



INNOVATIONS
by GHELAMCO

We are where you need us.

Ghelamco is a leading European real estate investor and developer, active for 36 years, operating in Belgium, France, Poland and UK, with an area of engagement varying for each of the countries:

BELGIUM

Office
Residential
Retail
Multifunctional
– leisure: golf courses & football stadiums
Healthcare
Industrial
Logistics
Hotel
Student housing
Elderly homes

POLAND

Office
Residential
Retail
Hotel
Mixed-Use

FRANCE

Residential
Hospitality

UK

Office
Residential



Sustainable development in Ghelamco's business strategy.

The Ghelamco Group actively contributes to the implementation of selected UN Sustainable Development Goals, defined for Sustainable Development, which includes an action plan for peace and prosperity for people and the planet.

We are focusing on 12 goals, which are global determinants of the direction of change (SDG):



ESG (Environmental, Social and Governance) is our priority. We turn the theory of ESG into action because we care about the planet.

We aim to make our company and projects energy neutral via using renewable energy sources with guarantees of origin. We want to achieve this goal by 2025.

Our goal is to make our company and projects energy neutral by using renewable energy sources of guaranteed of origin. We aim to achieve this goal by 2025.

In VIBE and The Bridge, we built low-emission concrete into the foundation slab, reducing CO₂ emissions on the entire structure by 10%. Vibe also uses low-emission concrete in the diaphragm walls.

Activities reducing GHG emission in Ghelamco buildings.

Design stage

According to BREEAM certification requirements, at the design stage, Ghelamco takes care of reducing greenhouse gas emissions.

e.g. Recently we have changed a freon system to a system with ecological freon GWP = 1 (in The Warsaw UNIT).

Operational stage

We refer to the Greenhouse Gas (GHG) Protocol reporting standard. It has become particularly important to reduce indirect emissions through a rational electricity purchasing policy, which allowed to confirm the reduced carbon footprint of the organization.



Activities reducing GHG emission in Ghelamco buildings.

Supporting the process of tenants' decarbonization

The process of managing information about emissions is based on BEMS system, which allows the acquisition and processing of data from building automation systems BMS along with the transfer of the most important KPIs to individual tenants.

Monitored data include:

- CO₂ emissions divided into individual sources, with the distinction of renewable sources
- CO₂ emissions related to the unit of electricity consumed
- CO₂ emissions related to the unit of heat and cool consumed
- CO₂ emissions related to waste consumption

Activities reducing water consumption in Ghelamco buildings.

Ghelamco implements several solutions in this area:

- instalment of vacuum drainage system, first ever system like that in skyscraper in the world (The Bridge),
- on the supply lines of individual toilets tenants and toilets for disabled people valves with electromagnetic shut-off, controlled by a motion sensor, which are also elements controlling small water leaks,
- toilet cisterns with two parts, manual flushing system $2/4 \text{ dm}^3$,
- electronically controlled washbasin faucets with a flow limiter,
- electronic urinal flushing systems with adjustable flush volume,
- thermostatic shower faucets with stream regulation and a flow restrictor,
- central leakage monitoring system as part of the implemented algorithm for detecting irregularities in the BMS monitoring station.

75% of water reduction in our new office tower The Bridge – first in Europe.

Vacuum drainage system

Comparing the water savings with the capacity of the Olympic pool with a length of 50 m with a capacity of 3.5 million liters of water, **annual savings for toilets are 16,200,000 liters of water, i.e.**

10 Olympic swimming pools.



Directions of social involvement.

Ghelamco is aware of the huge impact of buildings on the environment, as well as the people who use these buildings. That is why we want to shape the space around the buildings.

Ghelamco aims to integrate buildings with the **urban space** and care for the quality of public space, introducing a number of functional and friendly solutions that can serve local communities.

An example of such activities is, **Plac Europejski**, built at the foot of the Warsaw Spire office building. It became a venue for numerous social, cultural, artistic and sports events that are designed to improve the living standards of the local residents and the working conditions of the building users.



We know that we need to take care of people.

FUNDACJA SZTUKA W MIEŚCIE



- In 2014, we established the **Art in the City Foundation (Sztuka w Mieście)** in order to take actions leading to the improvement of the quality of life in urban space.
- Its goal is to promote, support and disseminate artistic initiatives and to organize various cultural, sport and entertainment events for local communities.
- The role of our organization is to raise awareness among local communities by treating art and culture as a tool and one of the layers building the city.
- We organize design workshops, art exhibitions, cultural seminars and meetings.



Antipandemic solutions.

During the COVID-19 pandemic, our buildings were adapted for safe and healthy use, thanks to the implementation of solutions, rules and actions, including:

- Implementation of the building's operating principles in the COVID-19 pandemic mode and COVID-19 procedures by the building manager.
- Implementation of the principles of WELL Health Safety Rating - confirmed by obtaining the final WELL Health Safety Rating.
- Installation and modernization of elements ensuring the safety of users, in particular:
 - UV lamps in air handling units and in elevators,
 - solutions enabling the regulation of the ventilation system in cooperation with air quality sensors with the possibility of controlling the system with heat recovery switched off.
 - systems regulating air humidity. Ventilation system set at humidity level least suitable for the growth of bacteria and viruses.
 - in the event of crisis situations, it is planned to use the Signal OS building application, e.g. to send messages regarding regulations introduced





We offer the most innovative solutions.

Signal OS, Ghelamco' s building operational system.

Signal OS communicates with most applications and building core systems, which allows for unprecedented integration.

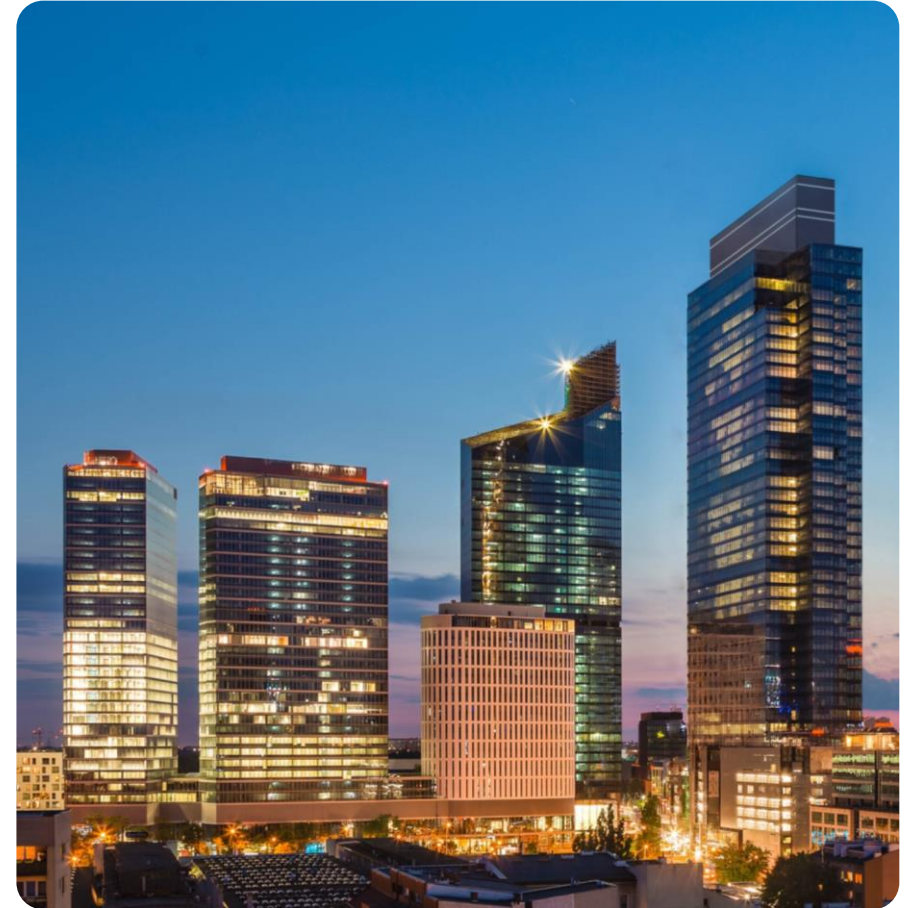
Signal OS monitors, among others such systems as: HVAC, elevators, access control, parking management system, it also monitors the air quality in the building.

Thanks to Signal OS, users get access to a mobile application that allows, among others access to the building or the possibility of inviting guests and booking parking spaces.

Solutions elevating comfort of tenants' use.

We design our buildings in a way allowing to meet the high requirements of indoor environmental quality **IEQ - Indoor Environmental Quality** and high indoor air quality **IAQ - Indoor Air Quality** as significant indicators of comfort for users.

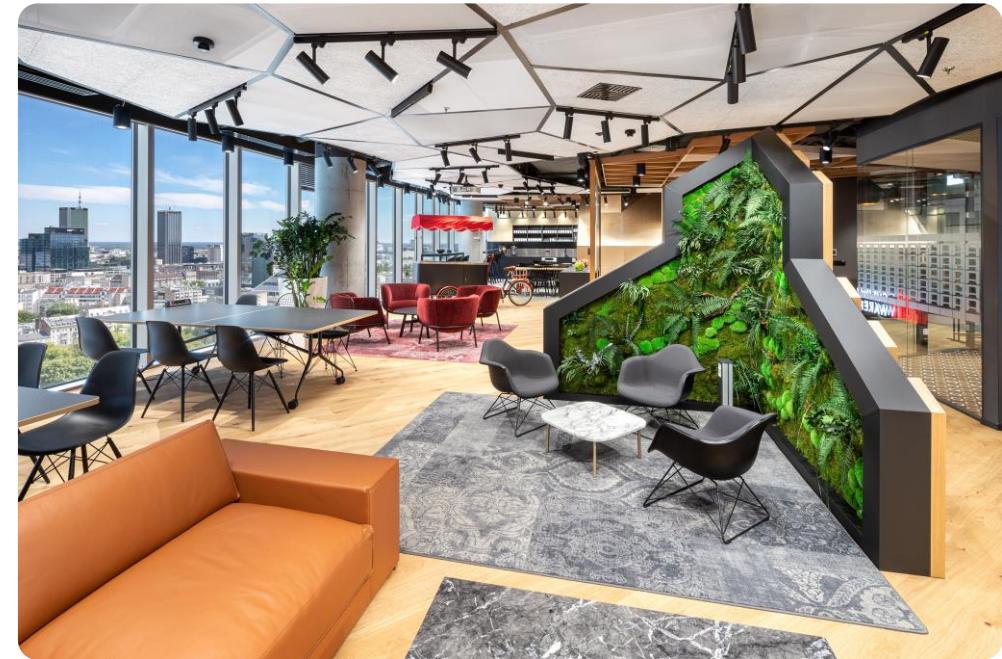
Building Management System (BMS) ensures the ongoing maintenance of a high level of IEQ and IAQ indicators in our buildings. The most important indicators of air quality and humidity are constantly tested, including particulate matter indicators PM 2.5 and PM 10, and volatile organic compounds tVOC13.



Solutions elevating comfort of tenants' use.

Building users are provided with healthy, comfortable and safe working conditions thanks to activities including:

- energy-saving lighting and motion sensors that control lighting in common areas,
- zone temperature control system in open-space and in closed rooms,
- effective and ecological ventilation and cooling systems
- fan coils - the applied solution compared to the originally planned one led to a reduction of CO2 emissions by 11% including by reducing energy consumption for cooling,
- air quality sensors installed in elevator halls



Solutions elevating comfort of tenants' use.

Activities for the **well-being** of Ghelamco buildings' users and activating them to physical activity are also carried out in the building:

- staircase architecture encouraging inter-story communication,
- tenants can use with weekly, organized physical exercises carried out on-line and available to all building users,
- stationary bicycle and adjustable desks and chairs in rooms for building services,
- bike city stations located next to our buildings and amenities for bikers (showers, lockers, racks),
- regular quarterly water quality testing from the municipal network in order to confirm compliance with the strict requirements of drinking water quality,
- ongoing internal and external air quality tests in relation to city base stations.

Accessibility and facilities for people with disabilities.

At the design stage of our buildings an audit report for the certificate **Building without Barriers** is prepared by Fundacja Integracja.

The certificate confirms the architectural accessibility of our buildings for people with limited abilities and means that the building surfaces are friendly and adapted to the needs of people with various disabilities: wheelchair users, the blind, the visually impaired or the deaf.

It is also a confirmation of its adaptation to the needs of elderly people, people with reduced mobility or traveling with young children.

Plac Europejski was given numerous awards – best public space in Warsaw and best public space created with access for disabled people.



V I B E

Audiosphere
In VIBE building

GHELAMCO

VIBE has its own audiosphere especially composed to create a unique ambience that will resonate through its interiors. Music is to be the leitmotif of this project, a part of its DNA.

We invited Wojciech Urbański, a well-known Polish composer and producer, to compose the audiosphere for VIBE.

He is a winner of many prestigious awards, including the 2022 Fryderyk Award.





Sounds and music will accompany tenants in common spaces of VIBE:

1. parking
2. elevators
3. main lobby
4. external chill-out spaces
5. biker's areas



A large, leafy tree stands in a grassy field. The tree's shadow is cast on the grass. The text "THANK YOU!" is overlaid in a white box in the center of the image.

THANK YOU!