20 Years of Ecocem

Vision 2020

Sustainability Report

ecocem GROUP

Ecocem Group

ecocem BENELUX

ecocem IRELAND

ecocem MATERIALS

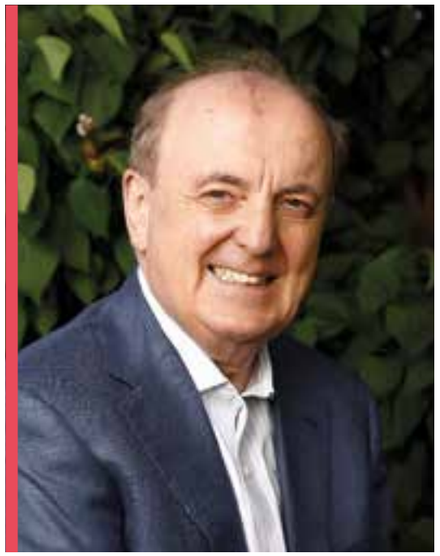
ecocem FRANCE

orcem AMERICAS

ecocem GB

Contents

Letter from the Group Managing Director



2020 marked an unprecedented year globally for businesses and citizens as we all dealt with the challenges posed by COVID-19. For Ecocem, Covid has meant that this is our first Sustainability Report since 2018. The report reflects the excellent progress made over this period.

We have improved our safety systems and culture, we have shot up the Carbon Disclosure Project scoresheet from a D to a B, and we have shifted our work practices on-line, with big savings in time and in CO_2 emissions from staff travel. All this reflects a healthy, adaptable, and entrepreneurial culture, expressed through improved teamwork and the ambitious target to be a global leader in the reduction of CO_2 emissions in the cement sector.

2020 also marked the 20th anniversary for the group and 10th anniversary for the largest subsidiary within the group- Ecocem France. The successes the business recorded in 2020 demonstrates our resilience and reflects the efforts of the Ecocem team. Our dedicated customer base realise and appreciate more and more the efforts we make to provide them with low-carbon technology and products.

We have seen the business environment change as well. The New Green Deal promises real action on climate change in all our markets. Many industries are in a process of reinvention to reach zero carbon emissions. So far, the cement sector is failing to rise to this existential challenge. We, on the other hand, have long been committed to this struggle. Our development of new technology will feature strongly in our future activities. This decade we plant to triple our efforts in lowering sectoral CO_2 emissions. And we will cooperate with like-minded companies to achieve a globally significant impact.

This year has seen us take a more structured approach to training with the launch of our Ecocem Academy. We will use it to develop the skills and knowledge throughout the company and at all levels. The rate and extent of change in our industry is such that, where appropriate, we will extend the benefits of this training to partners and customers.

This year we successfully attracted a substantial equity investment from Breakthrough Energy Ventures and Breakthrough Energy Ventures Europe. This investment will enable Ecocem to bring new ultra-low-carbon cements to the market over the coming years. These new products will draw on Ecocem's deep knowledge in slag-based cements as well as incorporating new materials and technologies developed by the company.

Change is deeply impacting all that we do. This 2020 Sustainability Report reflects this very clearly. You can expect that Ecocem will continue to play its role as we grow our company, enhance our capacities, protect our employees, and ensure the safety of all those who visit our sites or work with our products.

Donal O'Riain | **MD Ecocem Group**

"Many industries are in a process of reinvention to reach zero carbon emissions. So far, the cement sector is failing to rise to this existential challenge. We, on the other hand, have long been committed to this struggle. Our development of new technology will feature strongly in our future activities. This decade, we plant to triple our efforts in lowering sectoral CO_2 emissions"

- Donal O'Riain
Group Managing Director, Ecocem

About Ecocem

The Ecocem Group is an independent specialist producer of GGBS (ground granulated blast furnace slag) and low carbon technological solutions provider for the cement sector, established in 2000.

Ecocem GGBS is made from GBS, a by-product from the manufacture of Iron and is a high-performance alternative to traditional cement, reducing environmental impacts while improving technical performance and appearance of concrete. We run a highly successful research and development team with experts in some of the best technical universities across Europe. Through technical innovation, we aim to extend the use of GGBS into new areas of application and to allow our customers the best possible value from the use of GGBS. The increasing price of carbon will encourage the market to move away from traditional Portland cements to more low carbon options.

Across the group, our innovation team has developed and increased sales in all areas of the business, from accelerators to dry mortars and revolutionary self-levelling flooring systems. All our products have a third party verified Environmental Product Declarations (EPD) demonstrating full disclosure of our life cycle impacts. As our business grows, we strive to ensure that society and the environment are at the centre of our business strategy and practices. Our strategically located import terminals and production facilities across Europe, as well as strategic partnerships and long-term supply agreements, ensure a constant supply of high quality GGBS to all our European customers.

3 Subsidaries across: Ecocem Benelux, Ecocem Ireland & Ecocem France

Over **150 Employees**

A constant and reliable supply of **high quality GGBS** to all our European customers

Supplies into **10 European** countries

14 local **low carbon** cementitious products with EPD's

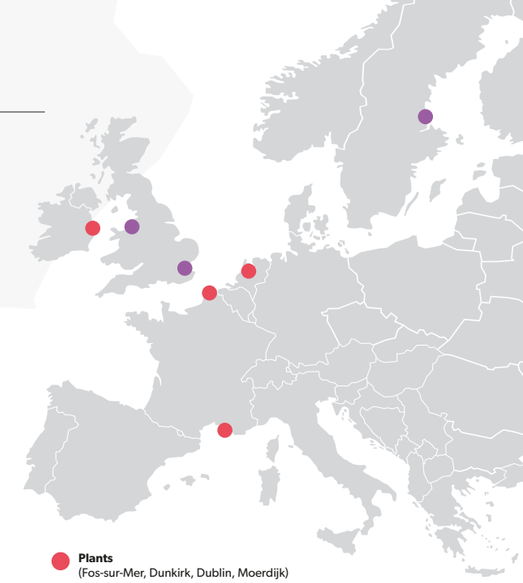
Production capacity of over **2.4 million tonnes** of GGBS

Largest independent GGBS producer in **Europe**

€2million spent on R & D annually

Our Mission

Leading the way with low carbon cement technology. It's time to build a sustainable future.



Our Vision

The Ecocem Group is committed to deep and rapid decarbonisation of the global cement industry. We develop and apply sophisticated low-carbon technology. We work in close cooperation with similarly motivated partners.

Our energy and our success come from a **cohesive, innovative, tenacious and flourishing team culture.**

Our Values

Cohesive:	Engagement, proactive communication, teamwork and collaboration. Strong meaningful relationships based on trust, reciprocity and solidarity. Being aware and agile, supporting each other in order to realize a common goal.
Tenacious:	Grit, determination, resilience, perseverance. Taking risks and learning from mistakes. Managing change, pressure, and growth in a sustainable way.
Innovative:	Continuous improvement, creativity, and adaptability. Responding to ever changing needs with pertinence. Being entrepreneurial and challenging the status quo, striving for behaviours and solutions that enhance our products and services and make the work environment a better place.
Flourishing:	Positivity, energy, enjoyment, passion, full potential performance, and prosperity. A work culture where people are able to express their unique talents, be challenged, develop, and grow. A healthy environment where people feel happy and secure.

Context of the Report

Vision 2020 was our program for growth across Europe for 2017-2020. This year's sustainability report will conclude our reporting against the targets identified in 2017.

It will provide a snapshot of our final performance against the vision 2020 targets, as well as, key initiatives, major projects and news. It will also shine the spotlight on some team members as they worked towards these targets.

This year we expanded our Scope 3 reporting to include business travel and waste to ensure our impacts can be addressed. We are continuously improving our sustainability strategy and will include further partners in our supply chain in our materiality assessment in the future. This year's report focuses on the issues identified at the beginning of our journey – those of significant importance to both society and our business.

Materiality issues:

Workplace

- Occupational health & safety
- Non-discrimination
- Employee well-being

Ethics & Governance

- Anti-corruption & modern slavery
- Compliance & environmental Regulation
- Customer health & safety (impacts)

Environment

- Environmental impact of products/ services
- GHG Emissions (Impact)

Community

- Local community
- Charity development

Spotlight On Our New Partnership
Breakthrough Energy Ventures

Ecocem has long been a pioneer and market leader in slag-based and other green cements. In 2021 BEV and BEV Europe invested €22.5Million in Ecocem Materials to enable Ecocem bring new ultra-low carbon cements to the global market over the coming years. These new products will draw on Ecocem's deep knowledge of slag-based cements as well as incorporating new materials and technologies developed by the company.

Breakthrough Energy Ventures (BEV) is backed by many of the world's top business leaders and invests in cutting-edge companies that will lead the world to net-zero emissions. BEV has more than $2 billion in committed capital to support bold entrepreneurs that can significantly reduce emissions from agriculture, buildings, electricity, manufacturing, and transportation. BEV's strategy links government-funded research and patient, risk-tolerant capital to bring transformative clean energy innovations to market as quickly as possible. Similarly, BEV-E links European Investment Bank funding guaranteed by the European Programme for Research and Innovation, Horizon 2020, with long-term risk capital in order to accelerate global decarbonisation and support clean energy innovations reaching the market - faster, more efficiently, and in more places in Europe. BEV-E brings cooperation with private investors to a new level.

The manufacture of cement generates 7% of global CO_2 emissions. Progress in decarbonisation has been limited by the high level of process-related CO_2 emissions of cement clinker manufacture. The sector faces high investment and high operating cost from deployment of Carbon Capture and Storage/ Use (CCSU) beyond 2030. Only limited further decarbonisation potential is foreseen this decade. Ecocem's new technologies will enable the global cement industry to reduce its CO_2 emissions rapidly and without excessive cost, providing high-performance cements with significantly lower clinker content.

The cement sector is already developing and deploying a range of carbon reduction technologies. Ecocem will add a further dimension to these efforts, provide wide access to its low-carbon technology, and support the sector in moving to a Paris-compliant, emissions reduction trajectory.

> **"Concrete is the foundation of human development, but its conventional production is highly CO_2-intensive"**
>
> *- EIB Vice-President in charge of innovation, Teresa Czerwinska*

Breakthrough Energy

"Concrete is the foundation of human development, but its conventional production is highly CO_2-intensive," said EIB Vice-President in charge of innovation, Teresa Czerwinska. "The Paris agreement on climate change demands that annual carbon emissions from the cement industry fall by up to 50% by 2030 to limit global warming to 1.5- 2 centigrade. Innovative technologies in the sector are therefore more needed than ever. I am happy that EIB-support enables financing for a company that can substantially reduce the carbon footprint of cement."

"I welcome this investment by BEV-E," said Mariya Gabriel, European Commissioner for Innovation and Research. "Europe and its partners support Ecocem, an independent company in the cement industry, one of the hardest to abate sectors. Ecocem's low carbon solutions can impact not only industrialised countries but also the emerging economies. With this third transaction in 2021, I am satisfied to see BEV-E adding to a portfolio of highly innovative enterprises in Europe, across sectors and challenges such as green hydrogen, renewable carbon sources, and today, cement."

"There's no question the cement and concrete sector is a massive contributor to global carbon emissions and one of the hardest to abate," said Carmichael Roberts of Breakthrough Energy Ventures. "That's why we're excited about the work Ecocem has been doing in Europe, and its continued focus, working with the existing cement industry to deploy new technologies and accelerate the adoption of ultra-low carbon cements. This type of cross industry collaboration is needed to drive real change"

Summary of Performances & Targets

Category	Issue	Performance Index	2017	2018	2019	2020	2020 Target	Status
WORKPLACE	OCCUPATIONAL HEALTH & SAFETY	Incident Rate	0.80	2.73	1.70	1.30	Less than 1 per 100,000 hours worked	**80% Achieved**
		Fatalities	0	0	0	0	0 fatalities	
		Increase spend on safety training	50%	50%	20%	109%	50%	
		ISO 45001 Certified Sites	50%	100%	100%	100%	100%	
		Toolbox talks	34	48	69	80	Increase by 50%	
	NON-DISCRIMINATION	Increase of female workforce	24%	38%	76%	90%	No target	**50% Achieved**
		Staff trained in diversity	launched	25%	50%	75%	100%	
	EMPLOYEE WELL-BEING	Management on external training courses	10%	54%	89%	97%	25%	**100% Achieved**
		Training needs analysis in place in sites	50%	75%	100%	100%	100%	
		Wellness programs in sites	launched	25%	100%	100%	100%	
ETHICS & GOVERNANCE	ANTI-CORRUPTION & MODERN SLAVERY	Employees that received Ethics and anti-corruption training	18%	25%	50%	50%	100%	**50% Achieved**
		Judgements, prosecution & rulings	0	0	0	0	0	
	COMPLIANCE & ENVIRONMENTAL REGULATION	Formal audits	25	31	31	37	37	**50% Achieved**
		ISO 14001 certified site	70%	100%	100%	100%	100%	
	CUSTOMER HEALTH & SAFETY (IMPACTS)	Educational presentations delivered to customers	122	218	133	125	200	**50% Achieved**
		Innovation partnership	28	42	45	50	40	
ENVIRONMENT	ENVIRONMENTAL IMPACT OF PRODUCTS/SERVICES	GGBS carbon emission ($KgCO_2e$/tonne) Group	33	39	34	43	-5%	**Not Achieved**
	GHG EMISSIONS (Impact)	**CO_2 Saving (million tonnes)**	**10**	**9.4**	**12.1**	**12.5**	**14**	**89% Achieved**
COMMUNITY	LOCAL COMMUNITY/ CHARITY DEVELOPMENT	Internships per year	4	4	4	1	8	**Not Achieved**
		Increase in financial support to local charities	57%	10%	31%	25%	55%	**Not Achieved**
		Sites with active community engagement program	launched	50%	50%	50%	100%	**Not Achieved**

Our Achievements at a Glance

Thanks to the tireless efforts of our dedicated and talented workforce across Europe in implementing our group strategy, we successfully achieved several targets and commitments in a challenging year.

Our achievements include:

Project Spotlight

The TELT Story

The reduction on **CO_2 emissions** from the use of SSC and GGBS is estimated **530,740 tonnes**

The TELT is part of a new 217km rail link from Lyon, France to Turin, Italy. On completion in 2030, the tunnel section of 57.5km will be the longest rail tunnel in the world. The TELT rail link is estimated to reduce CO_2 emissions by 3mt p.a. by replacing road freight.

Major tunnel works are expected to commence in mid-2023, be completed by 2028, and cost from €10-12bn.

GGBS from FOS will be used throughout the tunnel, supplied over a 5-year period. Ecocem has developed a special sulphated cement (SSC) for use on a 6km section which is heavily contaminated by Sulphates- precluding the use of conventional cements. ArceloMittal has supplied high alumina slag for production of this cement and Holcim has cooperated closely in development of concrete formulations to use SSC.

The SSC allows the reuse of extracted, contaminated aggregates as constituents in the concrete for internal use in the tunnel. The environmental problems of disposal of these contaminated aggregates are thus avoided. This has been a major requirement of the TELT project.

On completion in 2030, the tunnel section of 57.5km will be the longest rail tunnel in the world.

Workplace

- In 2018, one fifth of all fatal accidents at work in the EU-27 took place within the construction sector
- Within the EU, work related stress is of some or major concern in nearly 80% of establishments. At the same time, less than 30% of organisations in Europe have procedures for dealing with workplace stress
- The construction sector is the EU's largest industrial employer with 15 million workers. But only a very small percentage of these employees are women

Workplace

Within the workplace category, we saw our best performance to date with an 80% achievement rate. This is a testament to the groups commitment to employee safety and wellbeing. As a growing company, the dynamism and flexibility of our team remains one of our biggest strengths.

Covid 19 brought challenges not only to our business but on a personal level to each one of our staff. Our work practices had to change rapidly, and our team responded gallantly adjusting to new safety measures while maintaining our high-quality service and product delivery. While many members of our team moved to remote working, our production team became our frontline workers ensuring our supply chain was not disrupted and the construction industry could have a steady supply of low carbon material to build essential services.

“ At Ecocem innovation is key to the long-term success of our business and we know that diversity drives innovation. ”

Our spending on safety increased by over 100% since the start of our programme showing the overall increased awareness of safety across the group. We are proud to maintain our 0-fatality rate and continue to work on lowering our accident frequency rate through training and toolbox talks. Health and safety committees have been established in every country we operate in with a strong focus on near miss reporting.

Since 2017, our female workforce has increased by 90% and 75% of our staff received diversity training. At Ecocem, innovation is key to the long-term success of our business and we know that diversity drives innovation. As specific focus of all senior managers was to instil diversity principles into their hiring processes.

Employee Spotlight: Anne Debenath | *Plant Manager, Durkirk*

Ecocem’s Anne Debenath, Dunkirk Production Manager, won the prestigious French Industry Award from Usine Nouvelle, France’s best-known industry magazine for her outstanding career in the Best Female Hope category. This is a fantastic achievement, Anne, we are all very proud to have you on our team. Many congratulations.

Workplace Performance

Occupational Health & Safety

Current Performance

- **1.30** Incident Rate
- **0** Fatalities
- **109%** Increased spending on safety training
- **100%** ISO 45001 Certified Sites
- **80** Toolbox Talks

2020 Target

- **<1** Per 100,000 hours worked — ACHIEVED
- **0** Fatalities — ACHIEVED
- **50%** Increased spending on safety training — ACHIEVED
- **100%** ISO 45001 Certified Sites — ACHIEVED
- **50%** Increase — ACHIEVED

Non-Discrimination

Current Performance

- **90% Increase** of female workforce since 2017
- **26% Female** Workforce overall
- **75% Staff** Trained in diversity

2020 Target

- **30% Female** Workforce overall
- **100% Staff** Trained in diversity

Employee Well-Being

Current Performance

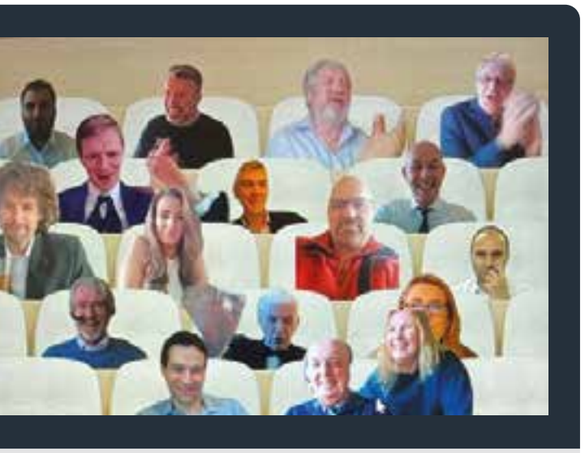
- **97%** Management on external training courses
- **100%** Training needs analysis in place
- **100%** Wellness programs in place

2020 Target

- **25%** Management on external training courses — ACHIEVED
- **100%** Training needs analysis in place — ACHIEVED
- **100%** Wellness programs in place — ACHIEVED

Employee Spotlight

Employee Engagement across the group during COVID



Employee engagement is vital for business success. COVID-19 has changed the way we communicate with each other.

Senior management team changed from in person social engagements replaced with Zoom parties. Going forward, Ecocem will maintain the group policy of **reduced business travel** and **increased use of video conferencing.**

Laura De Jongh delivers her experience in Benelux :

Accounts Assistant, Ecocem Benelux.

"Hi all! Under normal circumstances we travel to Moerdijk to work at the office, plant or lab, but since the outbreak of the Covid-19 virus, this has become a challenge for us all. Luckily most office staff are equipped to work from home, including myself. So within a few weeks, we had all the required functionality operating the telephone system working from home. The finance team have spoken about returning to the office when the Covid regulations allow it. We all agreed working from home has its ups and downs. The plan is to work 2-3 days at home in the future. This will not only save fuel (beneficial to our own expenditure) and travelling time but it saves travel expenses for the company and reduces CO_2 emissions on the side. That's nice for a company which is producing low carbon products."

Project Spotlight

The Hekla Tower, Paris. Our client BSM & BATEG performing non-stop 1700m3 concrete pour with a mix design of 50% GGBS for the foundation slab of the Hekla Tower in the La Defence business district in Paris. By August 2021, our clients Vinci Construction France and BSM poured a total of 55,000m3 of Concrete representing 8250t of GGBS and saving an estimated 7000t of CO_2 in concrete.

The Van der Valk Hotel, Amsterdam. Ecocem Benelux is going to pour Eco$_2$floor in the new Van der Valk hotel (south Ax) in Amsterdam. This 55 m-high building will have 14 storeys and 245 hotel rooms.

Contributing to Cement Sector Decarbonisation

Ana Carolina Raulino | *Laboratory Technician, Quality Control Team - Ecocem Ireland*

My name is Ana Carolina Raulino, I am very proud to be part of the Quality Control team for the final product and raw material at Ecocem Ireland. Our advanced technology and quality plan enables us produce high quality and consistent product characteristics in agreement with the highest standards for building chemistry. At the EIL Laboratory I ensure the Quality Control Team makes a significant contribution to Ecocem Ireland's objective of delivering clean economic growth that maximises decarbonisation of the cement industry. My approach is based on a conscientious and responsible work culture that has proved effective so far.

My role does not end in quality control, I am actively involved in the development of product innovations that can maximize decarbonisation, participating in discussions and actions in this area. To encourage innovation, we welcome ideas on using and optimizing GGBS from everyone.

Chisom Ekomaru | *Sustainability Coordinator - Ecocem Materials*

Climate change is one of the biggest challenges facing humanity presently. The building and construction sector is responsible for 39% of global carbon emissions and 11% of this comes from embodied carbon of construction materials and processes. An important step in decarbonising the construction industry is measuring carbon footprint of construction products and specifying use of low carbon products for construction projects.

As Sustainability Coordinator, one of my main responsibilities is providing reliable GHG emissions data for the organisation and its customers and facilitating Life Cycle Analysis within the construction Sector. It is great to be part of an organisation that has demonstrated high level of leadership in sustainability from the start and cares deeply about reducing the carbon footprint of its industry using innovative, circular technology.

Mirjam Rubingh | *Product Manager, Eco_2Floor - Ecocem Benelux*

January 2020, I joined Ecocem as Product Manager for the innovative low carbon GGBS based screed, Eco_2Floor, launched in 2018. Being brought up in an environment where various flooring applications and screeds were my father's profession, this role fits like a glove.

In my role, I seek and seize opportunities in the market, accompanying both our appointed Eco_2Floor dealers, and our certified applicators during projects. I also present Eco_2Floor to architects, project developers, housing corporations, and inform them about our sustainable advantages compared to other traditional products.

The main binder used in Eco_2Floor is Ecocem-GGBS, making it very sustainable. My goal is to increase awareness about this low carbon, innovative product, Eco_2Floor on various levels and steer towards the growth and market share we seek. An interesting and challenging job, within a nice team of colleagues.

Key Fact:

90% Increase in our female workforce since **2017**

Project Spotlight

Eco2Floor in Paleis 't loo

Floors fit for a king. Ecocem Innovation product, Eco_2Floor being installed as part of €123M renovation of Paleis 't Loo, a royal Dutch Palace (former summer residence of the Dutch royal family).

Ten years of production, support, and delivery to all Ecocem France customers

How far we've come in 10 years

2 plants in France

1.4 million T Capacity

Export of Materials

First **Female** Plant Manager

State of the art, brand **new plant** in Dunkirk

About Ecocem France

The first Ecocem France production site began production in 2009, located in Fos-sur-Mer in the South of France. A joint venture was then created between Ecocem and ArcelorMittal. Since then, the Fos-sur-Mer site has tripled its production and Ecocem France production capacity was doubled again in 2018 with the building of a second production facility in Dunkirk. The Dunkirk Plant now serves the northern half of France, Ile-de France and as well as being our primary exporter. Exporting to both of our UK Terminals in Manchester and London and our Swedish terminal in Gävle, Ecocem France is contributing to the low carbon transition taking place in both markets.

“ An important characteristic of Ecocem France is the skill and expertise of the technical and commercial team in low carbon cement technology ”

An important characteristic of Ecocem France is the skill and expertise of the technical and commercial team in low carbon cement technology. Working directly with our clients and partners and provide training and educational resources has accelerated the transition to sustainable construction in France.

“Ecocem is heading into the next decade with a wider range of solutions, resulting from its continued investment in innovation. The work done by its teams on a more efficient and more innovative use of GGBS has borne fruit and paves the way for a real technical upheaval. “ says Conor O’Riain, Managing Director Europe of Ecocem.

Ecocem France intends to bring to the construction sector not only the best low carbon solution for the concrete industry, but also quality solutions for many other applications.
This new decade will be even more important for the development of Ecocem France because the entire construction sector urgently needs to work on technically reliable low-carbon solutions.

Today we are witnessing the decline of polluting construction. All of the key players in this sector are mobilising to implement sustainable construction practices in response to climate change. This spirit of partnership in the search for the best solutions for tomorrow is a key factor in accelerating the development of Ecocem France. For the entire Ecocem France team, this is also the starting point for tackling the challenges of tomorrow.

Ethics and Governance

- The value of global construction output is expected to reach $17.5 trillion per annum by 2030. It is also estimated the value of losses through corruption to range between 10% and 30%
- 18% of reported forced labour exploitation cases worked in the construction industry
- Innovation is vital to overcome technological challenges inhibiting decarbonisation of global cement and construction industry

Ethics and Governance

Ecocem strives to uphold the highest standard of ethics and compliance in all markets it operates in. We are constantly reviewing and evolving our corporate governance processes and maintain board level oversight in critical business issues. We operate an ethics policy across the group and ensure our supply chain is transparent and free of modern slavery.

We operate ISO certified sites across Europe and maintain compliance with our local permits. To maintain our high compliance record, the Group has invested in audit training for many of the plant and quality teams. Our audit frequency has increased along with our spare parts inventory to ensure production continuity at the highest standard.

Educating the market on the impacts of our products and building long term partnerships are key to helping our customers make informed decisions on the products they are using.

Business Risks & Opportunities

A key aspect of our corporate governance is managing business risk and opportunities.

All business risks and opportunities are monitored through our Business Risks and Opportunities Register, overseen by the Board to ensure that risk and opportunity management is integral to our business strategy. Ecocem's Risks and Opportunities Register is assessed regularly to ensure its effectiveness and has been instrumental in the development of a low-carbon transition plan, and influencing long, medium and short-term targets.

The senior management team meets quarterly to assess risks and opportunities identified as well as monitor items already integrated into the business management system. All risks and opportunities are evaluated for their probability of occurrence and the potential resulting impact. This enables strategic intervention so that risks are mitigated and opportunities are realised. It is the responsibility of the senior management team to identify, assess and manage business risks and opportunities. However, responsibility for implementing intervention strategies lies at all levels of the business structure.

Project Spotlight

Ecoshot demonstration

Ecocem's demonstation of the early age compressive strength of Ecoshot was observed by 70 experts including members of industry and specialised press in France. Ecoshot is the first major activated GGBS shotcrete globally.

Ethics & Governance Performance

Anti-Corruption & Modern Slavery

Current Performance

50% of Employees have received Ethics and anti-corruption training

0 Judgements, prosecutions & rulings

2020 Target

100% of Employees have received Ethics and anti-corruption training

0 Judgements, prosecutions & rulings

ACHIEVED

Compliance and Environment Regulation

Current Performance

37 Formal Audits

100% ISO 14001 certified site

2020 Target

37 Formal Audits

ACHIEVED

100% ISO 14001 certified site

ACHIEVED

Customer Health & Safety (Impacts)

Current Performance

125 Educational presentations delivered to customers

50 Innovation Partnerships

2020 Target

200 Educational presentations delivered to customers

40 Innovation Partnerships

ACHIEVED

Spotlight on Ecocem's contribution to Technical Committees in Europe

Over the past couple of years, Ecocem has been increasingly active within technical committees and trade associations across Europe through our community of technical experts.

Within such committees and associations, Ecocem has been relentlessly working for the development and promotion of low-carbon binders for concretes and mortars. Initially, Ecocem's participation in these technical groups was largely focused on technical properties, developing a suitable argumentation to demonstrate that our technologies, based on GGBS, were a perfect and reliable alternative to be used in hydraulic binders, concretes, and mortars.

Over the past few years, the focus of these committees has moved towards the contribution of Ecocem technologies to decarbonisation. Since then, the technical agenda has been reviewed to embrace both sustainable and technical challenges. Not only has Ecocem always been part of the evolving discussions but has also influenced them to implement innovative options to meet the low carbon agenda.

According to the different countries' regulation, the maximum quantity of GGBS that can be used can vary. Ecocem has been influencing technical discussions to demonstrate that a higher GGBS usage could significantly lower the carbon footprint of innovative solutions, while still meeting technical criteria. Such progress in concrete manufacturing can be seen through the "engineered concrete" approach of France and the "equivalent performance based" approach of many European markets.

Ecocem strives for a beneficial playing field for sustainable and durable solutions. Therefore, the group also participates in committees that deal with new sustainable binder solutions other than GGBS, such as natural pozzolans, steel slag, limestone fillers, fly ash, concrete fines, etc. One of the core objectives of Ecocem representation has been to develop ternary products which are solutions based on different sources of secondary cementitious materials, according to their carbon footprint, technical performance, availability, and cost.

Ecocem's strategy is to accompany the normalisation of low carbon innovative solutions, introducing them in the existing regulatory structure.

- In France, Ecocem takes part in the French cement standardisation committee, the concrete standardisation committees and the sustainable development committees. Many of these committees are mirror groups for influential technical committees at a European level.
- In Belgium and the Netherlands, Ecocem is actively participating in (pre) standardisation committees for concrete, cement, binders and additions. As an illustration, within the Dutch study association for Concrete Technology (Stutech) Ecocem contributes to studying topics related to suitability and durability. Ecocem also participates in the mirror groups of many European Technical Committees as well as directly in new European working groups on decarbonisation.
- In the UK, Ecocem is a member of Materials Product Association (MPA) and hold a seat on the technical committee of the Cementitious Slag Makers Association. The company is also active in the Institute of Concrete Technology.
- In Ireland, Ecocem holds council positions in the Irish Concrete Society Council and the Irish Concrete Federation Technical Committee and actively participates in the Institute of Engineers Ireland, holding committee positions in the Structures and Construction Division and the Women in Engineering Society. Our team participates in many NSAI Technical committees such as Concrete Durability and Circularity of Construction products, taking up national representation positions on the European Technical Committee for Sustainability in Construction Working Groups.

Environment

- The cement industry generates around 2.5Gt of CO_2, equivalent to 7% of the global total
- The European Commission is proposing to cut net greenhouse gas emissions by at least 55% by 2030 and carbon neutral by 2050
- Collectively, buildings in the EU are responsible for 39% of greenhouse gas emissions, which mainly stem from construction, usage, renovation and demolition.

Environment

Ecocem successfully saved an additional 3.1 million tonnes of CO_2 since 2018.

Ecocems growth over the past two years has saved 3.1 million tonnes of carbon emissions from the cement industry through innovative low carbon solutions and new products. In the past ten years Ecocem has saved an astonishing 12.5 million tonnes of carbon from the atmosphere across Europe. As our production continues to increase our focus must turn to our supply chain emissions and ensuring we are using the most efficient and low carbon transport and material handling methods. We have expanded our scope 3 emissions reporting to include business travel and waste to maximise the impact we can make on our overall group emissions. The improvements we have made since beginning our sustainability journey are evidenced by our improved B rating in the Carbon Disclosure Project.

Circularity in the business model

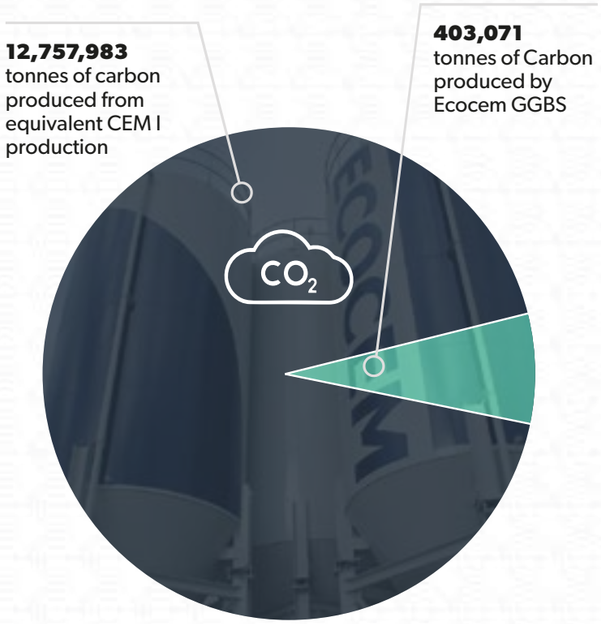
The circularity of our business model is in using waste product from the steel industry and processing it to create new products to be returned to the construction industry. This is becoming more important with the European Commission's push for industry transformation towards climate- neutrality.

Concrete is the most commonly used material in construction due to its high performance and durability. However, it's high embodied carbon from its cement content (OPC) has made its use unsustainable. GGBS with a low embodied carbon acts as an alternative to 100% OPC. The embodied carbon of our product is solely resulting from its processing and transport. We offset any carbon associated with raw material by using a by-product from steel manufacturing. Our raw product is dried using natural gas at our plant in Dunkirk. In our efforts to lower our carbon footprint and in keeping with our circular business model Ecocem France and ArcelorMittal have developed a method of reusing waste Blast furnace Gas in place of natural gas. Waste CO_2 from their blast furnace is converted into a synthetic gas and transported to our connecting plant, where it is used to dry the raw GBS.

While this does not lower the embodied carbon of our product, it eliminates fossil fuel use and reuses waste products that would otherwise be burnt into the atmosphere. Through this initiative, Ecocem France has saved 71.8Mill KwH of natural gas from use and 14,700T of CO_2 emissions.

Green House Gas Emissions 2020

Green House Gas Emissions



2020 Performance

12.5 million tonnes
CO_2 saving

2020 Target

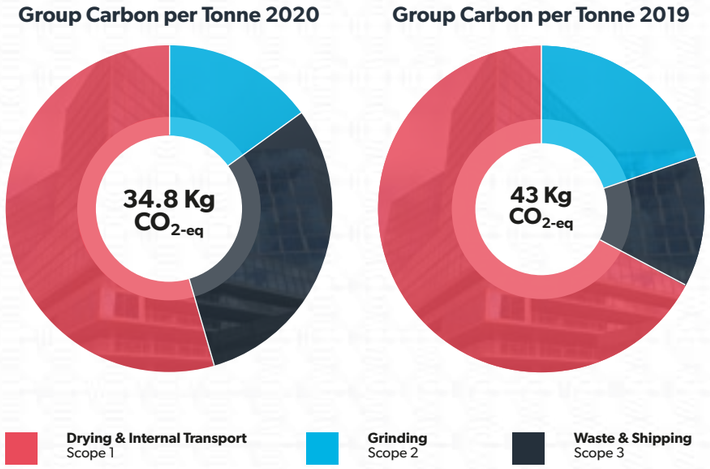
14 million tonnes
CO_2

SDG Goals:

11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION

Target: 89% Achieved

Environmental impact of Products

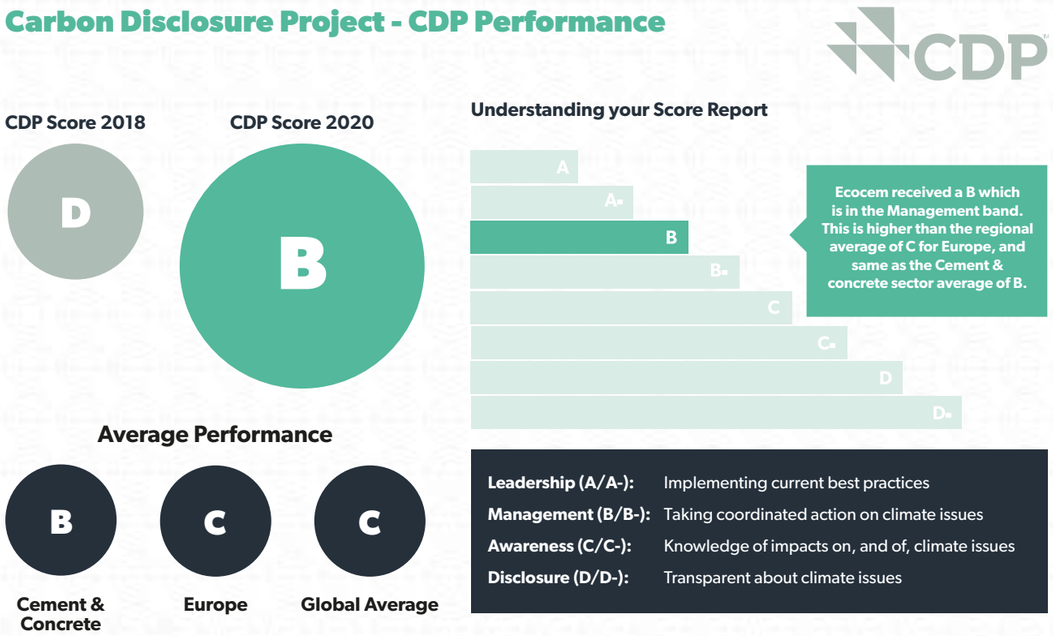


2020 Target

5% Reduction

Our Journey with the CDP

Carbon Disclosure Project - CDP Performance



The Carbon Disclosure Project (CDP) is "a global disclosure system that enables companies, cities, states and regions to measure and manage their environmental impacts." Through their focus on building a sustainable economy which works for both people and the planet in the long term, The CDP has developed the most comprehensive database on corporate and city action in the world.

The CDP believes that serious climate change prevention comes from climate scenario risks and opportunities analysis within a company, as well as setting comprehensive carbon reduction targets. "We believe that improving corporate awareness through measurement and disclosure is essential to the effective management of carbon and climate change risk."

- 31gt GHG emissions produced globally each year.
- $5.5tn - estimated global market for low-carbon goods and services.
- 1.5°C is the threshold for dangerous global warming. Beyond this we risk severely destabilizing social and economic structures across the world.
- $4tn worth of assets will be at risk from climate change by 2030.
- $53bn worth of savings identified by companies responding to the CDP climate change program.

The Task Force on Climate-Related Financial Disclosures (TCFD) develops guidelines for better disclosure within a company. They believe that better information allows companies to "incorporate climate-related risks and opportunities into their risk management and strategic planning process." The CDP is built on this premise and encourages following the TCFD guidelines through grading with the aim of developing more sustainable and resilient business models.

Our Journey with the CDP

"Through disclosure to the CDP, we have a greater awareness of our impact and our climate-related risks and opportunities"

In 2018 the Ecocem Group carried out a major reassessment of our submission to the Carbon Disclosure Project, stepping back from disclosing for a year to realign our business process with our business vision. We used the best practice guidelines from the Taskforce for Climate Related Financial Disclosures (TCFD) to develop our baseline of disclosure and invested in training and development of our sustainability team. Following the implementation of the TCFD recommendations within our business strategy, we increased our board level oversight for sustainability, improved our reporting mechanisms and adjusted the scope of our emissions reporting. These improvements results in the Ecocem Group moving from a D rating to an impressive B rating within the CDP showing our commitment to sustainability leadership.

Through disclosure to the CDP, we have a greater awareness of our impact and our climate-related risks and opportunities. This allows us to act strategically in an increasingly unpredictable market. Regular board-level oversight of our reduction strategies and risk and opportunity register ensures that our targets are integral to our business strategy.

Supply Chain Spotlight

Shipping is an integral part of Ecocems supply chain across Europe. On average, shipping makes up just under a third of our carbon footprint per tonne of material. Because of its significant impact on our business, our shipping and logistics team are constantly working on new developments and more efficient options along with our shipping partners.

Ecocem has continued to utilise small vessels – coasters and barges for our transport of raw and finished materials in the Eurozone over the period of the last number of years and will continue to use these methods going forward. We are, however, working with and encouraging our shipping partners to utilise new technologies in their vessels when they are updating and replacing vessels in their fleets.

In the past and currently, Ecocem continues to use planning software to load full cargoes at all times to minimise ship movements and also plan our personnel shoreside accordingly so as to have the loading and discharging operations in Port run as smoothly and as quickly as possible to minimise the time the vessel is berthed.

Since 2014, Ecocem's shipping partners have been upgrading their fleet options by introducing new builds with better environmental performance. These new vessels will be utilised as much as possible going forward for transport of Ecocem raw materials and finished products. The propulsion system in these vessels use the most up to date technology's including improved aerodynamic hull and propeller designs that effectively reduce CO_2 emissions relative to the vessels they replace.

In Holland we continue to use the inland waterways to transport our raw materials to the plant at Moerdijk using barges. This method of transport reduces emissions by a quantifiable amount in comparison to using coasters. There are some developments in electric powered barges and use of biofuels that could become viable in the years to come.

All of our shipping partners apply a sustainability strategy to reduce their CO_2 footprint. In collaboration with their stakeholders, they aim to use transition fuels where possible to reduce emissions for the transition period towards carbon neutral shipping.

International Shipping Initiatives:

The Third IMO GHG Study of 2014 estimated that from the period of 2007 – 2021, shipping contributed 3.1% of annual global CO2 emissions. It is currently estimated that this could rise to 10% of global emissions by 2050 if the industry continues in a business-as-usual scenario and does not follow a plan for decarbonisation. Under the Paris Agreement of 2015, parties are required to establish economy wide emission reduction targets with shipping clearly being a part of many countries' economies. This has put pressure on the IMO to lead the charge in helping the shipping industry in reducing emissions.

IMO2020 – Reducing sulphur levels to 0.5% in fuel on all ships worldwide. In effect since January 2020.

IMO2030 / IMO Greenhouse Gas Strategy – 2008 levels of emissions to be reduced by 40% by 2030 and 70% by 2050. This agreement is currently being negotiated by stake holders. This will set out short-, medium- and long-term measures for the industry to meet the targets by 2030 and 2050.

IMO EEDI – Energy Efficiency Design Index. This was first approved in 2011 and applies to all ships entering service since 2013. The index requires new ships to become more energy efficient with standards that will be made more stringent over time. This states that vessels built between 2015 and 2019 must have a 10% improvement in efficiency, vessel built between 2020 and 2024 must reach 15-20% and vessels delivered after 2025 achieve a 30% rise in efficiency.

Slow Steaming – It is understood and agreed by the shipping industry that a reduction in steaming times can reduce emissions and therefore vessels do not steam on full power when able. It is reported by the IMO that a 10% reduction in speed can lead to a 27% reduction in emissions.

Project Spotlight

New market application in Ireland: Soils & Sediments

One of the most exciting growth areas within Ecocem is in the stabilisation of soils and sediments. Traditionally, contaminated or unsuitable soils were transported away from sites and disposed of as landfill. More suitable soil was then located and imported to the site, significantly increasing project-related traffic to and from the site. Aside from the obvious disruption that high frequency, heavy traffic would cause, the additional CO_2 that is generated by this traffic can be enormous.

The method of improving and stabilising unsuitable soils on site, is not new, but with the focus now firmly on sustainability, it has been gaining significant traction in recent years.

Ecocem has identified several benefits of incorporating GGBS into stabilisation projects.

Ecocem GGBS has already been successfully utilised on several projects

Test results have shown that GGBS can replace between 50-80% of cement and enhance all of the main performance criteria, while at the same time significantly reducing the embodied carbon.

Ecocem GGBS has already been successfully utilised on several projects, including high profile sites at Limerick Gasworks and Howth Harbour, but as relative newcomers to this sector, there is a very real potential for sizeable growth.

Project Spotlight

Expanded export capacity at Ecocem's Moerdijk Plant

Our Ecocem site in Moerdijk has a quay with direct open sea water connection. A new 5kt silo has been built directly at this quay, with facilities to load GGBS into barges and vessels from 350tons to 4500 tons. Before these facilities were operational, barges and vessels were loaded by trucking the material to a special loading dock situated ca. 10 km from the factory. With these direct loading facilities ca. 750 single trips with large bulk trucks are saved per annum, that is 7,500 truck kilometres, a great CO_2 saving of 4.8 tCO_2e.

The strategic location of the new Silo gives Ecocem the possibility to use water transport more frequently, and so taking more truck movements from the congested highway network.

Images show Inauguration of the new 5,000T Silo 3 in Moerdijk Plant in the presence of customers, journalists and the Ecocem Team allowing direct loading of our GGBS into ships

Community

- **Community engagement is important because it is primarily, part of a dialogue where organisations and communities can make decisions to create social capital.**
- **Millennials are twice as likely to be very satisfied with their career progression when they have the opportunity to volunteer through their employer.**
- **Survey results indicate that creating a culture of volunteerism in the workplace may boost morale, workplace atmosphere, and brand perception.**

Community

Supporting our local communities and contributing to its resilience by adding social value through employment, charitable donations and employee wellbeing programs is very important to Ecocem. In 2020 due to the COVID-19 pandemic, internships were reduced from 4 to 1.

Despite being a challenging year globally, Group donations in 2020 surpassed 25% target.

Well-being programs are in place across 100% of sites, ensuring all round health of our talented workforce to continue contributing to delivery of group strategy and company objectives.

During the COVID-19 related lockdowns, innovative measures were introduced to ensure uninterrupted product supply to essential projects using GGBS such as hospitals.

Community Performance

Local Community/Charity Development

Current Performance

1 Internship
in 2020

55% Increase
in financial support to local charities

50% of Sites
with active community engagement programs

2020 Target

1 Internship
in 2020

+25% Increase
in financial support to local charities

100% of Sites
with active community engagement programs

Community Engagement Spotlight

Rebecca's Internship Story

My internship at Ecocem started ahead of my undergrad at UCD. In conjunction with the sustainability focus I was involved in, **this introduction to the concrete industry gave me a solid basis to starting a degree in Architecture.** It allowed me to focus my study on areas of sustainable design with practical knowledge of how this can be achieved with existing products.

I was supported throughout my internship by all levels of management through engagement, daily mentoring and attending conferences with senior managers. My internship was heavily focused on the carbon measurement and reporting. I subsequently based my second-year project on the carbon measurement and reporting and how it could be implemented in a shared living facility focusing on Nzeb and sustainable design. Using what I had learnt about the carbon measurement and reporting and how measuring and managing carbon emissions can help a company set tangible targets and implement reduction strategies led my design.

I have subsequently returned to Ecocem ahead of my master's in Architecture as I hope to focus on sustainable design. Working for a company that was formed off the back of carbon reduction and alongside people with a passion for making change at industry, governmental, and European level will stay with me as I move forward into my studies.

The Concrete Bench

A beautiful project for Ecocem France and Cemex, combining humanitarian efforts and recycling. Concrete benches made from recycled materials and Ecocem GGBS were made by high school students and their civil engineering professor. The money earned by the school through the sale of these benches was used to finance the participation of about fifteen students in a humanitarian project with the association "eu Soleil in 2020/2021.

Community Engagement Spotlight

CRC School Aged Disability Team (SADT)

Ecocem Ireland donate to the CRC School Aged Disability Team (SADT) each year. This year's chosen charity is the CRC School Aged Disability Team (SADT) – a unit that provides interdisciplinary services and supports to parents with children with disabilities– specifically based around Autism, Enhancing each family's capacity to support their child's development and to enable their active participation in community life.

Stelvio for Life

Goes on… René Albers and Jeroen Langenberg participated in the Stelvio for Life event. Both cycled up the 21km long and steep (up to max 14 %!!) Stelvio in the Italian Alps, a sponsored event to raise money for personalised cancer treatment.

Engineers without borders Ireland

Susan McGarry joined a team of volunteers building homes in Zambia as part of an initiative by 'Engineers without Borders Ireland'. The multidisciplinary team comprised professionals and students from around Ireland.

Spotlight on Ecocem Projects

HS2

High-Speed 2 (HS2) is the second purpose-built high-speed railway system in the United Kingdom, after HS1, built in the mid 2000s, connecting London with the Channel Tunnel. HS2 is by far the biggest infrastructure over the last 50 years in the UK, with over 500km of line length (5 times the size of HS1) and requiring close to £90 billion in investments.

HS2 will link UK's largest cities, **London, Birmingham, Manchester and Leeds,** as well as upgrade current stations in each city.

The HS2 presents a double opportunity for Ecocem. Thanks to its strong UK network, Ecocem has secured direct supply contract with Eiffage (Central Section 1, 2 and 3), and indirect supply contracts (via Cemex) for Northern (N1) and Southern (S1 and 2) Sections. Total GGBS need is 200kT over 5 years. Similarly, the creation of the HS2 innovation fund will facilitate the introduction of Ecocem's new high value technologies including alkali-activated, ultra-low carbon cement and shotcreting technology like Ecoshot.

The Grand Paris Express

Since 2017 Ecocem has built a strong working relationship with project owners Société du Grand Paris (SGP) and their technical team, contributing to the launch of a new set of concrete standards in 2019. The new concrete standards promotes the increased use of GGBS in the concrete formulas in order to achieve low carbon and technical objectives including sulphate resistance. Since the inauguration of the Dunkirk plant in July 2018, Ecocem France has supplied every single section awarded: L16L01, L16L02, L17L01, L18L01 and L18L02. This represents over 50 000T of Ecocem GGBS delivered for concrete design mixes. The project is expected to continue until 2030 and require over 5 million m^3 of concrete.

Innovation Powering Sustainability

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