

# **Profitable Net Zero, Nil Capex for the Cement Industry**

Commercial, Financial, and Strategic Impact Analysis  
on the Industry, the First Mover and Followers

*An Open Strategic Briefing for PR Agencies*

# 1. EXECUTIVE SUMMARY

## The Opportunity

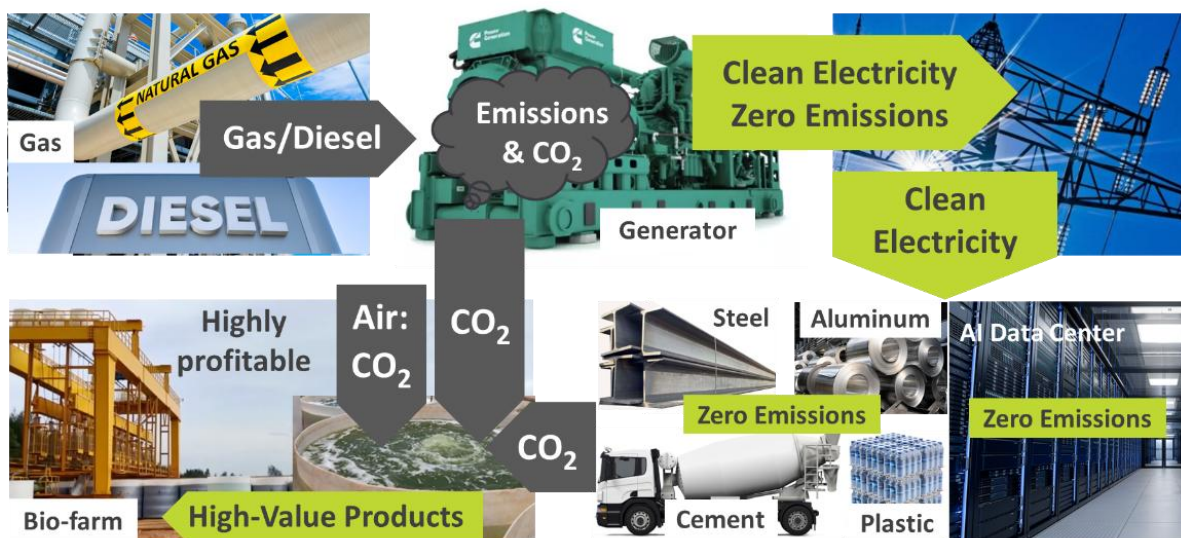
The global cement industry produces approximately 1.6 billion metric tons of CO<sub>2</sub> annually, accounting for roughly 8% of all human-caused carbon emissions. If it were a country, cement would rank as the world’s third-largest emitter. Unlike most other industries, more than half of cement’s emissions are process emissions from the calcination of limestone—a fundamental chemical reaction that cannot be eliminated by switching to renewable energy. No full-scale cement plant has integrated carbon capture and storage into regular commercial operation as of 2025. The industry faces an existential decarbonization challenge with no viable solution at scale.

## Transformational Technology for Cement Decarbonization

INNOVO offers a transformational solution to the cement industry's most pressing challenge: achieving net-zero emissions without massive capital expenditure. Through its proven Smoke2Value algae bio-farm technology, INNOVO finances, builds, and operates carbon-negative infrastructure that profitably digests millions of tons of CO<sub>2</sub> emissions at no cost to emitters.

## The Technology

### Smoke2Value Algae Bio-farms Profitably Digest CO<sub>2</sub> in Smoke



Smoke2Value bio-farms utilize industrial-scale algae cultivation in thousands of deep tanks filled with seawater. CO<sub>2</sub> from industrial smoke emissions is bubbled through these tanks, where algae rapidly grow through photosynthesis in sunlight. The harvested algal biomass is refined into high-value products, particularly crude algal oil—a premium feedstock for Sustainable Aviation Fuel (SAF). Each bio-farm generates approximately \$200 profit per ton of CO<sub>2</sub> digested, making the technology seven times more profitable than solar energy.

The Smoke2Value bio-farm digests CO<sub>2</sub> emissions from gas-powered generators through algae photosynthesis, producing high-value products including crude algal oil (the feedstock for sustainable aviation fuel, or SAF), animal feed, fish feed, omega-3 oils, cosmetics, and

nutraceuticals. The bio-farm generates \$200 net profit per ton of CO<sub>2</sub> digested, making it seven times more profitable than solar and 11 times more profitable than wind or nuclear.

## Commercial Impacts

INNOVO's nil capex model eliminates the cement industry's most pressing commercial risks in a single deployment:

**Regulatory compliance at zero cost:** The EU Carbon Border Adjustment Mechanism (CBAM) entered its definitive phase on January 1, 2026. Importers of cement into the EU now pay a carbon tariff aligned with the EU Emissions Trading System, where allowances trade at €70–€100 per ton of CO<sub>2</sub> and are projected to rise to €150–€200 by 2030. A 10,000-ton shipment of grey clinker using default emissions values faces approximately €270,000 in CBAM costs. A cement producer co-locating an INNOVO bio-farm achieves zero-emission production and eliminates these costs entirely. The UK will implement its own CBAM from 2027, and China, India, Turkey, and Brazil are developing parallel carbon pricing mechanisms. INNOVO makes these emerging costs irrelevant.

**Carbon cost elimination:** For EU-based producers, a single 600,000-ton CO<sub>2</sub> facility saves €48M–€60M annually in EU ETS costs at current prices, potentially rising to €90M–€120M per year by 2030 as carbon prices escalate and free allowances phase out. For international exporters, CBAM tariff elimination adds a further €100M–€200M+ annually as the mechanism fully phases in. INNOVO's cumulative estimate of the global cement industry's decarbonization cost exposure is \$1.8 trillion over 30 years.

**Premium pricing and market share:** Zero-emission cement commands premium pricing of \$10–\$30 per ton through green building certifications (LEED, BREEAM, Green Star) and sustainable procurement mandates in the EU, UK, and US states. For a producer shipping 50 million tons annually, a \$20/ton premium represents \$1 billion in additional revenue. As corporate Scope 3 reporting obligations intensify under IFRS S2 and the EU Corporate Sustainability Reporting Directive, construction companies and infrastructure developers will increasingly require zero-emission building materials. Producers that cannot offer low-carbon products will lose major contracts. The first mover captures these contracts while competitors are still planning.

**Stranded asset mitigation:** Without a viable decarbonization pathway, cement plants in carbon-priced jurisdictions face progressive value erosion as carbon costs escalate. INNOVO's co-located bio-farms extend the economic life of existing facilities by neutralizing their emissions, transforming potential stranded assets into long-term productive capacity at zero cost to the producer.

## Financial Impacts

The financial case for the cement industry is compelling at every level:

KEY METRIC	VALUE
Global cement CO <sub>2</sub> emissions	~1.6 billion metric tons per year
Industry decarbonization cost exposure (30 years)	\$1.8 trillion
Capital expenditure to cement producer	\$0 (Nil Capex)
INNOVO bio-farm investment per site	\$400M–\$800M (100% INNOVO-financed)
CO <sub>2</sub> digested per \$400M bio-farm annually	600,000 tons
EU ETS savings per 600K ton facility	€48M–€60M/year (current); €90M–€120M/year (2030)
CBAM tariff elimination (major EU exporters)	€100M–€200M+ annually
US 45Q Production Tax Credits per bio-farm (12 years)	\$612M (\$51M per year)
Bio-farm profitability	58% IRR / 2.6-year payback

**First-mover deal:** INNOVO grants first-mover status to an industry leader in return for either (a) the sale of \$300M of US 45Q Tax Credits for \$200M cash, generating \$100M immediate profit for the buyer, or (b) the generation of \$200M cash from \$300M in Australian CO<sub>2</sub> tax mitigation obligations, delivering the same profit structure. The first mover receives the most favorable terms; subsequent buyers pay more as INNOVO’s negotiating position strengthens.

**Total first-mover annual benefit per facility:** €148M–€410M+ per year, comprising EU ETS elimination, CBAM tariff savings, premium pricing on zero-emission cement, and customer retention value. Over 10 years, a single facility creates €1.5B–€4.1B+ in value at zero capital expenditure. A major producer operating multiple plants globally would deploy INNOVO bio-farms across several sites, multiplying these benefits across the portfolio.

**Follower penalty:** Once the first mover is announced, all competitors become followers. They lose the premium pricing window (2–4 years), receive less favorable 45Q terms, face customer attrition to the first mover, and bear ongoing escalating carbon costs for every quarter of delay. The gap widens over time and may never fully close.

## Strategic Communications Opportunities for PR Agencies

A PR agency that successfully introduces a major cement producer to INNOVO and wins the resulting global communications mandate secures a transformational opportunity:

**Category-defining global campaign:** The announcement that a major cement producer has achieved net zero at nil capex is a story that intersects climate policy, industrial strategy, construction innovation, and corporate sustainability. It guarantees sustained international media coverage across financial, trade, and mainstream outlets. The agency leads the global launch,

ongoing milestone communications, executive thought leadership (COP, WEF, GCCA events), investor/ESG messaging, and government affairs positioning.

**Revenue potential:** INNOVO proposes a 3-way partnership model (Cement Producer × INNOVO × PR Agency) where communications costs are funded from the financial value INNOVO creates. Indicative mandate value: \$5M–\$15M annual retainer for global communications, with \$20M–\$50M+ in campaign budgets over the first three years. The agency that proves the model in cement gains a strong position to extend the partnership across INNOVO’s other target industries (oil and gas, data centers, steel, chemicals, aluminum, aviation).

**Agency positioning:** This campaign establishes the agency as the definitive global leader in energy transition and industrial decarbonization communications—a positioning that generates business development leverage across every heavy-emitting sector. Work of this magnitude (genuine environmental impact combined with commercial transformation) wins major industry awards and defines agency reputations.

**No conflicts or restrictions:**

- INNOVO offers a Dual Track engagement with PR agencies:
  - Mandate from industry leader and INNOVO for new clients or
  - Mandate from existing client only to avoid any conflicts of interest with INNOVO.

All information is in the public domain, and there is no requirement to notify INNOVO before approaching any client or media contact.

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## 2. THE CEMENT INDUSTRY'S DECARBONIZATION CRISIS

### 2.1 Scale of the Problem

The cement and concrete industry is one of the largest industrial emitters of CO<sub>2</sub> on the planet. If the cement industry were a country, it would rank as the world's third-largest emitter after China and the United States. Global cement manufacturing produced approximately 1.6 billion metric tons of CO<sub>2</sub> in 2023, and on current trajectories, emissions could rise to 3.8 billion tons per year by 2050 as developing economies urbanize and demand for construction materials intensifies.

The industry's emissions have more than doubled since the turn of the century. Four billion tons of cement were produced globally in 2024, with China accounting for 47.5% of the total (1,900 million tons), followed by India (450 million tons) and Vietnam (110 million tons).

### 2.2 The Unique Challenge: Process Emissions

What makes cement uniquely difficult to decarbonize is the nature of its emissions. Unlike most industries where emissions are primarily energy-related (and therefore addressable through renewable electricity), roughly 50–60% of cement's CO<sub>2</sub> emissions are process emissions from the calcination of limestone. When calcium carbonate (CaCO<sub>3</sub>) is heated to approximately 1,450°C to produce clinker (the primary binding agent in cement), it chemically releases CO<sub>2</sub>. This is a fundamental chemical reaction that cannot be eliminated by switching fuel sources.

The remaining emissions break down approximately as follows: 40% from fuel combustion (to achieve the extreme temperatures required for clinker production), 5% from electricity consumption, and 5% from transportation. Even if every cement kiln in the world were powered by 100% renewable energy, the industry would still emit roughly half of its current CO<sub>2</sub> output from the calcination process alone.

### 2.3 Escalating Carbon Costs

The financial pressure on cement producers is intensifying rapidly through multiple regulatory mechanisms:

**EU Emissions Trading System (EU ETS):** Carbon prices in the EU ETS have been in the range of €70–€100 per ton of CO<sub>2</sub>, with analysts projecting prices rising to €150–€200 per ton by 2030. For a cement plant emitting 1 million tons of CO<sub>2</sub> annually, this translates to an annual carbon cost exposure of €70–€100M at current prices, potentially rising to €150–€200M by decade's end. Critically, the free allowances that have historically shielded EU cement producers are being phased out as CBAM is phased in, meaning the full cost will progressively hit cement producers' bottom lines.

**EU Carbon Border Adjustment Mechanism (CBAM):** As of January 1, 2026, CBAM entered its definitive phase. Importers of cement into the EU now pay a carbon price aligned with the EU ETS.

A 10,000-ton shipment of grey clinker using default emissions values could face approximately €270,000 in CBAM costs. For major non-EU exporters, the aggregate annual CBAM exposure runs to hundreds of millions of euros. CBAM covers both direct emissions from calcination and combustion, and indirect emissions from electricity consumption, making cement one of the sectors most heavily impacted.

**UK CBAM:** The United Kingdom will implement its own CBAM from 2027, covering cement among other sectors. This extends the carbon border tariff regime beyond the EU and further increases the cost of carbon-intensive cement in global trade.

**Emerging carbon pricing worldwide:** China has announced plans to expand its national ETS to cover the cement sector. India, Turkey, Brazil, and other major cement-producing nations are developing their own carbon pricing mechanisms, partly in response to the EU CBAM. The direction of travel is unambiguous: carbon costs for cement will rise globally.

## 2.4 Total Industry Exposure

INNOVO estimates the global cement industry's cumulative decarbonization cost exposure at \$1.8 trillion over the next 30 years. This figure reflects escalating carbon prices, CBAM tariffs, the cost of compliance with emerging regulations (including IFRS S2 climate-related financial disclosures), and the capital investment currently required for conventional decarbonization pathways such as carbon capture and storage (CCS), which can cost \$50–\$120 per ton of CO<sub>2</sub> captured with substantial upfront capex.

## 2.5 Failure of Existing Solutions

Despite significant industry effort, no full-scale cement plant has integrated CCS into regular commercial operation as of 2025. The world's first industrial-scale carbon capture cement plant, at Heidelberg Materials' Brevik facility in Norway, only launched in mid-2025 and targets approximately 400,000 tons of CO<sub>2</sub> per year from a single plant. Alternative approaches such as clinker substitution, alternative fuels, and electrification each address only a portion of the problem and face significant technical and commercial barriers to scale. The industry's own data shows that CO<sub>2</sub> intensity has been reduced by only 25% since 1990, a pace wholly insufficient to meet Paris Agreement targets.

## 3. INNOVO'S SOLUTION: NET ZERO, NIL CAPEX

### 3.1 Smoke2Value Technology Overview

INNOVO's Smoke2Value bio-farms use industrial-scale algae cultivation in thousands of deep tanks filled with seawater. CO<sub>2</sub> from industrial emissions, including the process emissions from cement kilns, is captured and bubbled through these tanks. Algae rapidly grow through photosynthesis in sunlight, consuming the CO<sub>2</sub> and converting it into biomass. The harvested algal biomass is then refined into high-value commercial products.

Critically, the bio-farms do not produce biogas to generate power. They digest CO<sub>2</sub> emissions from gas-powered generators, enabling those generators to produce clean electricity with zero net emissions. This is an important technical distinction: the technology addresses the emissions at source rather than replacing the energy system.

For the cement industry specifically, the bio-farm is co-located adjacent to the cement plant and captures CO<sub>2</sub> from the plant's flue gases, including both the process emissions from calcination and the combustion emissions from the kiln. This addresses the industry's core challenge: the process emissions that no other technology can economically eliminate at scale.

### 3.2 Zero Capex Business Model

The INNOVO value proposition to cement producers is straightforward:

WHAT INNOVO INVESTS	WHAT THE CEMENT PRODUCER PROVIDES
\$400M–\$800M per bio-farm (100% financed by INNOVO)	Access to CO <sub>2</sub> emissions from the cement plant
Engineering, construction, and commissioning	Site access for bio-farm co-location (approx. 205 acres per \$400M farm)
Ongoing operations and maintenance	Basic utilities (seawater access, grid connection)
Technology risk (INNOVO bears 100%)	<b>\$0 capital expenditure</b>

### 3.3 Revenue Model Sustaining Profitability

INNOVO's bio-farms generate approximately \$200 profit per ton of CO<sub>2</sub> digested through the sale of high-value commercial products:

- Crude Algal Oil (CAO): Feedstock for sustainable aviation fuel (SAF) at \$1,100 per ton. Five of the world's top 10 oil and gas majors, including BP, Chevron, and Shell, have placed \$16 billion in validated multi-year offtake contracts with INNOVO's technology partner.
- Crude Algal Cake (CAC): Animal and aquaculture feed at \$250 per ton, serving a global market exceeding \$450 billion annually.

- Omega-3 Oils: Nutritional supplements and pharmaceuticals at \$80,000 per ton.
- US 45Q Production Tax Credits: \$612M per \$400M bio-farm over 12 years (\$51M per year), sold at negotiated discounts to heavy emitters.

With a project IRR of 58% and a payback period of 2.6 years, INNOVO's bio-farms are seven times more profitable than solar energy and eleven times more profitable than wind or nuclear. This exceptional profitability is what enables the nil capex offer to cement producers.

### 3.4 Technology Validation

The Smoke2Value technology has undergone two years of rigorous due diligence by five of the world's top 10 oil and gas majors, resulting in \$16 billion in validated multi-year offtake contracts held by INNOVO's technology partner. The technology operates at proven industrial scale, with deployment timelines of 18–24 months from project commencement to emissions reduction.

## 4. COMMERCIAL IMPACT ON THE CEMENT INDUSTRY

### 4.1 Immediate Regulatory Compliance

**EU CBAM Elimination:** A cement producer using INNOVO Smoke2Value bio-farms to digest its plant emissions achieves zero-emission production. This eliminates CBAM tariffs entirely for exports to the EU. For a major international cement producer exporting clinker and cement to the EU, this could represent savings of €100M–€200M+ annually as CBAM fully phases in and free allowances phase out.

**EU ETS Cost Elimination:** EU-based cement plants with co-located bio-farms eliminate their ETS liability entirely. At current carbon prices of €80–€100 per ton, a 600,000-ton CO<sub>2</sub> facility saves €48M–€60M annually. As carbon prices rise toward €150–€200 per ton by 2030, annual savings per facility could reach €90M–€120M.

**IFRS S2 and CSRD Compliance:** Zero-emission cement production dramatically simplifies climate-related financial disclosures under IFRS S2 and the EU Corporate Sustainability Reporting Directive, reducing transition risk exposure and improving ESG ratings.

### 4.2 Premium Pricing for Zero-Emission Cement

The emergence of green building standards and sustainable procurement mandates is creating a premium market for low-carbon and zero-emission cement and concrete:

- Green building certifications (LEED, BREEAM, Green Star) increasingly require low-carbon materials, with zero-emission cement commanding premium pricing of \$10–\$30 per ton over conventional cement.
- Public procurement mandates in the EU, UK, and US states (including California and New York) are beginning to specify maximum embodied carbon in construction materials, creating regulatory-driven demand.
- Corporate buyers with net-zero commitments (major property developers, infrastructure companies, government agencies) will preferentially source zero-emission cement to reduce their Scope 3 emissions.
- For a producer shipping 50 million tons of cement annually, a \$20/ton premium on zero-emission product represents \$1 billion in additional annual revenue.

### 4.3 Customer Retention and Market Share

As corporate Scope 3 reporting obligations intensify, construction companies and infrastructure developers will increasingly require zero-emission building materials from their suppliers. Cement producers that cannot offer low-carbon products will lose major contracts to those that can. INNOVO's nil capex model enables cement producers to secure this market position without the multi-billion-dollar capital investments that conventional CCS or hydrogen-based approaches would require.

## 4.4 Stranded Asset Mitigation

Without a viable decarbonization pathway, cement plants in carbon-priced jurisdictions face progressive value erosion as carbon costs escalate. INNOVO's co-located bio-farms extend the economic life of existing cement facilities by neutralizing their emissions, transforming potential stranded assets into long-term productive capacity.

## 5. FINANCIAL IMPACT: FIRST MOVER VS. FOLLOWERS

### 5.1 First-Mover Advantages

The first cement producer to partner with INNOVO secures a cascade of compounding financial advantages that followers cannot replicate:

#### Priority Access to 45Q Tax Credits

In the US, each \$400M Smoke2Value bio-farm generates \$612M in Section 45Q Production Tax Credits over 12 years. INNOVO sells these credits at negotiated discounts to heavy emitters. The qualifying first-mover partnership definition: INNOVO grants first-mover status to an industry leader in return for either (a) the sale of \$300M of US 45Q Tax Credits for \$200M cash, generating \$100M immediate profit for the buyer, or (b) generation of \$200M cash from \$300M in Australian CO<sub>2</sub> tax mitigation obligations, with the same profit structure. The first mover gets the best deal: subsequent buyers receive less favorable terms as INNOVO's negotiating position strengthens.

#### Premium Pricing Window

The first cement producer to offer genuinely zero-emission cement has a period of 2–4 years before competitors can replicate the capability at scale. During this window, the first mover commands premium pricing from ESG-conscious customers, wins government procurement contracts requiring low-carbon materials, and locks in long-term supply agreements with major construction companies, infrastructure developers, and real estate firms.

#### Category-Defining Narrative

The first mover defines the narrative for the entire industry. As the company that proved cement can achieve net zero at nil capex, the first mover's brand becomes synonymous with sustainable construction. This narrative is worth more than any advertising campaign because it is earned, credible, and reinforced by every subsequent media cycle about cement decarbonization. Every competitor's subsequent announcement will be measured against the first mover's benchmark.

#### Investor and ESG Rating Uplift

Cement companies face increasing scrutiny from ESG-focused investors and rating agencies. The first mover to demonstrate a credible, zero-capex pathway to net zero will see immediate benefits in lower cost of capital, higher ESG ratings, inclusion in sustainability indices, and improved access to sustainability-linked financing.

## 5.2 Financial Case Study: First Mover (600,000 tons CO<sub>2</sub>/year)

FINANCIAL METRIC	ANNUAL VALUE
EU ETS cost elimination (at €80–€100/ton)	€48M–€60M
CBAM tariff elimination (for EU exporters)	Up to €50M+
Premium pricing on zero-emission cement (\$20/ton on 5M tons)	\$100M
45Q Tax Credit profit (first-mover deal: \$100M profit on \$200M)	~\$100M (one-time)
Customer retention value (contracts secured vs. lost to competitors)	\$50M–\$200M
<b>TOTAL ANNUAL BENEFIT (excluding one-time 45Q profit)</b>	<b>€148M–€410M+</b>
<b>10-YEAR VALUE CREATION (zero capex)</b>	<b>€1.5B–€4.1B+</b>

**Note:** Values are illustrative for a single facility. A major cement producer operating multiple plants globally would deploy INNOVO bio-farms across several sites, multiplying these benefits across the portfolio.

## 5.3 Follower Disadvantages

Once the first mover is announced, all competitors in the cement industry become followers. The strategic implications are significant:

- Followers compete in a market the first mover has already shaped. The narrative, pricing benchmarks, and customer expectations are all set by the first mover.
- Followers lose the premium pricing window. By the time followers deploy INNOVO bio-farms (or alternative solutions), zero-emission cement is no longer novel and the pricing premium erodes.
- Followers receive less favorable 45Q Tax Credit terms. INNOVO's negotiating position strengthens after the first-mover deal, meaning subsequent buyers pay more for the same credits.
- Followers face customer attrition. Construction companies, government agencies, and property developers with net-zero procurement mandates will shift volume to the first mover while followers are still deploying.
- Followers bear ongoing escalating carbon costs. Every quarter of delay means additional millions in EU ETS costs, CBAM tariffs, and competitive disadvantage.

The gap between first mover and followers widens over time. A 2–3 year head start in a rapidly tightening regulatory environment creates compounding advantages in market position, customer relationships, and brand equity that followers may never fully close.

## 6. STRATEGIC IMPACT ON TARGET CEMENT COMPANIES

INNOVO's value proposition is relevant to the full range of global cement producers, each with distinct strategic motivations:

COMPANY	2024 REVENUE	CAPACITY	KEY STRATEGIC DRIVER
<b>Holcim</b>	\$33B+	274 Mt/yr	Sustainability leader positioning; Amrize spin-off exposes North American assets
<b>Heidelberg Materials</b>	\$23B+	121 Mt/yr	First CCS cement plant (Brevik); needs scale solution beyond single sites
<b>CEMEX</b>	\$14B+	93 Mt/yr	Major US and Mexican operations; strong 45Q eligibility
<b>CRH</b>	\$35B+	Major producer	Largest building materials company; US-listed, strong North American footprint
<b>UltraTech Cement</b>	\$8B+	Surpassed Holcim volumes	India's largest; rapid growth market with emerging carbon pricing
<b>Dangote Cement</b>	\$4B+	Africa leader	Sub-Saharan Africa growth; EU CBAM exposure on potential exports

**Note:** CNBM (530 Mt/yr capacity) and Anhui Conch (288 Mt/yr) are excluded as INNOVO does not currently operate in China. Revenue and capacity figures from industry reports and company filings (2024).

## 7. STRATEGIC COMMUNICATIONS OPPORTUNITIES FOR PR AGENCIES

A PR agency that successfully introduces a major cement producer to INNOVO and wins the resulting global communications mandate would secure one of the most significant retainer opportunities in the building materials sector. This section outlines the scale and nature of that opportunity.

### 7.1 The Scale of the Communications Mandate

#### Category-Defining Global Campaign

The announcement that a major cement producer has achieved net zero emissions at nil capex is, by any measure, a category-defining global story. It intersects climate policy, industrial strategy, construction innovation, and corporate sustainability in a way that guarantees sustained international media coverage. The PR agency that owns this narrative will lead:

- Global launch campaign: Coordinated announcement across financial, trade, and mainstream media in multiple markets simultaneously.
- Ongoing narrative management: Multi-year communications program covering construction milestones, regulatory approvals, first-product deliveries, and expansion announcements.
- Executive positioning: CEO and C-suite thought leadership at COP, World Economic Forum, Global Cement and Concrete Association events, and tier-one business media.
- Investor communications: ESG-focused messaging for capital markets, including sustainability-linked bond issuances and annual report narratives.
- Government affairs: Positioning the partnership as a model for industrial decarbonization policy, opening doors to government leaders and regulatory bodies globally.

#### Revenue Potential for the PR Agency

INNOVO proposes a 3-way partnership model (Cement Producer × INNOVO × PR Agency) where communications costs are shared. The cement industry leader's contribution to the communications campaign would be funded from the financial value created by INNOVO (carbon cost savings, premium pricing, 45Q tax credit profits). Based on comparable industry-transforming campaigns, the communications mandate could generate:

- Annual retainer: \$5M–\$15M for global communications, crisis management, and ongoing narrative strategy.
- Campaign budgets: \$20M–\$50M+ over the first 3 years for launch, positioning, and expansion campaigns.
- Extensions across industries: The agency that proves the model in cement gains a strong position to extend the partnership to INNOVO's other target industries (oil and gas, data centers, steel, chemicals, aluminum, aviation).

## 7.2 Strategic Value Beyond Revenue

### **Industry Leadership Positioning**

The agency that leads this campaign establishes itself as the definitive leader in energy transition and industrial decarbonization communications globally. This is a positioning that generates business development leverage far beyond the cement mandate itself, opening doors to sustainability-focused work across every heavy-emitting sector.

### **Award-Winning Work**

A campaign of this magnitude, combining genuine environmental impact with commercial transformation, is precisely the type of work that wins major industry awards (Cannes Lions, PRWeek Awards, SABRE Awards) and defines agency reputations for a generation.

### **Talent Attraction**

Purpose-driven, high-impact work is the single most effective talent attraction and retention tool in the PR industry. Leading the communications for the world's first net zero cement partnership would be a career-defining assignment for senior practitioners.

## 7.3 The PR Briefing Model

INNOVO's engagement model for PR agencies is specifically designed to align with professional standards:

- Mandate from industry leader and INNOVO for new clients and mandate from existing client only to avoid any conflicts of interest with INNOVO.
- All information is in the public domain: There are no restrictions on how agencies use this intelligence. There is no requirement to notify INNOVO before approaching any client or media contact.

## 8. COMPETITIVE LANDSCAPE: ALTERNATIVE DECARBONIZATION PATHWAYS

Understanding the limitations of alternative approaches reinforces the uniqueness of INNOVO’s value proposition:

TECHNOLOGY	CAPEX REQUIRED	KEY LIMITATION	INNOVO ADVANTAGE
<b>Carbon Capture &amp; Storage (CCS)</b>	\$50–\$120/ton CO <sub>2</sub> ; \$500M+ per plant	Requires geological storage; no revenue products; only 1 cement plant operational (Brevik)	Nil capex; produces revenue; proven at industrial scale
<b>Clinker substitution</b>	Moderate	Can reduce emissions ~30–40% max; limited supply of supplementary cementitious materials	100% emissions elimination, no product reformulation needed
<b>Alternative fuels</b>	Moderate	Only addresses ~40% of emissions (fuel-related); does not touch process emissions	Addresses all emissions including process emissions from calcination
<b>Hydrogen kilns</b>	Very high; unproven	Early R&D stage; does not address process emissions; hydrogen supply chain immature	Commercial-ready now; 18–24 month deployment
<b>Kiln electrification</b>	Very high	1,450°C temperatures challenging for electric kilns; pilot stage only; does not address process emissions	No kiln modification required; works with existing infrastructure

The critical point for PR agencies and cement executives alike: INNOVO’s Smoke2Value bio-farm is the only commercially available technology that addresses 100% of cement emissions, including the process emissions from calcination, at nil capital expenditure to the producer, while generating revenue rather than costs.

## 9. GETTING STARTED

### 9.1 Engagement Process

INNOVO proposes a straightforward three-phase engagement:

**Phase 1 – Executive Briefing (Weeks 1–2):** Confidential briefing for the cement producer’s CEO and senior leadership on the INNOVO value proposition, financial model, and first-mover partnership structure. INNOVO presents the technology validation evidence, including the \$16 billion in offtake contracts and due diligence findings from five of the world’s top 10 oil and gas majors.

**Phase 2 – Site Assessment (Weeks 3–5):** Technical feasibility assessment of the cement producer’s priority plant(s), including CO<sub>2</sub> concentration and composition in flue gases, available land for bio-farm co-location (approximately 205 acres per \$400M farm), proximity to seawater, and local solar irradiance and climate conditions.

**Phase 3 – Commercial Structuring (Weeks 6–8):** Negotiation of partnership terms including the 45Q Tax Credit sale structure, emissions elimination timeline, regulatory compliance pathway, and communications launch planning with the PR agency.

### 9.2 Contact

**PR Agency Enquiries:** [public.relations@innovo-network.com](mailto:public.relations@innovo-network.com)

**Website:** [innovo-net-zero.com/pr-briefing](https://innovo-net-zero.com/pr-briefing)

*All information in this briefing is in the public domain. There is no requirement to notify INNOVO before approaching any client or media contact.*

## 10. SOURCES

### External Sources

- <sup>1</sup> World Economic Forum, “4 Ways to Make the Cement Industry More Sustainable,” September 2024. Corroborated by INNOVO Net Zero Nil Capex for the Oil & Gas Industry v2025-12-19 MK (cement industry: \$1.8 trillion over 30 years).
- <sup>2</sup> Global Carbon Project / Statista, “Global Cement CO<sub>2</sub> Emissions 1960–2023,” November 2024 (~1.56 billion metric tons in 2023). Corroborated by INNOVO Multi-Industry Data Room Structures v2026-1-14 MK (2.8 Gt CO<sub>2</sub>/year total industry figure).
- <sup>3</sup> GCCA, “Cement Industry Net Zero Progress Report 2025/26,” November 2025 (25% CO<sub>2</sub> intensity reduction since 1990).
- <sup>4</sup> USGS Mineral Survey 2025 / Global Cement Top 100 2026 (4.0 billion tons cement produced globally in 2024; production by country).
- <sup>5</sup> MDPI Energies, “Decarbonizing the Cement Industry: Technological, Economic, and Policy Barriers,” October 2025 (7–8% global CO<sub>2</sub>; no full-scale CCS in commercial operation as of 2025).
- <sup>6</sup> European Commission, “Carbon Border Adjustment Mechanism,” January 2026 (CBAM definitive phase from January 1, 2026; covers cement, steel, aluminum, fertilizers, electricity, hydrogen).
- <sup>7</sup> CarbonChain, “CBAM 101,” 2025 (€270K CBAM cost per 10,000-ton clinker shipment using default values).
- <sup>8</sup> Euronews, “EU’s Carbon Border Tax on Heavy Industry Goods Goes into Effect,” January 1, 2026 (EU ETS allowance prices €70–€100/ton; CBAM certificate pricing).
- <sup>9</sup> IEA, “Breakthrough Agenda Report 2024 – Cement,” 2024 (near-zero emission technologies under development; costs remain high; market demand low).
- <sup>10</sup> Statista, “Capacity of Biggest Global Cement Producers 2024,” March 2025 (CNBM 530 Mt/yr; Holcim 274 Mt/yr; Heidelberg 121 Mt/yr). Revenue data: Statista, “Cement Companies’ Revenue Global Ranking 2024” (Holcim \$33B+; Heidelberg \$23B+).
- <sup>11</sup> Global Cement, “2024 Roundup for the Cement Multinationals,” March 2025 (Holcim record performance; Heidelberg “very good financial year”; UltraTech surpassed Holcim volumes).
- <sup>12</sup> Wikipedia / IPCC, “Environmental Impact of Concrete” (50% of emissions from chemical process; 40% from fuel; 900 kg CO<sub>2</sub> per ton of cement).

### INNOVO Project Knowledge

- <sup>13</sup> INNOVO Net Zero Nil Capex for the Oil & Gas Industry v2025-12-19 MK (\$1.8 trillion cement decarbonization cost; \$200 profit/ton CO<sub>2</sub>).
- <sup>14</sup> Multi-Industry Data Room Structures v2026-1-14 MK (cement sector brief; co-location model; CBAM/ETS compliance).
- <sup>15</sup> INNOVO Smoke2Value Biofarm Carbon Accounting Report v2025-12-22 MK (100% Scope 1 neutralization; net carbon negative; \$784M bio-farm; zero capex to host).

<sup>16</sup> About INNOVO & its Smoke2Value Technology v2026-1-2 MK RdM (technology overview; \$16B offtake contracts; product streams and pricing).

<sup>17</sup> INNOVO's Sale of US 45Q Production Tax Credits v2026-1-25 MK (\$612M per bio-farm; split financing strategy; first-mover deal structure).

<sup>18</sup> Summary of Webpage & Video – Profitable Net Zero Oil & Gas v2026-2-26 MK (first mover vs. follower dynamics; PR briefing model; Section 9.2 contact block).

<sup>19</sup> INNOVO Biofarms Information Memorandum V8 2026-1-22 MK RdM (financial model; 58% IRR; 2.6-year payback).

<sup>20</sup> [innovo-net-zero.com](http://innovo-net-zero.com) (company website; PR briefing page; Profitable Net Zero Alliance).