

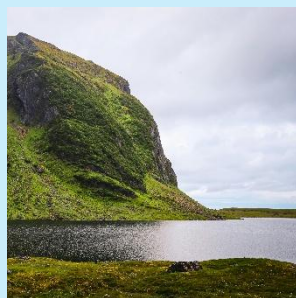
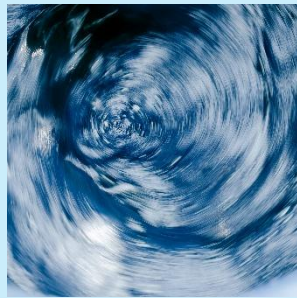
bluecon

INNOVATIVE & MODULAR PHYSICAL WASTEWATER TREATMENT TECHNOLOGY



water the world

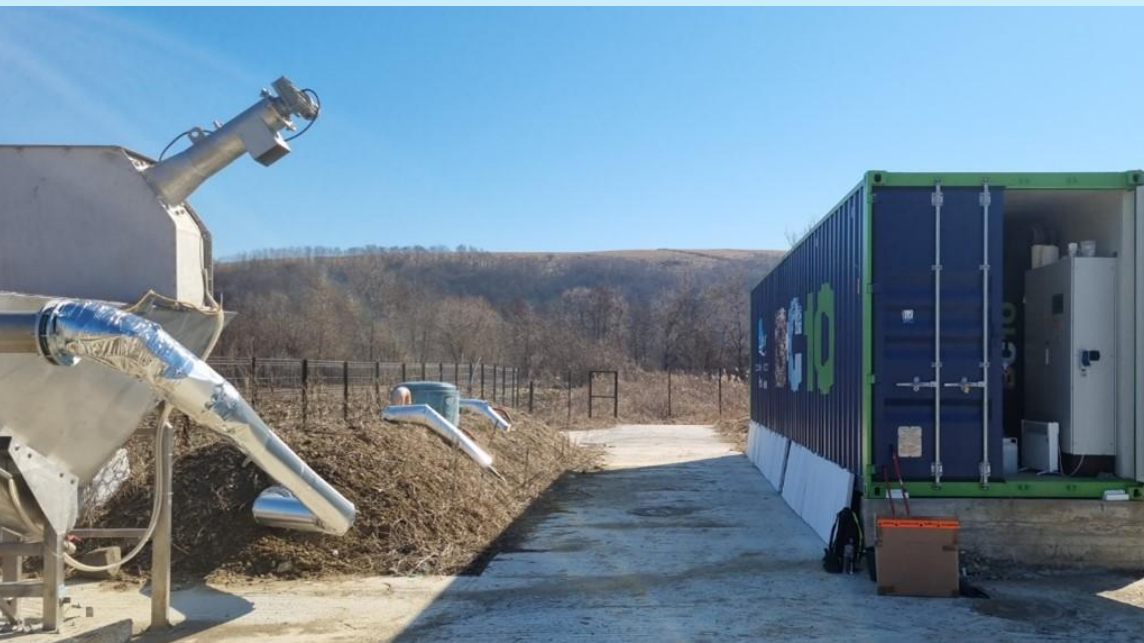
www.bluecon.nl



blueconizing wastewater

Index

1. Front
2. Imageboard
3. Index
4. Bluecon worldwide
5. Benefits & results
6. Unique & versatile
7. Nature first principle
8. Business as unusual, extra benefits
9. Blueconizing process
10. Blue steps
11. Vision & mission
12. From engineering to operations
13. (Remote) Communities
14. Holiday villages, hotels and resorts
15. Irrigation or process water and Mining
16. Product range and contact



Where

Worldwide

Bluecon

+20

countries
in 2025

+20

Bluecons
running

+100.000

people Blueconizing
wastewater

Introduction

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.

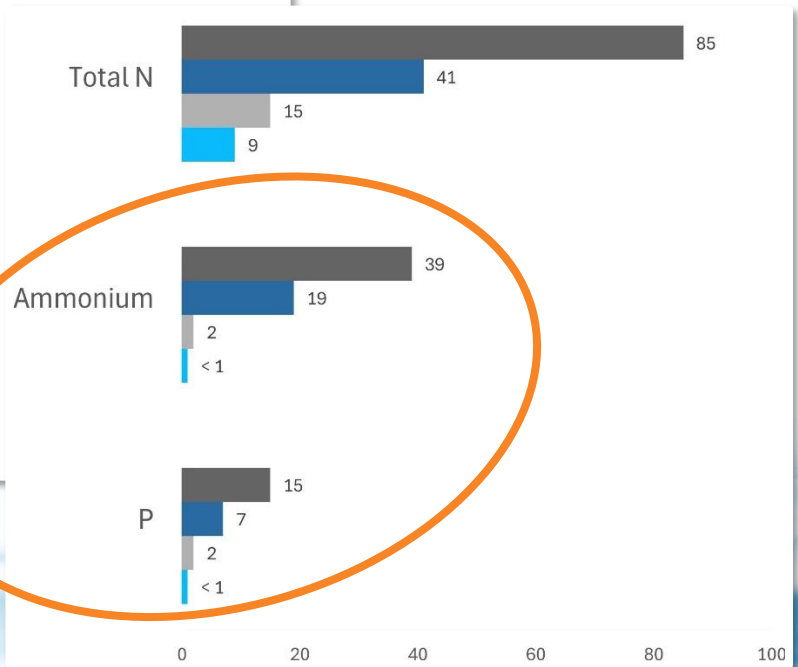
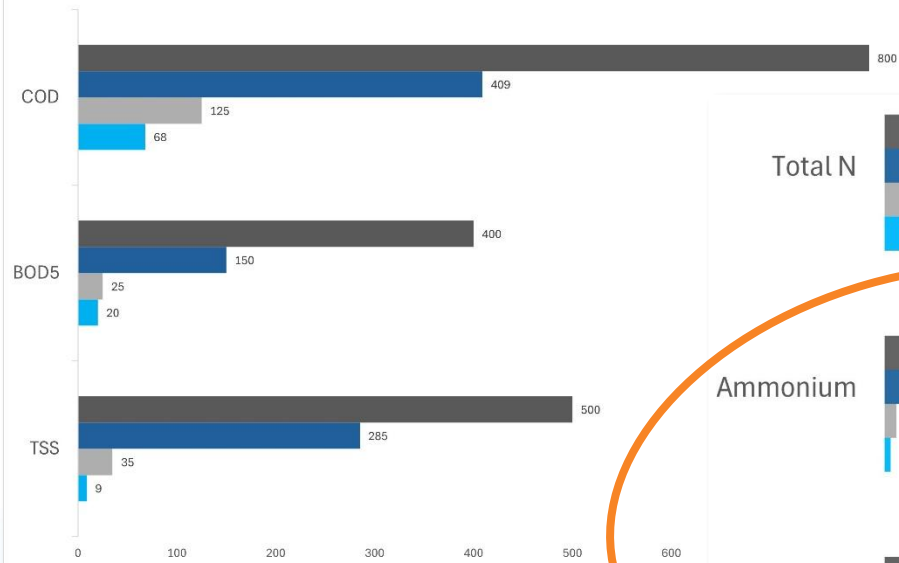
End drought, clean rivers and oceans, enhance global ecosystems, and provide drinking water for all – in line with the 2015 UN Agreement!

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

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 and carbon footprint associated with conventional water infrastructure, supporting climate resilience and ecological balance.



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.

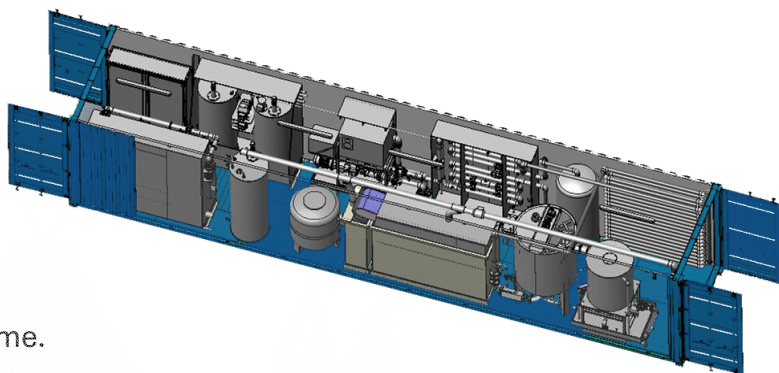
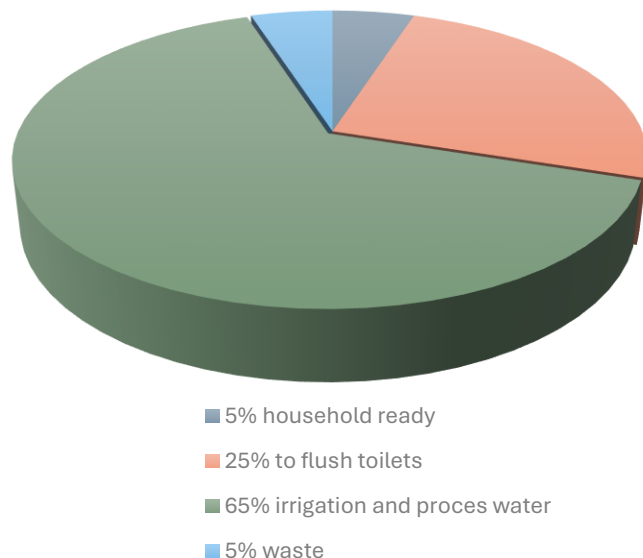
The process is eco-friendly, sustainable, odourless and easily adapted to the landscape.

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

BENEFITS

- **Compact & Space-Efficient:**
Small plant footprint (<250m²) with robust containerized housing.
- **Quiet, emission- and odor safe labor:**
A cleaner, safer working environment.
- **Plug-and-Play Installation:**
Ready for operation with minimal setup time.
- **Flexible for Various Conditions:**
Adapts better than traditional systems to changes in influent volume and conditions.
- **Scalable Solutions:**
Serves 500 – 5,000 inhabitants per unit (cost-effective up to >20,000)
- **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.

Bluecon
effluent reuse examples
with domestic wastewater





Blueconizing | The Process

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

“Bueconizing” 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 types Process basics and modules

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

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

"Bluecon: Perfecting water treatment with innovative technology."

1. COAGULATION



2. FLOCCULATION



3. FLOTATION



4. FILTRATION



5. DISINFECTION



6. OXIDATION & POLISHING

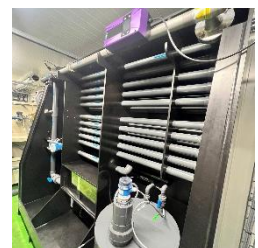




Our solution



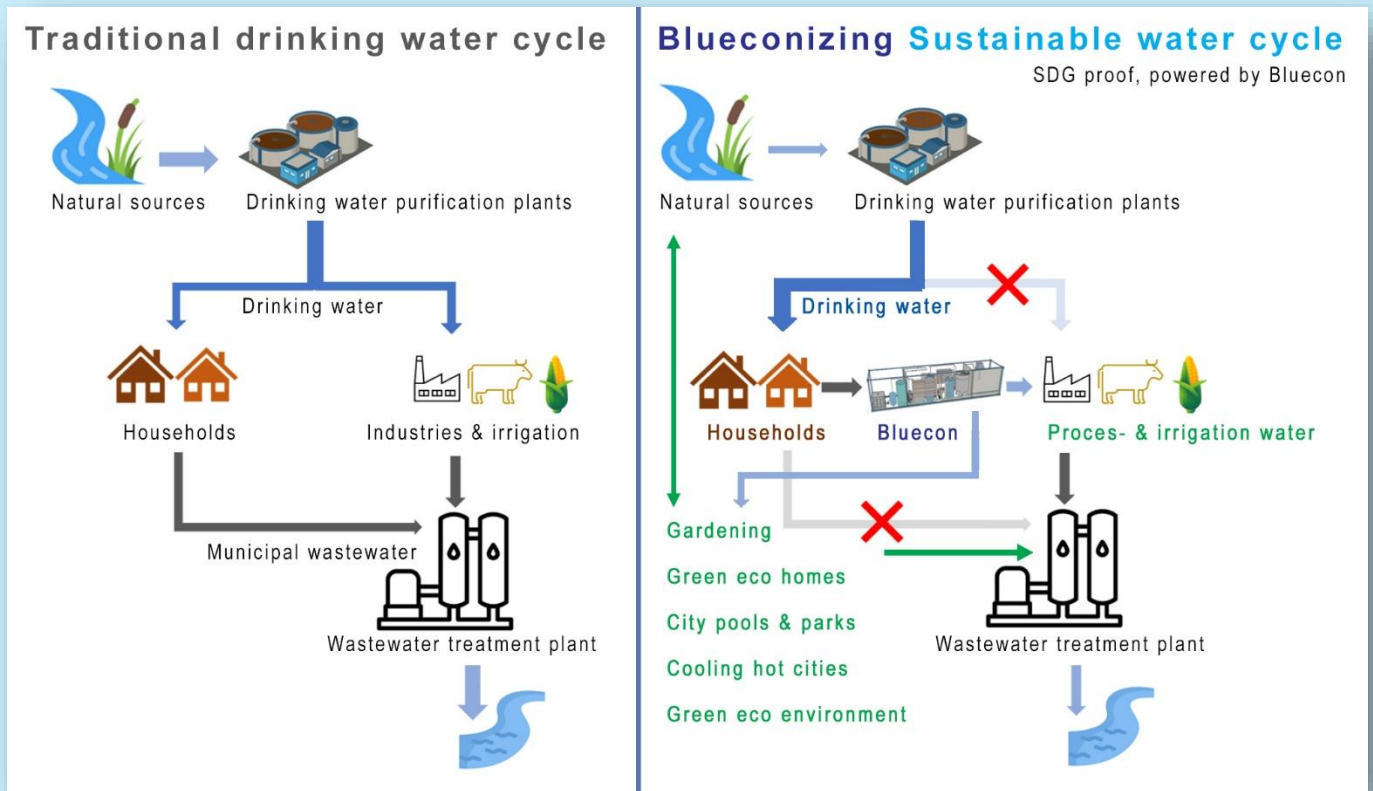
1. After removal of coarse material in the pre-screen, wastewater is treated in the first process step: **coagulation**. Wastewater is destabilized on molecule level to form flocs. A coagulant (iron or aluminium salt) is used to neutralize the charge and induce coagulation of the impurities. This process 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 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 is changing this sad reality.

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. Treated water can be reused for irrigation, improving food security and fostering local development.

A Ripple Effect of Benefits

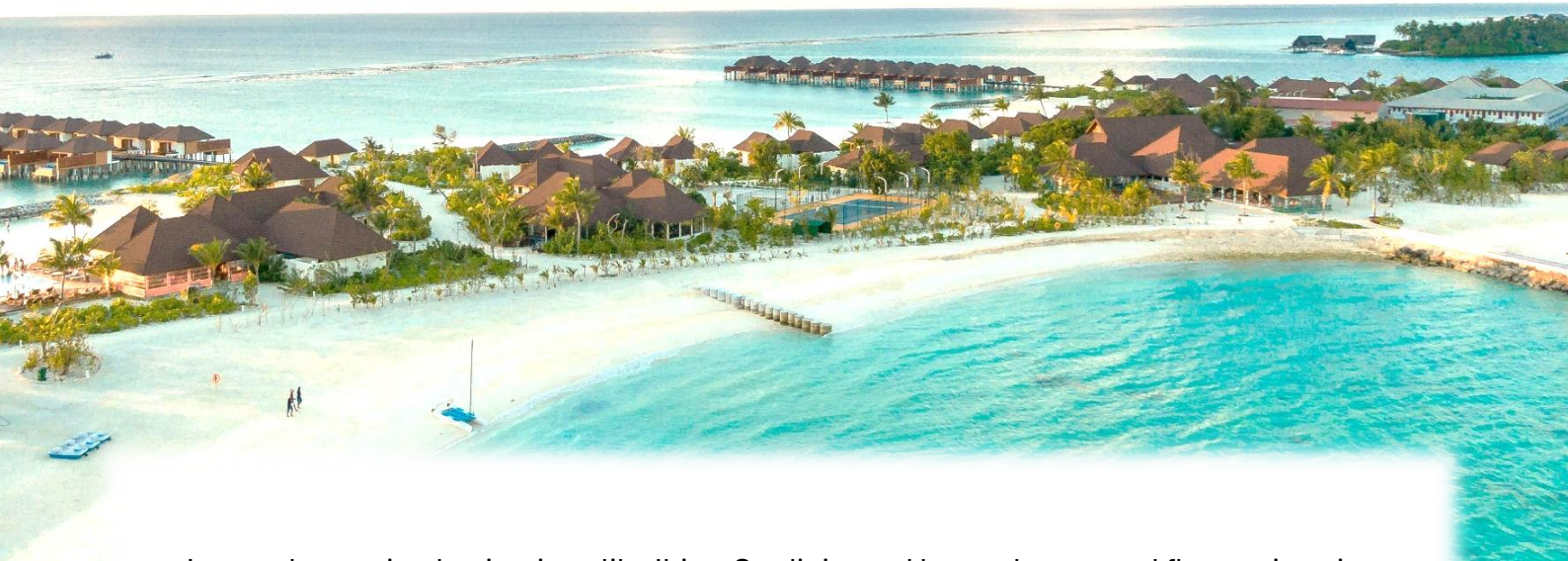
The introduction of proper sanitation systems has a profound impact:

- 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.”



2 | Effortless Wastewater Management for Seasonal Tourism



In popular tourist destinations like Ibiza, Sardinia, 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.



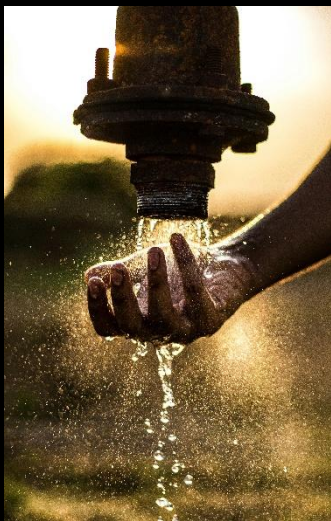
3 | Reuse domestic wastewater for irrigation

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.

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.

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



4 | Purified water for mining operations

Mining operations consume vast amounts of process water, creating significant challenges in regions where water resources are operation of mines, jeopardizing production and local economies.

Bluecon offers a game-changing solution by enabling a fully circular water flow. Our advanced wastewater treatment systems recover and purify process water on-site, making it safe for reuse in mining activities. This not only reduces the demand for fresh water but also minimizes environmental impact, ensuring compliance with regulations and supporting sustainable mining practices.

With Bluecon, mines can stay operational while safeguarding precious water resources, turning a potential shutdown into an opportunity for innovation and resilience.

“Sustainable water for a brighter future!”



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