

Sustainability Report 2023





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Donal O'Riain, Founder and Managing Director, Ecocem

Letter from Group MD Donal O'Riain

The past year marked a pivotal moment for the world, with 2023 officially becoming the hottest year on record—a stark reminder of the escalating climate emergency. At Ecocem, we fully understand the gravity of this challenge, and it has only strengthened our resolve to take bold actions that not only confront climate change but also deliver lasting value to our stakeholders.

A significant achievement during this time was the successful commencement of ACT production at our Dunkirk facility, a key milestone in our journey. Additionally, we secured our European Technical Assessment (ETA) for ACT and are now preparing for the next phase of this revolutionary technology, with construction of our new plant expected to begin in 2024. When deployed globally and at scale, ACT has the potential to reduce emissions by up to 70%, offering substantial economic and environmental benefits for the long term.

Despite some challenges over the past year, our team's dedication and resilience enabled us to stay on course and make remarkable progress. I extend my heartfelt thanks to our employees, partners, and stakeholders whose commitment has been instrumental to our success.

In the realm of sustainability, we saw significant advancements. We increased our safety spending by over 500%, underscoring our unwavering focus on employee well-being. Proudly, we maintained a zero-fatality record, with zero accidents remaining our ultimate goal. Additionally, we made strides in diversity, with a 20% rise in female representation, now making up 28% of our workforce—well above the industry average of 11%. Furthermore, Ecocem maintained a spotless legal and regulatory record, with no judgments or prosecutions throughout the year.

Looking ahead, we remain focused on our ambitious sustainability objectives. One of our key priorities is to achieve full alignment with the Corporate Sustainability Reporting Directive (CSRD) by 2026, reinforcing transparency and accountability across our operations. We will continue to invest in initiatives that drive innovation and reduce our environmental impact, enhancing our products, services, and operations.

As we move forward, we invite all our stakeholders—employees, partners, customers, legislators, and the broader community—to join us in embracing ACT, our low-carbon innovation. Together, we can shape a sustainable future for generations to come.

Thank you for your continued partnership and support.

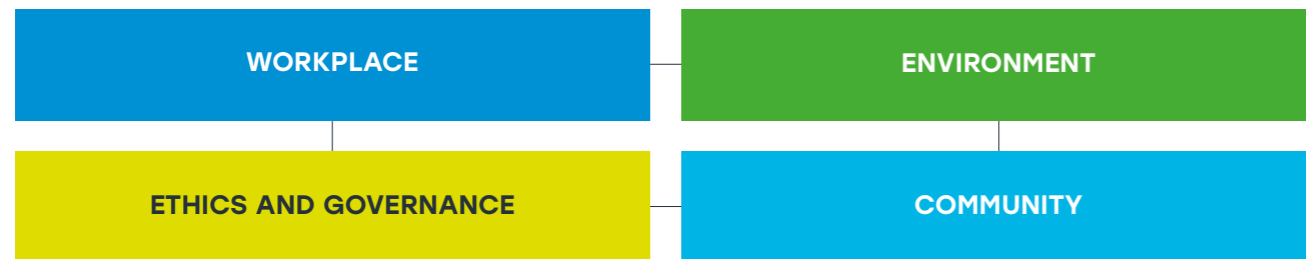
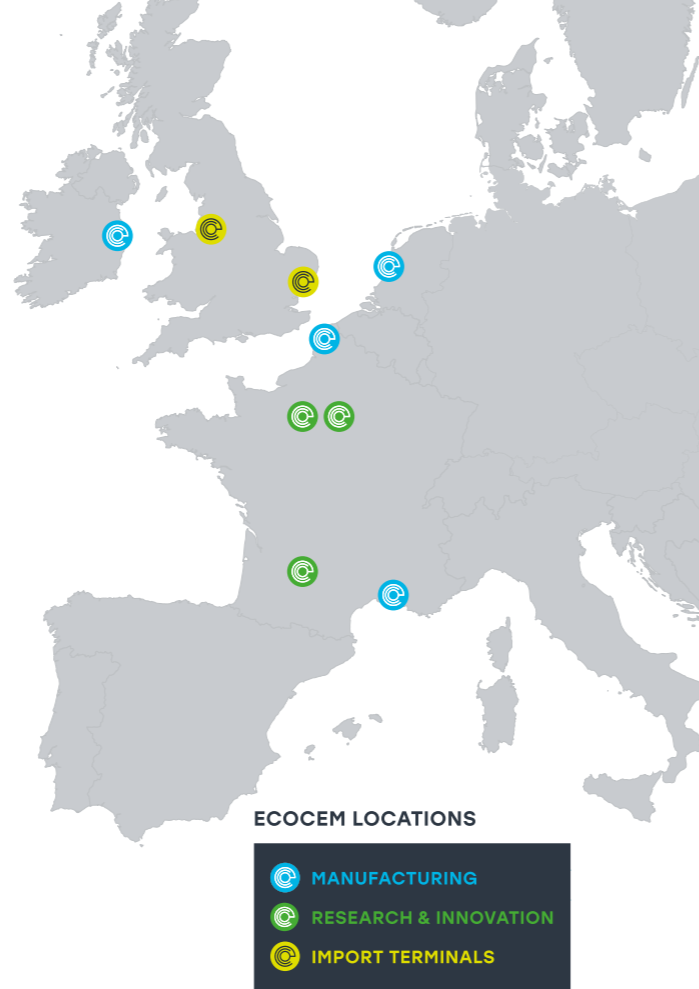
DONAL O'RIAIN
FOUNDER & GROUP MANAGING DIRECTOR,
ECOCEM



Context of the Report

In this sustainability report, we provide an update on our sustainability performance in 2023. We highlight performance for the group across four key areas: **Environment, Workplace, Ethics, and Community.**

We also outline our strategic plans to comply with the Corporate Sustainability Reporting Directive (CSRD) by 2026. Our forward-looking approach emphasizes integrating sustainability into all aspects of our operations, fostering a responsible business environment, and positively impacting the communities we serve.



Our Values

- **Cohesion** – Strong meaningful relationships based on trust, reciprocity and solidarity are essential. We believe in engagement, proactive communication, teamwork and collaboration. We are aware, agile, and support each other to realize a common goal.
- **Innovation** – We prize continuous improvement, creativity and adaptability. We embrace entrepreneurialism, challenging the status quo and responding to changing needs with pertinence.
- **Tenacity** – Grit, determination, resilience and perseverance will win the future. We're prepared to take risks and learn from mistakes. We believe in managing change, pressure and growth in a sustainable way.
- **Empowerment** – We thrive as a team in an environment where people can express their unique talents, be challenged, develop and grow. A healthy, positive work culture where people feel happy, confident, and secure means a business full of energy, enjoyment, passion and prosperity.



Workplace

We have the technology. Together we can change the world for the better.



Workplace

Health, safety, and environmental management remain top priorities for Ecochem, and we are committed to integrating these aspects into our daily operations and action plans to consistently enhance working conditions.

We are continually making improvements and investing in capital expenditure to reinforce this strong safety culture. We have successfully maintained our zero-fatality target, and we remain dedicated to collaboratively addressing challenges to further improve our working environment.

In early 2023, we strengthened our health and safety team globally to better coordinate efforts across our plants. Our on-site teams are dedicated to fostering a safety-focused culture by communicating key messages, raising awareness, and reporting near-misses, all in pursuit of our zero-accident objective.



OCCUPATIONAL HEALTH AND SAFETY

ISSUE	2021	2022	2023	TARGET
Fatalities	0	0	0	0
Incident rate	0.8	0.7	0.7	<1 per 100,000 hours worked

NON-DISCRIMINATION

ISSUE	2021	2022	2023	TARGET
Increase of female workforce	19%	17%	30.8%	Above industry average
Staff trained in diversity	100%	100%	100%	100%

EMPLOYEE WELLBEING

ISSUE	2021	2022	2023	TARGET
Management on external training courses	75%	100%	100%	100%
Training needs analysis on sites	100%	100%	100%	100%
Wellness programs	100%	100%	100%	100%



Partnership Spotlight: CB Green

In 2023, Ecocem, announced the joint venture with CB Green, a division of Groupe CB, to accelerate low-carbon solutions for the construction industry. This joint venture aims to scale Ecocem's low-carbon ACT technology and support CB Green's circular economy goals by 2025.

Donal O'Riain, Founder and Managing Director of Ecocem, emphasized the importance of this agreement: "This long-term cooperation with CB Green marks a major milestone in scaling ACT, our low-carbon cement technology, and delivering on our commitment to help the cement industry decarbonise by 50% by 2030. Technology is no longer the issue; scale and speed are what matters now."

Gilles Poulain, CEO of Groupe CB, shared similar sentiments: "This partnership with Ecocem signals a major step forward in our ambitions to deliver low-carbon solutions. In Ecocem, we have a like-minded partner, and I look forward to a long and productive collaboration."

Central to this partnership is the construction of a new grinding mill at Ecocem's Dunkirk plant, which will produce limestone filler, a critical component of Ecocem's ACT low-clinker cement technology. By focusing production in Northern France, the joint venture will provide low-carbon cement solutions to major markets in Western Europe, including Paris, London, and Amsterdam. The mill, set to begin production by mid-2025, will significantly expand Ecocem and CB Green's grinding capacity. The joint venture plans to invest over €60 million by 2030, producing 600kts of high-quality limestone filler annually.

This venture is a significant step toward decarbonising the cement industry, leveraging innovative technologies like Ecocem's ACT, which can reduce CO₂ emissions by up to 70%. By combining efforts, both companies aim to accelerate the adoption of sustainable solutions across the cement and construction sectors.



Gilles Poulain (CEO, Groupe CB), Donal O'Riain (Founder and Managing Director, Ecocem), and Olivier Giuse (Director, Strategy - New Business and Innovation, Ecocem) at the signing of the partnership agreement



Ecocem Science Symposium - Driving Innovation and Sustainability



Donal O'Riain (Founder and Managing Director, Ecocem) and Roberta Alfani (Research and Innovation Director, Ecocem), accompanied by attending scientists at Ecocem's inaugural science symposium.



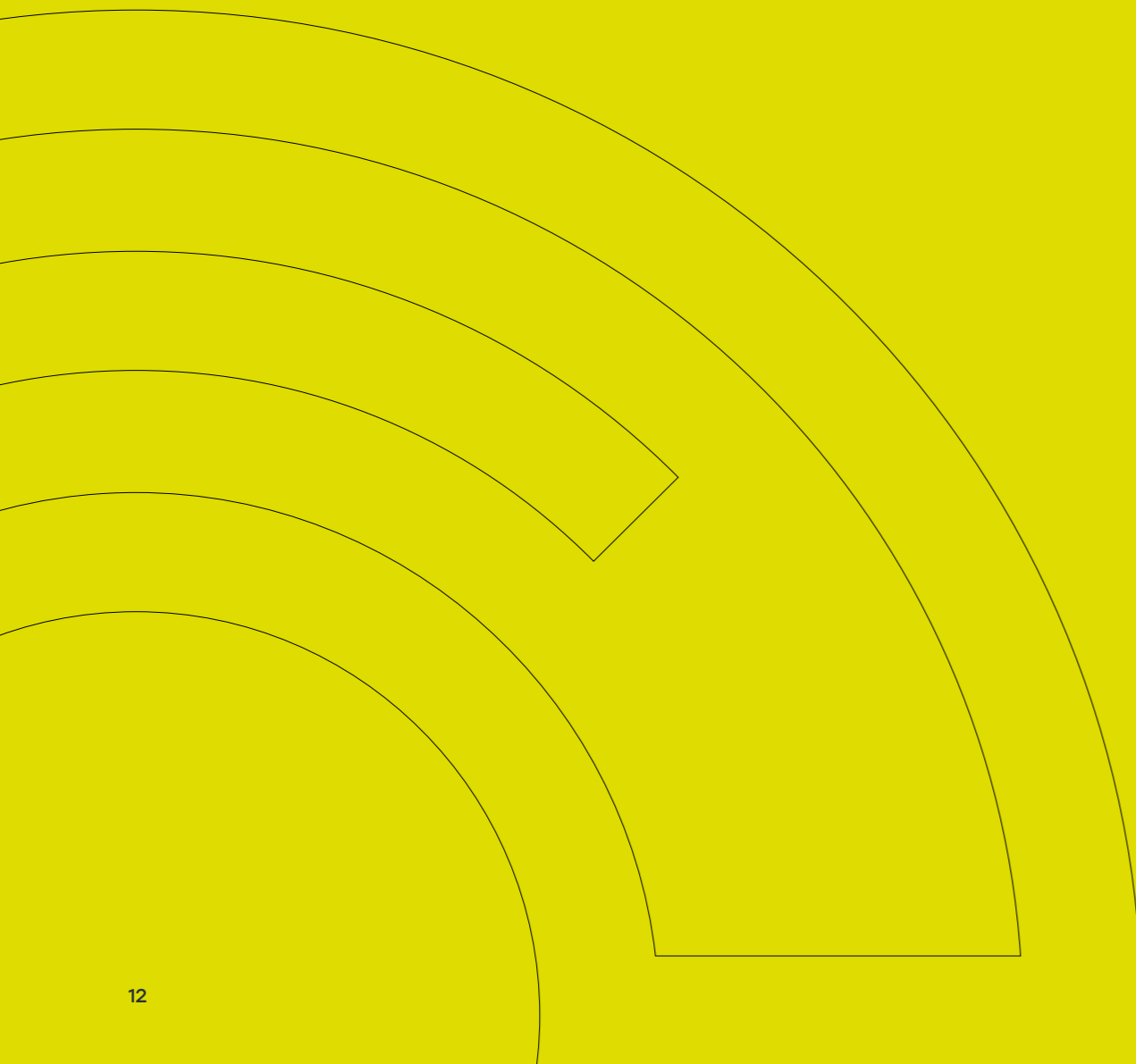
The signed communique from the convening scientists

Ecocem's inaugural science symposium, held in November 2023, brought together leading materials scientists from around the globe. The event focused on advancing low-carbon cement technology, particularly Ecocem's ACT technology. Through in-depth discussions and knowledge sharing, the scientists concluded that rapid decarbonisation of cement without excessive cost is now achievable. They emphasized the importance of adopting the latest developments in low-carbon cement technology to achieve substantial emission reductions across the industry by 2030. The symposium served as a catalyst for innovation and collaboration, solidifying Ecocem's commitment to driving sustainable change in the cement sector.



Ethics and Governance

Cement is the future. Just not as you know it.



Ethics & Governance

In the area of ethics and governance, we are deeply committed to maintaining the highest standards by regularly updating our assessment of business risks and identifying appropriate responses. Our integrated management system, certified to ISO 9001, 14001 and 45001, provides a solid foundation for stakeholder engagement and continuous improvement. Senior leadership is actively involved in guiding these efforts, while strong employee engagement across the

business reflects our collective dedication. This collaborative and inclusive approach ensures our governance practices remain resilient, enabling us to navigate challenges with integrity and a shared commitment to responsible business conduct.



ANTI CORRUPTION AND MODERN SLAVERY

INDICATORS	2021	2022	2023	TARGET
Judgements, prosecutions and rulings	0	0	0	0

COMPLIANCE AND ENVIRONMENTAL REGULATIONS

INDICATORS	2021	2022	2023	TARGET
Formal audits	37	37	37	37

CUSTOMER HEALTH AND SAFETY (IMPACT)

INDICATORS	2021	2022	2023	TARGET
Educational presentations to customers	212	307	315	315
Innovation partnerships	50	50	65	50



Roberta Alfani (Research and Innovation Director, Ecocem) presenting at an industry event



Partnership Spotlight: Cemex



In 2023, building materials supplier Cemex, and Ecocem, both European leading-edge companies in lower carbon construction technologies, announced a new partnership, which will see the two companies work together from June 2023 to test and implement lower carbon solutions in France.

Cemex and Ecocem have a long history of collaboration, with Ecocem supplying Cemex France with raw materials for many years. With this extension of the partnership the two companies will explore opportunities to use lower-carbon cementitious material in concrete production, in line with Cemex’s European aspiration of hitting a 55% reduction in CO₂ emissions in its operations by 2030.

Initially, the partnership will trial lower carbon solutions in ten of Cemex’s French readymix production plants, with the ambition to extend in France and potentially the wider region as part of a portfolio of initiatives in the sector. Developing innovative partnerships with key industry players such as Ecocem is an important pillar of Cemex’s dedicated climate action strategy, Future in Action.

According to Michel Andre, Vice President of Materials Western Europe at Cemex and President of Cemex France, the validation of their global target through the Science Based Targets initiative (SBTi) under the 1.5°C scenario, the

“Cemex continues to reinforce its commitment to advancing the sustainability agenda with the announcement of this extended partnership with Ecocem. We know that if we are to achieve our global ambition of operating as a net-zero business by 2050 we must prioritise exploring innovation and new technologies with like-minded companies who share our dedication to leading the industry’s transition to a lower carbon and circular economy.” - Michel Andre, Vice President Materials Western Europe at Cemex and President of Cemex France

most ambitious pathway in the industry, underscores their commitment to achieving more sustainable operations, products, and solutions.

“Cemex has been a key partner for Ecocem since the inception of our business in France. Combining our strengths has huge potential to make considerable progress in supplying lower-carbon cementitious material for use in lower-carbon concrete. We are firmly committed to this partnership starting in France. It is only through working together we will make the progress needed to achieve decarbonisation targets.” - Donal O’Riain, Founder and Managing Director of Ecocem.



Environment

**Subtract the pollution.
Add the solution.**



Environment

We continuously monitor and refine our practices to reduce our impact. As we work to bring ACT—a low-carbon, scalable cement solution—to market, we foresee a temporary increase in our carbon footprint. To address this, we are finalizing a carbon reduction roadmap that balances short-term increases with long-term reductions. This approach acknowledges the challenge for low-carbon businesses like Ecocem: while developing scalable technologies may initially raise our footprint, broader adoption could significantly

reduce the sector’s overall emissions. For example, replacing 60% of cement in Europe with ACT could cut European cement CO₂ emissions by 50% by 2030, saving over 60 million tonnes of CO₂e.



ENVIRONMENTAL IMPACT OF PRODUCTS/SERVICES

INDICATORS	2021	2022	2023	STATUS
Average group GGBS carbon footprint (kg eCO ₂ /tonne)	22.6	23.2	32.93	Increase due to growth in production across all sites

GHG EMISSIONS

INDICATORS	2021	2022	2023	STATUS
Total market based emissions avoided (million tonnes CO ₂ e)	14	16	18	13% Increase due to growing demand for low carbon solutions



Some attendees of the Ecocem ACT symposium in Paris



ACT: A Catalyst for Sustainable Construction



Ecocem’s ACT technology stands as a testament to our unwavering commitment to driving sustainable innovation within the cement industry. This groundbreaking technology has recently achieved a significant milestone with the acquisition of an ETA (European Technical Assessment) from EOTA (European Organisation for Technical Assessment). This independent validation is a pivotal step towards CE marking, paving the way for the widespread adoption of our revolutionary new eco-efficient cement across Europe.

Our participation in The Buildings and Climate Global Forum further underscores our dedication to fostering a sustainable built environment. The global forum was co-organised by France and the United Nations Environment Program (UNEP), with the support of the Global Alliance for Buildings and Construction, and held in Paris. As the sole international cement technology company at the event, we had the privilege of showcasing ACT’s potential to revolutionize the construction

sector. Through collaboration with industry leaders, government officials, and international organizations, we are actively working to accelerate the adoption of low-carbon solutions.

ACT technology is currently undergoing rigorous trials with industry partners to ensure its effectiveness in delivering substantial emissions reductions in concrete. Our focus on research and innovation is driving the advancement of sustainable cement solutions that contribute to a more resilient and environmentally friendly future.



Growing Ecocem Americas



Steve Bryan, Managing Director, U.S. Operations (Ecocem)

ECOCEM AMERICAS: PAVING THE WAY FOR A GREENER FUTURE

Ecocem Americas is making significant strides in the low-carbon cement industry, aligning with its global commitment to reduce CO₂ emissions by 50% by 2030. The company is currently embarking on one of its most ambitious projects to date: the construction of an import and manufacturing plant at the port of Los Angeles. This strategic move will strengthen Ecocem’s presence in the United States and enhance its ability to deliver sustainable solutions to the local market.

Under the leadership of Vice President Steve Bryan, Ecocem Americas has expanded its team with key additions of Mike Donovan as Technical Director and Phil Allen as Project Manager. These seasoned professionals bring invaluable expertise to the company, further driving its mission to innovate and decarbonise the cement industry.



Mike Donovan, Technical Director, U.S. Operations (Ecocem)

Ecocem’s dedication to sustainability extends beyond its operations. The company has actively contributed to the Department of Energy’s decarbonisation pathways document on cement and concrete decarbonisation. Additionally, Ecocem has joined the NEU Center for Carbon Neutral Concrete, a groundbreaking initiative spearheaded by the American Concrete Institute (ACI) and supported by organizations like Meta and Breakthrough Energy.



Phil Allen, Project Director, Ecocem Americas

Steve Bryan, Managing director of the U.S Operation, expressed his enthusiasm about the company’s partnership with NEU. He emphasized the importance of rigorous standards for low-carbon claims and the potential for Ecocem to make a substantial impact in the US market through its involvement in the NEU Center. As the Inflation Reduction Act continues to drive investment in low-carbon technologies, Ecocem Americas is well-positioned to lead the charge towards a more sustainable future.



Community

The future. Remixed.



Community

We continue to support initiatives that positively impact our local and broader communities while aligning with our sustainability goals. Our efforts are aimed at ensuring that the value we create extends beyond our operations, enhancing the well-being of the communities we serve and reinforcing our dedication to responsible business practices.

We recognize the importance of sponsoring and collaborating with community projects that resonate deeply with our employees and are closely connected to the areas surrounding our factory locations. By seeking input from our staff, we ensure that the initiatives we support are

meaningful to those who know these communities best. Whether it's through providing resources, funding local programs, or engaging directly with schools, we take pride in giving back where it matters most. We are particularly passionate about supporting educational initiatives, such as career talks and events like Engineering Week, to inspire the next generation of innovators and leaders. By fostering curiosity and encouraging young minds to explore fields like engineering and sustainability, we aim to leave a lasting, positive impact on the future of our communities.



LOCAL COMMUNITY/CHARITY ENGAGEMENT

PERFORMANCE	2020	2021	2022	2023	TARGET
Internships per year	1	3	5	6	8
Sites with active community engagement program	100%	100%	100%	100%	100%



Some members of the Ecochem Team at a Team building event in Croke Park, Dublin



Internship Story: Emre Birdal & Camille Biallais



Camille Biallais - 2024 Intern in our Dublin Plant and Lab



Some third level students during a visit to the Dublin Plant

Q. HOW LONG WAS YOUR INTERNSHIP?

CAMILLE: My internship at Ecocem Ireland lasted 2 months.

EMRE: My internship at Ecocem lasted four months.

Q. WHY DID YOU DECIDE TO DO AN INTERNSHIP WITH ECOCEM?

C: I wanted hands-on experience in sustainability and was eager to explore Ireland's culture and landscapes. Ecocem, with its focus on low-carbon cement, was the perfect fit.

E: I'm passionate about sustainability and wanted to apply my master's studies in a real-world setting. Ecocem's innovative approach to low-carbon cement made it an ideal choice.

Q. WHAT DID YOU ENJOY MOST ABOUT YOUR INTERNSHIP?

C: I loved working in the lab and learning from the team. The opportunity to attend a high-level meeting on innovation was a highlight.

E: I enjoyed being part of the sustainability team and the daily interactions with the Ecocem team. Collecting carbon emissions data and preparing reports was very satisfying.

Q. WHAT DID YOU LEARN ABOUT ECOCEM/CEMENT THAT YOU DIDN'T KNOW BEFORE?

C: I learned about the challenges of innovation and how theoretical knowledge applies in practice, especially in concrete production.

E: I discovered how GGBS can drastically reduce the carbon footprint in cement, and got hands-on experience with the production processes.

Q. WHAT WOULD YOU SAY TO OTHER STUDENTS LOOKING TO DO AN INTERNSHIP IN A CEMENT COMPANY?

C: I'd encourage them to dive in, especially if they're interested in sustainability. It's a great way to grow and gain confidence in a crucial industry.

E: I'd advise students to seek out companies that prioritize sustainability. An internship at Ecocem offers valuable experience in both industry and sustainability.

Q. HOW WILL YOUR TIME IMPACT YOUR EDUCATION GOING FORWARD?

C: This internship clarified my career goals and boosted my confidence. It's also inspired me to consider working abroad.

E: My time at Ecocem deepened my understanding of sustainable practices and motivated me to pursue further research in this field.

Q. WHAT COURSE ARE YOU STUDYING/HOPING TO STUDY IN COLLEGE?

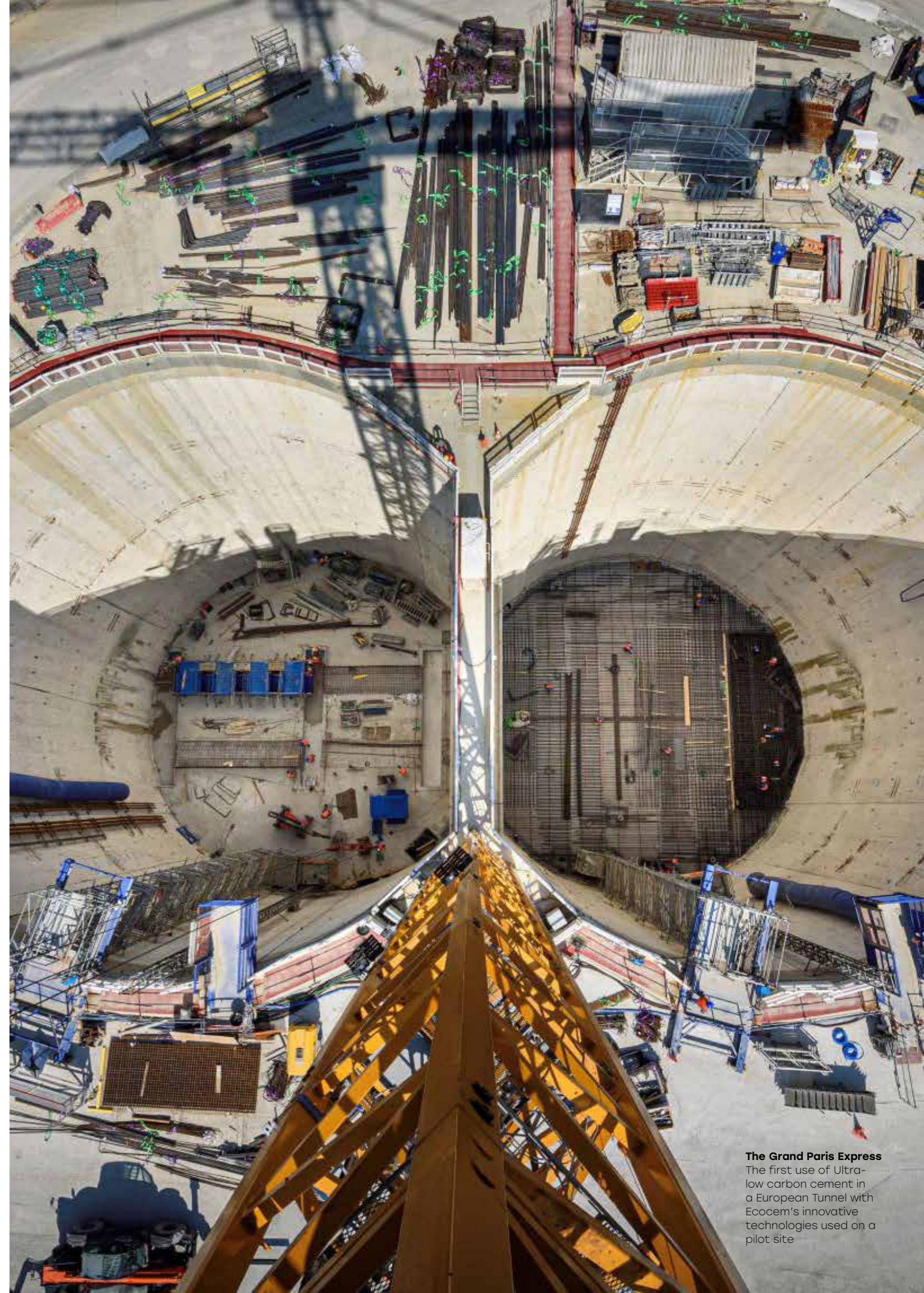
C: I'm studying Material Engineering at Polytech Lille.

E: I'm pursuing a master's in Sustainable Development at Technological University Dublin.

Q: ANYTHING ELSE YOU WOULD LIKE TO INCLUDE?

C: This experience was pivotal for my personal and professional growth. I'm grateful for the opportunity to have worked with Ecocem.

E: I'm thankful for the enriching internship at Ecocem. The skills I gained will be invaluable in my future career.



The Grand Paris Express
The first use of Ultra-low carbon cement in a European Tunnel with Ecocem's innovative technologies used on a pilot site



Ringsend College, Dublin: Home to The Break-through Project and Ecocem's OpenHive Bees

RINGSEND COLLEGE, DUBLIN AND OUR SPONSORED BEEHIVES



In 2023, we maximized social value by strategically co-locating two of our ongoing community initiatives—the Breakthrough Program at Ringsend and the beehives managed by OpenHive.

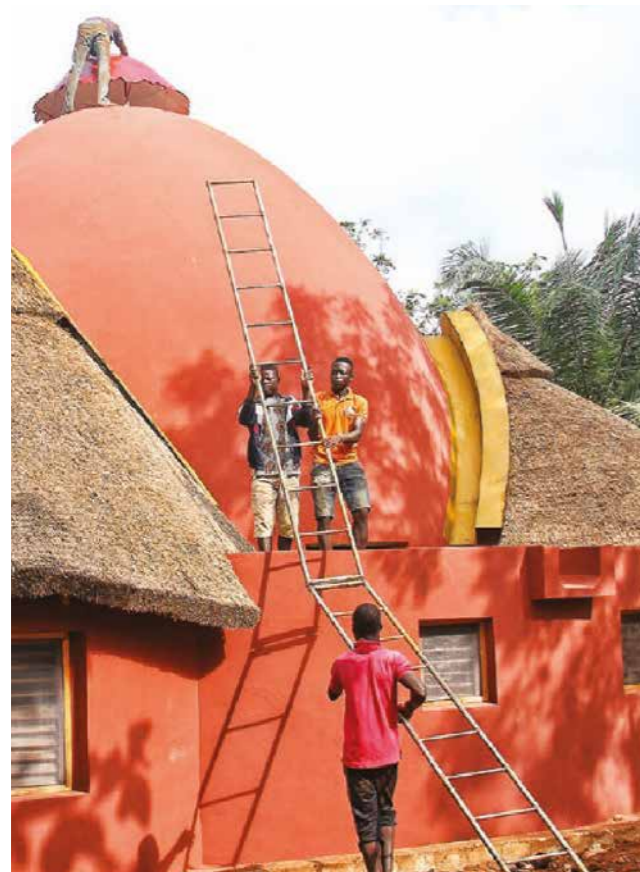
We relocated our beehives from Wicklow to Ringsend College in Dublin, where they can be

appreciated by the students and contribute to enhancing local biodiversity within the city. Thanks to our enhanced support, our hives have successfully expanded from one to three.

We are proud to continue our partnership with the Breakthrough Project, an after-school scholarship program that supports students with strong potential for higher education.

This program helps students excel in school, university, and their future careers. The Ringsend College is the closest school to our production plant in Dublin, and many of our current and former colleagues are from the surrounding area.

Aux Bonheurs de Dan Association



The donation from Ecocem supported the reconstruction of roofs for several village huts, which had suffered significant water damage due to the deterioration of their waterproofing.

Ecocem partnered with the Aux Bonheurs de Dan association for the repair to the roof of the straw huts in the Gbovié village in Benin, Southern Africa.

The village “Aux Bonheurs de Dan,” located on 3 hectares in Gbovié, Commune of Tori, offers a unique experience with nine huts that can accommodate 18 to 25 people in permanent accommodation.

The site also features a hectare of crops, a construction-site school, a Palabres hut, a Bibines hut, a bar, a collective kitchen, a borehole, a water tower, as well as works of art and games. The huts, all built with raw earth, are equipped with individual showers and toilets. The Association organizes thematic and personalized trips, welcoming travellers year-round who wish to discover Benin or experience an immersive stay with local Beninese communities.



Wild Walls: The National Biodiversity Campaign



Ecocem partnered with Biodiversity in Schools to launch “Wildwalls,” a nationwide biodiversity art campaign in Ireland. The initiative invited young people to design school murals that raise awareness of biodiversity and support local wildlife. Open to pre-primary through secondary schools in the Republic of Ireland and Northern Ireland, the competition offered over €5,000 in prizes, including a professionally painted mural, an indoor vertical garden, and a low-carbon plaque.

We received over 2,000 submissions and were truly impressed by the incredible talent showed by the participating students.





Global Partnerships

We have a wide network of partners, from academics and material scientists to concrete businesses, construction materials providers, consulting engineers, and architects.

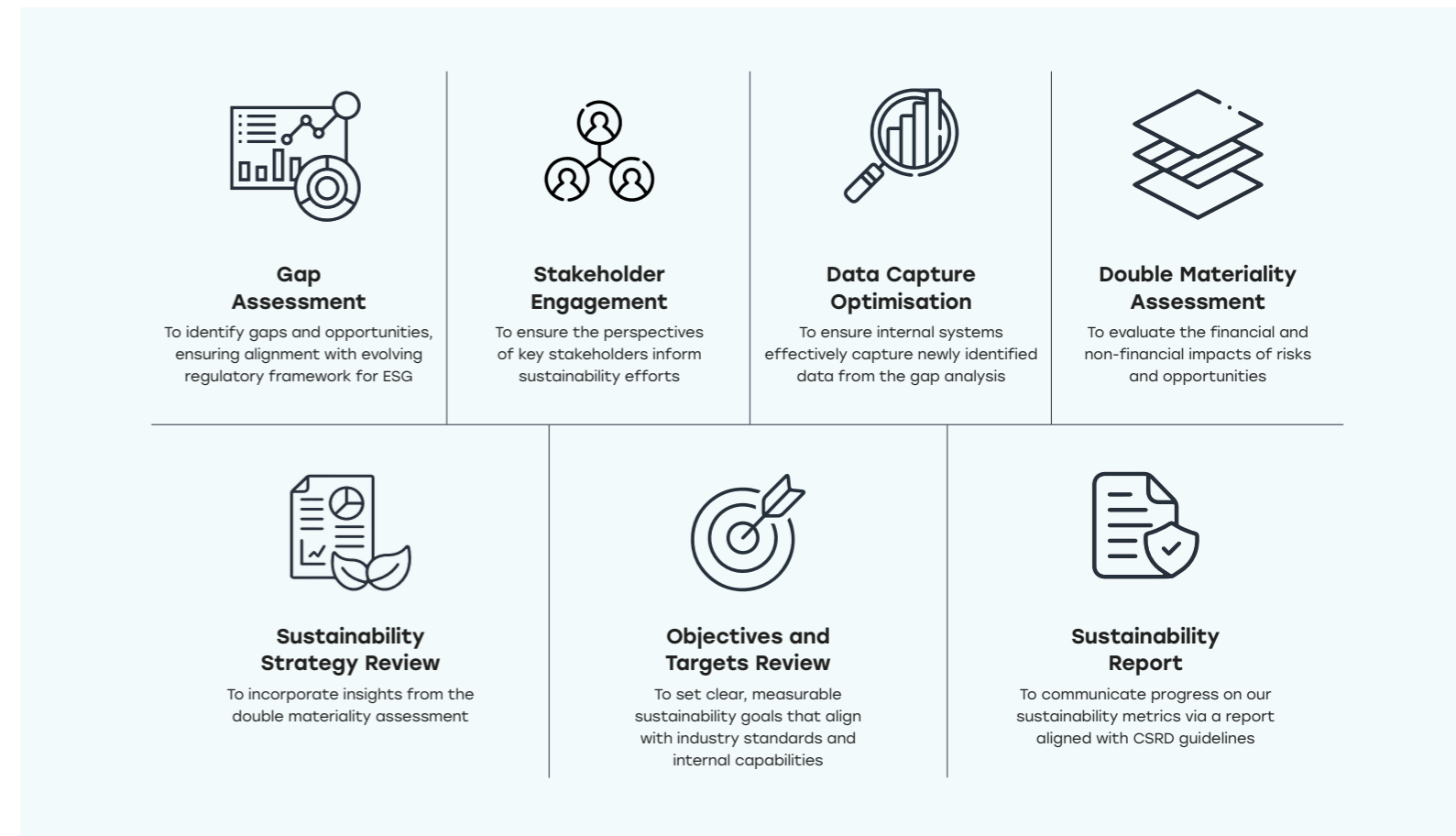
Our relationships with some of the world's leading materials scientists, their expertise and insights help us challenge the status quo and push the boundaries on the development of next generation low carbon solutions. Our network of research and academic partners supports collaboration,

validation, and future dissemination of ground-breaking technologies worldwide. Our partners advise us on next generation cement technologies and their contribution is invaluable to producing scalable solutions that can help the entire industry decarbonise.

We work with some of the world's leading construction and materials companies to test, trial, and deliver bespoke low carbon solutions for a range of projects.



Looking Forward: Strategic Goals



The future. Built better



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