



Polish Green Technologies at Smart City Expo Poland 2026

Ministry of Climate and Environment of the Republic of Poland

greenevo.gov.pl/en

2026



Ministry of Climate and Environment
Republic of Poland



NATIONAL FUND
FOR ENVIRONMENTAL PROTECTION
AND WATER MANAGEMENT

Innovation is critical for a zero carbon sustainable future economy

GreenEvo

The Green Technology Accelerator is an innovative program run by Poland's Ministry of Climate and Environment designed to create friendly conditions to disseminate environmental technologies provided by Polish entrepreneurs. Its main purpose is to help Polish companies to enter into international contacts and also to provide them with necessary tools to enable their dynamic development. The actions taken under the program stimulate development in a comprehensive manner and strengthen the position of advanced green technologies in the process of building a circular economy.

Objectives

GreenEvo promotes the **sustainable development** of companies, green technologies and, in consequence, the economy itself. Proponents of only **proven, implemented and highly efficient technologies** join its Laureates, thus contributing to the building of Poland's positive image in the world. It can be said that **GreenEvo Laureates are credible business partners, willing to share their knowledge, experience and technologies** with countries which have to cope with the local environmental problems. GreenEvo Program not only consistently builds the environmental awareness of domestic technology buyers, but also educates potential foreign partners, in respect of technologies to reduce environmental impacts which are often quite simple to use. GreenEvo strengthens the business activity of companies at the international level. It changes the approach to a company and its management – from a traditional approach to a modern, effective one, focused on measures related to corporate social responsibility.

Benefits

The GreenEvo Program is one of the key tools used by the Polish Government to support the transition process towards a sustainable economy and to raise the awareness of companies as to how they can operate in a responsible manner. It is the best practice in the scope of cooperation between the central administration and business. From the very start it has been created and launched by the Government administration, which, in addition, has assumed the role of a guarantor of the quality of the technologies offered. Thanks to GreenEvo, the international transfer of green technologies is stimulated and the activities of Polish companies which provide environmental and energy efficient technologies are supported in real terms abroad. Furthermore, the Program demonstrates that Poland is able to become actively involved in international actions to **combat climate change, without a detriment to economic growth**.



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SEEDiA



jCharge – autonomous charging station

jCharge is an innovative, modular, and autonomous charging station for electric scooters and bicycles, designed for modern cities developing micro-e-mobility systems. The solution integrates charging functionality, secure storage, and intelligent energy management, responding to the needs of rapidly growing Smart City infrastructure.

The station has been engineered to operate in both off-grid and on-grid modes, enabling installation in almost any location — without the need for connection to an external power network. Its high energy autonomy is ensured by efficient photovoltaic panels and dedicated control electronics that optimize energy collection and distribution depending on weather conditions and station load.

In its standard configuration, jCharge offers 4 charging points, though its modular architecture allows easy scaling to a larger number of stations depending on the needs of the operator, municipality, or private investor. Each charging point is integrated into an individual post equipped with a secure locker, allowing users to safely store their scooter or bike during charging or rental.

The stations are managed through the Incity.io platform, which enables monitoring of battery charge levels, correct locker operation, number of plug-ins and charging sessions, user activity, and overall energy consumption. This gives clients and operators full control over the station's performance and operation. The UrbMap application allows users to reserve available charging posts, scan QR codes, and unlock lockers once the charging session is complete.

ADVANTAGES OF THE SOLUTION

- Modular design enabling easy expansion.
- Off-grid mode allowing installation anywhere.
- Secure lockers for storage during charging.
- Integrated management and reservations via Incity.io and UrbMap.

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ViaZone – Mobile Traffic Management System

ViaZone is an intelligent mobile traffic management system designed to enhance safety and traffic flow in roadwork zones and temporary traffic arrangements. It integrates radar sensors, cameras, meteorological stations, and wireless communication modules (Bluetooth/Wi-Fi) to collect and analyze real-time data on traffic volume, speed, queue length, travel time, and weather conditions.

Using advanced algorithms, ViaZone dynamically displays warnings, speed limits, congestion information, and lane recommendations on Variable Message Signs (VMS). This real-time guidance improves driver awareness, reduces the risk of collisions, and minimizes traffic delays.

The system features a modular and flexible architecture, allowing integration with various ITS devices and adaptation to diverse road environments. Its portable and energy-efficient design ensures full autonomy and fast deployment without the need for permanent infrastructure. The system can be relocated within minutes, minimizing risks for installation crews and reducing operational costs.

ViaZone delivers a measurable improvement in road efficiency — enhancing traffic harmonization and flow by up to 40%. It helps road operators, municipalities, and contractors maintain safety and continuity of transport during construction and maintenance works, while contributing to lower emissions and better mobility management.

ADVANTAGES OF THE SOLUTION

- Dynamic traffic management for roadwork and temporary zones
- Real-time data integration from radar, cameras, and weather sensors
- Fully mobile, modular, and energy-efficient design
- Up to 40% improvement in traffic harmonization and flow

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FARDATA – Enviro Station



Enviro Station – Comprehensive Environmental Monitoring Station

Enviro Station is an advanced environmental monitoring system designed to measure air quality, noise, and meteorological parameters. It combines multiple sensing technologies within a single compact housing, providing a complete picture of environmental conditions in real time.

The system includes gas sensors (e.g., CO, NO₂, SO₂, O₃, H₂S), particulate matter sensors for PM₁₀, PM_{2.5}, and PM₁, and weather modules for temperature, humidity, pressure, wind speed, and wind direction. Enviro Station automatically maintains optimal operating conditions for its sensors, ensuring accuracy and long-term stability even under changing weather conditions.

Positioned in the near-reference class, it offers an ideal balance between cost and measurement quality—delivering performance close to reference-grade systems at significantly lower installation and maintenance costs.

Its modular and flexible architecture allows seamless adaptation to different applications, from Smart City and transport infrastructure to industrial sites, agriculture, and research. Data is transmitted to the cloud and visualized in real time, enabling advanced analytics, alerts, and integration with ITS and environmental management platforms.

With over 20 years of experience in precision measurement technologies, we have created a system that combines reliability, simplicity, and professional-grade performance—supporting cities, industries, and institutions in achieving cleaner, more sustainable environments.

ADVANTAGES OF THE SOLUTION

- Comprehensive monitoring of air quality, noise, and weather parameters
- Near-reference accuracy with significantly lower operating costs
- Modular and flexible design for diverse applications
- Over 20 years of expertise in environmental measurement systems

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KSK Developments – Smart Dual-Sensor Parking Management System



Smart Dual-Sensor Parking Management System

A parking space management system based on magnetic sensors with radar confirmation is an advanced IoT solution designed to monitor parking spaces in indoor and outdoor parking lots. Each sensor integrates two independent detection modules: a magnetic field sensor, which responds to disturbances caused by the presence of a vehicle, and a miniature Doppler radar, which confirms space occupancy, eliminating false positives resulting from environmental interference. The dual measurement path significantly increases detection reliability and enables operation in diverse weather conditions.

The devices communicate wirelessly using LoRa technology, utilizing long-range modulation with minimal power consumption, allowing for years of battery-powered operation. Transmission occurs in an unlicensed band, enabling broad system scalability without the need for costly telecommunications infrastructure. Data from the sensors is sent to an IoT server, where it is aggregated and analyzed, and then made available to operators via APIs or dedicated applications. The technology enables real-time occupancy monitoring, dynamic traffic management, optimization of paid parking zones, and generation of precise statistical data supporting urban planning. The system can be integrated with Smart City platforms, information boards, mobile applications, and payment systems. Thanks to its modular architecture and high reliability, it is an effective tool for managing parking infrastructure in cities, airports, shopping malls, and other facilities with high vehicle turnover.

ADVANTAGES OF THE SOLUTION

- Highly accurate thanks to dual magnetic and radar detection.
- Long-lasting battery life thanks to long-range LoRa transmission.
- Quick installation without any infrastructure disruption or cabling.
- Precise, real-time data supports traffic management.

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KSK Developments – IoT system for monitoring biochemical processes in compost heaps



IoT system for monitoring biochemical processes in compost heaps

An IoT system for monitoring exothermic biochemical processes in compost piles was designed to automate composting supervision at waste treatment plants. The technology is based on cableless environmental sensors that measure key process parameters: temperature, humidity, and oxygen content. The sensors are resistant to harsh operating conditions and can be installed directly in the piles, providing precise data from various depths and stages of composting.

The sensors communicate using LoRa technology, which enables data transmission over many kilometers with minimal power consumption. This solution eliminates the need for cabling, allowing for complete flexibility in sensor placement and long-term battery operation. Data is transmitted to an IoT platform, where it is analyzed, visualized, and archived. The system enables the creation of alarms for critical values, the detection of process deviations, and the generation of automatic reports compliant with environmental requirements.

The technology ensures continuous monitoring, increases the safety of the composting process, and supports the maintenance of stable thermal conditions essential for the proper functioning of biochemical reactions. It enables optimized pile management, faster response to irregularities, and reduced operating costs by reducing the need for manual measurements. The system is a modern tool supporting the ecological, efficient, and fully controlled processing of organic waste.

ADVANTAGES OF THE SOLUTION

- Continuous measurement of key composting process parameters.
- Stable LoRa connectivity enables long-range monitoring.
- Eliminates cabling and provides long-term battery operation for sensors.
- Early detection of irregularities and automatic alerts.

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Segregate



Municipal waste selective collection system

Segregate is a technology designed to support selective municipal waste collection in multi-family buildings. It leverages remote monitoring and identification systems to improve segregation efficiency and accurately assign waste to specific apartments.

The system operates using RFID access cards — residents use them to enter the waste enclosure. This allows the system to identify which household is disposing of waste at a given moment and then automatically assign the used bags to the correct apartment. Additionally, Segregate bags have unique identifiers, enabling automatic linkage to both waste fractions and specific units.

The offering includes a modular structure. Depending on the needs, the basic version can be deployed or expanded with additional features such as video monitoring (minimum two cameras), automatic waste-fraction assignment, fill-level sensors, or a scale.

The system is also integrated with an online application, giving residents access to their individual ecological impact and enabling municipalities to monitor segregation performance in real time.

Segregate is relatively cost-efficient compared to competing solutions, and the bags are priced at market level. A nationwide service network facilitates implementation in various locations — housing associations, developers, and municipalities.

The benefits of implementing Segregate are multidimensional: municipalities can better meet recycling targets, housing communities gain a solution that eliminates collective responsibility, and residents benefit from transparency and a sense of environmental contribution. The system effectively supports an eco-friendly, responsible waste-management process in multi-family housing environments.

ADVANTAGES OF THE SOLUTION

- Use of existing infrastructure – no need to replace containers or build new waste enclosures, which reduces implementation costs.
- Precise assignment of waste to individual users.
- Sealed and controlled process – the system ensures full transparency and oversight of waste disposal.
- Ease of use - for users and waste services co.

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IDEALBIN



Idealbin – an intelligent system supporting selective waste collection

Idealbin – a comprehensive smart system for selective waste collection, delivering efficient and sustainable waste management through cutting-edge technology. The intelligent bins, combined with a dedicated mobile app, provide an effective tool for residents, waste collection companies, property managers, and municipalities.

Access is restricted to authorised users via RFID card or app (paperless solution), completely preventing illegal dumping and enhancing urban aesthetics. Based on the KAYT (Know-As-You-Throw) principle, the system weighs every deposit, monitors waste quantity and type, and verifies correct segregation. Real-time feedback motivates users to sort properly and significantly boosts recycling rates. A built-in compactor reduces waste volume, allowing far more efficient bin utilisation and reducing the space needed for collection points. IoT technology continuously tracks fill levels and instantly transmits data to operators, enabling optimised collection schedules and routes. Idealbin bins feature a modern design and full accessibility thanks to an innovative low-level insertion chute tailored for people with disabilities. They can be solar-powered or equipped with living green roofs, making them a striking element of eco-friendly architecture in housing estates, corporate campuses, and shopping centres.

ADVANTAGES OF THE SOLUTION

- Waste compression – up to 4× reduction in volume
- 20–35% savings on transport costs thanks to dynamic emptying
- Significant increase in waste sorting and users' environmental awareness
- Full accessibility for people with disabilities

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Waterly



Waterly – real-time AI-powered water quality monitoring system

Waterly is an innovative cleantech solution for real-time water quality monitoring, combining advanced sensor-equipped buoys with a scalable cloud platform powered by AI. The system autonomously measures multiple parameters—temperature, dissolved oxygen, pH, turbidity, nitrate, ammonium, BOD, COD, and hydrocarbons—transmitting the data in real-time via LTE to an intuitive web dashboard and mobile app.

Designed as a plug-and-play solution, Waterly buoys are solar-powered, RS-485/Modbus compatible, and suitable for both remote natural water bodies and industrial retention tanks. Alerts and anomaly detection help users proactively respond to water threats, protecting ecosystems and meeting compliance requirements.

The system is currently operational in Poland, including the Odra River (PGWiR S.A.), Lake Białe (British American Tobacco), Wigry National Park, MPWiK Wrocław, and aquaculture sites like AntoniusCaviar – the largest caviar producer in Europe.

Waterly's mission is to democratize access to reliable environmental data and support sustainable water stewardship globally. The product is ready for scaling across Europe, UK, and beyond.

ADVANTAGES OF THE SOLUTION

- Real-time AI-powered water quality monitoring with instant alerts
- Plug-and-play installation – no cables, fully solar-powered system
- Once-a-year maintenance only – low operational costs
- Easy online access to data via app and web dashboard

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Sultech® - technology for the neutralization of solid industrial waste

Marbet Wil offers innovative technical solutions protected by patents that facilitate the recovery of hazardous industrial waste. This is achieved by stabilizing the waste with Sulstar® sulfur polymer and solidifying it into products suitable for railway, road, and hydraulic engineering.

Sultech® technology converts industrial waste such as: slag, dust, and ash, into valuable and safe products, aligning with the principles of a circular economy. The waste-based Sultech® composite is a thermoplastic material that boasts high mechanical strength and is fully resistant to corrosion in harsh environments, including concentrated acids, seawater, sewage, and brine. Its impressive performance parameters make it suitable for various applications in hydrotechnical construction and road and railway projects, such as counterweights, drainage systems, sea defenses, curbs, road barriers, and road slabs.

The Sultech® technology effectively addresses the issue of solid waste, including dust, ash, sand, and slag, thus eliminating the need for landfill disposal. The process of stabilizing and economically utilizing hazardous industrial waste within Sultech® polymer concrete is particularly valuable for managing waste that contains heavy metals, which are chemically transformed into water-insoluble sulfides. Other materials are integrated into the final matrix and encapsulated in a non-absorbent, airtight substance.

Benefits of this solution include:

- Eliminating the costs and technical challenges associated with storing hazardous waste
- Freeing up land designated for landfills
- Transforming waste into safe and useful products
- Achieving 100% product recycling
- Maintaining a low carbon footprint
- Ensuring a low water footprint.

ADVANTAGES OF THE SOLUTION

- The production process does not involve any water or cement,
- Features a low carbon footprint and low water footprint,
- Offers high mechanical strength, corrosion resistance, no water absorption, and excellent frost resistance.
- Offers 100% recyclability of the material.

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IZODOM



IZODOM2000
POLSKA

IZODOM technology

Izodom manufactures and supplies solutions for the construction of modern, highly energy-efficient and passive houses. Initially, the company's production was based on a system of basic polystyrene shapes used for constructing structural walls. In subsequent years, it expanded its product range, introducing various thicknesses of wall elements. It also introduced a foundation slab and a roof insulation. The company currently offers its clients a comprehensive system for building houses using IZODOM technology.

The company's mission is to provide technologies and products that enable the faster construction of durable, healthy, and environmentally friendly homes and buildings, with the lowest maintenance costs. The globally unique energy-efficient construction system developed and promoted by Izodom 2000 Polska is based on the permanent formwork method, while the innovative solutions adopted by the company are based on construction speed, exceptional durability, and the ability to reduce heating energy demand to virtually zero. Construction allows for exceptionally fast construction thanks to the simplicity of construction, reminiscent of LEGO bricks. Thanks to this business concept, the company is currently the undisputed leader among European suppliers of advanced technologies for passive construction. It is worth noting that it has become the only manufacturer of complete passive house construction technology in Europe.

ADVANTAGES OF THE SOLUTION

- IZODOM technology significantly reduces heating bills by up to 80%
- Building construction is three times faster than with traditional technology
- A house built with IZODOM technology reduces CO2 emissions by up to half
- The durability of a building constructed with IZODOM is estimated at 150 years!

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EKOINWENTYKA



Bioreactors (CTBB) - innovative and economical air purification

Ekoinwentyka is a dynamically developing technology-consulting company that offers innovative solutions for environmental protection in particular the bio-elimination of volatile organic compounds (VOC), odors (including H₂S, NH₃), methane from exhaust gases generated in industry.

We offer individual turn-key installations with a Compact Trickle Bed Bioreactor (CTBB) using gas bioelimination processes, which guarantees the required reduction of pollutant resulting in the production processes.

Conducting the process in CTBB bioreactor at a low temperature (30°C) and under the atmospheric pressure results in many positive effects:

1. Low operating cost of the processes
 - a) low energy consumption
 - b) no need to use catalysts
 - c) small failure rate
 - d) lack of CO₂ and NO_x emission charges
2. Long plant life
3. Lack of explosion risks
4. High degree of pollution reduction
5. High ecological efficiency

We offer an innovative solution, characterized by a high degree of ecological efficiency and lower operating costs several times as compared with previously used technologies.

ADVANTAGES OF THE SOLUTION

- Lower energy consumption and operating costs compared to conventional technologies
- High purification efficiency of 90-99%
- High ecological efficiency - no secondary pollutants (e.g., CO₂ and NO_x emissions)
- No explosion hazard

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WindTAK



5GVG by WindTAK

Our flagship product, the 5GVG system, combines aerodynamic improvements with IoT technology to maximise turbine performance. It uses smart vortex generators - small, 3D-printed components mounted on turbine blades - to increase energy efficiency while collecting performance data. Equipped with wireless IoT devices, these generators continuously monitor the turbine's operation. Machine learning algorithms analyse this data to provide actionable insights, helping operators detect problems early and plan maintenance efficiently, ensuring smoother, more profitable operations.

With our experience in creating virtual turbine models, developing reusable products for offshore environments, and utilising sensors and measurement systems, we offer valuable expertise and advanced resources. Our efforts are focused on improving the efficiency and reliability of wind turbines through innovative solutions. By integrating aerodynamic advances, advanced materials and IoT technologies, we are contributing to a cleaner, more sustainable energy future.

ADVANTAGES OF THE SOLUTION

- Up to 5% increase in turbine energy efficiency
- Continuous smart monitoring via IoT and AI
- Predictive maintenance cuts costs by up to 7%
- Innovative Polish solutions for clean energy

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PROTE – PROTE-MOS



Technologies for our Environment LLC

Sludge minimization PROTE-MOS

The proprietary PROTE-MOS technology is designed to control the wastewater treatment process at existing facilities. It creates optimal conditions for the plant's activated sludge, increasing microbiological diversity in its ecosystem and facilitating dominance of stronger organisms that adapt more easily to the conditions created with PROTE-MOS. The measurable effects are: reduction of the amount of excess sludge produced, improvement of the quality of treated wastewater (especially with regard to nutrient elements) using a purely biological stimulation, reduction of the consumption of chemical reagents, including the possible complete cessation of dosing coagulants, and increasing the stability of the treatment plant's operation – increasing the resistance of the facility to variable pollution loads. The PROTE-MOS technology can be easily implemented at existing facilities, bringing immediate economic and environmental benefits.

ADVANTAGES OF THE SOLUTION

- PROTE-MOS limits sludge formation by 20%-73%.
- It optimizes the process of wastewater treatment, which leads to measurable environmental and economic benefits.
- This technology improves the quality of effluent, reduces electricity consumption and carbon footprint, as well as chemical reagent use.

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PROTE – PROTE-FOS



Technologies for our Environment LLC

Lake research and reclamation PROTE-FOS

The patented PROTE-FOS technology has been designed to permanently solve the problem of algal blooms in water reservoirs. It is a comprehensive service dedicated to private and public entities that own or manage water reservoirs affected by progressive eutrophication. The reclamation process is carried out using the dedicated, innovative 2-module vessel PROTEUS, engineered by PROTE. The PROTE-FOS technology halts cyanobacteria-related phytoplankton blooms, improving water transparency. PROTE's proprietary solution stimulates natural processes occurring in the aquatic ecosystem, facilitating restoration of its previous biological balance, provided there is no inflow of nutrients from external sources. Technology involves phosphorus blockage in the reservoir's bottom sediment during its controlled resuspension, followed by its permanent consolidation. Inactivation of phosphorus in the sediment prevents the re-bloom of the water.

ADVANTAGES OF THE SOLUTION

- PROTE-FOS restores the natural balance of aquatic ecosystems.
- Its efficiency has been scientifically proven and field-verified.
- PROTE-FOS can be implemented over lakes and overseas areas.
- PROTE-FOS, unlike alternative invasive methods, does not affect ecological processes naturally occurring in the aquatic ecosystem.

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PROTE – SYMBIO

PROTE

Technologies for our Environment LLC

Water biomonitoring SYMBIO

The SYMBIO biomonitoring system from PROTE is an early warning system for detecting contamination of drinking water. It combines a natural, reliable method of bioindication, based on the reaction of living organisms called bioindicators, with modern technology that enables automatic water monitoring and data recording. SYMBIO sets the current standards for water safety. The system works based on bioindication. Eight specimens of the species *Unio tumidus*, placed in the SYMBIO flow-through tank, are equipped with a measuring probe that records every movement of each mussel's shell. The natural biorhythm of a mussel is comparable to a human ECG. Any change in the mussels' behavior is recorded and visualized, and in the event of a water contamination hazard, the system automatically generates an alarm and sends it directly to the personnel operating the critical infrastructure, according to the facility's crisis management procedures.

ADVANTAGES OF THE SOLUTION

- SYMBIO protects critical infrastructure.
- It increases the sense of security of the potable water users.
- It is maintenance-free for its operators.

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Biovalley

BIOVALLEY

r e s e a r c h

Clinibox

BioValley Research Venture Builder designs its own innovative technologies and products to solve real-world social and environmental problems. It develops applied projects for whole world. It commercializes projects through technology transfer to local partners or license sales, or through its own spin-offs. Interdisciplinary knowledge, organizational experience, and access to the latest scientific research allow development interdisciplinary projects in areas: med-tech, bio-tech, health-tech, defense, dual-use, food-tech, clean-tech, deep-tech and others. More can be found on website www.biovalley.org.pl To achieve its goals, the organization cooperates with universities, research centers and industry partners using the laboratories and other resources available there.

Re-vending machine for dual use application.

One application: two in one: Retail point of sale of plastic protective clothing for visitors in hospitals and point of return after use. This system improve hospitals' textile management and disposal, reduce the risk of patient infections in hospitals and reduce of solid waste in environment.

Second application: Retail point of sale of one day hygienic sets patients (women and man) of emergency wards. – ready for implementation.

ADVANTAGES OF THE SOLUTION

- Increase the quality of services in the hospital industry
- Decreased risk of diseases.

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The Institute of New Technologies in Environmental Engineering – Climate Garden



Climate Garden

Climate Garden is an innovative nature-based engineering solution that combines the functions of a rain garden, pocket park, and biofilter within a single multifunctional system. It represents a model example of modern blue-green infrastructure (BGI) that supports local adaptation and mitigation strategies in response to climate change.

At its core lies an advanced infiltration-retention system consisting of a carefully designed soil profile, filtration and drainage layers, and hydrophytic vegetation. This system enables effective stormwater retention, infiltration into the ground, and pollutant removal while reducing surface runoff and pressure on sewer systems.

Climate Garden also functions as an active microclimate regulator — it cools the surrounding area through evapotranspiration, improves air quality by capturing dust and gases, reduces noise, and enhances overall thermal comfort. The solution supports the circular economy by enabling on-site rainwater reuse for irrigation and converting biodegradable waste into compost that enriches the soil.

By integrating ecological and engineering processes, Climate Garden enhances biodiversity, provides habitats for pollinators, and creates attractive, educational, and recreational spaces. This Polish innovation demonstrates how sustainable design can simultaneously improve water management, environmental quality, and community resilience to the impacts of climate change.

ADVANTAGES OF THE SOLUTION

- Efficient stormwater management and local water retention.
- Improved air quality, microclimate, and urban comfort.
- Nature-Based Solution (NBS) integrating ecology and engineering.
- Closed organic matter cycle and reduced CO₂ emissions.

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The Institute of New Technologies in Environmental Engineering – Hydrophytic Bioreactor



Hydrophytic Bioreactor

The Hydrophytic Bioreactor is an innovative Polish environmental biotechnology designed for the treatment of wastewater and stormwater through natural bio- and phytoremediation processes. The system utilizes aquatic plants, microorganisms, and optimized filter media to form a self-sustaining ecosystem that effectively removes pollutants while maintaining low operational costs and minimal environmental impact.

Depending on configuration and local conditions, the bioreactor operates in low-energy or fully passive mode. Its modular design allows flexible adaptation to diverse scales, climates, and land-use conditions, supporting municipalities and industries in achieving sustainable water management.

The technology aligns with the principles of the circular economy, climate change adaptation, and biodiversity protection, making it a valuable component of long-term environmental strategies. When integrated into public or industrial areas, it serves as part of blue-green infrastructure, providing additional retention capacity, aesthetic enhancement, and educational opportunities.

Developed through years of scientific research and extensive field implementation, the Hydrophytic Bioreactor represents a proven synergy of nature and technology. Originating from Polish innovation, it demonstrates how biotechnology can effectively contribute to cleaner water, resilient ecosystems, and sustainable urban development.

ADVANTAGES OF THE SOLUTION

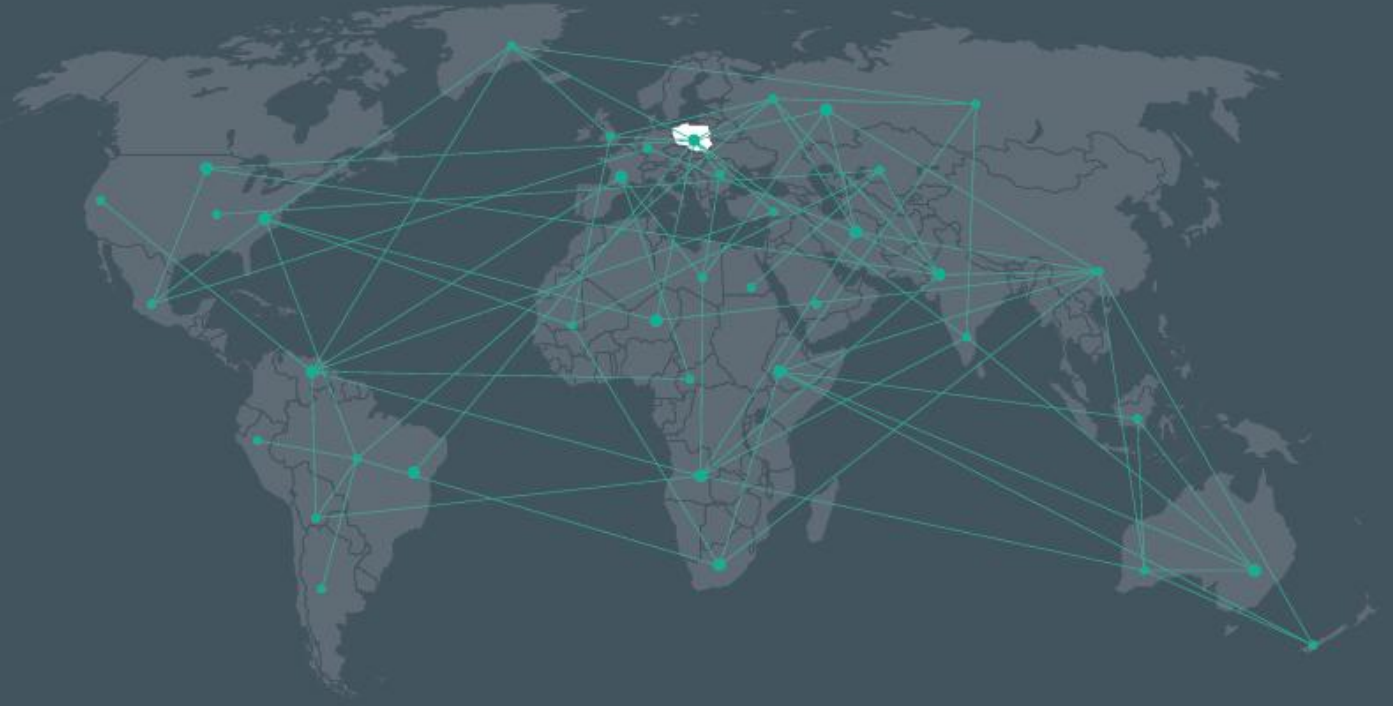
- High purification efficiency – removes over 95% of pollutants.
- Low construction and maintenance costs, fast implementation.
- Eco-innovation based on five patented solutions.
- Over 10 years of operation and nearly 7,000 installations.

CONTACT INFORMATION

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More information

