solutions that provide sustainable, high-quality water management for communities and businesses. We are committed to promoting environmental stewardship, enhancing resource conservation, and supporting the growth of smart, resilient infrastructures worldwide."





Bluecon

From dream to concept, to engineering, to operations

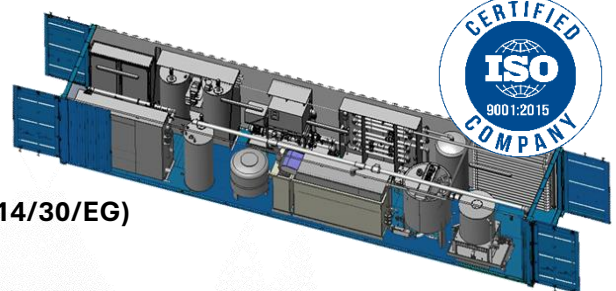
A Bluecon unit can be placed on a small size plant, footprint $\pm 150\text{m}^2$, and requires a minimum of infrastructural adjustments. The unit is a fixed system and set up, which saves a lot of labour and designing. But this doesn't take away all the local efforts of engineering and construction.

In every situation the engineering company will make all the required calculations, drawings and consults the client. If the green light is given, a construction company will prepare the plant base, according to the technical design and the specifications given by Bluecon International.

This was the main reason that Bluecon International prefers to cooperate with national or local distributors and engineering companies. Built on trust, knowledge and experience, together with the people from the community, we purify wastewater and make it possible to reuse up to 90% for irrigation, household or industries, providing jobs for locals with or without being highly educated.

Used components and warranty

The Bluecon system is constructed in accordance with the EU regulations for safety. Bluecon operation is in compliance with machine directive **(2006/42/EG)**, low voltage directive **(2014/35/EG)** and EMC directive **(2014/30/EG)**



***C-mark laboratory**, subsidiary of the Eurofins group (www.eurofins.com), performed an independent sampling and testing program in the Netherlands on the water quality of Bluecon. The results comply with **European Directive 91/271/EC & 2020/741**

***EC Declaration** of conformity.

***Quality Certificate: NEN-En-ISO 9001: 2015** and **CE declaration by Certification Experts**

***Enhanced by TAUW's LCA analysis**, we've optimized the Bluecon method to **reduce our carbon footprint and environmental impact**, continuously driving sustainable innovation





Environmental and social commitment

“Our projects prioritize the environment and raise awareness about the importance of hygiene and clean water. Children are the future, that’s why we actively involve them in our initiatives for small communities through school lessons, on-site demonstrations, and if possible, by inviting them to decorate our treatment containers with their own colorful artwork.”

Investing in the future, one drop at a time

Clean water is not just a right, but a responsibility.

Every location where we install our systems becomes part of a bigger story. One where communities become safer, environments are protected, and the next generation learns to value water as the precious resource it is.

Children First, Nature Always

Children represent the future. That’s why we actively involve them in our mission for a cleaner, healthier world. From school visits and hands-on demonstrations to inviting children to paint and personalize our Bluecon units, we make sure their voices, creativity, and curiosity are part of the solution. Because when children understand the value of clean water, they become lifelong advocates for sustainability.

More Than Technology – A Commitment to the Planet

Our contribution goes beyond technical innovation. With every system we install, we contribute to the United Nations Sustainable Development Goals (SDGs), particularly:

- ✓ **SDG 6: Clean water and sanitation**
- ✓ **SDG 3: Good health and well-being**
- ✓ **SDG 13: Climate action**
- ✓ **SDG 12: Responsible consumption and production**

Sustainable water for a brighter future

Bluecon is more than a technical solution. It's a promise to protect what matters most – for today and for generations to come.

By choosing non-biological wastewater treatment, reducing chemical usage, and promoting local reuse of water, we minimize our ecological footprint and maximize long-term impact.

Our Personal Sustainability Goals

As part of our commitment to climate action, we are working towards a net zero footprint. Our goals are not just global, they're personal. We strive to:

- ✓ Reduce CO₂ emissions across our production and logistics
- ✓ Design for reuse, repair, and recycling
- ✓ Empower local communities through knowledge and participation
- ✓ Create positive experiences for children to engage with sustainability

Through alternative materials, green energy, and smarter processes and compensating where needed to ensure that our operations leave the lightest possible trace on the planet.

Whether it's in a remote village, a coastal resort, or a small school community, we leave more than just clean water behind; we leave awareness, care, and inspiration.

Children First, Nature Always

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Our Than Technology – A Commitment to the Planet



Bluecon 5 | project examples

1 | Transforming lives in remote communities

At Bluecon, we believe that clean water and proper sanitation are fundamental human rights.

Yet, in many remote areas, communities lack even the most basic sanitation infrastructure, often disposing of their wastewater directly into rivers, lakes, or open land. This not only endangers the health of these communities but also severely impacts the environment.

Bluecon has several game changing installations running in different countries in 4 continents.

By providing decentralized wastewater treatment solutions, we bring sustainable sanitation to areas previously overlooked. Our compact, efficient systems are designed to adapt to the specific needs of small villages and remote communities, enabling them to process wastewater locally and safely.

Empowering communities

Our work goes beyond technology. By engaging with local stakeholders, we empower communities to take control of their water and sanitation needs. With Bluecon systems, wastewater is no longer a problem but a resource product. Treated water can be reused for irrigation, improving food security and fostering local development, changing old school villages into Smart Cities.

A ripple effect of benefits

The introduction of proper sanitation systems has a profound impact:

- Improved public health: Reduced exposure to waterborne diseases.
- Environmental protection: Preventing pollution of natural water sources.
- Economic opportunities: Creating jobs and enhancing agricultural productivity.

“From isolated villages to small rural towns, and underserved regions with natural barriers Bluecon is committed to providing accessible, eco-friendly solutions that transform lives while protecting nature. Together, we’re proving that even the most remote places can thrive with sustainable innovation.”



Decentralized sanitation for remote island communities

Protecting oceans, treating water, sustaining life

Small island populations in the Pacific, often fewer than a thousand residents, face significant challenges in wastewater management due to limited infrastructure, irregular power supply, and a lack of local expertise.

Bluecon provides a robust, non-biological treatment system fit for off-grid operation and fluctuating environmental conditions. Our modular technology enables consistent, high-quality effluent without dependence on complex biological processes or high energy input.

In collaboration with local authorities, we offer islanders around the world safe, hygienic, and sustainable sanitation solutions. while helping to protect sensitive ecosystems such as coral reefs and coastal waters.



2 | Effortless wastewater management for seasonal tourism



In popular tourist destinations like Ibiza, Hawaii, Sardinia, Maldives and beyond, seasonal fluctuations in occupancy, from as low as 10% in the off-season to over 90% during peak months, pose a serious challenge for traditional biological wastewater treatment systems. The abrupt surges disrupt bacterial processes, often leading to difficulties in the treatment process during the critical dry months when water is most scarce.

Bluecon's innovative *Stop & Go* functionality ensures seamless operation, effortlessly adapting to both peaks and low-demand periods. With advanced buffering capabilities and time-adjusted treatment cycles, we provide reliable wastewater management year-round, regardless of occupancy levels, turning challenges into opportunities for sustainable water reuse.

Smart, invisible, and adaptable solutions

Tourist hotspots like resorts, hotels, and coastal neighborhoods require wastewater solutions that are efficient yet discreet. Bluecon delivers just that. Our decentralized and compact systems are odorless, noiseless, and easy to integrate into any environment.

Whether tucked away in a hotel courtyard, placed in a quiet corner of a street, or located at the edge of a community, Bluecon fits seamlessly into the landscape. For beachfront resorts, we collaborate with vacuum systems to position our container in higher, less visible areas, keeping the beach pristine and free from industrial distractions.

Bluecon's containers are also highly customizable to align with the host's architecture and brand identity. From sleek modern facades to designs blending harmoniously with local aesthetics, our systems enhance functionality without compromising the charm of your destination. Experience cutting-edge wastewater management that's as smart as it is subtle, perfect for preserving both the beauty and sustainability of your tourist haven.

3 | Reuse domestic wastewater for irrigation

Efficient irrigation solutions for arid regions

In dry and water-scarce regions, sustainable irrigation is essential for agriculture and local livelihoods. Bluecon provides a smart solution by transforming wastewater into high-quality water suitable for irrigation. Our systems purify water to the desired level of clarity and safety, fully compliant with EU directives and local regulations.

*In compliance
with EU-directive
91/271 & 2020/741
and regional law
regulations*

By repurposing treated water for irrigation, Bluecon helps communities optimize their water resources, reduce reliance on scarce freshwater supplies, and support agricultural growth, even in the most challenging climates. With Bluecon, irrigation becomes a sustainable practice, ensuring that every drop counts in building a greener, more resilient future.



4 | Industrial process | cooling | cleaning

Industrial water reuse | Closing the loop

Water is essential to nearly every industrial process, yet it is often used once and discharged. In a world facing increasing water scarcity and stricter environmental regulations, this linear approach is no longer sustainable. Reusing treated wastewater offers industries a reliable, cost-effective, and environmentally responsible alternative.

At Bluecon, we help industries close the water loop—transforming wastewater into a valuable resource that can be reused safely for cooling, cleaning, dust suppression, or even as process water. Our decentralized systems are compact, energy-efficient, and adaptable to a wide range of industrial settings. By rethinking wastewater, industries can reduce their freshwater intake, lower operational costs, and contribute to a more sustainable future.





5 | Purified water for mining operations

In many mining regions, effective water management is one of the most critical operational challenges. Mines often rely on limited freshwater sources and are under increasing scrutiny regarding their consumption and discharge practices. Growing expectations from regulators and local communities push companies to reduce potable water use and manage sanitation more responsibly.

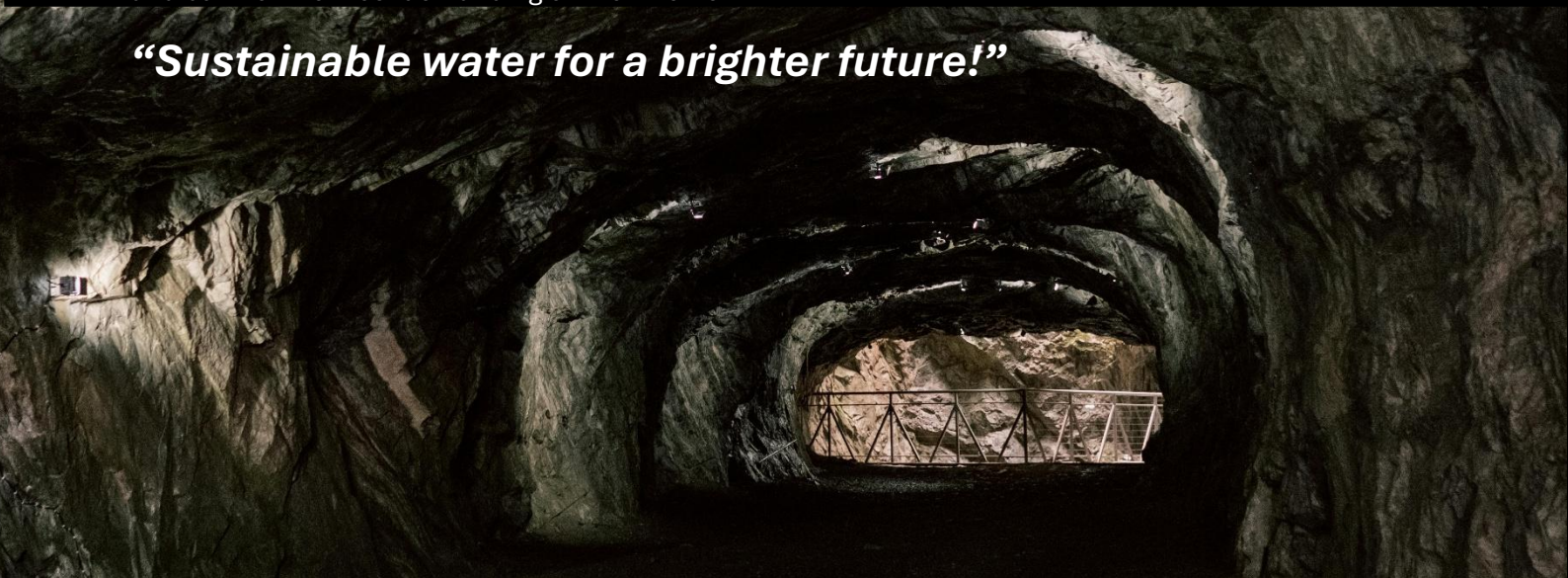
Bluecon technology offers a reliable, field-proven solution. Our compact, silent, and odor-free system treats domestic wastewater directly on-site, ensuring clean and safe conditions in remote camps. This helps mining companies comply with regulations and maintain strong relationships with authorities and local stakeholders.

Beyond hygiene improvement, a significant portion of the treated water can be safely reused. For irrigation, dust control, or even as process water, especially in water-scarce areas. This closed-loop approach reduces environmental pressure and supports operational continuity.

Governments worldwide are enforcing stricter regulations. Mining companies are now expected to demonstrate both environmental and social responsibility by reducing emissions, minimizing chemical use, and ensuring safe wastewater treatment at their camps. Bluecon enables all of this with minimal infrastructure, no odor nuisance, and low energy consumption.

With Bluecon, mining operations stay resilient and future-ready. Our modular systems are scalable, mobile, and built for the most demanding environments.

“Sustainable water for a brighter future!”



Contact



Phone +31 (0) 85 06 01 167

Mail info@bluecon.nl

Website www.bluecon.nl