ACTIVITY REPORT

2020

CEMBUREAU
The European Cement Association

CEMBUREAU
The European Cement Association

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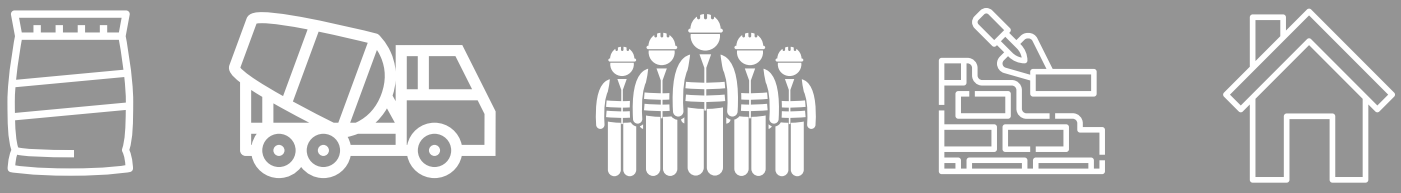
CEMENT & CONCRETE IN EUROPE

OUR VALUE CHAIN

Cement plays a key, but often unnoticed, role in our lives. Whilst everyone knows the word cement, it is often confused with concrete or mortar. **Cement** is a key ingredient in both **concrete** and mortar, and it is always mixed with other materials before use:

- Cement mixed with water, sand and gravel forms **concrete**, which is what the vast majority of cement is used for.
- Cement mixed with water, lime and sand forms **mortar**.

Cement and concrete have been used to build durable structures for quite some time. Thanks to the special binding properties of cement, concrete is a very resilient, durable material that can bear heavy loads and resist environmental extremes. It is the basic material for all types of **construction**, including housing, roads, schools, hospitals, dams and ports, as well as for decorative applications (for patios, floors, staircases, driveways, pool decks) and items like tables, sculptures or bookcases.



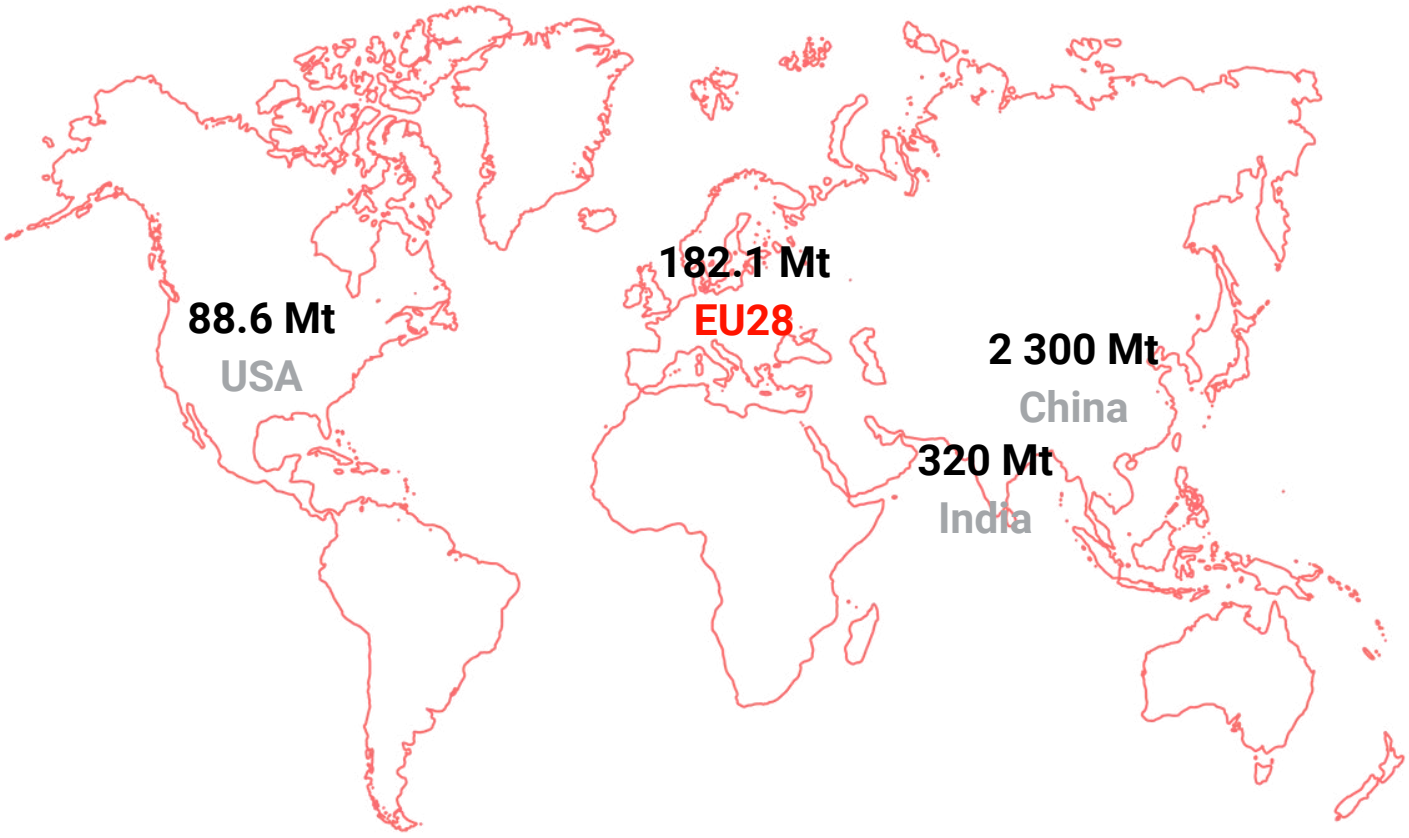
KEY FACTS & FIGURES

Cement sector employees

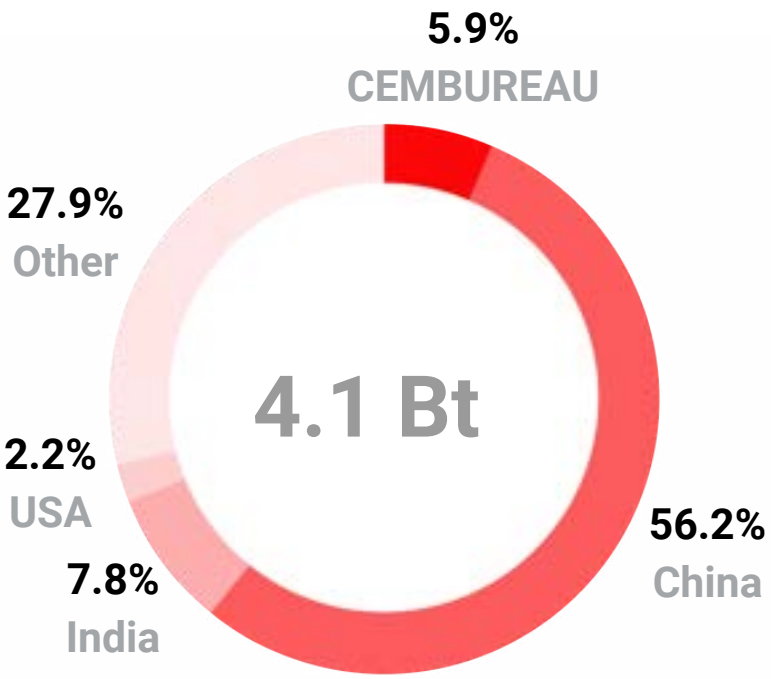
47 605 (2019)
CEMBUREAU

35 169 (2019)
EU28

Main world producers in 2019



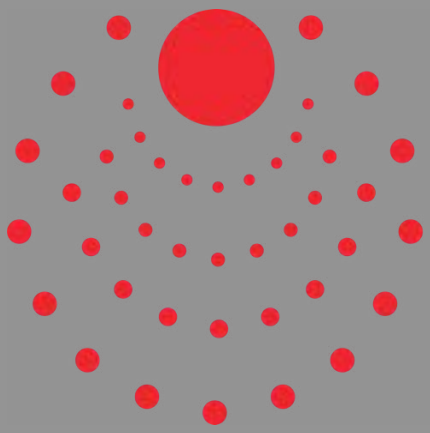
World cement production in 2019



OUR PATH TO NET ZERO BY 2050

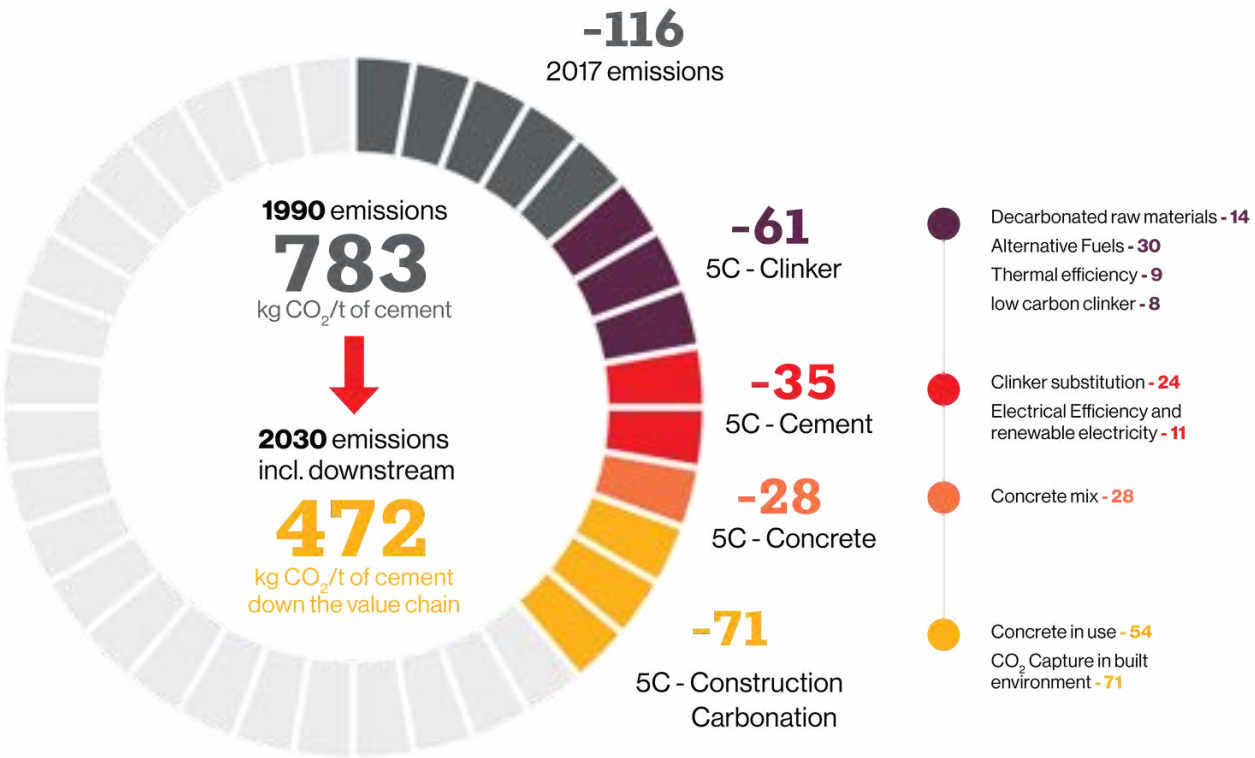
Our Carbon Neutrality Roadmap aims for carbon neutrality **along the cement and concrete value chain by 2050** and this will already require deep CO2 cuts between now and 2030.

The publication of the roadmap followed several months of relentless work by experts from the European cement industry to identify CO2 reduction potential across the cement and concrete value chain. Its core conclusion is that CO2 emissions can be reduced by acting at each stage of the value chain – **clinker, cement, concrete, construction and (re)carbonation** – to achieve zero net emissions by 2050.

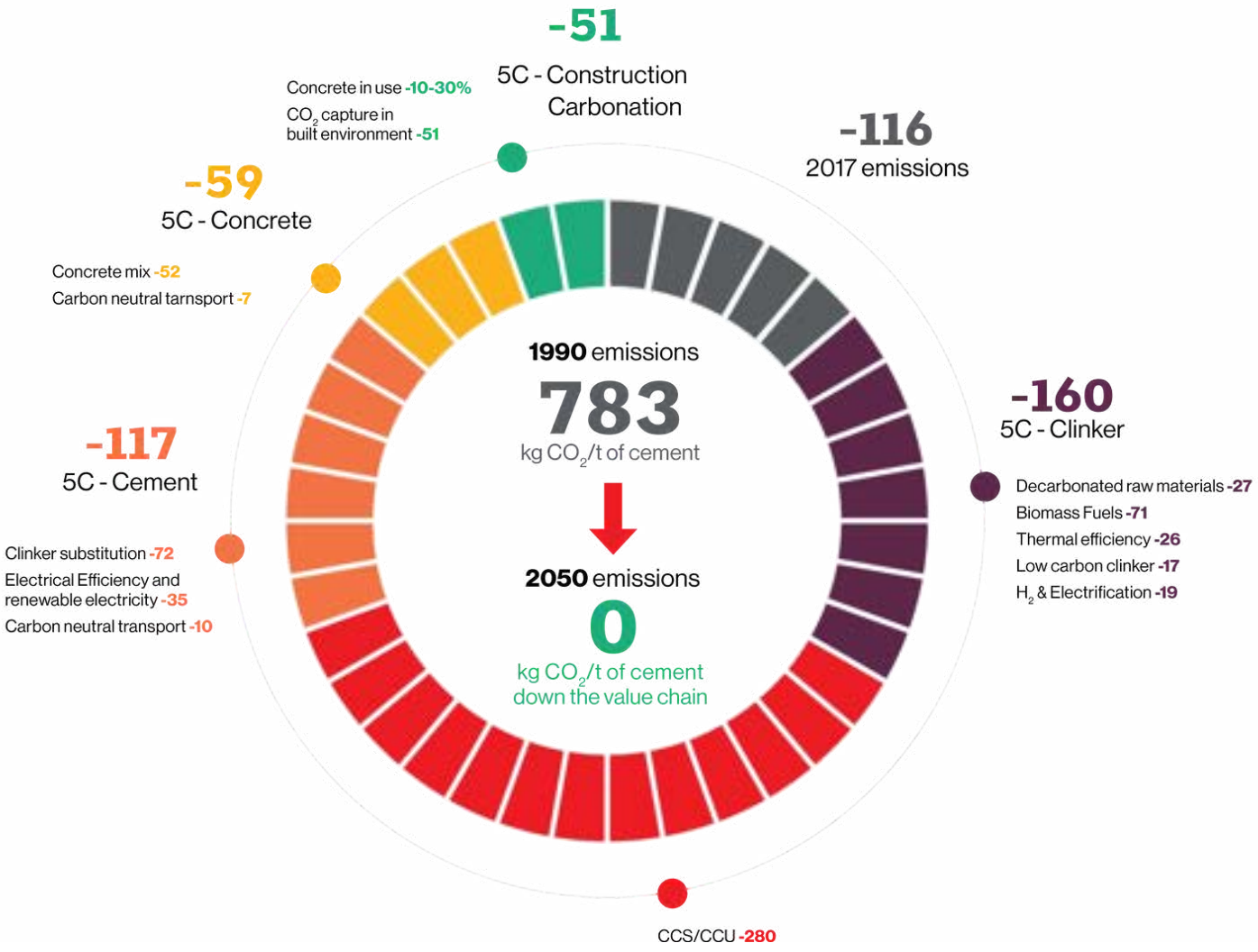


CLINKER
CEMENT
CONCRETE
CONSTRUCTION
CARBONATION

2030 ROADMAP



2050 ROADMAP



Some of these emission cuts will be achieved through the implementation of **breakthrough technologies**, but, crucially, CO2 savings can also be attained with limited technological investments. In fact, a set of technologies, policies and production changes will be needed along the life-cycle, from the production of clinker up until the recarbonation and recycling of concrete. These include for instance the use of **non-recyclable and biomass waste to replace fossil fuels**; more **energy-efficient kilns**; the development of **innovative low-clinker cements**; the deployment of breakthrough **carbon capture and storage/use technologies (CCUS)**; and **optimised concrete mixes** and **building techniques**.

CEMBUREAU's roadmap also includes an intermediary objective of **reducing CO2 emissions by 30% for cement and 40% down the value chain**, in line with the Paris Agreement's two degrees scenario.

Policy measures will be critical to supporting the sector's carbon neutrality ambitions.

Based on this strong technical analysis, the roadmap also looks at how EU and national policies can support decarbonisation in the cement industry. In particular, it identifies four key areas were policy-makers can make a difference:

- **The development of a pan-European CO2 transportation and storage network**. A large number of Carbon Capture, Use and Storage Technologies (CCUS) pilot projects connected to cement plants is being developed across Europe. Alongside continued support for CCUS, EU and national policy-makers should urgently look at developing a pan-European CO2 infrastructure network to allow for the transport, storing and/or re-use of the CO2 captured in cement plants.

- **Decisive action on circular economy to support the use of non-recyclable waste and biomass waste in cement production**. Today, the European cement industry substitutes 48% of its fossil fuels by non-recyclable waste and biomass waste. This allows significant CO2 savings in our emissions process, and also bring wider benefits through the circular use of these wastes that would otherwise be incinerated or landfill. Policies should facilitate waste shipment between EU countries, discourage landfill and minimise exports of waste outside of the EU, and support the use of non-recyclable wastes in the EU industry.

- Ambitious policies to reduce European building's CO2 footprint, based on a life-cycle approach, that incentivise the market uptake of low-carbon cements. The EU cement industry is taking an active role in the debate on a carbon neutral built environment and low-carbon construction products. Green Public Procurement, the timely publication of low-carbon cements standards, and the upcoming Sustainable Product Policy and review of the Construction Products Regulation (CPR) review will be key opportunities to support the rapid take-up of these products.

- A level playing field on carbon, regulatory certainty and an ambitious industrial transformation agenda. A level playing field is indispensable to stimulate low-carbon investments and support carbon emission reductions worldwide, and the upcoming Commission proposals on Carbon Border Mechanisms will be key in this respect.

CEMBUREAU is proud of its 2050 Carbon Neutrality Roadmap setting out the EU cement industry's decarbonisation pathways. Our roadmap also shows the sector's commitments – from engineers to senior managers and factory workers – to embed sustainability in our processes and have a strong impact on the climate. We stand ready to continue discussing it widely with stakeholders.

2020: A YEAR IN REVIEW

Foreword from CEMBUREAU's President and Chief Executive

*"Despite the extraordinary circumstances of the past year, I am **proud of the results achieved by the CEMBUREAU team** with the resolute involvement of all the members and constant support of Vice President Isidoro Miranda. Our Roadmap's shared vision of an innovative carbon neutral cement industry in Europe by 2050, combined with the resilience of our association in the midst of the pandemic, are the key markers of the last two years in which **the Green Deal and the Fit for 55 measures will shape our industry for the next 30 years**."*

Raoul de Parisot,
CEMBUREAU PRESIDENT

*"On behalf of the CEMBUREAU membership, a **sincere and heartfelt "thank you" to Raoul de Parisot** for the guidance, commitment, and input he gave on the Association's activities, and for his relentless support on the many projects that were initiated under his Presidency, not the least the 2050 Carbon Neutrality Roadmap. I look forward to continue along this pro-active and engaging path with Isidoro Miranda, CEMBUREAU's President for the next two years."*

Koen Coppenholle,
CEMBUREAU CEO

2020: A YEAR IN REVIEW

To characterize 2020 as a year unlike the others is probably an understatement. The COVID-19 crisis has firstly affected our personal lives and "way of life" but also impacted our working and meeting habits. The lingering uncertainty created by this health crisis has further left its imprints on our industry which faced a drop in production due to a slowing down of the construction markets.

Despite the shock that this unexpected event set through society and the world, there is also a new sense of optimism and creativity that came out of it. We have strengthened ties with our close family and acquired in no time video-call skills to communicate with far-away friends and colleagues.

It is with that same spirit of togetherness, with our team and Members, that CEMBUREAU has embarked on a series of interesting and engaging projects. At the end of 2019, the European Commission published the European Green Deal, and the ambition was clear: carbon neutrality by 2050. CEMBUREAU decided to take up the gauntlet and explored pathways to carbon neutrality along the cement and concrete value chain by 2050. The initiative was inspired by the full value chain approach expressed in the Green Deal which not only recognises that significant amounts of cement will be needed for the renovation of buildings in Europe but also considers cement as indispensable to Europe's economy as it supplies the construction sector.

The CEMBUREAU 2050 Roadmap, launched in May 2020, sets out the multiple pathways and innovation initiatives that help the sector achieve its climate neutrality ambition. The Green Deal offers our sector ample opportunities to demonstrate how cement and concrete are durable and sustainable construction materials for Europe's renovation agenda and the built environment generally. In order to develop its proof-points, CEMBUREAU prioritised its financial and human resources towards studies and analyses that highlight the recyclability potential of concrete, emphasise the importance of a cross-material and objective life-cycle analysis (building levels project) and mobilise the international community around the concept of recarbonation which can turn cities into carbon sinks. These focus areas have allowed CEMBUREAU to proactively and constructively engage with European policymakers on the renovation agenda, the development of a sustainable product policy and the future of construction legislation and standardisation.

Throughout these discussions, we emphasised the relevance of a material-neutral approach to the choice of construction materials for a sustainable built environment. The health and safety of citizens for generations to come depends on a rigorous application of scientific facts and data. It is essential for all material producers to get a fair chance to be heard and listened to. Going forward, the cement and concrete sector will be even more vocal to counter the favouring of bio-based materials for construction by policymakers, which is not always backed or supported by strong scientific data.

2020: A YEAR IN REVIEW

It is the belief in our products that brings the cement and concrete sector together and we were pleased to develop a closer cooperation with the European ready-mix, precast and construction chemicals associations in the framework of the European Concrete Platform. We reinforced our common voice and joined forces in analyses and studies relevant to the supply chain. Going forward, we intend to further intensify this cooperation and streamline the activities of the Platform to ensure we all have the same marching orders in contributing to the construction-related objectives of the Green Deal.

Bringing low carbon products to market addresses the downstream part of our value chain. It is of crucial important that the manufacturing of cement, which feeds into that value chain, is maintained in Europe. There as well, decarbonisation is the driver of the cement industry's business strategies, as laid out in our Roadmap. The use of alternative fuels is set to increase from 48% in 2019 to 60% in 2030 and 90% in 2050, thus not only reducing the recourse to primary fossil fuels but also avoiding CO2 emissions. Continued efforts are underway to further reduce the clinker-to-cement ratio to reach 65% by 2050 and identify substitutes to fly ash and blast furnace slag, as the supply of both will decrease significantly due to the decarbonisation of the power and steel sectors. Cement companies have made bold announcements on pilot and demonstration plants for carbon capture and storage or use, with commercialisation picking up between 2030 and 2050 and representing 42% of our decarbonisation efforts towards carbon neutrality.

In a long-term investment cycle business like the cement industry, the targets set in the Roadmap are around the corner and very significant investments are required to achieve them. Therefore, it is of crucial importance to create the right regulatory and financial framework now. CEMBUREAU's advocacy efforts in 2020 have planted the seeds for further input in key legislative files in 2021. Investment in decarbonisaton projects require regulatory stability and legal certainty. It is crucial that any revision of the 2030 emission reduction targets is based on a proper impact assessment and a fair distribution of efforts between industrial sectors, the power sector and the non-ETS sectors such as buildings and transport. Furthermore, it is of prime importance that the free allowances currently granted under the EU ETS remain unchanged until 2030. Businesses need to be able to rely on the development of a carbon border adjustment which levels the carbon cost with third country producers without affecting legal certainty created by the ETS system, put in place in 2018 and setting the framework for the period 2021-2030. With carbon capture being an essential technology for the decarbonisation of the cement sector, proper regulatory attention for CO2 infrastructure and use is a precondition for furthering the goals set out in CEMBUREAU's 2050 Roadmap.

2020: A YEAR IN REVIEW

CEMBUREAU has laid the foundations for its 2021 advocacy through its responses to **25 Consultations** launched by the European Commission in execution of the Green Deal over 2020. The Association will maintain strong access to all relevant policy levels through its membership of the Employers Group of the Economic and Social Committee which has a consultative function under the European Treaties, and of the newly created Industrial Forum which has a role to play in the coordination of the recovery efforts with the European Commission and Member States.

CEMBUREAU's role on the Brussels' policy scene and the service it delivers to its Members has proven its efficiency and shown results over the past year because of a strong team and an excellent working relationship with Members.

The delivery of the Roadmap three months after the publication of the Green Deal, followed by an intense public affairs and communications campaign, was only possible thanks to the commitment and focus of the whole CEMBUREAU team. That same team and our Members rigorously followed up on the execution of our Roadmap in light of the Green Deal through a wide range of areas that not only affect our EU Members but reach beyond the EU's geographical scope and touch our non-EU Members.

We trust that our future activities will continue to receive input and guidance from all our Board and Liaison Committee Members, our national associations and all Members participating in our Working Groups. Together, we will advance the interests and ambitions of the cement industry, for the benefit of Europe!

CARBON NEUTRALITY ROADMAP

On 12 May, CEMBUREAU released its Carbon Neutrality Roadmap – a huge moment for the cement industry in Europe, and published at the height of the COVID19 crisis that shook Europe and ignited a debate on *Building Back Better*.

Our industry's response to the European Green Deal, as well as a key reference document on the technologies to help reduce our emissions today, the Roadmap sets out our ambition towards carbon neutrality by 2050. It looks at how incremental change – through the implementation of technologies and policy decisions – will drive our industry towards this objective.

The launch was promoted through a comprehensive social media campaign, and gained coverage in numerous EU-focused and relevant sector outlets. This also followed a successful external webinar on 4 June, in which we brought together a leading panel and over 400 participants.

CEMENTING EUROPE'S FUTURE: BUILDING THE GREEN DEAL

Building on the success of our Roadmap launch, we held our 2020 summit, Cementing Europe's Future: Building the Green Deal, on 13 October. The event brought together a **record 500+ participants**, led by experienced moderator Jacki Davis, with contributions from 12 top-line speakers, including keynote speakers **Jochen Flasbarth**, German State Secretary for the Environment and **Raoul de Parisot**, CEMBUREAU's President. The event was highly engaging and interactive, covering topics related to the whole value chain through two panel discussions.

The first panel discussion focused on the cement industry's contribution to CO2 emission reduction in the manufacturing of clinker and cement, the first two of CEMBUREAU's 5C approach to decarbonisation. Panellists included: **Artur Runge-Metzger**, Director Climate Strategy, Governance & Emissions, DG Climate Action, European Commission; **Maria da Graça Carvalho MEP**; **Judith Kirton-Darling**, Deputy Director General, IndustriALL Europe; **Mechthild Wörsdörfer**, Director, Sustainability, Technology and Outlooks, IEA; & **Jon Morrish**, CEO Western and Southern Europe, HeidelbergCement.

The second panel focused on the downstream market from cement and thus on the other three "C's": concrete-construction-carbonation.
Panellists included: **Kestutis Sadauskas**, Director Green Economy, DG Environment, European Commission; **Maria Spyraki MEP**; **Laury Barnes-Davin**, Head of Research, Fastcarb; **Per Klevnäs**, Partner, Material Economics; & **Magali Anderson**, Chief Sustainability Officer, LafargeHolcim.

We look forward to building on the success of this new annual conference in years to come!

CEMENTING EUROPE'S FUTURE
BUILDING THE GREEN DEAL

"THE CEMENT INDUSTRY WILL PLAY A CENTRAL ROLE TO ACHIEVING CARBON NEUTRALITY BY 2050."

ARTUR RUNGE-METZGER
DIRECTOR CLIMATE STRATEGY, GOVERNANCE & EMISSIONS, DG CLIMATE ACTION, EUROPEAN COMMISSION

CEMBUREAU

CEMENTING EUROPE'S FUTURE
BUILDING THE GREEN DEAL

"THE CEMENT INDUSTRY IS CRUCIAL TO THE EU ECONOMY AND IS ONE OF THE SECTORS WHERE PROGRESS CAN BE MADE TOWARDS DECARBONISING."

MARIA DA GRAÇA CARVALHO
MEP

#CEMENT2050

CEMENTING EUROPE'S FUTURE
BUILDING THE GREEN DEAL

"WE NEED CEMENT AND CONCRETE AND WE NEED CIRCULARITY. WE ALSO NEED LEGISLATION TO REFLECT THIS."

MAGALI ANDERSON
CHIEF SUSTAINABILITY OFFICER, LAFARGEHOLCIM

CEMBUREAU

CEMENTING EUROPE'S FUTURE
BUILDING THE GREEN DEAL

"OVER THE PAST 18 MONTHS, THE CEMENT INDUSTRY ACROSS EUROPE HAS COME TOGETHER TO AIM FOR CARBON NEUTRALITY BY 2050."

JON MORRISH
CEO WESTERN & SOUTHERN EUROPE, HEIDELBERGCEMENT

CEMBUREAU

#CEMENT2050

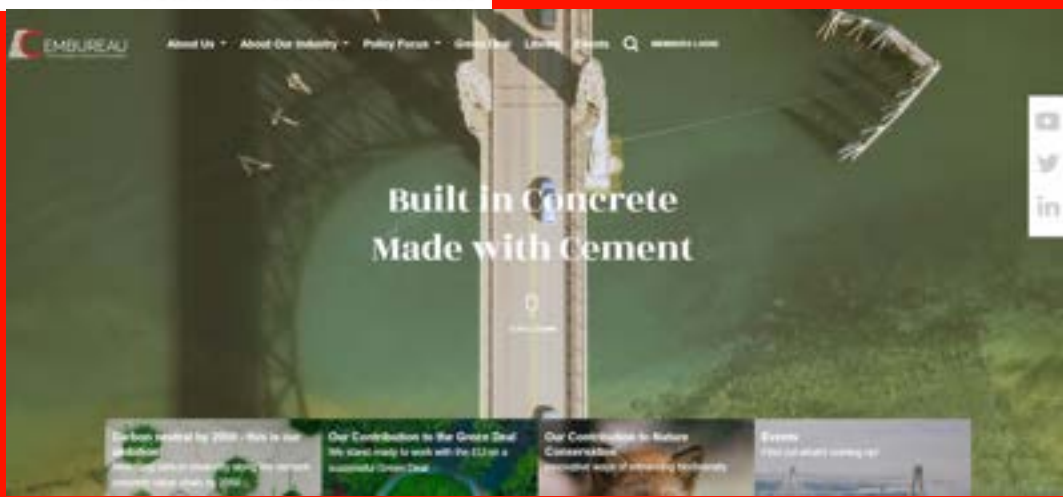
PUBLIC ENGAGEMENT

CEMBUREAU significantly expanded its following on **social media** in 2020:

+110% on YouTube **+55% on LinkedIn** **+8% on Twitter**

*Our **website** was given a refreshed design & structure.*

*We promoted the benefits of concrete through our **Brussels metro advertising campaign**.*



WORKING GROUPS

WG-A – CLIMATE CHANGE AND ENERGY

Following the publication of the European Commission Green Deal in December 2019, the CEMBUREAU Board set the secretariat an ambitious challenge to develop a roadmap for the European cement and concrete value chain (5Cs) to reach climate neutrality by 2050 and complete it by the end of March 2020. The secretariat reached out to small group of technical and policy experts within WGA, WG B and WGD. The CEMBUREAU 2050 roadmap was completed on time and, following internal approval, launched in May 2020 and formed the basis for broad stakeholder engagement. The ambitious and progressive approach presented in the Roadmap was well received by external stakeholders.

During 2020, one of the major focus areas for WGA was the revision of benchmarks for grey and white clinker for phase IV of the EU Emissions Trading Scheme (EU ETS). CEMBUREAU's team and WGA co-chairs had several meetings with DG CLIMA and final benchmark values of 693 kgCO2/t Cl for grey clinker and 957 kgCO2/t Cl for white cement were set, representing a reduction of 9.5% and 3% respectively compared to phase III. This was the result of close collaboration with the European Commission so that the benchmark review fully reflects the advancement in the sector, taking into account specificities associated with our technologies.

The EU ETS monitoring and reporting regulation (MRR) was also revised during 2020 and following meetings with DG CLIMA, the majority of the proposed text changes developed by our ETS Adhoc group were adopted by the Commission, as it recognised the need to distinguish the use of biomass waste in the industrial sector. This has made it more realistic for CEMBUREAU members to comply with the new requirements for biomass waste imposed through the Renewable Energy Directive (RED II).

Another important area related to EU ETS was the initiation of a discussion on a Cross Border Adjustment Mechanism (CBAM) by the European Commission. Through the CBAM, the Commission intends to tackle the imports of carbon intensive products into Europe, therewith addressing that aspect of carbon leakage so far not covered by the free allowances which only dealt with the risk of relocation outside Europe. CEMBUREAU commissioned a study for an in-depth analysis of the potential impact of different CBAM scenarios and analyzed a possible design and key features of a CBAM. The study allowed CEMBUREAU and its Members to engage at an early stage with the European Commission and MEPs and share views on how free allowances can co-exist with a CBAM, what the design of a CBAM should look like and how it can be made operational in compliance with WTO rules.

In 2020, the curtain fell over the indirect compensation file where the cement sector was eventually not considered as eligible mainly because of the low trade intensity. CEMBUREAU, however, remains convinced that the application of different carbon leakage criteria for indirect compensation from those that apply for direct emissions may be challengeable and will further explore the option of individual state aid notifications.

Sustainable financing remained high on the agenda in 2020 with the release of the Report by the Technical Experts Group (TEG). With a strong technical backing from its Members, CEMBUREAU rejected the view held by the TEG, that RDF use was to be considered a harmful activity which would exclude it from sustainable financing. This position was finally accepted by the European Commission and supported by several Member States as this was contrary to existing EU legislation and based on unsubstantiated claims. Further points of continued attention in the taxonomy file are the inclusion of white cement and of carbon use.

We are also proud that CEMBUREAU's Roadmap is being embraced by non-EU countries and cement associations where climate legislation is developing. Our 2050 ambitions will only be fully realised and advanced when we all work together.

Finally, with the support of WGA members, **the CEMBUREAU team responded to more than 20 Commission consultations**, including on ETS, Renewable Energy Directive (RED II), Effort Sharing Regulation (ESR), Energy and Environmental State Aid Guidelines (EEAG), LULUCF, Energy Taxation Directive, Energy Efficiency Directive, the TEN E Regulation to name but a few.

WG-B – CIRCULAR ECONOMY AND PROCESSES

The European cement sector has reached a level of 48% (as of 2019) thermal heat substitution by alternative fuels, continuing the increasing trend of the previous years. The CO2 avoidance linked to alternative fuel use is an important driver on the cement sector's decarbonisation pathway. Thanks to co-processing, the simultaneous material recycling and energy recovery of waste streams in an industrial process, a sound environmental solution is provided, leaving no leftovers behind. This means the cement sector provides a service to society and a safe and affordable disposal route for national authorities and other industries by transforming the waste and by-products into valuable alternative resources.

An important opportunity for the recognition at international level of the contribution of the recycling aspect of co-processing will be given under the project "Recycling Index determination" which started in January 2020 in the ISO/Technical Committee 300 "Solid Recovered Fuel (SRF)". Under this project, the methodology for the calculation of the recycling index of SRF samples used in the cement industry will be defined.

At international level, CEMBUREAU continued its advocacy efforts for the inclusion of a new operation "R15 co-processing" to the Annex IV of the Basel Convention. Due to the current travel restrictions, the Conference of the Parties (COP) plenary meeting scheduled for July 2021 will take place virtually and only administrative and budget issues will be discussed. The discussion about the Annex IV revision is expected to be postponed for the Summer 2022.

CEMBUREAU was an active participant in the discussions starting in 2020 and continuing also in 2021 on the Waste Shipment Regulation revision. In its contributions, CEMBUREAU highlighted that access to pre-treated waste is crucial for the operation of cement facilities and will be a decisive factor towards a clean, carbon neutral, and circular cement & concrete industry.

Long-term certainty and stability are key for the cement industry to thrive. This was stressed during the Industrial Emissions Directive (IED) inception impact assessment and the discussions for the BREF revision future programme. Since the possible revision of the IED is ongoing, CEMBUREAU's position is that the next BREF revision cycle is not initiated until the IED revision has been finalised. In this way, the confusion of which rules to follow for both operators and authorities will be avoided.

In October 2020, CEMBUREAU participated in the EU Green Week conference with a virtual stand, during which the contribution of the cement sector to nature conservation was demonstrated with videos, documents and other materials. Despite the limitations of the on-line features, this was an excellent opportunity to publicly present very positive messages and stories about the efforts of the sector towards the preservation of the ecosystems living in and around our quarries.

WG C – HEALTH & SAFETY

On 30 January 2020, the World Health Organization (WHO) declared the first outbreak of novel coronavirus a 'public health emergency of international concern'. Over the course of 2020, CEMBUREAU exchanged frequently with its Members on an overview of the COVID-19 epidemic evolution at European and National levels.An OSH live guidance document on operational examples and sharing of good practices in the workplace with different guides and initiatives was prepared for Members. Information can be found at CEMBUREAU's COVID-19 webpage.

Work was also carried out to finalise the 2nd amendment of the legal text of Annex VIII to the Classification, Labelling and Packaging Directive (CLP) which aims to provide harmonised information to poison centres for emergency health responses. The (EU) 2020/1677 new legal text of Annex VIII of CLP was published on 31 August. It includes Cement Standard Formulas, prepared by the care of the Industry and approved by Members States and the European Commission.

In addition, CEMBUREAU contributed to ECHA Expert Groups and Meetings on the implementation of Annex VIII of CLP on ECHA IT system, validation rules and the revision of Guidance document with other related documents. Members were informed about the step by step legislative and implementation process, content and timeline including the transitional period. At the end of the year, CEMBUREAU provided members with guidance to start notification under ECHA Poison Centres Notification System and on use of UFIs sets.

The Annex II of REACH focusing on Safety Data Sheet (SDS) was revised under (EU) 2020/878 and published on 18 July. CEMBUREAU, with the support of its members, reviewed its Cement SDS template accordingly and in parallel contributed to the revision of the ECHA SDS Guidance document.

2020 was also the NEPSI (European Network on Silica and Social Dialogue Agreement) Reporting year. CEMBUREAU NEPSI Reporting showed a 100% site coverage reporting thanks to its Members' work with continuous progress in all key indicators. NEPSI SDA is reported over training and management information at site as well as at National level over National Associations meetings and events. CEMBUREAU is dedicated to NEPSI SDA and continuously promoting, disseminating and communicating on the Agreement internally to its members and externally to its Partners. This was illustrated by CEMBUREAU's active contribution to the development of the revised guidance task sheets, new SMEs Toolkit and E-learning training now available at guide.nepsi.eu. A NEPSI voluntary monitoring protocol on measurement control of RCS, based on current standards and protocols, as the one of CEMBUREAU, is currently in preparation.

On 14 October, the Chemicals Strategy for Sustainability (CSS), with around 50 proposed actions, was published. CEMBUREAU and its Members will closely monitor the upcoming actions.

Finally, WG-C continued to collect safety KPIs, and shared best practices and safety procedures between companies and trade associations at each of its meetings throughout the year to strengthen a health and safety at work culture in the cement industry.

WG D – MARKETS & PRODUCTS

The decarbonisation of the built environment was high on the agenda in 2020 and cement was in the spotlight.

One landmark in 2020 for WG-D was the consolidation of the 5C approach in the CEMBUREAU Roadmap, with CO2 reductions along the cement and concrete value chain. Many topics WG-D and Task Forces Sustainable Construction and Product Standards & Regulations worked on provided input to policy asks on 4 of the 5 Cs: cement, concrete, construction, and (re)carbonation. The topics on sustainable construction also provided input to the developments of the CEN/TC 350 standards.

Cement

2020 did not yet see the publication of the revised harmonised standard EN 197-1 with new cement types to deliver CO2 reductions at the product level. With no short-term solution in sight, WG-D backed CEN/TC 51 decision to pursue a non-harmonised standard EN 197-5 to speed up the placement of these cements in the market.

The options the European Commission has put forward for the revision of the Construction Products Regulation demanded special attention. Despite the backlog with the publication of the cement standard, CEMBUREAU expressed its firm opinion that the CPR system should only undergo minor improvements, and that CEN should keep its lead in developing the standards.

In 2020, CEMBUREAU updated its European CEM I, CEM II and CEM III Environmental Product Declarations (EPDs) based on EN15804+A2, covering cradle-to-gate.

Concrete

WG-D followed up the Arup study for CEMBUREAU that investigated CO2 reductions through optimisation of concrete specification and structural designs. CEMBUREAU is now considering the best way in which to communicate the findings.
CEMBUREAU published case studies in 2020 illustrating actual projects using cement and concrete in optimised ways and with innovative designs. They can be consulted on the CEMBUREAU website.

Construction

CEMBUREAU praises the fact that the European Commission will establish a whole life cycle approach underpinning its initiatives on sustainable construction.

In 2020, WG-D took stock of the results of CEMBUREAU Level(s) pilot project with three concrete buildings. CEMBUREAU supported the Commission's Level(s) framework for the assessment of sustainability at the building level, and the incorporation of Level(s) criteria in EU legislation e.g., Green Public Procurement and Sustainable Finance.

However, the European Commission has contradictorily pushed for comparisons at product level with the Product Environment Footprint method, while CEMBUREAU defends the use of EN-15804 and other CEN/TC 350 standards on which Level(s) has been established.

2020 also saw the Commission continuously adopting a non-neutral position by promoting timber over other construction materials. WG-D debates on this market intervention led the Concrete Initiative to write to President von der Leyen calling on material neutrality in EU legislation and fair competition.

Carbonation

The CEMBUREAU, GCCA, PCA and Cementa joint-project with Swedish institution IVL delivered a simple Tier 1 and an advanced Tier 2 modelling for the calculation of CO2 uptake of concrete with carbonation. IPCC recognises the concrete CO2 uptake as a carbon sink; we are progressing to have IPCC accept the methodology to calculate it.

THE ECONOMY: UNLOCKING THE VALUE OF CEMENT

The Global Picture

The following statistics are based on data and forecasts from the International Monetary Fund (IMF), the European Commission, Euroconstruct, the Eastern European Construction Forecasting Association (EECFA), Exane BNP Paribas.

Like every part of the economy and society, 2020 has been significantly impacted by COVID-19. Global contraction is estimated at -3.5% in 2020, while in Europe it is estimated at -6.3% (EU 27). In 2021 and 2022, a rebound of the economy is expected with forecasts at 5.5% and 4.2% respectively at global level, and 3.7% and 3.9% respectively in the EU27.

The speed of the recovery is expected to vary significantly across countries, depending on multiple factors such as the severity and timing of the pandemic itself, lockdown measures, access to medical interventions and vaccines, export market exposure, and labour market dynamics and demographics.

When turning the focus to other regions, the IMF reported a -3.4% contraction in the US in 2020 compared to 2.2% growth in 2019 with growth projections for 2021 and 2022 at 5.1% and 2.5%, respectively. The Chinese economy is the only growing with 2.3% growth realised in 2020, and 8.1% and 5.6% growth projected respectively for 2021 and 2022. India's economy contracted by -8% in 2020 and is forecasted to grow by 11.5% in 2021 and 6.8% in 2022.

Global Cement production

MATRIX Main world producers

Main world producers - The G-20 Group

Cement production (Million tonnes)

Country	2001	2005	2010	2015	2016	2017	2018	2019
China	661.0	1 079.6	1 881.9	2 350.0	2 403.0	2 316.3	2 176.7	2 300.0
India	102.9	146.8	220.0	270.0	289.3	285.0	327.7	320.0
EU28 *	225.6	251.1	192.1	167.2	169.1	175.1	179.8	182.1
USA	88.9	99.4	65.2	83.4	84.7	86.1	87.8	88.6
Brazil	39.4	39.2	59.1	72.0	57.6	54.0	53.5	53.4
Turkey	30.0	45.6	62.7	71.4	75.4	80.6	72.5	57.0
Russian Federation	28.7	49.5	50.4	69.0	55.0	54.7	53.7	54.1
Indonesia	31.1	36.1	39.5	65.0	61.3	68.0	70.8	64.2
South Korea	52.0	49.1	47.4	63.0	56.7	57.9	55.0	56.4
Japan	79.5	72.7	56.6	55.0	53.4	55.5	55.3	55.2
Saudi Arabia	20.0	26.1	42.5	55.0	55.9	47.1	42.2	42.2
Mexico	33.2	38.1	34.5	39.8	42.4	42.8	42.8	47.5
Germany	32.1	31.9	29.9	31.1	32.7	34.0	33.7	34.2
Italy	39.8	46.4	34.4	20.8	19.3	19.3	19.3	19.2
France	19.1	21.7	18.0	15.6	15.9	16.9	16.5	16.5
South Africa	8.4	12.1	10.9	14.0	13.6	13.2	12.5	12.4
Canada	12.1	13.5	12.4	12.5	11.9	12.7	13.3	13.4
Argentina	5.5	7.6	10.4	12.2	10.9	12.0	11.8	11.5
United Kingdom	11.9	11.6	7.9	9.6	9.4	9.4	9.2	9.1
Australia	6.8	9.1	8.3	9.3	10.0	10.0	9.8	10.0

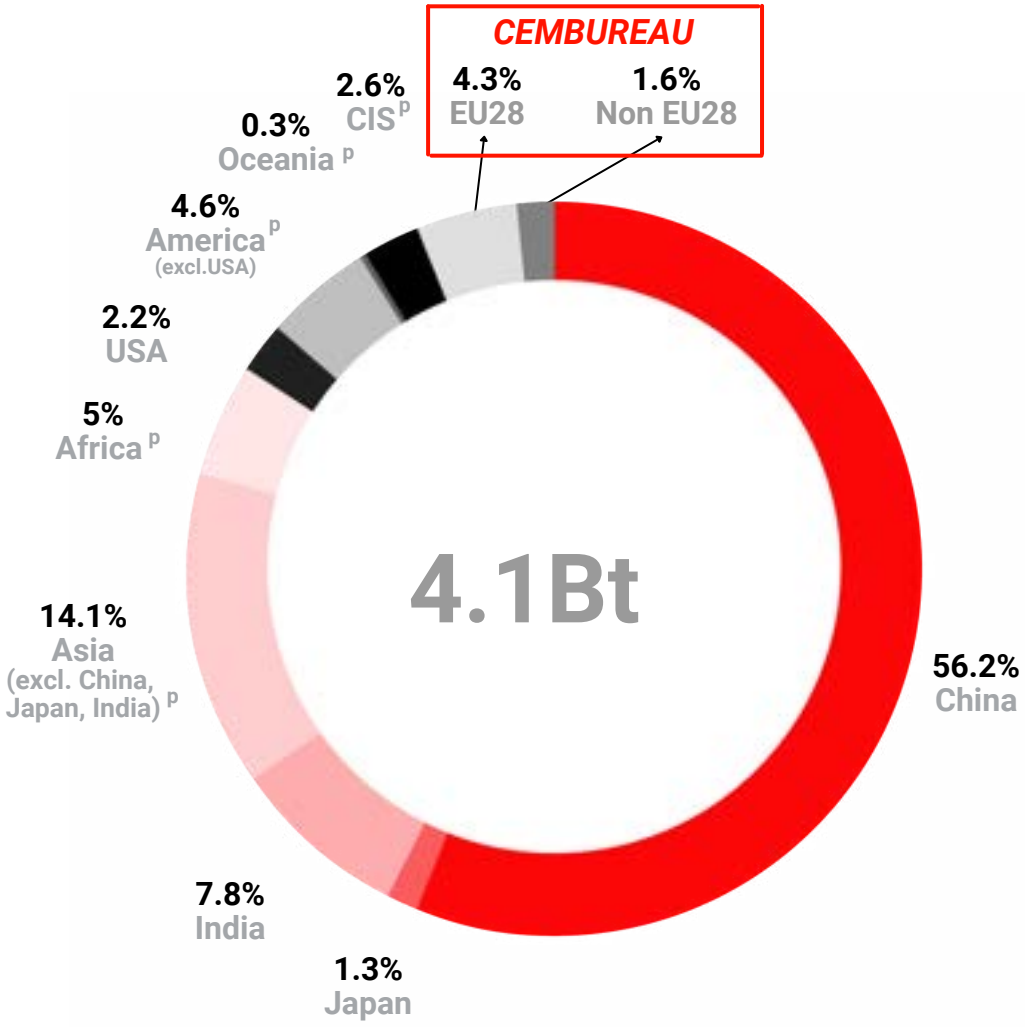
*EU 28 data is compiled using latest available data - EU27 will be introduced as of 2020

Sources: CEMBUREAU, US Geological Survey, Global Cement Report, Global Cement Directory

Global cement production in 2019 is estimated at approximately 4.1 billion tonnes (Bt), oscillating around the magic 4 Bt, due to higher growth in China, and continuous production growth in India, but uncertainty on volume figures for these two major actors is high. China still produces roughly 56% of the world's cement, with the EU28 representing 4.4% and CEMBUREAU members representing 5.9% of the world's production.

Besides the G20 countries represented, five emerging countries on the Eurasian continent produce altogether almost 6.5% of global volume, which is more than EU-28 and CEMBUREAU: Vietnam (80 Mt) and Thailand (35 Kt) in the Far East, and Iran (55 Mt), Egypt (52 Mt) and Pakistan (50 Mt) in the Middle East.

World cement production 2019, by region and main countries, % Estimations



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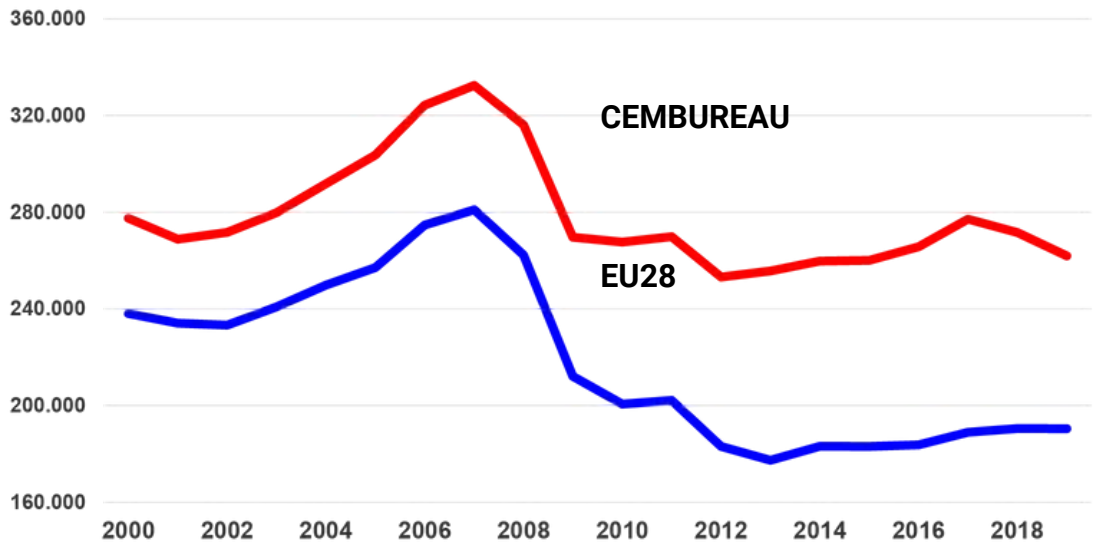
Source: CEMBUREAU

Looking more in detail at the CEMBUREAU and EU28 cement production and consumption data from 2019, we observe the following trends:

Cement production: EU28 & CEMBUREAU 2000-2019
Cement production + clinker exports Ktonnes

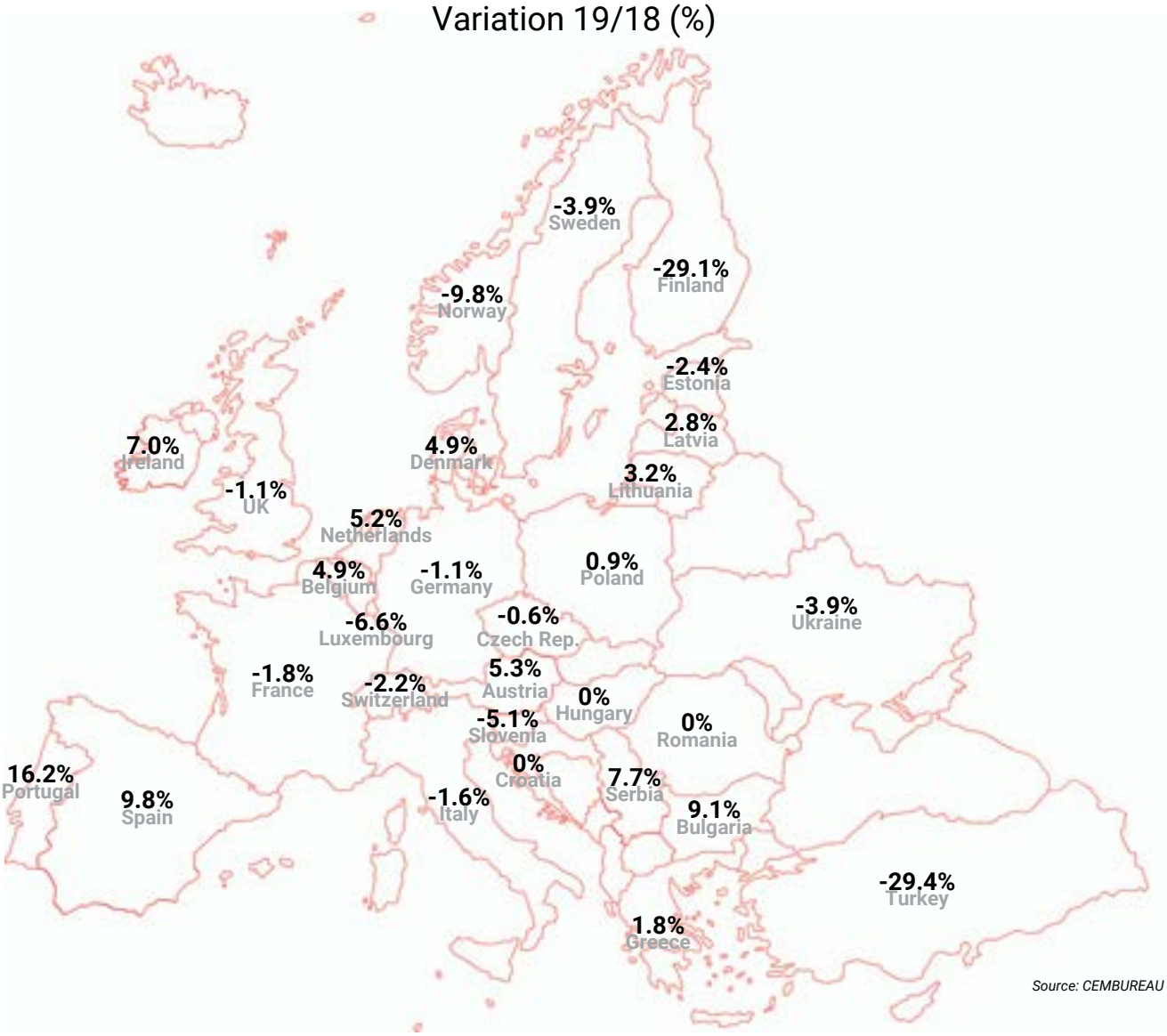


Source: CEMBUREAU

The CEMBUREAU production and clinker exports as shown in the graph above, dropped by 10.4 Mt to 261.9 Mt, close to the 2014 and 2015 production levels, whereas the EU-28 production was almost constant at 190.4 Mt. This is mainly due to decreasing production in Turkey, partially compensated by increasing clinker exports.

The cement consumption dropped for CEMBUREAU members, from 237 Mt in 2018 to 219 Mt in 2019. The EU28 countries saw an increase of 2 Mt to 169 Mt. Individual CEMBUREAU members experienced wide differences in consumption from 2018 to 2019, as the bar chart below shows: five countries increased with 7% or more. In decreasing order: Portugal, Spain, Bulgaria, Serbia, Ireland. Consumption decreased by more than 20% in Turkey and Finland.

Evolution of cement consumption in CEMBUREAU countries



Looking ahead for the consumption of cement, the Euroconstruct forecasts were culminating in 2017 and 2018, and growth figures dropped steeply in 2020 down to -11%, finally less worse than expected. This contraction is expected to be compensated in 2021 by a growth of 6.5%, with an outlook of 3% in 2022 and 2.5% in 2023.

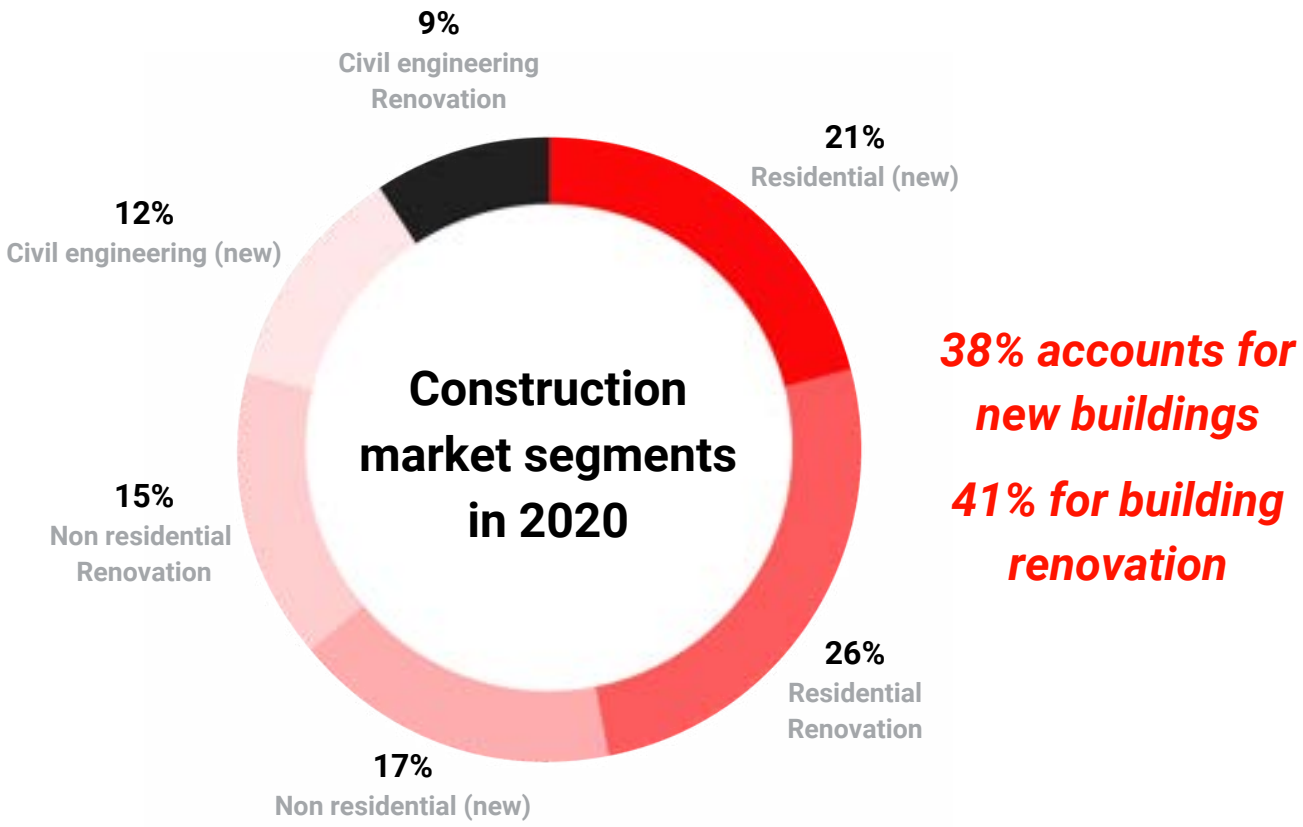
Construction Markets

The global economic forecasts of the IMF and European Commission are also reflected in the construction forecasts of Euroconstruct (19 countries), the member states of the Eastern European Construction Forecasting Association (EECFA, which includes Bulgaria, Croatia, Romania, Serbia, Slovenia, Russia, Turkey, Ukraine). The construction volume in the Euroconstruct area decreased by 7.8% in 2020 (for a GDP contraction of -8%), and decreased by 4.4% in EECFA countries.

The consequences for the individual countries are significantly different. Thus the range goes from a small growth in Finland and Romania and stagnation in Croatia, Portugal and Norway to a sharp decline of almost one fifth in the UK in the current year. Other heavyweights like France or Spain are also strongly affected, whereas the German market did surprisingly well due to the fact that activities could continue relatively unhindered.

Looking forward, in the Euroconstruct area, the construction volume is expected to recover to 4.1% in 2021, and for 2022 (+3.4%) and 2023 (+2.4%) the outlook remains positive. Until 2023, total construction output in the Euroconstruct area is likely to reach €1.73 trillion and to exceed the pre-corona level of 2019 by €28 billion or 1.7%. In the EECFA area, evolution of the construction market is expected to grow by 2.4% in 2021 and 3.4% in 2022.

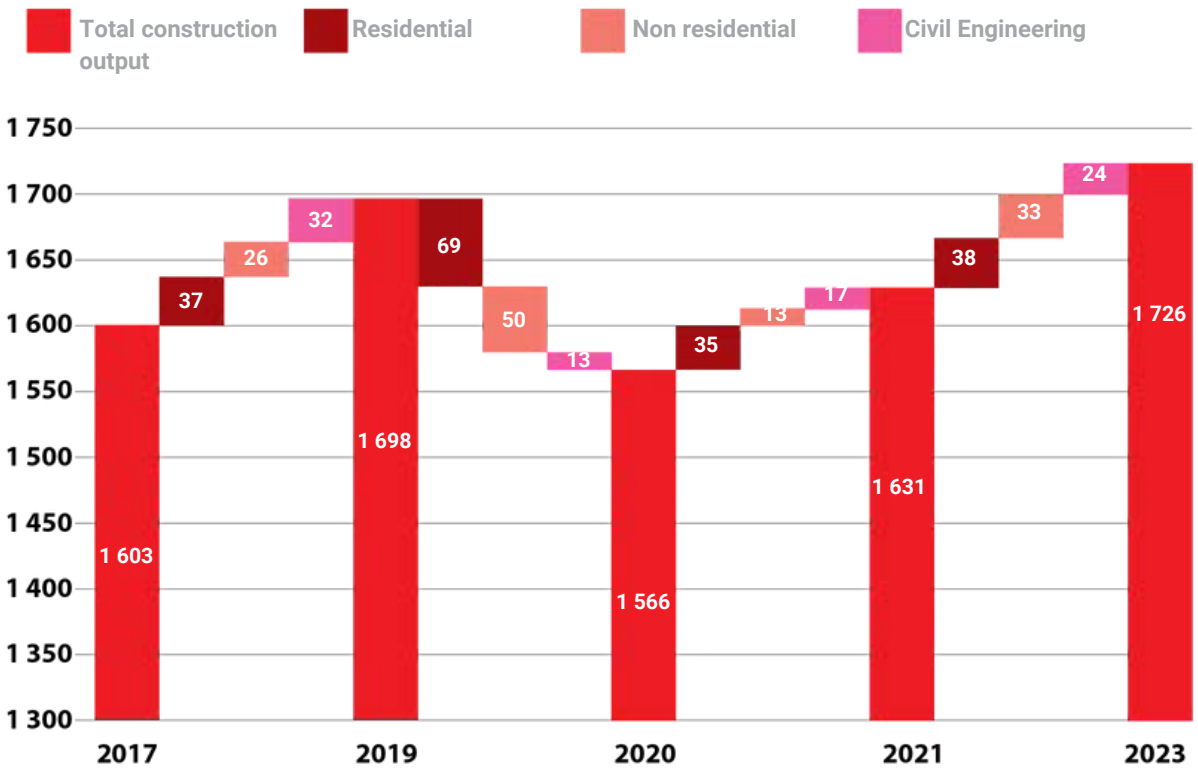
For 2021 and 2022, most Euroconstruct countries are forecasting positive growth: in 4 (Finland, Netherlands, Czechia, Hungary) out of 19 countries, construction volume is still contracting; within EECFA countries, all countries forecast positive growth, except Romania, slightly growing in 2020 but contracting in 2021, and Ukraine, which continues contracting in 2021. Slovenia and Russia show zero growth. In 2022, all countries expect to resume construction output growth.



Source: EUROCONSTRUCT

Growth contributions by segments

Civil engineering showed the most resilience during the COVID-19 crisis. New residential housing is becoming the main driver again.



Source: EUROCONSTRUCT

In the Euroconstruct area, GDP decreased with 8%, construction output decreased by 7.8% down to €1.56 trillion value in 2020, with residential and non-residential buildings accounting for approximately -9% (-8.9%) and civil engineering for almost 4% (-3.7%). Civil engineering is the most resilient subsector, but starting from 2021, buildings and especially housing will again become the most growing subsegments (see graph above).

The split between segments is almost constant overtime, with 38% from new buildings and 41% building renovations, and 21% from civil engineering (see pie chart above).

ECONOMIC PICTURE & OUTLOOK

AUSTRIA

Due to a mild winter 2019/20, cement sales were at a high level before COVID-19 caused a lockdown from mid-March. Construction sites were allowed to re-start work by end of March, so fortunately the decline of sales lasted only a few weeks. Many people stayed at home, dedicating time for construction works, therefore a shift towards a higher demand for bagged cement was noted. Furthermore, the state continued to promote infrastructure projects and investments in real estate remained high. All in all, there was no major decline in 2020.

The considerable drop of winter tourism in the Western parts of Austria will certainly lead to a decrease of investment in the coming years. However, positive news is that thermally activated buildings are increasing in popularity. Many residential buildings and school sites are being equipped with this heating and cooling technology that helps to exploit concrete's potential to store energy.

BELGIUM

After an increase in the consumption of cement of 2.5% in 2018, the year 2019 showed an increase of 4.9% to 6,610,000 tons. For 2020, consumption is expected to decrease by 4.5%.

Overall, due to the COVID-19 crisis, the construction sector output decreased by 7.6%. The new non-residential segment appears to be the hardest hit while civil engineering was the sole segment in growth (approx. 2%).

The outcome for 2021 is still very uncertain, especially for residential buildings. While a complete recovery is expected, the order books of many contractors are below normal conditions. The government has introduced new fiscal measures on demolition/construction that should have a positive impact. Civil engineering is still expected to grow by 15% to 20% until 2023.

BULGARIA

The business statistics of the NSI show that by the end of October 2020 the construction output for the year had decreased by 5.9% compared to the same period in 2019. The decrease in building construction is larger at 8.4%. Expectations of the IEP for 2020 are for a decline in revenues of construction companies of 4.9%. Forecasts suggest that this decline will be overcome and the sector will be pulled by the absorption of funds and government spending on infrastructure construction. Expectations are that in 2021 and 2022 the total construction output will grow by 4.4% and 5.2% respectively.

CZECH REPUBLIC

In 2020, the construction output decreased by 7.7%, y-o-y, in real terms. The production in building construction decreased by 10.1%, y-o-y and the production of civil engineering construction decreased by 1.0%, y-o-y. The number of construction orders increased by 1.0%, y-o-y; the total value of the orders increased by 1.1%, y-o-y, and amounted to CZK 251.9 billion.

The number of building permits granted decreased by 0.3%, y-o-y; the approximate value of constructions permitted was CZK 389.7 billion and decreased by 5.9% compared to that of 2019. The number of dwellings started in 2020 decreased by 8.9%, y-o-y, and was 35 253 dwellings. The number of completed dwellings decreased by 5.4%, y-o-y, and amounted to 34 433 dwellings.

The outlook for cement consumption in the Czech Republic in 2021, the estimation - in case of decrease up to minus 3.0%.

DENMARK

Despite the COVID-19 effects, cement production (2.400 kt) and consumption (1.800 kt) were at the same level as 2019. For 2021, no big differences are expected.

Helped by few restrictions, the construction and building activity in 2020 grew overall despite the pandemic. In particular, residential housing activity and renovation experienced positive trends. In the commercial building sector, the growth eased out.

Publicly funded construction projects, especially regarding infrastructure, energy supply, and roads were at the same level as 2019.

In 2021, the growth is expected to continue, pulled by positive circumstances for renovation, high activity on housing, and new infrastructure projects.

ESTONIA

Under COVID-19 conditions, construction volumes in Estonia decreased by about 10% in 2020, whilst in the construction materials industry the decrease was about 15%. The construction of dwellings was in a slightly better condition, but the results in this sector started to decline in the fourth quarter. In terms of civil engineering, the decrease is due to a decline in repair work.

For 2021, a decrease in construction volumes is predicted due to the cautious attitude of the private sector to economic development. With regard to civil engineering, expectations are slightly more positive, and it is hoped that construction of the Estonian section of the Rail Baltic railway infrastructure project will begin.

FINLAND

Based on external market research, in 2020 cement consumption remained at a similar level to 2019. New building consumption remained stable, civil engineering increased by 4% and renovation increased by 1%. The forecast for total cement consumption in 2021 is -5%. New buildings will decrease by -7%, civil engineering by -5% and renovation by -4% in 2021. 020 compared to the previous year.

FRANCE

With the COVID-19 crisis, French cement consumption and production are estimated to have decrease respectively by 8.5% (17.7 million tons) and 9% (15.2 million tons) in 2020. The significant decline of activity in the construction sector during the first lockdown (up to - 60% loss of activity) explains the market contraction.

The 2021 forecast for cement is uncertain. Without a rapid recovery in private investment, the fall in volume of building permits in 2020 (-14.7% in residential and -19.5% in non-residential) should lead to a decrease in housing starts in 2021. In the public works sector, the government's stimulus package should support activity. In an optimistic scenario, the consumption outlook for 2021 would be stable compared to 2020. investments rose by only 0.5% in 2020 compared to the previous year.

GERMANY

German cement consumption in 2020 is expected to have increased. As in 2019, one major contributor to this positive development is the residential building sector. According to the German Kreditanstalt für Wiederaufbau (KfW), it is likely that more than 300,000 apartments were completed in 2020, corresponding with a growth rate of at least 2%. This growth stems mostly from the completion of multi-family housing – a segment in which concrete has a higher market share than in single-family homes. Nevertheless, experience has shown that actual developments of residential building completions have been less than predicted over the past few years. Further stimulus came from civil engineering, which is benefitting from increased public infrastructure funding. Investments in this market segment grew by around 2% in 2020. The contribution to cement market growth by the commercial building sector may have been limited – investments rose by only 0.5% in 2020 compared to the previous year.

GREECE

In 2020, the COVID-19 pandemic challenged the country's medical system and strongly affected the economy which contracted by approximately 10% compared to 2019. Domestic consumption of cement in 2019 improved by 2% over that of 2018.

Successful management of the cement plants' personnel resulted in minimal cases of COVID-19 and no disruption to activities. Despite the pandemic, construction activities were stable compared to those of 2019. New permits of the building sector improved in 2020 by approximately 10% over 2019, according to the preliminary Statistical Authority data.

Prospects in 2021 are expected to improve, subject to a quick recovery of the economy after the pandemic is addressed.

HUNGARY

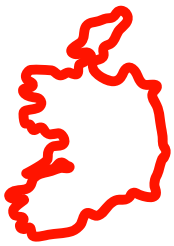
The volume of Gross Domestic Product reduced by 4.6% in Hungary in the 3rd quarter of 2020 compared to the corresponding period of the previous year.

The volume of construction output in November 2020, based on raw data, surpassed the previous year's level by 5.0%. Output increased in both main groups of construction: in the construction of buildings by 7.7%, in civil engineering by 2.2%.

In the first eleven months of 2020, compared to the same period of the previous year: Construction output lessened by 9.9%. The volume of the November end-of –month stock of contracts contract portfolio at construction enterprises was 2.7% higher than at the end of November 2019.

In Hungary, growth is expected of over 10% in the construction sector during 2021.

IRELAND



Despite the impact of COVID-19 lockdowns, Irish housing sector output was only marginally lower than that of 2019, declining annually in 2020 by only 1.9% to 20,676. Continuing construction sector lockdown means that delivery for 2021 is not expected to meet estimated demand of 35,000 per annum. Policy reform is needed to speed up the delivery of housing units, particularly within the planning system. The new government has started a review of the National Development Plan focusing on where population growth may take place and key infrastructure projects.

Brexit is impacting on the supply chain causing delays and uncertainty, with consequences for Irish firms operating in or supplying that market. COVID-19 could cause some construction projects to be deferred indefinitely. In the short-term lower tax receipts may impact on capital projects, while in the longer-term taxes may rise to repay COVID-19 related spending. The impact of the pandemic on construction sector labour mobility is a concern for the sector in Ireland.

ITALY

In 2020, the cement market in Italy fell but the decline was less than that of GDP. Cement consumption fell by 4% to 17.9 million tons while production decreased by 3.7% to 18.5 million tons. Production and consumption are expected to rebound in 2021 with an increase of 5% and 7% respectively. This growth is due to the positive performance of the residential sector but above all to the relaunch of public works. Today, infrastructure and public works accounts for the largest share of cement demand in Italy and the financial resources of the Recovery Fund will enable consistent growth for the entire sector.

LATVIA

2020 was challenging due to two main reasons: domestic construction market activity decreased due to the pandemic, and there were increasing cement imports from third countries, mainly Belarus and Russia. Domestic cement consumption shrank by around -7%, while imports from Belarus grew for the fifth year in a row and was almost 25% more than in 2019. Changes also in import routes within the EU – after a plant closure in Estonia, these imports were replaced by those coming from Sweden. Exports growth by 4% y/y in Latvia's main export markets – Estonia, Sweden, and Finland helped to maintain stable production volumes – 1.1 M tons of cement, which is 3% less than a year before. 2021 looks even more challenging as imports are continuing to grow, but the construction market is not recovering as rapidly as presumed.

LITHUANIA

Lithuania's cement market decreased by 1.7 percent in 2020 compared to 2019. This was caused by the investment slowdown in the construction sector due to the COVID-19 pandemic.

In 2020, construction companies in Lithuania performed 3% more construction works compared to 2019. Construction works of buildings decreased by 8.4% and civil engineering construction increased by 3.5% compared to 2019. In 2020, 47% of all works performed in the country consisted of construction works of engineering structures, 34% non-residential buildings construction works, and 19% was residential buildings construction works.

It is forecasted that in 2021, cement sales and volume of performed works of construction companies in Lithuania will decrease by 3-4% due to the COVID-19 pandemic situation.

LUXEMBOURG

Despite a full shutdown of the Luxemburgish construction sector in March and April due to COVID-19, the sector was at the same level in 2020 as 2019, albeit below expectations for March and April. The rest of the year was in line with expectations and all sectors performed at a high level, with a strong performance in infrastructure projects (e.g. Tramway Luxembourg City). Exports remained at the previous year level.

For 2021, should perform at previous year level in domestic activity, as well as in export deliveries. There is some uncertainty concerning the second half of the year, due to possible postponements or delays in building permits for office and housing construction as a result of COVID-19.

NETHERLANDS

After two favourable months the cement consumption tempered because of COVID-19 and the effects of the new legislation on nitrogen deposition and PFAS pollution. At year end we expect a decrease of 7% compared to 2019.

Within the construction industry the residential and non-residential sectors decreased the most in new constructions in 2020, infrastructure was more stable.

The effect of COVID-19, including lock downs, and the slow catching up of permits because of nitrogen deposition and PFAS pollution will still have a large impact on the expected construction output in 2021. A general decrease of around 6% in new constructions is expected.

NORWAY

2020 presented a stable market in both residential and infrastructure segments despite the pandemic. Infrastructure, in particular, showed strong figures with many large projects continuing and initiated while the residential sector was flat compared to the previous year. The demand for low-emission products increased as well as for low-emission transport solutions. The attention is increasingly related to the entire sustainability performance of the concrete sector, driven from both market and regulator's perspectives. Towards the end of 2020, the Brevik CCS project was approved by the Norwegian Parliament with an aim for commissioning in 2024 in the Norwegian cement industry. Total market size at 2 Mt cement.

POLAND

Cement production and consumption in 2020 in Poland were unexpectedly positive, comparable to the 2019 results: estimated production: 18.7 million tonnes (0.0% y/y), estimated consumption: 18.5 million tonnes (-1% y/y).

The construction market was one of the strongest segments of the Polish economy, despite the impact of COVID-19. The key factor was the continuation of construction works:

- Civil engineering works was the best segment with growth maintained (increased outlays on roads and railways);
- Residential construction was on the comparable level as in 2019 (strong demand on apartments and growing popularity of single-family construction);
- COVID-19 mostly influenced the non-residential construction market (falling by approximately 7%).

Forecasts for 2021 are rather optimistic – only a slight decrease is expected of around -4% y/y (total construction market value). Cement production and consumption should only slight lower compared to 2020 results.

PORTUGAL

Cement consumption in 2020 increased by 9%. Several indicators showed favorable developments in the construction sector despite GDP declining by 8.1%. GFCF decreased less in Portugal than in most European countries, reflecting the construction investment growth. Construction sector growth estimate for 2020 is 2.5%. Residential buildings saw the highest growth at 4.5%. The remaining subsectors performed as follows: civil engineering +3.0%; non-residential buildings -0.5%.

For 2021, cement consumption is expected to grow by 2.4%, and construction activity is expected to increase by 2.2%. While the civil engineering sector has positive prospects (6%), both residential and non-residential buildings are expected to fall by 1% and 1.1% respectively.

ROMANIA

According to provisional data from the National Institute of Statistics, cement consumption in 2020 increased by 8.9% compared to 2019.

In 2020, the volume of construction works, as gross series, increased by 15.9%. By structural elements, there were registered increases as follows: 24.4% for maintenance and current repair work, 46% for capital repairs, and 9.3% for new construction works. By construction objects, the volume of non-residential buildings increased by 10.9%, residential buildings by 17.8%, and civil engineering works increased by 18.5%.

For 2021, official data from the National Commission for Prognosis estimates an increase of 5.9% for the volume of construction works.

SERBIA

The developments in 2020 are marked by the reoccurring pandemic and during the year, movement restrictions were introduced twice, having a very negative effect on all service sectors. While the recovery in the second half of 2020 was strong, the new restrictions in October and December again impacted developments and stopped the normalization. Cement production in 2020 increased by 9.8% and consumption increased by 12.5%, compared to 2019 and realization of big public infrastructure projects has been steady and growing.

SLOVENIA

Cement consumption grew by 8.7% in 2020 compared to 2019. Construction output fell by 2.3%. Compared with 2018 and 2019, in the last months of 2020 construction activity was significantly lower in non-residential buildings, slightly higher in civil-engineering works and considerably higher in residential buildings.

Short-term prospects remain favourable for civil-engineering works and residential buildings, but worse for non-residential buildings. Civil-engineering construction contracts increased by 23% year-on-year, whilst non-residential buildings construction declined by 11%. Total floor area of residential buildings planned in the last half of the year was 14% higher than in the same period in 2019.

As a result of the effects of COVID-19, economic growth was -5.5%. For 2021 and 2022, growth is expected to be 4.3% and 4.4% respectively. However, with the continuing effects of the pandemic, the economic recovery will be delayed to at least Spring 2021.

In 2022, the recovery will continue. A rapid recovery is expected in construction, with investment growth, and additional EU funds from the Recovery and Resilience Facility, will already exceed the pre-crisis level of 2019.

SPAIN

In 2020, Spanish cement consumption was 13.29Mt, a 10% fall primarily due to the COVID-19 pandemic effects. 90% of this decrease occurred during March, May and April, during which the population was under lockdown restrictions.

Spanish exports have also reduced to 6.0Mt, cement 3.3Mt and clinker 2.7Mt, respectively. Housing cut back to 85,000 units, falling 20% and non-residential constructions dropped 15%. Public investment levels have kept stable to the ones achieved in 2019.

For 2021, Spanish cement consumption will reach similar figures to those of 2020, no large variations are expected, and it will only be able to absorb the extraordinary falls produced by the pandemic. The extraordinary investment instruments to be put in place by the European Union are not expected to have an effect on activity until the end of 2021.

SWEDEN

2020 presented a strong and stable market overall despite the pandemic. A small decline in the residential segment and a flat infrastructure segment was seen. Larger infrastructure projects rolled out according to plan and there was increased demand from the construction of wind farms. The demand for low-emission products increased as well as for low-emission transport solutions. The attention is increasingly related to the entire sustainability performance of the concrete sector, driven from both market and regulator's perspectives. Land use, biodiversity and water are important areas of interest next to climate impact. Total market size was stable at just under 3 Mt cement.

SWITZERLAND

Despite the COVID-19 pandemic, the cement consumption in Switzerland remained stable with a slight decrease of 1.6%. This is due to the fact that construction sites remained open during the lockdown phases. In total, 4.65m tons of cement were used in Switzerland in 2020, of which 85.4 percent was produced locally. The majority of the cements used are CEMII and CEMII (93.9 percent), whereas the share of CEMI continues to decrease. An outlook for 2021 remains difficult – however, a slight decrease in turnover in the construction industry is expected.

TURKEY

The sector experienced an unexpectedly positive year despite the negative effects of COVID-19. Year-on-year the industry realised 59.2 million tons of domestic sales in 2020, an increase of 23.3%. Production is about 76.5 million tons of cement in 2020, a 27.5% increase. At the end of 2020, 16.9 million tons of cement and 14.4 million tons of clinker were exported.

The Turkish Economy grew by 1.8% in 2020. In 2020, the construction sector showed an 3.5% contraction. Total housing sales in Turkey increased by 11.2% compared to 2019, rising to approximately 150,000 housing units.

With the installation of new capacities, there were around 94 million tons of clinker production capacities by the end of 2020.

Growth in the cement sector is projected to be around 5% by 2021, with investments in housing renovations and the infrastructure projects.

UKRAINE

In 2020, Ukraine's cement market grew by 7.6% compared to 2019 and amounted to 9.8 million tons. Production increased by 5.2%, from 9.1 million tons to 9.6 million tons.

The main challenge for the industry in 2020 was a 5-fold increase in cement imports from Turkey (more than 993,000 tons), despite the fact that cement enterprises in Ukraine are able to provide the market with high-quality cement to the fullest extent.

According to the Ministry of Economic Development, Trade and Agriculture on the basis of the State Statistics Service, GDP fell by 4.2% in 2020. Construction output increased by 4% compared to 2019. The volume of manufactured construction products totalled ₴199 billion, according to the State Statistics Service.

The Ukrainian government's The Great Construction program, aimed at the construction of schools, kindergartens, hospitals and highways, including concrete ones, has created a demand for cement.

UNITED KINGDOM

Demand for RMC and mortar were particularly impacted by the pandemic in the UK in 2020 with sales volumes down 18.2% and 23.5% year on year respectively, for RMC this resulted in a low total volume not seen since 1963. However, construction and manufacturing are recovering faster than the rest of the UK economy due to construction and its supply chain being deemed 'essential' by Government. Monthly construction output in November 2020 exceeded levels of output pre-pandemic. The Construction Products Association expects output to rise by 14% in 2021 and 4.9% in 2022, fully recovering pandemic-related losses on an annual basis in 2022.

EMISSIONS REPORTING: GNR & BEYOND

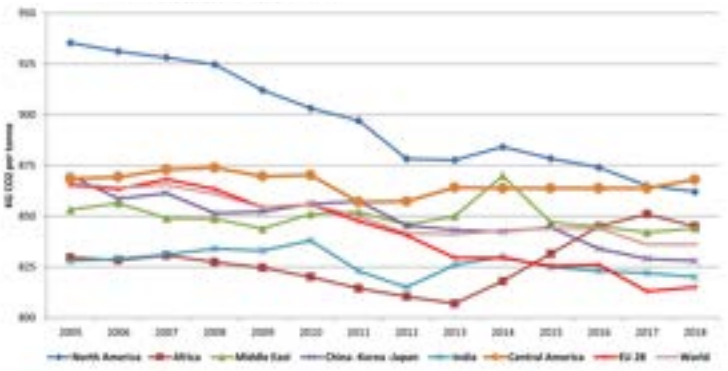
Since its launch, CEMBUREAU has contributed to the World Business Council for Sustainable Development – Cement Sustainability Initiative's (WBCSD-CSI) "Getting the Numbers Right" (GNR) project, which aims to monitor and address CO2 emission trends from the cement industry at a global level. The management of this project was taken over as of 2019 by the Global Cement and Concrete Association (GCCA).

According to the latest data available, in 2018 the European cement industry continued to reduce its emissions per tonne of product. This data, published by the GNR project, shows that between 1990 and 2018, the EU28 cement industry has reduced its:

- Gross CO2 emissions per tonne grey clinker by -10.5% (last year -10.8%, slight increase)
- Net CO2 emissions per tonne grey clinker by -20.2% (last year -19.9%)
- Gross CO2 emissions per tonne cementitious (all) by -13% (last year also -13%)
- Net CO2 per tonne cementitious by -22.1% (last year -21.7%)

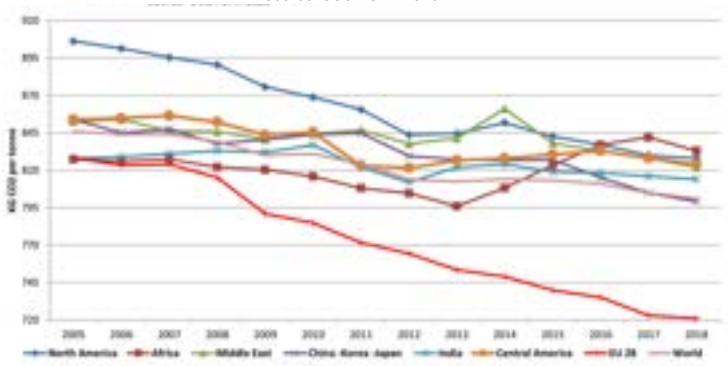
Gross emissions Grey clinker

Source: GCCA GNR 2020



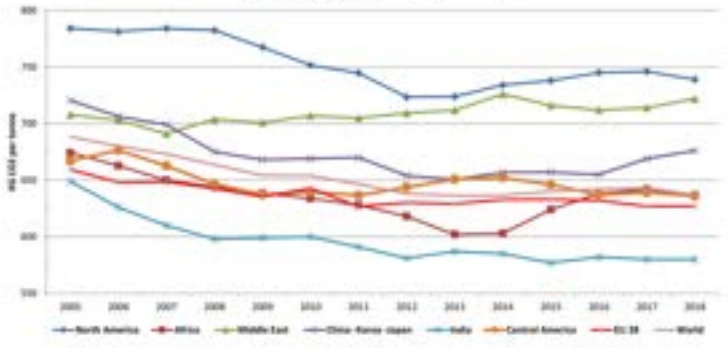
Net emissions Grey clinker

Source: GCCA GNR 2020



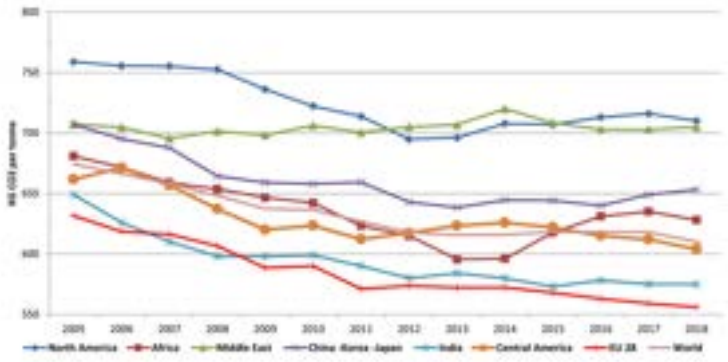
Gross emissions cementitious products (grey & white)

Source: GCCA GNR 2020



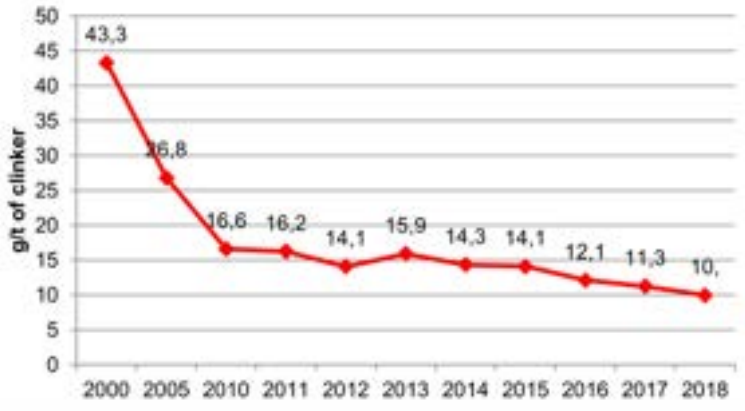
Net emissions cementitious products (grey & white)

Source: GCCA GNR 2020

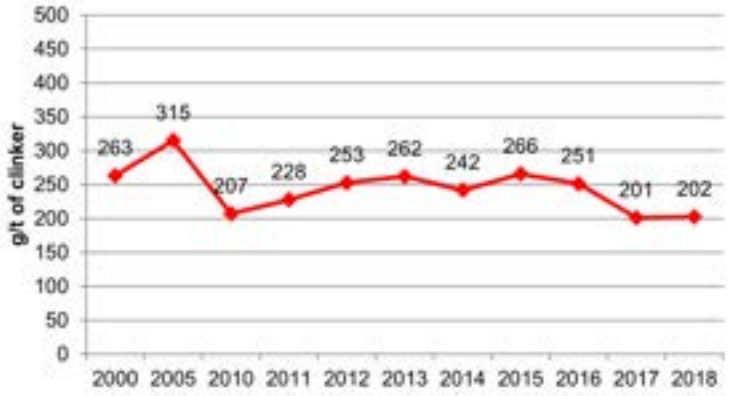


As the data shows, the European cement industry is amongst the world's best performing regions with its emissions output on a continuous downward trend. In this respect, it is important to note that whilst the data for the EU covers close to 100% of plants (the ones of company members of GCCA as well as non-GCCA companies reporting to GNR through CEMBUREAU coordination) this is not the case for other areas, in which it is mainly the best performing plants contributing to the GNR data collection (GCCA members only).

DUST emission/clinker production



SO2 emission/clinker production



ABOUT US

MISSION

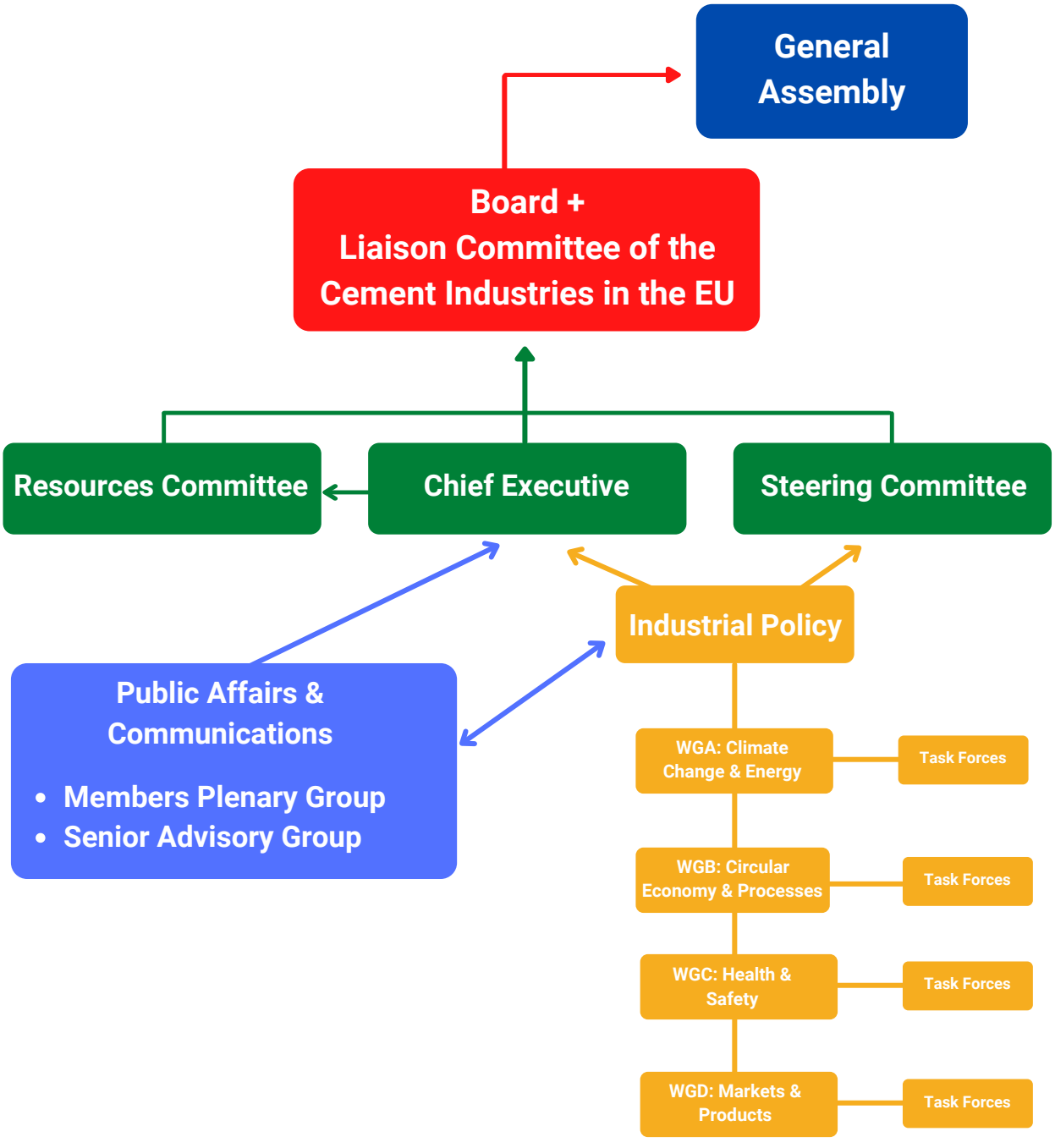
CEMBUREAU, the European Cement Association, is the representative organisation of the cement industry in Europe. It is the spokesperson for the cement industry before the EU institutions and other public authorities and communicates the industry's views on all issues and policy developments regarding technical, environmental, energy, employee health and safety, and sustainability issues.

In addition to the EU, permanent dialogue is maintained with other international organisations (e.g. OECD, IEA, UNEP), the Global Cement and Concrete Association (GCCA) and sister associations in other parts of the world.

Serviced by a multi-national staff based in Brussels and with input from Members via four Working Groups as well as several Task Forces set up on an ad hoc basis and directly reporting to the appropriate Working Group, CEMBUREAU acts in relation to all developments at European level affecting the cement industry.

CEMBUREAU plays a significant role in the world-wide sustainable development of cement and the ready-mixed and precast concrete industries in co-operation with its Member Associations and other relevant organisations. The Association regularly organises events on specific issues aimed at improving the market perception of the industry and promoting the use of generic cement and concrete products. In addition, the Association regularly commissions studies to evaluate specific issues of importance to the industry.

STRUCTURE


General Assembly
Board + Liaison Committee of the Cement Industries in the EU
Resources Committee
Chief Executive
Steering Committee
Industrial Policy
Public Affairs & Communications
Members Plenary Group
Senior Advisory Group
WGA: Climate Change & Energy
Task Forces
WGB: Circular Economy & Processes
Task Forces
WGC: Health & Safety
Task Forces
WGD: Markets & Products
Task Forces

OUR TEAM

Situation on 31 May 2021

CHIEF EXECUTIVE

Koen Coppenholle
Chief Executive

Cathy Roeland
Personal Assistant & HR Manager

Nour-Eddine Chafki
Logistics, Real Estate & Finance Manager

Latifa Ben Yamoun
IT Assistant

INDUSTRIAL POLICY

Rob van der Meer
Industrial Policy Director

Marie-Hélène Troger
Personal Assistant

Miette Dechelle
Health & Safety Manager

Nikos Nikolakakos:
Environment & Resources Manager

Vagner Maringolo
Sustainable Construction Manager

Sylvianne Liesen
Assistant

ECONOMIC STUDIES & STATISTICS

Koen Van De Put
Economic Studies & Statistics Manager

Patricia Moreaux
Graphic Design Manager (50%)

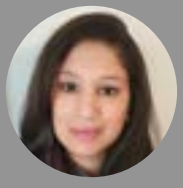
PUBLIC AFFAIRS & COMMUNICATIONS

Emmanuel Brutin
Public Affairs Director

Jean-Baptiste Gomes
Senior Public Affairs Manager

Joseph Meaden
Communications Manager

Patricia Moreaux
Graphic Design Manager (50%)



Anam Iqbal
Monitoring & Research Analyst

OUR BOARD MEMBERS

President: **R. de Parisot**
Vice-President: **I. Miranda Fernandez**

Situation on 31 May 2021

	Full Members	*Permanent Alternates*
AUSTRIA	B. Kren	
BELGIUM	E. Fostier	*M. Gutovic*
BULGARIA	S. Thiede	
CZECH REPUBLIC	K. Chudej	*P. Zelano, R. Michalcik*
DENMARK	B. Moltke Hansen	*P. Zugaro*
ESTONIA	M. Einstein	
FINLAND	O. Van der Weijde	*S. Schmidt*
FRANCE	F. Petry	*B. Pillon*
GERMANY	C. Knell	*T. Spannagl*
GREECE	Y. Paniaras	*D. Chanis*
HUNGARY	J. Szarkándi	
IRELAND	O. Mahon	*L. Callebat*
ITALY	M. Buzzi	
LATVIA	R. Schneider	
LITHUANIA	J.A. Mituzas	*A. Zaremba*
LUXEMBOURG	D. Beese	*C. Weiler*
NETHERLANDS	J. Morrish	*C. Streicher*
NORWAY	G. K. Brantenberg	*P. Brevik*
POLAND	J. Miluch	*X. Guesnu*
PORTUGAL	L. Fernandes	*O. Hubscher*
ROMANIA	B. Dobre	
SLOVENIA	T. Vuk	
SPAIN	V. H. Garcia Brosa	*J. Ortiz*
SWEDEN	J. Gånge	*K. Comstedt Webb*
SWITZERLAND	L. Epple	*S. Kronenberg*
TURKEY	F. Yücelik	*O. Nemli*
UNITED KINGDOM	M. Eberlin	*B. Hope*

Members Ex Officio

CEMBUREAU K. Coppenholle
CEMBUREAU E. Brutin
CEMBUREAU R. van der Meer

OUR LIAISON COMMITTEE MEMBERS

Situation on 31 May 2021

President: **S. Menéndez**
Vice-President: **R. Callieri**

	Full Members	*Permanent Alternates*
AUSTRIA	B. Kren	
BELGIUM	E. Fostier	*M. Gutovic*
BULGARIA	S. Thiede	
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POLAND	J. Miluch	*X. Guesnu*
PORTUGAL	O. Hubscher	
ROMANIA	M. Dracea	
SLOVENIA	T. Vuk	
SPAIN	V. H. Garcia Brosa	*J. Ortiz*
SWEDEN	J. Gånge	*K. Comstedt Webb*
UNITED KINGDOM	M. Eberlin	

Members Ex Officio

CEMBUREAU	K. Coppenholle
CEMBUREAU	E. Brutin
CEMBUREAU	R. van der Meer

OUR MEMBERS

Situation on 31 May 2021

Currently, Full Members are the national cement industry associations and cement companies of the European Union (except for Malta and Slovakia) plus Norway, Switzerland, Turkey and the United Kingdom. Croatia and Serbia are Associate Members of CEMBUREAU. A cooperation agreement has been concluded with Vassiliko Cement in Cyprus and with the Cement Association of Ukraine.

FULL MEMBERS

Austria
VÖZ – Vereinigung der Österreichischen Zementindustrie (Association of the Austrian Cement Industry)

Belgium
Febelcem – Fédération de l'Industrie Cimentière Belge a.s.b.l. (Association of the Belgian Cement Industry)

Bulgaria
BACI – Bulgarian Association of Cement Industry

Czech Republic
Svaz výrobcu cementu CR (Czech Cement Association)

Denmark
Aalborg Portland A/S

Estonia
KNC - AS Kunda Nordic Tsement (Kunda Nordic Cement Corporation)

Finland
Finnsementti Oy

France
SFIC – Syndicat Français de l'Industrie Cimentière (Association of the French Cement Industry)

Germany
VDZ – Verein Deutscher Zementwerke e.V. (German Cement Works Association)

Greece
HCIA – Hellenic Cement Industry Association

Hungary
MCSZ – Magyar Cement-, Beton- és Mészipari Szövetzég (Hungarian Cement, Concrete and Lime Association)

Ireland
CMI - Cement Manufacturers Ireland

Italy
AITEC – Associazione Italiana Tecnico Economica Cemento (Italian Technical and Economic Association of Cement)

Latvia
Schwenk Latvia

Lithuania
Akmenès Cementas AB

Luxembourg
CIMALUX s.a.

Netherlands
ENCI BV - Eerste Nederlandse Cement Industry

Norway
Norcem A.S.

Poland
SPC – Stowarzyszenie Producentów Cementu (Polish Cement Association)

Portugal
ATIC – Associação Técnica da Indústria do Cimento (Technical Association of the Cement Industry)

Romania
CIROM – Employers' Organisation in Cement Industry and other Mineral Products for Construction in Romania

Slovenia
Salonit Anhovo

Spain
Oficemen – Agrupación de Fabricantes de Cemento de España (Association of Spanish Cement Producers)

Sweden
Cementa AB

Switzerland
cemsuisse - Verband der Schweizerischen Cementindustrie

Turkey
TÜRKCİMENTO – Turkish Cement Manufacturers' Association

United Kingdom
MPA – Minerals Products Association – Cement

ASSOCIATE MEMBERS

Croatia
Croatia Cement, g.i.u.

Serbia
CIS - Cementna Industrija Srbije (Serbian Cement Industry Association)

COOPERATION AGREEMENTS

Cyprus
Vassiliko Cement

Ukraine
UKRCEMENT (Association of Cement Producers of Ukraine)

PARTNERSHIPS

Alliance for a Competitive European Industry

ACEI

The Alliance for a Competitive European Industry (ACEI) was formed in 2004 by 11 major European industry sector associations and BUSINESSEUROPE. The common objective of its Members is to promote the competitiveness of European industry on a global scale. The Alliance therefore encourages a policy and regulatory framework that supports that objective, reinforcing and complementing BUSINESSEUROPE's work in this respect by providing a sectoral perspective. The industry sectors concerned represent the interests at EU level of some 6 000 large companies and 1.7 million SMEs with a combined output of nearly 5 trillion euros turnover and 1.3 trillion euros added value. These companies directly employ about 23 million people in the EU.

Alliance of Energy Intensive Industries

AEII

The Alliance of Energy Intensive Industries is made up of fourteen European associations representing energy-intensive industries with an aggregated turnover of more than 1000 billion Euros per year and directly employing over 3 million people. These industries are fundamental to Europe's entire economic fabric and support downstream processing and employment through the entire value chain. They also contribute to Europe's R&D, innovation and technical excellence, as well as to European balance of trade and through economic value added and taxes to the economies of its Member States.

Construction Products Europe

Construction Products Europe represents the interests of all European construction products manufacturers. Construction Products Europe was established in 1988 as an AISBL, a non-profit making organisation under Belgian law. More recently, the association changed its name from CEPMC to Construction Products Europe to better reflect its scope and expertise. As such, the new name creates a more accurate reflection of the association's activities and alongside the change of name Construction Products Europe has developed a new logo and website.Construction Products Europe has a rotating presidency and vice presidency and their secretariat is based in Brussels.

European Concrete Platform

The European Concrete Platform (ECP), is a European association incorporated as a non-profit association under Belgian law. With its membership comprising BIBM (European Federation for Precast Concrete), CEMBUREAU, EFCA (European Federation of Concrete Admixtures Associations), and ERMCO (European Ready Mixed Concrete Organisation), the ECP covers concrete related issues at European level, including the energy performance of buildings, fire safety and Eurocodes. Its objective is to study and promote all the benefits of concrete for construction.

Global Cement & Concrete Association

Launched in January 2018, the Global Cement and Concrete Association (GCCA) is the voice for the sector on the global stage, representing 32 member companies and 9 affiliate organisations, including CEMBUREAU. The GCCA aims to promote the benefits of cement & concrete for sustainable construction, highlighting the sector's innovation efforts and carbon neutrality ambitions. Headquartered in London, the GCCA complements and supports the work done by associations at national and regional level.

NEPSI

The European Network for Silica (NEPSI) is the first European multi-sectoral social dialogue agreement of its kind, which gathers the undersigned signatories of the Social Dialogue "Agreement on Workers' Health Protection Through the Good Handling and Use of Crystalline Silica and Products Containing it". Since 2006, the Agreement aims to protect the health of employees occupationally exposed to respirable crystalline silica generated by a work process in eighteen industry sectors, minimising such exposure by applying good practices (see new guide and tools) and reporting every two years. NEPSI is recognised in Recital 19 of Directive (EU) 2017/2398 as a valuable instrument to complement regulatory measures.

REACH Alliance

The REACH Alliance is an "association de fait" representing the Inorganic Industry and regrouping several sectors. The purpose of the Alliance is to represent the interests of the industrial sectors vis-à-vis the European Institutions and related Agencies (i.e. ECHA) and committees or groups (i.e. CARACAL, and subgroups) in the context of the regulations REACH and the CLP, its implementation and review, and upcoming implementation of the 'Chemicals Strategy for Sustainability' . In addition, CEMBUREAU is a member observer of the CII - Cross-Industry Initiative for better regulation in chemicals management.

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The European Cement Association

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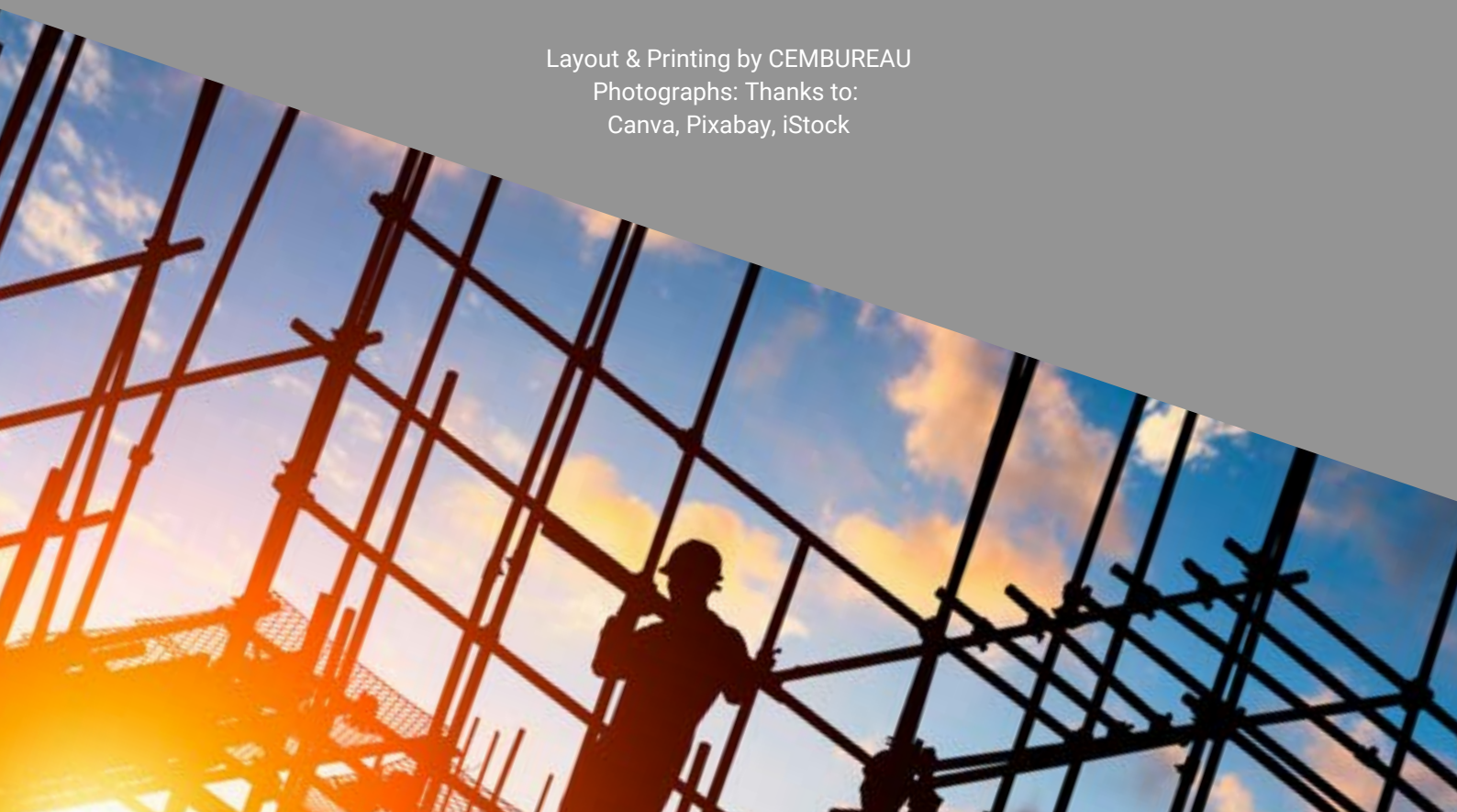

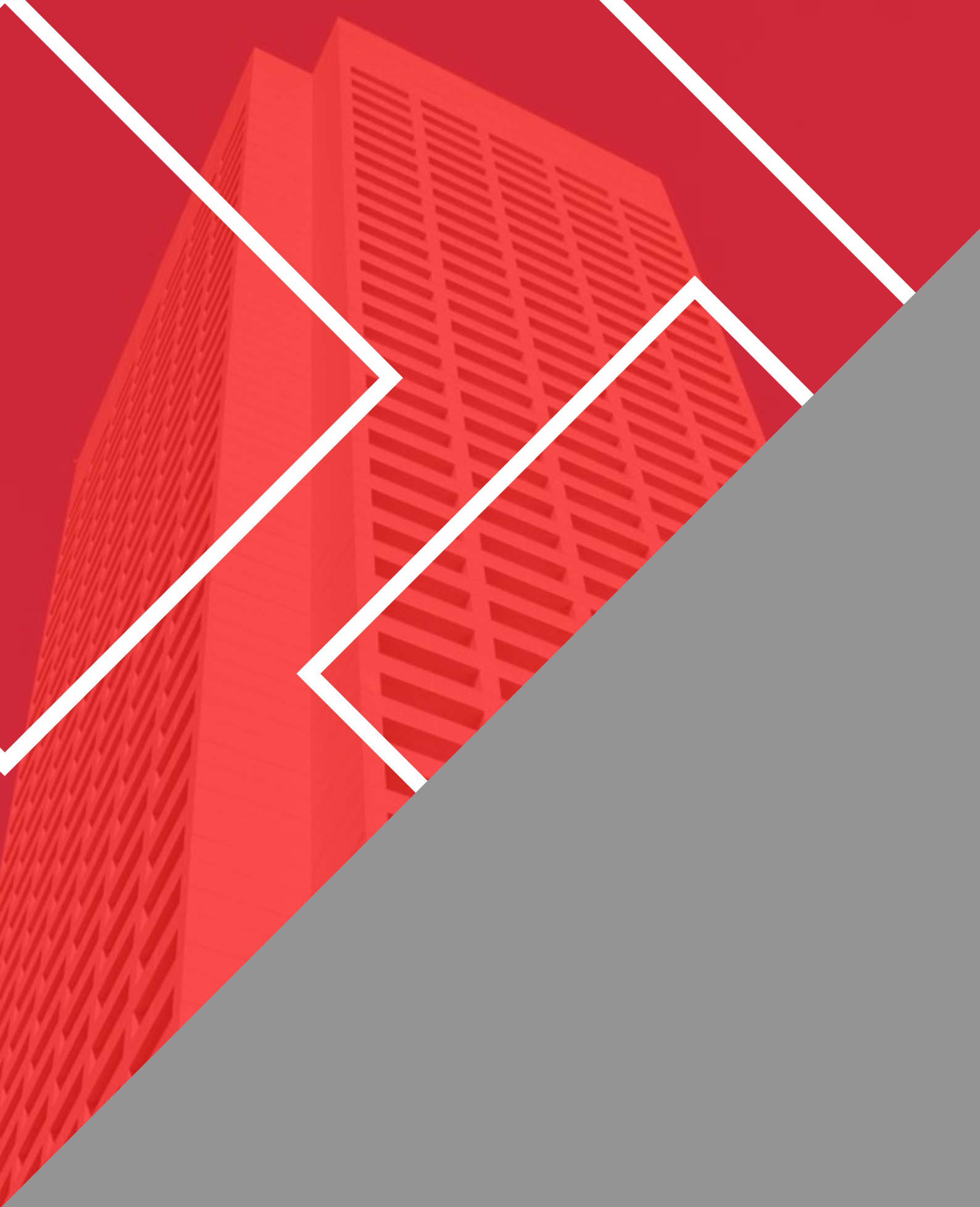

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