



Building Sustainable Construction for Tomorrow



INTERBETON
A TITAN GROUP COMPANY

The New Reality of Construction: From Compliance to Value

The construction industry stands at a turning point. Climate challenges, new regulatory requirements, and the shifting expectations of society and investors are fundamentally reshaping the way projects are designed, executed, and evaluated. Sustainability is no longer a communication choice or a future goal; it is now a prerequisite for obtaining permits, securing financing, and ensuring long-term value creation.

The built environment is responsible for roughly 40% of global operational and embodied carbon emissions. In new constructions, embodied carbon from building materials accounts for more than 50% of total greenhouse gas emissions over the useful life cycle. Reinforced concrete contributes significantly to embodied carbon – exceeding 60% in buildings with basements. With the innovation and solutions that INTERBETON offers today, ready mix concrete has become a key enabler of sustainable construction. As the most widely used construction material globally, it fundamentally influences carbon footprint, service life, operational performance, and total cost of ownership. It is estimated that construction accounts for approximately 35% of total greenhouse gas emissions in the EU.

Sustainable construction emerges at the intersection of architectural quality, engineering expertise, and business strategy. High durability materials, verified emissions reduction, consistent long-term performance, and compliance with international standards have become crucial for assessing both the commercial value and sustainability of projects.

In this evolving landscape, INTERBETON establishes itself as a key technological and strategic partner within the construction ecosystem. Leveraging extensive knowledge of materials, regulations, and real project scenarios, it actively facilitates the shift from mere compliance to generating tangible, measurable value.

Sustainable construction has become a common language. The real challenge lies in translating it into projects that last, perform well, and maintain their value over time.

From Compliance to Competitiveness

Construction materials are no longer assessed merely as technical components, but as factors of environmental and financial risk throughout a project's lifecycle – which is often evaluated over a reference period of ~50 years for regulations and benchmarks (e.g. Level(s)). The adoption of Directive (EU) 2024/1275, the introduction of mandatory Global Warming Potential (GWP) declaration, and the shift toward Zero Emission Buildings (ZEB) are significantly transforming the criteria by which constructions are evaluated.

Practical changes



Compliance with these new frameworks is not a neutral choice. Projects with high embodied carbon might encounter difficulties in securing financing, achieving favorable valuation, and attracting future buyers. Conversely, those that show verified emissions reduction, improved durability, and reduced life cycle cost will have a distinct competitive advantage.

At this point, sustainability is no longer an obligation – it becomes a tool for strategic differentiation. INTERBETON proactively and creatively navigates the changing regulatory environment by investing in technologies, GWP data, Environmental Product Declarations (EPDs), and technical support. These efforts help its partners design projects with reduced risk, greater predictability, and stronger investment performance.

Leadership in sustainable construction does not stem from statements of intent, but from the ability to translate regulations into practical technical solutions and create business value. This is the role that INTERBETON intentionally chooses to undertake.

Sustainability. Performance. Value.

In new energy-efficient buildings, embodied carbon can constitute up to 50% of total life-cycle GHG emissions, due to significant improvements in operational emissions.



Durability: the core principle of sustainability

The true sustainability of a structure is not measured solely by emissions recorded at delivery but by its overall performance over time: service life, frequency of interventions, and maintenance costs.

In Mediterranean environments such as Greece, buildings are exposed to complex and evolving stresses—high temperatures, intense rainfall, elevated humidity, chlorides, significant thermal fluctuations, and increasingly frequent extreme weather events. Under these conditions, durability is not a “desirable feature” but a fundamental prerequisite for long-term performance.

INTERBETON considers durability a fundamental aspect of sustainability, closely connected to energy efficiency, safety, and long-term asset value.

Choosing concrete with reduced porosity and a carefully managed microstructure helps reduce reinforcement corrosion and improve the structure’s durability and functional performance. LCA studies show that different materials and technologies can deliver lifespan differences of up to +70 years, compared to ~41 years for traditional concrete, with the potential for reduced life-cycle costs (LCC).

This translates into tangible, measurable benefits:

- **Fewer repairs**
- **Lower life cycle cost (LCC)**
- **Increased preservation of investment value**

Sustainable construction goes beyond just being low-carbon. It is a construction that lasts.

This dimension is a key strategic choice for INTERBETON.

40% of global CO₂ emissions come from buildings

ESG and Financing: Sustainability as a key metric of Value

Sustainability now directly influences project evaluation and funding. ESG criteria serve as a practical tool for risk assessment for investors, banks, and institutional stakeholders, while documented environmental performance and life cycle data improve transparency and comparability.

Projects that exhibit enhanced durability, a proven low carbon footprint, and reduced maintenance requirements present lower operational and environmental risks. This leads to better financing options, greater investor appeal, and lasting value. In this context, choosing materials and technical approaches becomes strategically vital, as they impact both construction and the asset’s long-term financial success.

INTERBETON supports this transition by offering documented data and solutions that strengthen transparency and comparability. It positions itself as a reliable partner in this process, bridging technical expertise with market and financing needs through solutions that ensure measurable performance and reduce uncertainty.



**Transparency.
Documentation.
Reliability.**

Concrete as a Lever for Strategic Design

For decades, concrete was defined primarily by its load-bearing capacity. Nowadays, it is increasingly seen as a strategic design tool, with a direct impact on environmental footprint, functional performance, and a project's investment value.

Choices related to mix design, production, and application determine not only mechanical properties but also the overall life cycle of a structure. Variations in microstructure, water-to-cement ratio (w/c), or production technology can significantly impact both Global Warming Potential (GWP) and long-term performance.

INTERBETON approaches concrete as a comprehensive system instead of a single product. It combines low-carbon technologies, increased durability, watertightness, and architectural quality into a cohesive design approach, turning the material into a value-enhancing element.

Leadership in the sector involves understanding and managing this complexity. INTERBETON continually invests in knowledge, technology, and documentation to ensure that concrete supports sustainability goals and enhances long-term operational performance.

Low Carbon Footprint with Measurable Performance

Reducing embodied carbon remains a key focus of European construction policy. The true challenge is to attain low Global Warming Potential (GWP) without sacrificing quality, durability, or on-site performance. The goal is to ensure measurable results in real project conditions, not just theoretical reductions in emissions.

In an environment where GWP declarations and emission thresholds are increasingly mandated by regulations, and where financing options and green loans favor documented reductions, choosing low-carbon concrete is both a technical, regulatory, and business decision. Today, more than 50% of real estate developers participating in GRESB report that they actively measure embodied carbon for new developments and major renovations — a rising trend compared with ~31% in 2024 and 24% in 2023.

INTERBETON develops low-GWP technologies by:

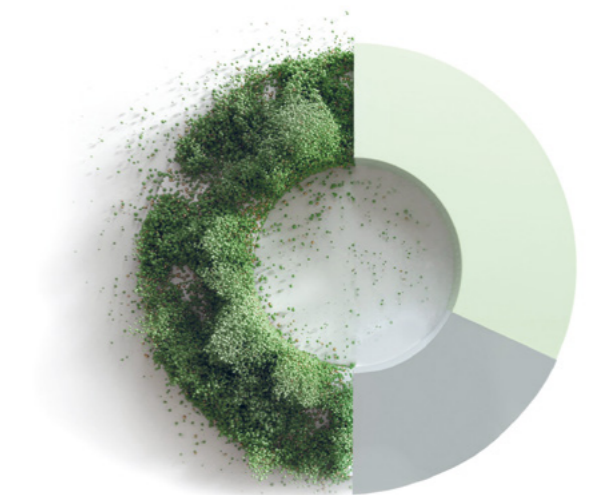
- **focusing on optimized mix designs and aggregate gradations,**
- **controlling microstructure and ensuring consistent production performance, and**
- **utilizing specialized admixtures that improve workability and technical properties.**

It also offers comprehensive technical documentation via EPDs and LCA data, allowing sustainability to serve as a quantifiable resource for design, specifications, and decision-making.

Leadership in low-carbon construction is not defined by presenting lower numbers, but by delivering reliable, verifiable results in actual project settings. This is where INTERBETON truly stands out.



35 %
CO₂ reduction
by 2030



Architectural Excellence with Enduring Value

The aesthetic quality of a structure is fundamental to its durability and long-term value. Buildings featuring high-quality surfaces, clean geometries, and materials that age well maintain their identity, commercial attractiveness, and functional value over time.

INTERBETON advocates for a modern architectural philosophy that perceives concrete not just as a structural base but as a means of architectural expression. By managing texture, color tone, uniformity, and geometric accuracy, concrete becomes a vessel for architectural excellence, minimizing the chances of aesthetic inconsistencies and construction errors.

Architectural quality directly correlates with sustainability. Buildings that avoid extra cladding materials save natural resources and lower their embodied carbon footprint over their lifespan. Exposed concrete, as an architectural medium of expression, offers both sustainability and differentiation in the project's value.

INTERBETON considers aesthetics a key aspect of technical excellence. When surface quality is predictable, controlled, and well-documented, it transforms from a potential risk into a design and value benefit.

From One-Size-Fits-All Solutions to Customized Sustainability Strategies

Sustainable construction varies depending on the project type. Residential developments, offices, hotels, logistics centers, data centers, and public infrastructure each have unique functional needs, risk factors, and success standards. Relying on one-size-fits-all solutions leads to uncertainty, while tailored strategies enhance performance and value.

INTERBETON implements a targeted sustainability strategy customized to the unique features of each project category. Instead of using generic solutions, it assesses the actual requirements of each project and adjusts its technological methods accordingly. The core principles of durability, reliability, and proven long-term performance continue to serve as the foundation.

In residential projects, the focus is on comfort and maintaining long-term asset value. For commercial and office buildings, the priority is providing early-stage technical support to boost ESG performance and attract financing. In logistics facilities and data centers, the key concerns are zero tolerance for failure, operational continuity, and effective risk mitigation.

Leadership in sustainable construction is about recognizing market complexity and providing targeted, dependable solutions with consistent results, rather than offering a one-size-fits-all approach.



>80 years
of service life with VIRIDIA

Tourism and Coastal Development: Ensuring Sustainability in real-world conditions

Tourism stands as a key pillar of the Greek economy and is also one of the most challenging sectors of construction. Hotels, resorts, and coastal developments function in highly stressful environments, where factors like humidity, salinity, temperature changes, and heavy usage substantially raise demands on both technical performance and architectural standards.

In these projects, sustainability goes far beyond energy performance. It directly relates to the service life, operational dependability, and overall life cycle costs. Additionally, the attractiveness of environmentally differentiated, sustainable hospitality is becoming a crucial factor for visitors who are educated and value sustainability.

Premature deterioration of structural components, development of microcracks, waterproofing failures in underground or technical areas, and aesthetic decline directly impact the guest experience, the project's identity, and ultimately the investment's competitiveness. In coastal settings, protective measures for structural protection are especially important, since chlorides accelerate reinforcement corrosion, threatening structural integrity and ultimately diminishing commercial value.

INTERBETON adopts a holistic, resilience-focused approach to tourism projects, emphasizing protection against chlorides, thermal stability, waterproofing for underground and technical zones, and durable exterior surfaces. Concrete is no longer just a load-bearing element, but it becomes a driver of experience, operational efficiency, and lasting value.

In tourism, sustainable construction goes beyond an abstract idea; it serves as a competitive edge that safeguards the investment and ensures consistent guest experience over time.

Public Infrastructure: Ensuring Long-Term Reliability

In public works and infrastructure, sustainability is especially important because assets are intended to meet social needs over many decades, often under heavy use and with limited maintenance resources. In this context, initial construction cost is just part of the picture; the key measure is long-term reliability and low life cycle cost.

The true challenge, therefore, lies in life cycle performance. Projects that need frequent repairs, experience early failures, or do not adapt to actual operating conditions create a long-term strain on public budgets and reduce their social benefits.

INTERBETON approaches public infrastructure with a clear focus on long-term performance and reliable construction quality. Its high-durability solutions safeguard against chloride-induced deterioration and carbonation. Additionally, its extensive range of high-value solutions accelerates construction, improves safety, and minimizes execution risk. Fewer maintenance needs lead to more efficient public resource use, increased user safety, and greater long-term social benefit.

Sustainable infrastructure isn't about choosing the lowest initial cost; it's about durability and reliable performance over time. At this level, technical expertise and established implementation experience are crucial for ensuring the project's success.

**Durability.
Protection.
Reliability.**

50%
of LCA emissions
come from
embodied CO₂



Waterproofing: A Prerequisite for Reliability and Availability

Waterproofing is a vital but frequently overlooked aspect of sustainability. Water ingress in basements, tanks, and essential facilities is among the primary causes of operational failures, premature deterioration, and expensive repairs. This directly impacts occupant comfort, safety, functionality, and the overall availability and reliability of the assets.

In an environment where buildings house an increasing number of complex technical infrastructures—from plant rooms to data centers and energy systems—structural reliability is crucial for investment performance. Waterproofing should not be treated simply as an external or additional finishing layer, but as a structural property embedded within the concrete itself, which:

- **reduces reliance on vulnerable coating systems,**
- **limits potential points of failure.**

Waterproofing, from underground parking lots and tanks to high-responsibility facilities, is essential for sustainability. Structures that stay fully operational without moisture problems consume fewer resources over time and maintain their value longer.

INTERBETON approaches waterproofing as a fundamental part of ensuring durability and minimizing risks. This leads to projects that demand less maintenance, have lower total life cycle costs, and offer greater long-term value.

**Prevention.
Waterproofing.
Durability.**

>50%

of developers measure embodied CO₂ for GRESB reporting

Leadership Through Integrated Performance Systems

Effective leadership in sustainable construction relies on creating and deploying integrated systems that work together seamlessly to achieve consistent outcomes, rather than relying on standalone products or disjointed solutions.

INTERBETON deliberately aligns concrete with a larger ecosystem that includes technologies, data, technical expertise, and applications, all focused on key performance pillars:

- **durability in demanding environments,**
- **waterproofing and protection of water-exposed areas,**
- **architectural quality and reliable surfaces for high-use outdoor spaces.**

Value is generated through the synergy of these elements and thoroughly understanding the actual project conditions.

This approach supports INTERBETON's leadership by emphasizing that its strength lies not only in material formulations but also in a comprehensive knowledge and execution framework, including processes, certifications, and practical expertise rooted in real-world conditions. Sustainability is viewed as the result of systematic, disciplined effort rather than an independent claim.



Vision 2030–2040:

Sustainable construction is a dynamic process shaped by advances in technology, materials, regulations, and societal demands. INTERBETON acknowledges this progression, anticipating that the next decade will bring stricter rules, greater durability requirements, improved energy efficiency, better execution quality, and more transparent data. In this shifting landscape, concrete will transcend its traditional role as structural support to become a vital driver of sustainable development in cities, businesses, and infrastructure.

The 2030–2040 vision is grounded in continuous improvement and adaptation:

- **full alignment with ZEB requirements and regulatory GWP thresholds,**
- **development of next-generation, high-performance, durable materials for projects facing increasing climate pressures,**
- **strengthening circularity by safely utilizing secondary materials and systematically minimizing site-related losses.**
- **Implementation of digital tools, AI, and predictive quality control to enhance production precision and lower technical risks.**

Meanwhile, INTERBETON is committed to responsible production practices and thorough documentation, establishing itself as a leader and driver in moving from mere compliance to tangible value.

Preparations for this future are already underway.

Leadership isn't about being first; it's about consistency and turning knowledge into action. By employing effective methodologies, thorough technical documentation, and fostering collaboration within the ecosystem, INTERBETON helps deliver projects that are safe, functional, and reliable for many years. Sustainable construction requires teamwork, and INTERBETON plays its part by steering the market towards better-quality, long-lasting solutions.

**Consistency.
Documentation.
Measurable Value.**

Sustainability as a Business Strategy

Sustainability has shifted from being a separate function or a communication story to becoming a fundamental part of business strategy. To facilitate a true transition to a climate-neutral and resilient future, INTERBETON backs its projects with emissions-reduction capabilities and risk-management tools. These tools help to safeguard investor value, maintain operational continuity, ensure compliance with international standards, and increase the economic value of invested capital.

Within this framework, INTERBETON sets itself apart by advancing from mere reporting and compliance to an integrated sustainability strategy that links:

- **documented emissions measurement,**
- **risk and opportunity assessment,**
- **governance, risk, and compliance (GRC),**
- **executive and investment decision-making.**

As the construction market evolves rapidly within an increasingly complex regulatory landscape—from CSRD requirements, international disclosure standards, and ESG practices expected by investors and financial institutions—INTERBETON focuses on integrating sustainability with business strategy. Sustainability is viewed not as a separate element but as a key factor in driving business performance.

This perspective reflects a holistic mindset: the sustainable footprint of a construction project extends beyond just environmental metrics. It involves a system that combines data, risk, governance, compliance, and strategic choices. Effectively managing these elements in a coherent and measurable manner forms the basis for lasting resilience and value.



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