Activity Report

2017

CEMBUREAU
The European Cement Association

CEMBUREAU

The European Cement Association based in Brussels is the representative organisation of the cement industry in Europe. Currently, its Full Members are the national cement industry associations and cement companies of the European Union (except for Malta and Slovakia) plus Norway, Switzerland and Turkey. Croatia and Serbia are Associate Members of CEMBUREAU. A cooperation agreement has been concluded with Vassiliko Cement in Cyprus.

The Association acts as 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 Cement Sustainability Initiative (CSI) and sister associations in other parts of the world.

Serviced by a multi-national staff in Brussels and with the input from its 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 contributes to all developments at European level affecting the cement industry.

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

CEMBUREAU
The European Cement Association

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A YEAR IN REVIEW

FOREWORD BY THE CHIEF EXECUTIVE

Koen COPPENHOLLE

2017 marked a turning point for the communication and public affairs activities of CEMBUREAU. Early on in the year, we proudly unveiled our new look, through a new logo and contemporary website and backed it with a strong policy effort in the months that followed. From successfully positioning The Concrete Initiative in the debate on sustainable construction, over studies highlighting the potential of co-processing waste to avoid up to 26 Mt of CO_2-emissions, to reinforcing our arguments in the EU-ETS debate, we made an effort to find the right mediums to best relay our policy activities.

In the beginning of 2017, we worked together with our national associations and companies to defend our industry against a last-minute amendment on the EU-ETS Directive that singled out the cement sector for a cross-border measure, with a consequential loss of free allowances. We successfully argued that, while our sector is open to assess different regulatory options to tackle the climate change challenge, the legislator needs to respect the fundamental principles of non-discrimination and legal certainty.

In promoting our industry, we will continue to focus on our ability to convey an engaging, positive and pro-active image. I have been very pleased with the drive and support of the CEMBUREAU Board and our Membership to enhance the understanding and image of the cement sector, not only with policymakers but also with our customer base and with the media at European and national level. The reassuring outcome from surveys conducted is that everyone recognised the essential contribution of our sector to growth and jobs. It is now crucial to bring a balanced representation of CEMBUREAU's engagement in telling the story of our industry and conveying its innovative and emotional narrative that wins people's hearts. It is our task to position cement as an innovative and essential material that brings value to Europe and is widely championed by policymakers. Our goal is not only to counter the negative perception of our industry, but also to show that the cement industry has a rightful place on the EU agenda, by offering solutions to societal challenges that policymakers are addressing - such as climate change (mitigation), energy-efficiency and the circular economy.

I express my sincere thanks to the Sounding Board, composed of people representing the different levels of the CEMBUREAU membership, for devoting their time and energy in putting together, with external help, our 'Messaging Playbook'- a set of core messages we want to convey to our target audiences. The exercise allowed us to develop three core messaging areas (i) outlining the benefits of cement and concrete for the consumer; (ii) showcasing our unique contribution to tackling societal challenges and (iii) bringing innovation at the core of our efforts from the manufacturing side. The content created is the foundation for a stronger communication and public affairs outreach that will plug into the EU policy calendar for 2018.

In advocating our industry, we cannot ignore the major trends that influence our daily work and drive closer cooperation amongst our working groups:

- The future will no longer focus as much on individual sectors; cooperation between sectors in an industrial symbiosis model is already a strong trend today and will further evolve in the future, helped by digitalisation efforts that are introduced in all our industries.
- All energy intensive businesses are at the start of a valued supply chain; when we talk cooperation, we therefore also need to reach out to our suppliers and end-users to create innovation and growth throughout the value chain.
- Our industries are not only the ones that will stand the test of time but those that will enable the low carbon economy and society with windmills, high-speed trains, road infrastructure, energy-efficient cities and affordable houses and healthy communities. All these will need to be supplied by a healthy and vibrant cement industry.

These cross-sectoral developments, full supply chain and digitalisation goals require a flexible legal framework that allows for efficient progress. It also demands a holistic approach by regulators that allows for creative thinking and a boundaryless business environment that creates opportunities for society as a whole.

We are excited to set our new campaign in motion and will continue to work on each of the areas set out above to ensure that we remain a strong, trustworthy source of information for all stakeholders and policymakers.

Together with the entire CEMBUREAU team, we look forward to another year of excellent cooperation with the Board, the national associations, the Senior Advisory Group, our Working Groups and Task Forces.

FOREWORD BY THE PRESIDENT

Gonçalo SALAZAR LEITE

2017 marked a year of moving into a more pro-active and positive communication for CEMBUREAU. Our path to a low carbon industry remains of utmost importance, but with the closing of the main phase of the EU Emissions Trading System (EU-ETS), the focus went also towards the cement industry's role in the circular economy. This allowed to position the industry as an essential part of the waste management cycle, where waste is recovered as energy and recycled as material in the cement manufacturing process. In addition, we started promoting concrete in the sustainable construction agenda as a durable, energy storing and recyclable material that balances the industry's carbon footprint over the lifecycle. We nevertheless expect the debate on carbon emissions to continue and will prepare the cement industry's contributions, not least by further developing our Low Carbon Roadmap.

As part of this positive and engaging approach, we revisited CEMBUREAU's priorities: as an association, there is always the challenge to find the right balance between reacting to what comes out of the EU institutions and what is the long-term perspective for our sector. We need to make sure that our internal priorities are aligned with what the society expects from us. In order to respond to this concern and ensure that the Working Group activities are aligned with what the Board has identified as core priorities, we have engaged in a broad consultation process on the CEMBUREAU priorities in fall, resulting in the adoption, by the Board, of a set of five priorities with objectives set for each of them.

Building on the strong dynamic of the previous years, and with the support and involvement of the Board, we launched an effort to improve our image and perception about our sector. A project to communicate the contributions of the cement and concrete industry to our main audiences will be followed by the strengthening and focus of our public affairs activities, with the active cooperation of our members, the national associations.

For the future, we will launch a series of Building Block Workshops to explore areas that are critical to the future of our industry but that are transversal to the CEMBUREAU Working Group structure, like energy, innovation, digitalisation, trends and changes downstream in the construction industry and other related issues. For these topics, dedicated workshops where company experts and policymakers will brainstorm on how to better assess the implications for our industry will improve our positioning, communication and advocacy. As examples, we need to engage on the EU's Clean Energy package and what it means for our industry; we need to participate, in close cooperation with ECRA, on how to better dynamize and communicate the multiple research and innovation projects ongoing in our sector; we have to be on top of the recent trends and developments in our downstream construction market and we certainly have to make sure that we are in control in the digitalisation race.

From these building blocks and especially the expertise in the Working Groups we can contribute to building a long-term vision on the future of our industry in Europe and position our industry as a thought leader on sustainability with EU policymakers.

Ensuring the sustainability of our industry in Europe requires deepening our working relationships with other relevant actors from the full value chain, from other sectors, NGOs and other geographies, and that is also the focus of our ongoing work.

This also implies fostering more international cooperation: the cement industry is increasingly facing the same structural challenges in all geographies and the international span of numerous companies in the industry is increasing; these two findings have prompted us to assess potential areas for stronger cooperation between regional cement associations. Through identifying projects and assigning responsibilities amongst ourselves, we are confident we can improve the way in which we support our members and give a solid foundation for facing our common challenges.

Last but not least, CEMBUREAU's continuous improvement remains a priority. We need to think of challenges not only for our industry but also for the association in terms of expertise, dynamics and communication, both externally as towards Members.

I do wish to express my sincere appreciation and thanks for the excellent work done by Daniel Gauthier during his tenure as a President. CEMBUREAU is proud to have suggested Daniel as President of SPIRE, the public private partnership that promotes cross-sectoral innovation in energy intensive sectors under the Horizon 2020 programme. We are delighted to see Daniel still on our side when assessing the innovation opportunities and projects for our sector.

In addition to the regular activities in the Working Groups, the items outlined above fill up the agenda. I am looking forward with confidence to help taking these steps to ensure that CEMBUREAU stays attuned to the challenges of today and tomorrow and positions itself as the indispensable partner and expert in matters that affect our industry.

THE ECONOMY

THE GLOBAL PICTURE

The global economic activity is on a relaunch path in all regions. According to IMF data, the global growth is estimated at 3.7% in 2017, up 0.5% from 2016. In its Winter 2018 economic forecast, the European Commission estimates growth by 2.4% in both the Euro area and EU in 2017. The upward trend is set to continue in 2018 and 2019 with a 2.3% and 2% growth respectively for both the Euro and EU area. There are some downside risks to this growth scenario and they relate to the uncertain outcome of Brexit negotiations, geopolitical tensions and a shift towards more inward looking and protectionist policies. Overall, the EU has benefitted from the rise in the global economy and the quantitative easing performed by the European Central bank (ECB) has secured cheap liquidity for investments.

The inflation in the EU28 area is seen as low. However, higher energy prices are the largest component in the 1.5% forecasted inflation for 2018 - still below the 2.0% target from ECB. The Euro has been strengthening against the USD and currencies linked to the USD, but exports remained robust. It remains to be seen how the ECB will react, with a 20% appreciation of the Euro vs the USD during 2017.

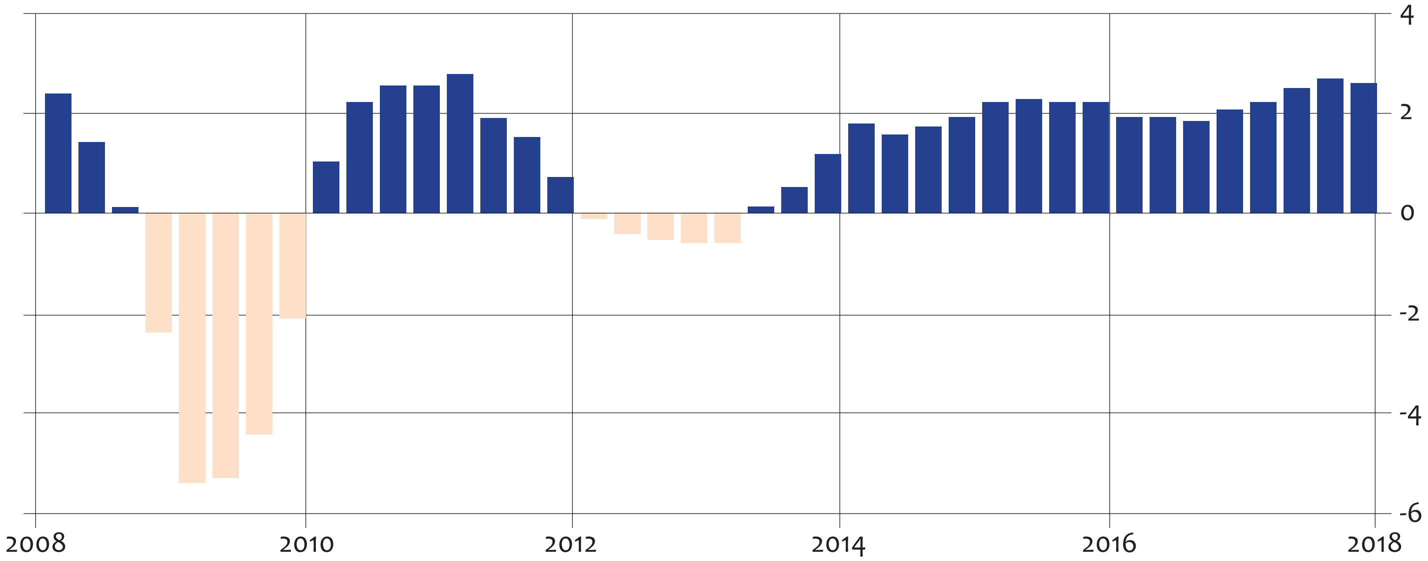
The US has recorded a 2.5% growth in 2017 compared to 2.1% in 2016. A similar growth ratio of 2.5% is estimated for 2018.

Overview - the winter 2018 (interim) forecast

	Real GDP						Inflation					
	Winter 2018 forecast			Autumn 2017 forecast			Winter 2018 forecast			Autumn 2017 forecast		
	2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019
Euro area	2.4	2.3	2.0	2.2	2.1	1.9	1.5	1.5	1.6	1.5	1.4	1.6
EU27	2.6	2.5	2.1	2.4	2.2	2.0	1.6	1.7	1.7	1.6	1.5	1.8
EU28	2.4	2.3	2.0	2.3	2.1	1.9	1.7	1.9	1.8	1.7	1.7	1.8

Source: Eurostat

European Union GDP annual growth rate



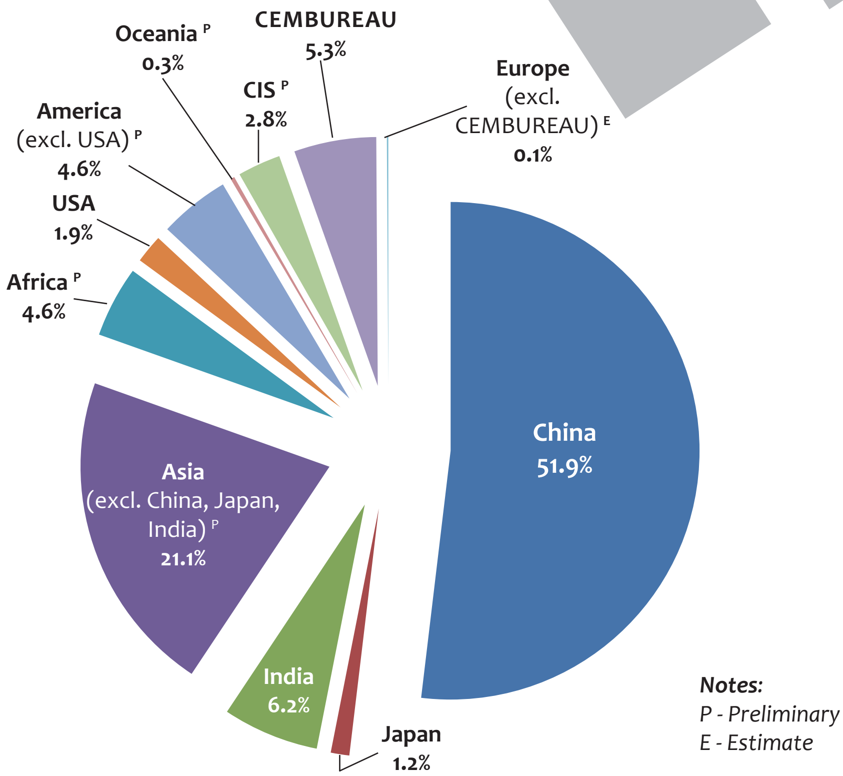
Source: Tradingeconomics.com / Eurostat

GLOBAL CEMENT PRODUCTION

Global cement production is estimated at 4.65 billion tonnes. China still produces 52% of the world's cement, with CEMBUREAU members representing 5.3% of the world's production - unchanged compared to 2016.

World cement production 2016, by region and main countries, %

4.65 billion tonnes



Source: CEMBUREAU

Main world producers - The G20 Group

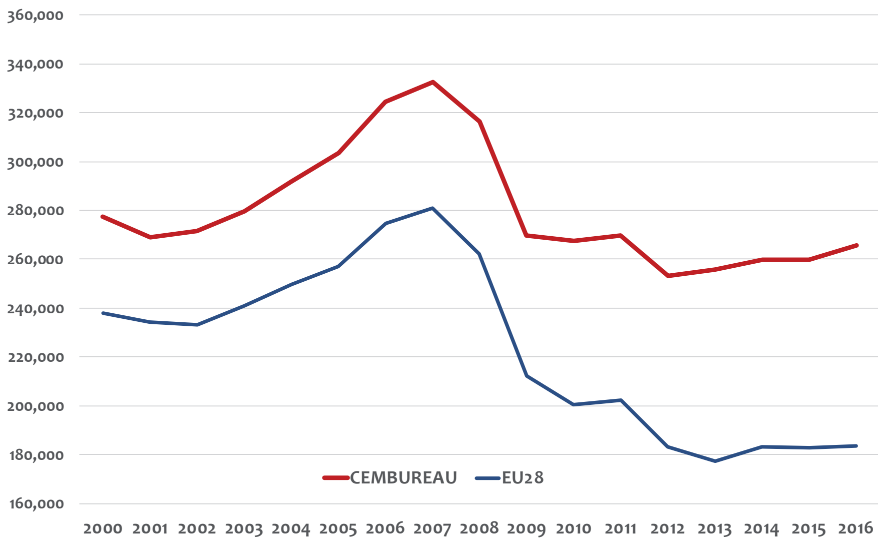
Cement production (Million tonnes)										
Country	**2001**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
China	661.0	1 388.4	1 644.0	1 881.9	2 063.2	2 137.0	2 420.0	2 480.0	2 350.0	**2 410.0**
India	102.9	185.0	205.0	220.0	240.0	270.0	280.0	260.0	270.0	**290.0**
EU28 *	225.6	250.8	209.0	192.1	191.6	172.6	166.6	166.8	167.2	**169.1**
USA	88.9	86.3	63.9	65.2	68.6	74.9	77.4	83.2	83.4	**85.9**
Turkey	30.0	51.4	54.0	62.7	63.4	63.9	72.7	71.2	71.4	**75.4**
Indonesia	31.1	38.5	36.9	39.5	45.2	32.0	56.0	65.0	65.0	**63.0**
Saudi Arabia	20.0	37.4	37.8	42.5	48.0	50.0	57.0	55.0	55.0	**61.0**
Brazil	39.4	51.6	51.7	59.1	63.0	68.8	70.0	72.0	72.0	**60.0**
Russian Federation	28.7	53.5	44.3	50.4	56.1	53.0	72.0	68.4	69.0	**56.0**
Japan	79.5	67.6	59.6	56.6	56.4	51.3	57.4	53.8	55.0	**56.0**
South Korea	52.0	51.7	50.1	47.4	48.2	48.0	47.3	63.2	63.0	**55.0**
Mexico	33.2	37.1	35.1	34.5	35.4	35.4	34.6	35.0	39.8	**40.8**
Germany	32.1	33.6	30.4	29.9	33.5	32.4	31.5	32.1	31.1	**32.7**
Italy	39.8	43.0	36.3	34.4	33.1	26.2	23.1	21.4	20.8	**19.3**
France	19.1	21.2	18.1	18.0	19.4	18.0	17.5	16.4	15.6	**15.9**
South Africa	8.4	13.4	11.8	10.9	11.2	13.8	14.9	13.8	14.0	**13.6**
Canada	12.1	13.7	11.0	12.4	12.0	12.5	12.1	12.8	12.5	**11.9**
Argentina	5.5	9.7	9.4	10.4	11.6	10.7	11.9	11.8	12.2	**10.9**
United Kingdom	11.9	10.5	7.8	7.9	8.5	7.9	8.5	9.3	9.6	**9.4**
Australia	6.8	9.4	9.2	8.3	8.6	8.8	8.6	9.3	9.3	**9.4**

** EU28 2015 data is compiled using latest available data, 1 country 2015, 2 countries data from 2014 and one country from 2012*

Sources: CEMBUREAU, US geological Institute / Global Cement Report

Looking more in-detail at the CEMBUREAU and EU28 members cement production and consumption data from 2016, we observe the following trends:

Cement production: EU28 & CEMBUREAU 2000-2016
Cement production + clinker exports Ktonnes



Source: CEMBUREAU

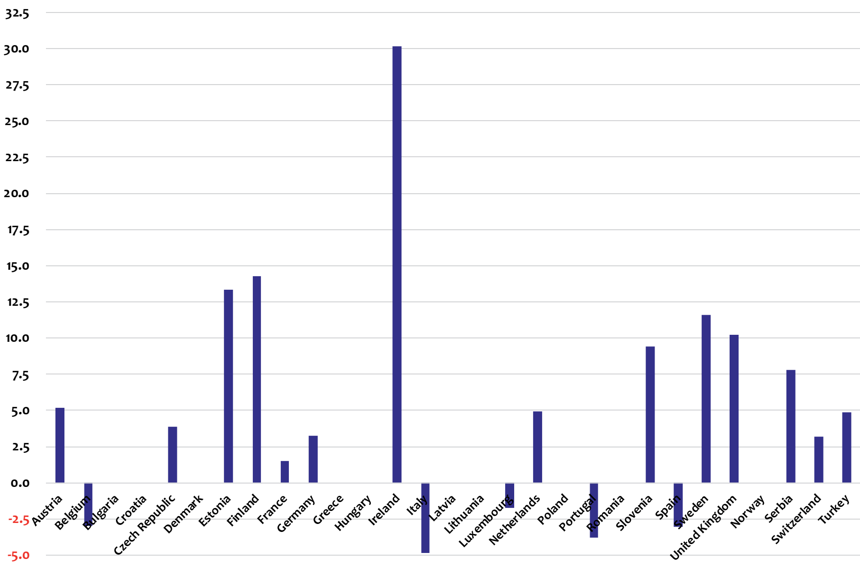
The CEMBUREAU production increased by 6Mt to 265.6Mt close to the 2010 production levels, whereas the EU28 production only rose by a mere 0.7Mt.

The consumption is equally showing progress for CEMBUREAU members, with an increase of 5.6Mt to 227.1Mt. The EU28 countries saw an increase of 2.3Mt to 154.2Mt and trends are on the rise for both. The individual CEMBUREAU members experienced wide differences in consumption from 2015 to 2016, seen on the bar chart below. Ireland is leading with a 30% increase and Italy is at the bottom with a fall of 5%.

The EU28 trade with cement and clinker during 2016 sees a slight fall in both the import and the export, the export fell by 1.7Mt to 44.9Mt, and the import with 0.6Mt to 19.9Mt. This resulted in a fall in the net export for the EU28 countries for the first time since 2007, but a solid net export of 25Mt is still seen, down from 26.3Mt last year.

Looking ahead for the consumption of cement, the Euroconstruct forecasts are optimistic and see an increase of 4.6% in 2017 and further 3.6% in 2018.

Evolution of cement consumption in CEMBUREAU countries
Var 16/15 (%)



Source: CEMBUREAU

Cement consumption Actual & Forecasts 2017-2020

Year on year growth rate in %

	2015A	2016A	2017E	2018F	2019F	2020 Outlook
EuroConstruct 19	-0.2	1.8	4.6	3.6	3.2	1.9
Germany	-2.0	3.2				
France	-5.5	3.4	4.1	3.2	2.4	1.8
Italy	-1.9	-3.1	0.8	3.2	3.0	3.2
Spain	6.1	-3.4	7.0	4.5	3.5	2.5
United Kingdom	2.5	6.4	3.0	1.7	1.9	0.8

Source: Euroconstruct

The matrix shows the forecasts up to 2020 for France, Italy, Spain and UK (Germany did not produce forecasts).

CONSTRUCTION MARKETS

The optimism at the last Euroconstruct conference mirrored the signs from IMF and the European Commission. The construction volume in the Euroconstruct area is expected to grow 3.7% in 2017.

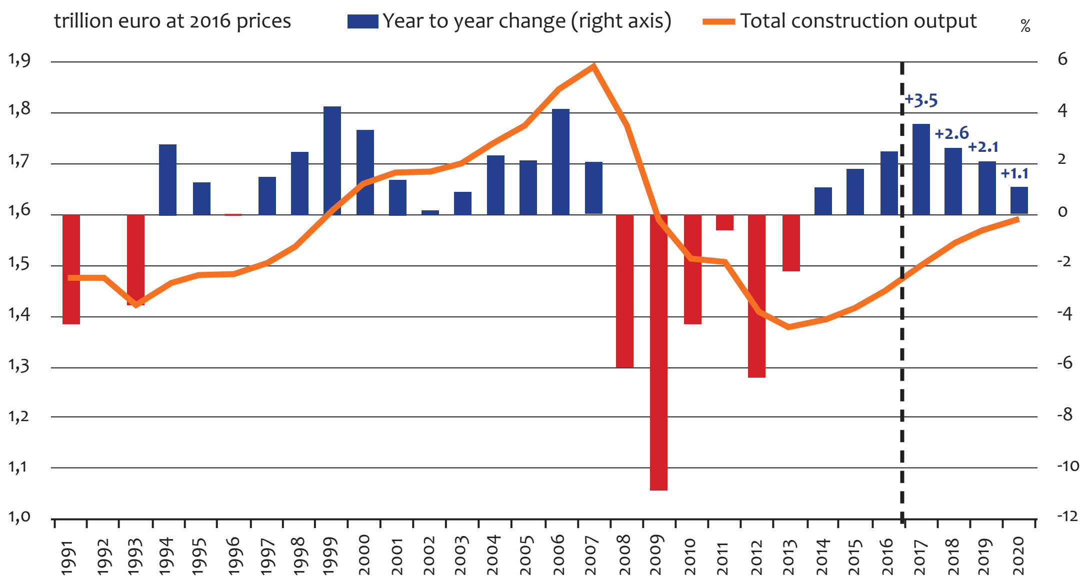
Construction growth has reached its highest levels since 2006 in Europe, just before the outbreak of the crisis. The construction output has been growing since 2014 and is set to continue up to 2020 according to the forecasts (see chart) with 2.6% in 2018 a bit down from the 3.7% in 2017.

For the first time since 1992 all 19 Euroconstruct countries experienced growth, again reflecting the broad-based upswing in Europe and according to the forecasts this is supposed to be repeated in 2018.

The Euroconstruct area reached EUR 1.45 trillion value in 2016, divided into 37% for new buildings and 42% for renovations, and 21% from civil engineering (see chart). These proportions are starting to change, however, as civil engineering is becoming a major driver, with new residential buildings falling behind.

Construction output back on growth path since 2014

2017 third-strongest increase since 1991



Sources: Euroconstruct (November 2017); ifo Institute

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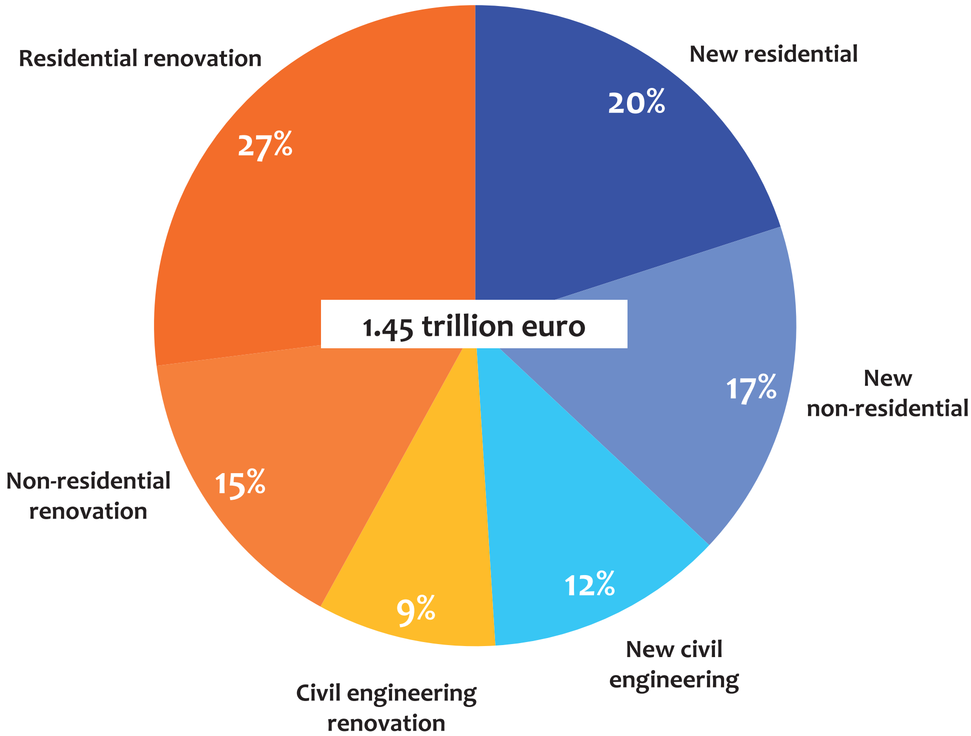
Construction market by segments in 2016

37% account for new buildings, 42% for building renovation



Source: Euroconstruct (November 2017)

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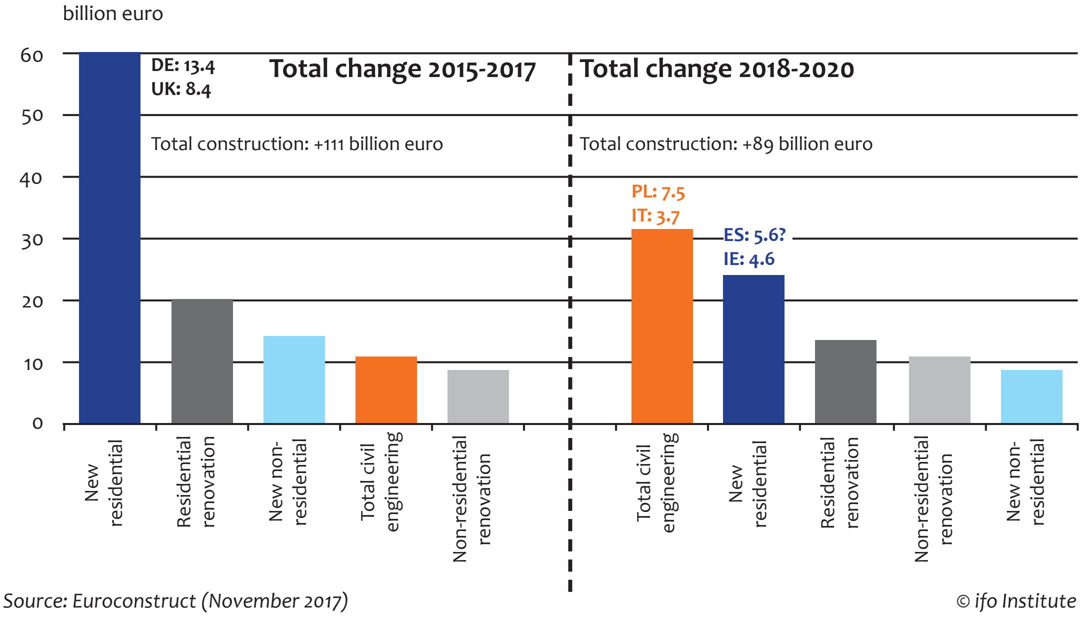
Growth contributions by segments

New housing losing momentum, CE becoming main driver



Source: Euroconstruct (November 2017)

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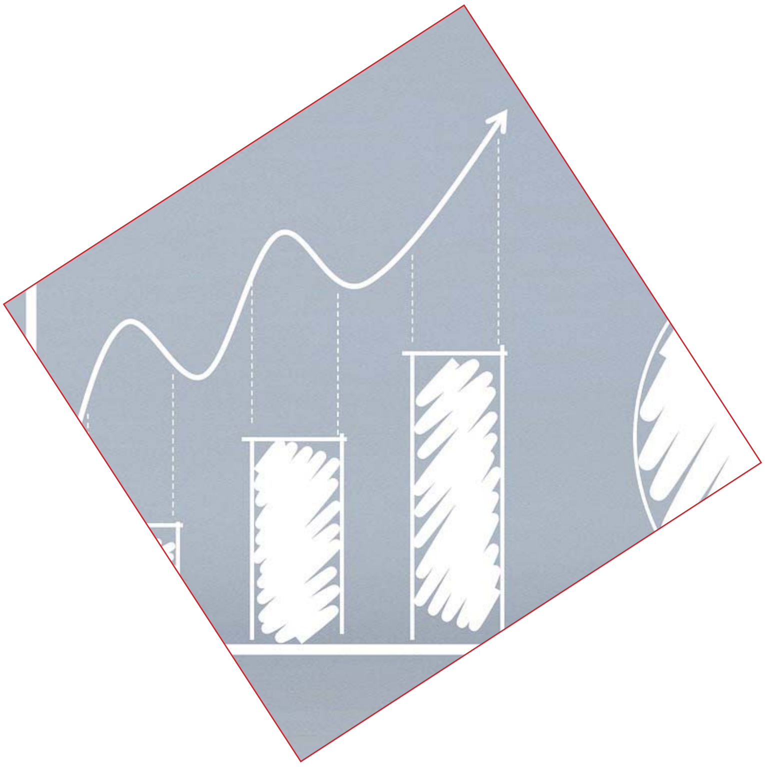


A COUNTRY BY COUNTRY ANALYSIS

AUSTRIA

In 2017, the consumption level has remained stable, with a very slight increase. Housing construction projects seem to continue on a high level in the capital. For other sectors, big projects depend on public financing and individual projects. For 2018, no major changes are expected in terms of cement production and consumption volumes in Austria.

Considering the housing construction sector in Vienna will continue to grow, the cement sector is expected to remain stable.

BELGIUM

Contrary to the growth forecasts for cement consumption in 2016, the year ended with a decrease of 3% compared to 2015, bringing the total deliveries to the Belgian market to 6,211,000t. This drop in consumption was due to a decrease in imports. Overall, the construction sector experienced a growth of 2% in 2017 compared to 2016.

The residential subsector (renovation and new construction combined) increased by 2% to 3% in 2017. The non-residential construction sector experienced an increase of 1%. Civil engineering, due to upcoming municipal elections in 2018, experienced a growth of 7% in 2017. The year 2018 is showing promise, particularly due to civil engineering works, which forecast a growth of 10%.

The new residential and non-residential construction subsectors are expected to grow by only 2% or 3%. These positive perspectives give hope for an increase in cement consumption of around 2% in 2018 compared to 2017. This, keeping in mind that renovation works do not require large quantities of cement for their projects.

BULGARIA

According to the National Statistics Institute, in 2016, the market in Bulgaria represented 1,994kt of cement (with 1,672kt provided by domestic producers and 322kt coming from imports).

The 2017 consumption estimates show a total quantity of about 2,100kt in the internal market (1,785kt supplied by domestic producers and about 315kt by imports) - or a growth of about 5.3%.

The construction activity increased in 2017 by 8%. In addition, the cement export grew with about 13% - from 265kt in 2016 to about 300kt in 2017. Clinker exports increased about 18% – from 533kt in 2016 to 630kt in 2017. The expected growth in the building segment was around 12%. Residential construction, offices, logistic and industrial facilities were concentrated geographically in the bigger cities such as Sofia, Plovdiv, Varna and Burgas. Increased inflow of foreign direct investments was directed towards industrial projects in these regions, but also expanded in smaller cities neighbouring bigger consumption centres. Recovering demand for high quality office space and increase of rents was recorded in Sofia and Plovdiv, leading to growth in office developments.

Infrastructure however, remained stable in 2017. Potential growth in cement consumption is expected in 2018, due to foreseen residential construction, offices, logistic and industrial facilities in the bigger cities (Sofia, Plovdiv, Varna, Burgas).

ESTONIA

Between 2016 and 2017, Estonian cement consumption recorded a decrease of 13%. Still, construction subsectors showed positive growth in 2017. Residential construction grew by 9%, non-residential construction by 7%, civil engineering by 21% and building construction by 8%. Total construction output change in constant prices for 2017/2018 was 12%.

The construction sector is expected to grow at a more moderate pace this year. Rapid growth will be hindered by the lack of workforce and growing level of prices. Developments of construction market in neighbouring countries will also have a significant impact on the Estonian construction sector. Above all, construction activity in Finnish and Swedish markets will have a significant impact on demand for construction products and so will the willingness of banks to finance new development projects. Continuously strong demand for new dwellings, primarily in bigger cities are expected to have a positive impact.

FINLAND

Cement consumption continued to grow in 2017. Overall, consumption grew by 13% compared to 2016. Repair building/renovation increased by 6% and residential building grew by some 16%, while non-residential by 6%. Infrastructure and civil engineering increased by 9%. Cement consumption for 2018 is expected to remain stable, similar to 2017.

FRANCE

Following 2016, the first increase after a nearly 10 years crisis, the 2017 consumption rose by 3.9% in 2017- compared to 2016. The 2017 cement production is estimated to be 16.9Mt. 2017 shows an increase for the second year in a row.

The economic activity in the construction sector (housing, non-residential and public works) has recorded a new increase in 2017 of 2.6% compared to 2016. Housing has showed a remarkable evolution with 15.7%, after a first rebound in 2016. During 2017, the non-residential sector rose by 5.8%. The trend for public works has also been improving a little, seeing an increase of 1.1%.

CYPRUS

During the period January – December 2017, 5,728 building permits were issued compared to 5,354 in the corresponding period of the 2016. The total value of these permits increased by 48.6% and the total area by 47.3%. The number of dwelling units recorded an increase of 35.4%.

CZECH REPUBLIC

In 2017, the construction output increased by 2.1% year-on-year (y-o-y), in real terms.

The production in building construction increased by 5.0% (contribution = +3.4), year over year, and the production of civil engineering construction declined by 5.7% (contribution = -1.7). The total value of the orders grew by 9.3% and was estimated at CZK 202.6 billion (EUR 8 billion). In 2017, the number of building permits granted increased by 1.0% with the planning and building control authorities granting 84,164 building permits. The approximate value of constructions permitted in 2017 accounted for CZK 352.9 billion (EUR 13.92 billion) and jumped up by 24.1% compared to 2016. The number of dwellings started in 2017 increased by 15.8% and accounted for 31,521 dwellings. The number of dwellings started in family houses increased by 17.7%, and those in multi-dwelling buildings jumped up by 23.4%.

The number of completed dwellings in family houses increased by 4.2% and the number of completed dwellings in multi-dwelling buildings grew by 3.0%. For 2018, there is no foreseen increase in cement consumption.

French cement consumption is expected to grow in 2018 at a rate of 3%. The French cement consumption is forecasted to rise to 18.5Mt. Public works should grow in 2018 at a rate of 3%, due to big infrastructure projects such as the Grand Paris project. The 2018 increase of building construction should be less, compared to 2017.

GERMANY

Forecasts suggest the German cement consumption increased by 4% in 2017, compared to 2016. The major contributor to this positive development is the residential building sector. According to recent estimations, 9% more apartments were built in 2017 than in the previous year (i.e. 301,000 units). Further growth resulted from the commercial building sector (completions are estimated to be 5.5% in 2017 compared to 2016), and from civil engineering, which is benefitting from the increased infrastructure funding from the German Federal Government. Cement consumption is expected to continue growing in 2018 at a rate of 1.8%, thus with lower dynamics than 2017. This is based on the high capacity utilisation rates of planners, architects and main construction companies. Residential construction is likely to further stimulate growth in cement demand. According to recent estimations, 319,000 housing units could be completed during 2018, but to meet the ongoing high demand, especially in agglomerations, around 400,000 apartments will be needed per year. Further positive effects are likely to come from the public civil engineering sector. The Federal Government has significantly augmented its annual financial contributions in order to preserve and extend the national transport infrastructure, but more planning capacities and more efficient approval procedures are necessary to convert this money into specific projects ready for building. The construction of non-residential buildings might also have a minor effect on growth in cement demand - particularly motivated by a higher demand for office buildings and educational facilities.

GREECE

2017 domestic consumption was slightly higher than in 2016. The building sector was up by 9% approximately, based on provisional data of the Greek Statistics Authority. 2018 is expected to remain at the same level as 2017.

HUNGARY

Data suggests the cement consumption increase in Hungary varied between 9% and 15%. Construction output grew by 29.6% year-on-year. Buildings construction increased by 27%, while other constructions increased by 34.8% in 2017. 14,400 homes were built with approximately 20,000 more expected in 2018. The leading factors for growth were EU funding, governmental investments and low bank interests (as the economic factor). A shortage of expert manpower was identified as a hindering factor for growth.

IRELAND

The Irish Government has announced its 10-year National Development Plan which foresees a €116 billion in capital spending on infrastructure, the main spending areas being energy investment, social housing provision, schools and health. Some feel the strong commercial development in Dublin construction in recent years has reached its peak. A skills shortage in construction (45,000 – 60,000 extra workers needed to meet housing action plan targets) may be a limiting factor for growth in an economy with near full employment. However, opportunities for an off-site construction (precast) are being explored by the Government.

Brexit remains a major external factor affecting the entire economy.

ITALY

The Italian cement market recorded, in 2017, the first little increase 0.3%, after 11 years of constant and strong decrease. The cement consumption, after having lost about 60% of the volumes stood at 18.7Mt in 2017.

The central element for the market is the availability of public resources for infrastructure. The new public tender code, which came into force a year and a half ago, still raises several problems about its understanding and the possibility of spending the resources allocated in the state budget.

The first positive signs in building permits and the effects of incentive for investments came from the policy 'Industry 4.0'. These elements determine a limited growth forecast for 2018 of around 1%. In a climate of strong political uncertainty, forecasts show a start of a constant, even if slow, process of recovery.

LATVIA

The Latvian cement consumption was recorded at 17%. Growth is forecasted for 2019 and 2020 due to a large pipeline project in the public sector.

LITHUANIA

Demand for cement in the domestic market increased by 11% in 2017, compared to 2016. This lead to growth in the industrial construction sector, where the largest part of the construction work consisted of new construction (47.6%), repair (29%) and reconstruction works (23.4%). In 2017 construction works grew 9.5% more than in 2016. Construction works related to civil engineering increased by 16.3%.

Non-residential buildings construction works in 2017 amounted to 39% and, during the year, the number of these works increased by 11.8%. However, in 2017 residential construction works decreased by 8.3%. Growth in cement sales in the domestic market is expected next year, due to large-scale infrastructure projects and engineering structures, which will possibly reach an increase of 5-6%.

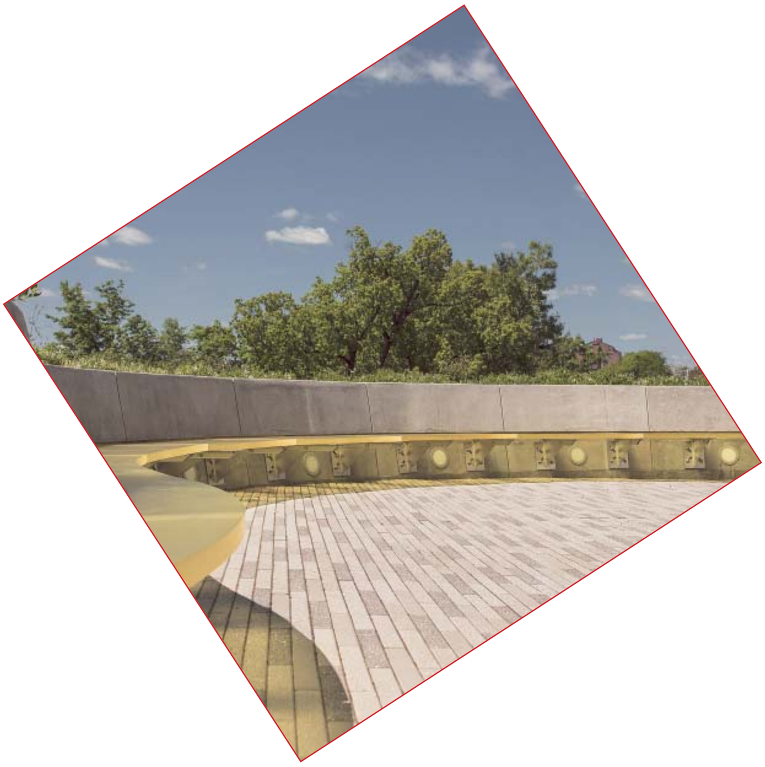
LUXEMBOURG

2017 was marked by a stronger, stable domestic market, mainly driven by an outstanding activity in office buildings.

Exports also went up due to better market conditions in France, Germany and Belgium. Despite a difficult start in the year, due to weather conditions, 2018 is expected to become a strong year with very good expectations for both the French and Luxemburg markets.

NETHERLANDS

Cement consumption in the Netherlands rose in 2017 by about 8% compared to 2016. For the overall year, the total construction sector output (CSO) increased by 5%. The rise is due to the high increase in residential sector (10%) and new residential (11.5%). The total growth in the CSO non-residential sector was 3.5% and 6% for new non-residential (especially in subsectors such as commercial buildings for transport and logistics). In 2018, the construction sector output is expected to grow by 4.5%. In addition, the new non-residential sector is forecasted to grow the fastest (7.5%) together with and the new civil engineering sector (7%) (source: EIB January 2018).



NORWAY

Norway recorded an all-time high in cement consumption in 2017, with an increase of 4.6% from 2016. Growth was recorded due to ongoing infrastructure projects and non-residential construction sectors. Residential construction however, saw a small decrease.

In 2018, activity within infrastructure will continue, while activity in the non-residential construction and residential sectors will go slightly down.

POLAND

According to The Polish Association's forecast, 2017 saw an increase of approximately 9% in cement consumption, with 17Mt of cement being consumed. The GDP growth was 4.6%.

In 2018, the GDP is expected to have an increase of 4%, made possible by further domestic demand and new investments. The Polish Cement Association foresees a further increase in cement consumption by about 6% reaching a level of 18Mt in 2018 - related to construction and modernisation of roads and rail infrastructure, as well as new investments in housing.

PORTUGAL

Cement consumption in 2017 estimated an increase of 13.4%. Portugal's real GDP rose by 2.7% in 2017, following an increase of 1.5% in 2016. The domestic demand, mostly due to the investment performance, was responsible for the increase. The contribution of net external demand remained unchanged. However, both exports and imports performed strongly in 2017, reflecting the upbeat economic boost across Europe. In construction, the Gross Value Added only started to recover at the end of 2016, after its continuous decrease since 2002. The evolution of the construction sector estimate for 2017 was revised upward to 5.9%. Maintenance and rehabilitation activities have been crucial in driving performance in the sector. Both new construction and civil engineering are expected to grow in the next years. The construction subsectors performed as follows: civil engineering, residential buildings and non-residential buildings increased 6.0%, 8.0% and 3.7%, respectively. Economic activity will maintain a growth profile over the next years benefiting from a favourable external environment (2.3% and 1.9% in 2018 and 2019, respectively).

Gross Fixed Capital Formation is expected to be the most dynamic component and exports will also maintain a robust growth. Private consumption evolution will continue to be relatively stable and lower than GDP growth in the near future. A higher state budget allocation of EUR 4,525 million (5.9%) will benefit public investment. EUR 1,128 million will be invested to EU funded projects. The construction sector is expected to maintain a positive trajectory in 2018, but at a slower pace. The construction activity is expected to increase around 4.5% in 2018. Both the civil engineering sector (4.0%) and different buildings segments have positive prospects. Residential and non-residential buildings are expected to increase by 7.0% and 2.8% in 2018, respectively. Cement consumption is expected to increase approximately 10.1% in 2018.

ROMANIA

According to the provisional data from the National Institute of Statistics, the cement consumption in 2017 increased by 6.7% in comparison to 2016, mainly due to residential constructions. In 2017, the volume of construction works, as gross series, decreased by 5.4%, compared to 2016. In terms of structural elements, decreases were registered as follows: maintenance and current repair work (24.6%) and capital repairs (17.7%).

The new construction works increased by 4.9%. By construction objects, the volume of civil engineering works decreased by 21.3%, and for non-residential buildings, by 12.6%. The residential buildings sector increased by 69.7%. Despite the fact that the official data from the National Commission for Prognosis estimates an increase of 6.8% for the volume of construction works, 2018 cement consumption will probably register a small increase.

SERBIA

Cement consumption increased by 4.4% in 2017 compared to 2016. Despite the small increase in the construction sector (the value of construction works has recorded a real growth of 2.8%, and the number of issued construction permits increased by more than 40% compared to 2016). Over the past two years, the share of construction industry in Serbia's GDP increased from 4.3% to 6.2%.

In 2018, the construction sector is expected to increase the number of its employees by 10% to 15% in the next two years. Moreover, a continuation of the administrative reform is announced, which in 2018 should include a new law on cadastral registration and further abolition of parafiscal fees and taxes.

SLOVENIA

The increase in cement consumption in 2017 was recorded at 5%. The increase in construction works in 2017 amounted to 16% in all areas, compared to 2016. GDP in construction works also increased with about 10%, with the main growth identified in the building construction sector and less in civil engineering construction.

In 2017, all economic indicators in Slovenia increased: the assessment in building activities, the overall business environment as well as its technical capacity. The expected growth of GDP in the construction sector for 2018 is 6.5% and for 2019, 5.0%. Therefore, an increase in cement consumption is also expected.

SPAIN

The evolution of cement consumption in Spain during 2017 has modified the growth trend which manifested itself at the end of 2016. Throughout the year, cement consumption registered an increase of 11%, reaching 12.3Mt.

This growth has remained more or less stable throughout the year and, as a result, cement consumption in 2017 has marked a change from the last years, that stagnated at approximately 11Mt. This is a remarkably low figure when compared with the volumes that Spain traditionally recorded: between 1970 and 2014 the average annual consumption was around 25Mt. In recent years, the low level of cement consumption in Spain has pushed the Spanish industry to search for a way to mitigate the strong drop in activity via foreign markets. As a result, Spain has become the leading exporter in the EU, ranking eighth in the world. However, 2017 saw the first significant decline in exports in recent years. The cement and clinker exports have registered a decrease of 10% compared to 2016. The low level of cement consumption in Spain has been caused by a drop in construction activity, both in residential and non-residential and civil engineering sectors. However, since 2016, a recovery in building construction was recorded, mainly in housing (that has passed from 35.000 in 2014 to 80.000 in 2017, with a growth in this last year of 25%.) The continuous growth in the housing sector is responsible for the rise in cement consumption, since the investment in civil works were once again reduced, compared to 2016.

In 2018, the building construction sector is expected to continue growing, with civil engineering works registering a positive increase - mainly due to investment from the Regional Administrations. As a consequence, the consumption of cement will register a new growth of around 12% and is expected to reach approximately 13.7Mt.

SWEDEN

The total cement consumption in Sweden went up mainly in the residential housing sector, due to an increase in infrastructure projects which saw a strong demand throughout 2017. The demand from the housing sector is expected to flatten out while the infrastructure demand is expected to grow.

SWITZERLAND

Cement consumption in Switzerland decreased by 1.6% in 2017 compared to the previous year. The initial reduction in consumption slowed down during the year and after a long winter. Although the total construction volume in 2017 (contractors) slightly increased in percentages, construction activity can be seen as quite stable in Switzerland. The total volume (contractors) lies around the level of CHF 20.8 billion (CHF 17.5 billion). The housing sector was slightly more active than the infrastructure sector.

For 2018 the signals are heterogenous - whilst economic forecasts in general are rather positive the housing sector is quite mature in Switzerland and an increase in interest rates could slow down growth quite rapidly. On the infrastructure-side of construction activity, the downside risks are expected to be moderate.

TURKEY

The Turkish Economy grew by 7.4% in 2017. In this period, the construction sector also grew by 10.2%. The cement industry plays an important role in the Turkish economy with its nearly $3 billion (EUR 2.44 billion) in turnover, $530 million (EUR 430 million) in export revenues, as well as direct and indirect employment for 18,300 people according to 2017 figures. The industry produced about 82.8Mt of cement in 2017. 2016 output was 76.9Mt, indicating a 7.7% increase in cement production. The Turkish cement industry recorded 74.9Mt of domestic sales in 2017, 72.2Mt of which were recorded by TCMA member plants. In 2016, TCMA member plants recorded sales of 66.8Mt, out of a total of around 68.2Mt. Domestic sales grew by 9.8% in Turkey and by 8.1% for TCMA members.

The cement sector's progress can be considered as being similar to that of the construction sector. At the end of 2017, 7.9Mt of cement and 4.9Mt of clinker were exported and growth in cement exports was recorded at 3.9%. Clinker exports increased enormously (again after the boom in 2016) by 30% compared to the previous year. The slight increase in cement exports was driven mainly by the Syrian & U.S.A. markets. The MENA region, the most important export market for the Turkish cement sector, has registered a loss in shares to the American market. In 2017, 44% of exports were directed to MENA, with a share of 52% and 64% in 2017, 2016 and 2015 respectively. The export shares in America were registered at 24%, 20% and 10% in 2017, 2016 and 2015 respectively.

Estimates of 7.5-8Mt of cement exports are forecasted for the future. With the installation of new capacities, by the end of 2017 total clinker production capacity reached 83Mt. There are some on-going projects and therefore this increase in production capacity will continue over the coming years. In terms of new markets, the cement sector is putting an emphasis on increasing use of new technologies, infrastructure as well as concrete roads and barriers. With solutions such as the use of new technologies and roller-compacted concrete pavements, concrete roads and barriers should have their place in Turkey's infrastructure as their manufacturing cost is nearly the same as the alternatives, they have a low maintenance cost and are resistant to new environmental challenges. Growth in the cement sector is expected to be around 5% in 2018 with investments in housing reconstruction within the scope of urban regeneration, infrastructure projects such as high-speed trains, metros, and highways, as well as energy investments which aim to decrease Turkey's energy dependence.

UNITED KINGDOM

Growth in mineral products sales in Great Britain ground to a halt in 2017 across all major markets, except mortar. Meanwhile, sales volumes of RMC declined by 2.6% in 2017 compared to 2016. Mortar sales enjoyed another year of strong growth, up 11.1% compared to 2016.

Whilst the trend in mortar sales provides strong evidence of continued momentum in housebuilding last year, sluggish markets for all other materials suggest construction activity may have slowed down significantly compared to 2016. According to the Office for National Statistics, construction output grew by 5.1% in 2017, an acceleration from 3.9% in 2016. Yet, this growth is solely due to a strong first quarter of 2017, which was then followed by three consecutive quarters of decline. Given the weaker trends in Mineral Products Association sales last year, it seems hard to validate a 5.1% growth in construction, let alone an acceleration in activity compared to 2016. In their latest forecast, Experian expects growth of 1.0% in total construction in 2018.

POLICY FOCUS

CLIMATE CHANGE AND ENERGY

The negotiations on the revision of the EU emissions trading system (EU-ETS) featured again high on the agenda of Working Group A (WG A). The sudden move by the Environment Committee in the European Parliament late 2016 to suggest an importer inclusion mechanism only for the cement sector with a consequential loss of free allowances, brought us to mobilise our national associations to convince Members of Parliament that such sudden introduction for just one sector only would not pass legal scrutiny. The suggested amendment was voted down in Plenary which allowed the cement sector to focus on providing constructive input to the legislative debate. We reiterated our belief in a dynamic allocation whereby excess allowances in case of a production drop would be avoided and the bottom line of our advocacy consisted in arguing the need for full free allocation for the best performing plants. This position maintains the incentivising character of the EU-ETS while, at the same time, avoids a pure financial burden on the plants that are at the limits of their improvement potential. CEMBUREAU was also vocal in demanding that the legislator's request to reduce emissions was accompanied by funding for innovation - which allows breakthrough technology projects that carry financial and operational risk, to be brought to the market. The cement sector has been at the forefront of that debate on innovation and strongly advocated for the need to ensure funding for both storage and use of CO_2 after the capture phase. The association has also worked out, with the help of an external consultant, views on how to select projects for the innovation fund.

The finally agreed EU-ETS tries to take into account a panoply of views and interests to reach an honourable compromise. It strikes what in our view is a fair balance by introducing the flexibility to transfer 3.5% from auctioning to free allowances to minimize the burden imposed on best performers and does complement the emissions reduction "stick" with an innovation funding "carrot". The legislators need to be commended for not having given in to the plea for a differentiated approach between sectors. It is CEMBUREAU's strong belief that it is not the legislator's responsibility to pick winners and losers amongst industries, nor to grant preferential treatment and thereby ignoring material – or technology neutrality.

CEMBUREAU acknowledges that the EU-ETS agreement now reached still requires a significant number of important execution measures relating to, inter alia, the production reference years, the benchmarks, monitoring and reporting rules and the details of the Innovation Fund. All of these will require our commitment and focus in 2018. At the same time, however, the agreed EU-ETS clears the path for a pro-active and renewed way of thinking on our long-term decarbonation strategy. The Low Carbon Economy Task Force has set out an ambitious plan that aims at assessing our performance against the targets we set forth when launching the Low Carbon Roadmap for the cement industry. It is also the intention to include the benefits of concrete in designing decarbonisation pathways for society, with attention not only for the energy efficiency and storage capacities of concrete but also for the recarbonation potential of concrete over its entire lifecycle, up to the demolition of construction works. Our sector is keen to demonstrate that it enables the transition to a low carbon economy with products that are emissions neutral or even negative over their lifecycle.

WG A's focus on the broad energy portfolio triggered the question on CEMBUREAU's position on the Clean Energy Package, which mainly focuses on electricity-related issues such as security of supply, capacity mechanisms, renewables, demand supply management and market liberalisation. CEMBUREAU closely cooperates with IFIEC which represents the large industrial energy users on these issues. The Board found it useful to invite company experts on energy strategy in the framework of a Building Block Workshop in order to assess more detailed contribution and actions by CEMBUREAU in this policy area. An initiative on this is scheduled for early 2018.

WG B has also revived the Task Force BREF with a view to prepare for the BREF revision which is foreseen for 2020. As a first activity, the Task Force will identify the challenges for the review and will then assess the necessary data collection exercises, with a focus on selecting reference plants and a cement expert per Member State. CEMBUREAU has also teamed up with the Industrial Minerals Association (IMA-Europe) and the European Aggregates Association (UEPG) to provide comments into the Mining Waste BREF and has participated, with the European Association for Co-processing (EUCOPRO), in the revision of the Waste Treatment BREF and the Waste Incineration BREF.

RESOURCES AND PROCESSES

Working Group B (WG B) has delivered a strong performance in 2017 in what is the core area for a trade association: weighing in the policy debate with facts and figures - so that policymaking is in the end the result of a process where all stakeholders have been heard and relevant views have been taken on board. With currently 43% of our fuel needs being supplied by alternative fuels taken from different waste streams, our role in waste management, recycling materials and recovering energy when co-processing in the cement industry, had to be flagged, especially in light of the circular economy agenda. Two studies commissioned to Ecofys allowed CEMBUREAU to clarify that the sector has the potential to replace in the medium term up to 60% of its traditional fuels with waste, a figure that could even go up to 95% if regulatory barriers are eliminated. Making the most of this waste-to-energy capacity by using existing capacity in the EU cement industry would allow Member States to save between €9-16 billion, an amount that corresponds to investment required for the construction of new waste-to-energy incinerators. CEMBUREAU has been successful in conveying this message to the European Commission which included the cement industry's role in waste management in its Waste-to-Energy Communication that provides guidance to Member States on how to optimise their waste management systems. In a next step, action will be required at national level to raise awareness of the cement industry's potential to process recyclable and recoverable waste streams and therewith reduce the need for additional and costly incineration capacity. CEMBUREAU has also worked through all registers of the legislative process to obtain a recognition of the material recycling as counting towards national recycling targets in the revision of the Waste Framework Directive. Our efforts were not in vain: the final agreement between the European Parliament, Council and Commission on the Circular Economy Package foresees that a calculation method will be reviewed regarding the possible inclusion of co-incineration of minerals in recycling targets. There was clearly a benefit to the whole exercise as the cement industry's role in waste management has now been firmly established.

The strong increase in alternative energy use in the cement industry also contributed to asking the European Cement Research Academy (ECRA) to investigate the energy efficiency of the cement manufacturing process. ECRA's analysis demonstrated that cement kilns have an energy efficiency that varies between 70% and 80% depending on raw material moisture, and a material efficiency of 99%.

In the area of biodiversity, CEMBUREAU has joined forces with BirdLife in setting its biodiversity agenda. In a joint letter, both associations emphasise the importance of proper implementation and enforcement of the Birds and Habitats Directive so that its provisions are equally applied to all sectors and countries. Both associations also acknowledge that the status of certain species can vary from one region to another across Europe and suggest developing regional/national Species Action Plans to better preserve species populations. In order to protect the native plants and animals, CEMBUREAU has issued Guidance to the cement industry on how to monitor and manage invasive alien species, i.e. animals and plants that are introduced into a natural environment where they are normally not found and represent a threat for the native species. CEMBUREAU has also elaborated biodiversity indicators where a data collection exercise has identified the amount of areas rehabilitated and identified specific percentages for each form of rehabilitation (lake for biodiversity, traditional agriculture, natural forest, lake as reservoir, housing).

HEALTH AND SAFETY

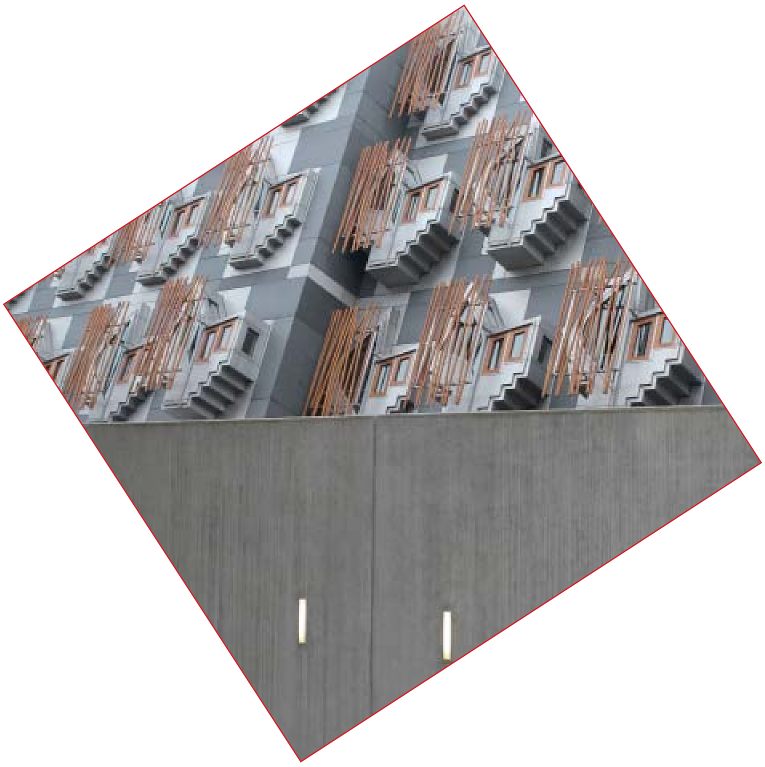
The year 2017 has been dominated by the negotiations on the revision of the Carcinogens and Mutagens Directive. After intense discussions in the European Parliament and Council, the final agreement secures an EU-wide level playing field by introducing a Binding Occupational Exposure Limit Value (BOELV) for Respirable Crystalline Silica generated by a work process at 0.1 mg/m³. CEMBUREAU has, together with its partners in the NEPSI Agreement, worked hard to achieve that result and is pleased to see that the role of the NEPSI Agreement has now been explicitly recognized in the revised Directive as a valuable and necessary instrument to complement the regulatory requirements and to support their effective implementation.

The two product legislations, ensuring a high-level protection of human health and the environment, REACH and the Classification, Labelling and Packaging (CLP) regulation, were evaluated by the Commission, in 2017. The REACH evaluation resulted in a commitment from the Commission to clarify the interaction between REACH and the Occupational Safety and Health legislation (ensuring workers' health protection) and also identified the need to clarify the end-of-waste rules (and consequential registration obligation under REACH) under the Waste Framework Directive.

In parallel to these evaluations, the Commission introduced a new annex to the CLP directive aiming at the submission of harmonized information relating to emergency health response and preventative measures to poison centres. The adopted text requires submitters to provide information relating to mixtures classified as hazardous on the basis of their health or physical effects. This obligation will not only impose disproportionate and unworkable obligations on our industry without any additional benefit for consumers, professional or industrial users, but it also creates an overflow of unnecessary and even confusing information to the appointed poison centres. Further to intense efforts from CEMBUREAU and other construction products industries, the Commission agreed to carry out a workability study to evaluate the impact of the legislation on specific industries, focusing on the construction product industries and the petroleum sector and, if deemed necessary, to propose possible amendments to the new Annex before its entry into force in 2020.

Working Group C's (WG C) attention has further been focused on assessing the impact of co-processing on human health in the cement industry as there is a growing opposition from some NGOs in Europe questioning the impact on workers and the neighbourhood. WG C developed a documentation set gathering published studies on the topic, both in the waste management sector and the cement industry and studies performed by cement companies themselves. This tool will be of great use for counteracting false allegations from varied concerned parties.

Finally, WG C pursues its aim to actively promote, via its safety moments, the sharing of Good Practices put in place, throughout the industry, to improve workers' safety. These include presentations of case studies related to fatality and near misses, demonstrations of innovative training materials promoting the use of risk prevention measures in cement plants and quarries. In addition, CEMBUREAU continues to address health issues, specifically related to Respirable Crystalline Silica, by assiduously participating in NEPSI and the evolution of the Agreement. CEMBUREAU remains a key actor in the 2018 NEPSI data collection.



MARKETS AND PRODUCTS

The strong emphasis on a fully integrated supply chain approach across the different Working Groups transpired in a continued focus by Working Group D (WG D) on life cycle costing. The recarbonation potential of concrete was also put firmly on the agenda. Further studies and analysis, to be carried out in 2018, need to provide support for initial findings that up to 20-25% of process emissions emitted in the cement manufacturing process is reabsorbed over the lifecycle of a building. Recarbonation is only part of the life cycle approach. CEMBUREAU has provided key input to the proposed mandate for CEN/TC 350 work on the development of an end-of-life formula consistent, with the experiences gathered from the Product Environmental Footprint (PEF) projects. In cooperation with the European Insulation Manufacturers Association (EURIMA), CEMBUREAU has commissioned Maki consultants to suggest a formula that retains the principles of EN 15804. The aim was to keep the EPD values consistent with the older EPD's and maintain modularity to allow information to be passed to the building level assessment and advocate for a mandatory Module C. The final amendment to the CEN/TC 350 mandate states that Modules C and D shall always be included in product standards as base options.

CEMBUREAU has joined other partners in the construction sector to ask the European Commission for clarification between the PEF initiative and the newly initiated Building Level(s) initiative, which creates a tool for professionals to assess the building against life cycle environmental performance indicators, health and comfort requirements and cost, value and risk measurements. Cement companies are likely to volunteer buildings for an assessment against this new system.

As specifications for design (performance standards) are increasingly discussed and may have a greater impact on the choice of building materials, WG D has carried out an extensive SWOT analysis of different possible scenarios. The discussions point towards durability (resistance classes) as part of the concrete standard, with the cement standard remaining unchanged.

CEMBUREAU chose to be actively involved in the work on Eurocodes (CEN/TC 250) through an expert hired under contract with ECRA.

CEMBUREAU's pro-active involvement in the standardisation activities forms the technical foundation for the promotion of concrete as a material of choice through the activities of The Concrete Initiative. The three main focus areas for The Concrete Initiative in 2017 were recycling of concrete, energy efficiency (energy storage) and access to finance, with for each of them advocacy, supporting studies and events. The study carried out by 3E consultants for CEMBUREAU on the energy storage capacity of concrete caught the attention of policymakers in an event hosted by MEP Bernd Lange (S&D, Germany) and gave us a place around the table in the discussion on revision of the Energy Performance of Buildings Directive. Both in the text and in the Annex of the finally adopted revised EPBD, energy storage is recognised as a concept in assessing energy efficiency of a building and this opens an opportunity to position this unique energy storage property of concrete. Throughout this legislative process and policymaking in general, we have unfortunately been confronted with draft legislation and policy at both national (Finland, France) and European level that expressly favours wood over concrete. We will continue to emphasize the importance of material neutrality in legislation and argue that differentiation between materials without any supporting scientific evidence cannot pass the legal scrutiny test.

The annual Concrete Dialogue event focused on the infrastructure renewal challenge in Europe and the positive role concrete can play in responding to this challenge. That is why the Concrete Dialogue 2017 entitled “Renewing Europe’s infrastructure: needs, challenges and opportunities” debated and addressed the infrastructure challenges in Europe and identified sustainable solutions for the future. The outcomes from the roundtables debates will feed into the work which The Concrete Initiative, in conjunction with the wider construction industry, plans to take forward in 2018 and beyond. The exhibition was also a huge success and it gave us the opportunity to show everyone the benefits of concrete in terms of innovation, sustainability, carbon and energy efficiency.

To end the year on a strong note, CEMBUREAU also signed the Joint Initiative for Standardisation in which the European Commission, EU/EFTA Member States, national and European standardisation bodies as well as industry associations participated. By signing this document, CEMBUREAU endorsed the crucial importance of standards for innovation and progress in the internal market and for Europe’s competitiveness, growth and contribution to social welfare. The objective of the Initiative is to work towards prioritisation, modernisation and appropriate speed for timely standards.

The downstream benefits in terms of CO_2 and energy efficiency need to be linked to continuous efforts to reduce emissions from the manufacturing process. It is precisely in this context that CEMBUREAU has actively contributed to the revision of the mandate for CEN/TC 51 to allow for the introduction of low carbon cement in the cement standard EN 197-1. Publication of the standard may take another year. CEMBUREAU continues to follow all these issues and work on feeding in industry views.

INNOVATION

While 2017 marked an increased communications and public affairs effort for the association, it also saw a reinforced push for innovation in the industry as a whole. With this new focus, comes an expectation for the sector to find the best methods to facilitate research and development possibilities for innovative technologies.

The solution lies in embracing value-added products, securing innovation and technology that meet requirements and standards and devoting a greater effort to tightening coordination between all the facets of the sector.

The cement industry strongly believes that innovation drives our competitiveness and contributes to sustainable growth and job creation. Our innovation efforts are also contributing to the climate change, circular economy and energy efficiency goals of the European Union.

We are proud to be the world leader in different areas of innovation. One of our main achievements since 1990 is a 21% reduction in CO_2 emissions per tonne cementitious. Furthermore, we have developed a vision of how we see our sector reducing its emissions by 2050.

The image below (from our Low Carbon Economy Roadmap[1]) provides five parallel routes to decarbonisation, together with one or more areas where an innovative solution could be implemented.

Our dedicated section on 'Innovation[2]' on the website showcases various areas and examples where the cement industry innovates:

- **Carbon capture:** research on relevant technologies for large scale implementation
- **Carbon reuse** with a focus on Carbon Capture Utilisation (CCU), Carbon Capture Valorisation, Carbon Capture & Storage
- **Development of innovative clinkers and binders** with lower environmental footprint
- **Development of innovative concrete** components with reduced carbon footprints, better insulation properties and reduced cost
- **Research on the energy storage potential of concrete and potential for renewable uptake**

Furthermore, by using waste as an alternative fuel (currently accounting for 43% of the fuel we use), installing state-of-the-art technology in our existing plants and having the most energy-efficient kilns, we are committed to maintaining a full supply chain in Europe. Investing in Europe, providing jobs to European citizens and adding value to Europe's economy are only a few objectives that drive our work forward.

2017 also marked the publication of the Cement Sustainability Initiative (CSI)/European Cement Research Academy (ECRA) Technology Papers, a report showcasing 52 individual technology papers and 7 papers summarising the state-of-the-art and development of various technological fields: thermal energy efficiency, electric energy efficiency, use of alternative fuels, materials and biomass, reduction of the clinker content in cement, new binding materials, CO_2 capture and storage (CCS), and CO_2 use (CCU). Estimations on technology application in the cement industry are also provided for 2030 and 2050.

CEMBUREAU is also a Member of the technology platform SPIRE which is a public-private partnership representing innovative energy-intensive process industries. This network has allowed cement companies to join multisector consortia for cross-sectoral project calls applying for EU funds in combination with private funding. CEMBUREAU is an active partner in the SPIRE HARMONI Project which seeks to identify regulatory and standardization bottlenecks to innovation.

1	2	3	4	5
Resource efficiency	**Energy efficiency**	**Carbon sequestration and reuse**	**Product efficiency**	**Downstream**
Alternative fuels	Electrical energy efficiency	Carbon sequestration and reuse	Low carbon concrete	Smart buildings & infrastructure development
Raw material substitution	Thermal energy efficiency	Biological carbon capture		Recycling concrete
Clinker substitution				Recarbonation
Novel cements				Sustainable construction
Transport efficiency				

[1] *http://lowcarboneconomy.cembureau.eu/*
[2] *https://cembureau.eu/innovation/*

Cimeurope
ACTIVITIES

Cimeurope continued its focus on the energy markets through its publication CEMREVIEW and its annual Conference CEMPROSPECTS.

In its 2017 analysis, CEMREVIEW captured the developments in the energy markets with a continued focus on coal and petcoke but also a strong attention to the impact of FX rates and the Carbon Market.

CEMREVIEW has seen a steady growth of readers over the year 2017, taking advantage of the new subscription system where companies can have up to 30 readers for the price of 3, which has led several of our companies to spread the publication magazine wider in their organisations. We are looking forward to continue this positive development in 2018.

CEMREVIEW introduced during 2017 a more focused way of describing the discount for petcoke to coal in zones from expensive to cheap petcoke, a format we have now seen being used by several of our partners within the analyst's companies.

Since the start of 2017, CEMREVIEW is also writing the monthly energy update in Cementreview with focus on a short update of FX, Oil, Coal and petcoke based on the CEMREVIEW analysis.

CEMREVIEW has been invited as speaker and panellist on several conferences and special workshops, and was proud to be speaking at the Turkish Cement Manufacturers' Association (TCMA) 50 years jubilee in October 2017.

CEMPROSPECTS 2017 (CP17)

The annual Conference bringing together more than 100 participants from the solid fuels markets took place in Rome between 8-10th October. The programme covered forecasts based on fundamentals and technical analyses for freight, coal and petcoke for 2018.

The conference also gave insight in the financial markets investment views on fossil fuel industries and environmental legislation.

Conference participants were informed about the increasing use of alternative fuels in cement kilns, this being a strong focus point going forward.

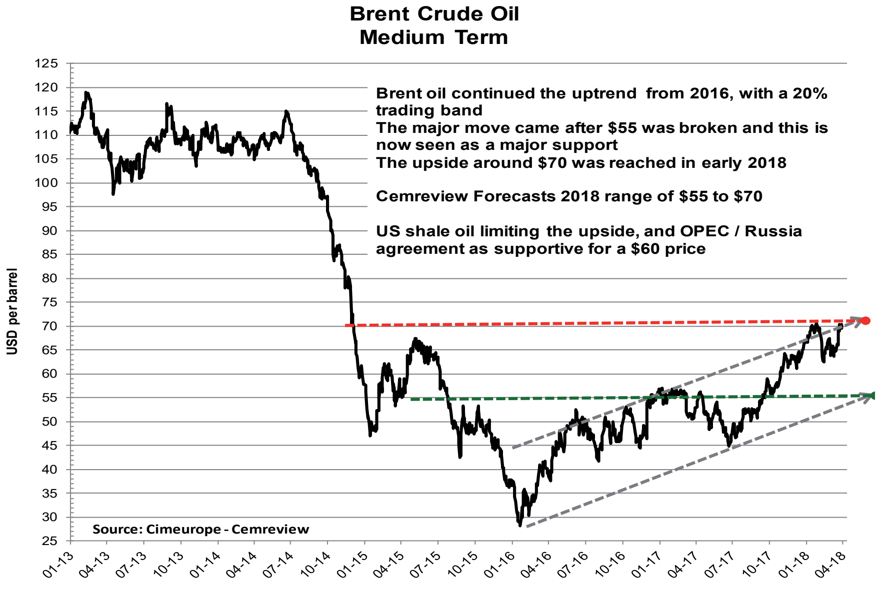
This conference was also the last chaired by Mr. Patrick Peenaert (formerly LafargeHolcim) and *Cimeurope* wishes to express him its gratitude for the work done over the past years.

The next CEMPROSPECTS Conference is scheduled to take place between the **8 and 10 October 2018** in Prague.

THE MARKETS – SHORT OVERVIEW OF THE MOST IMPORTANT DEVELOPMENTS IN 2017

Crude Oil

The Brent oil continued the uptrend which started in 2016 and, based on the deal between OPEC and Russia concerning cuts and reductions in production in December 2016, traded up to $55. As US shale oil picked up its production based on higher prices also for US WTI Crude, the market saw a renewed fall, but not below the $45 which happened to be the uptrend. A renewed agreement and more demand for oil in combination with a weaker USD but also tensions in the Middle East, as well as a massive plunge on Venezuelan production, lifted the oil to $71 in February 2018. From here a correction has taken place and we still expect US production to keep rising. It is now at its highest level since the 1970s.



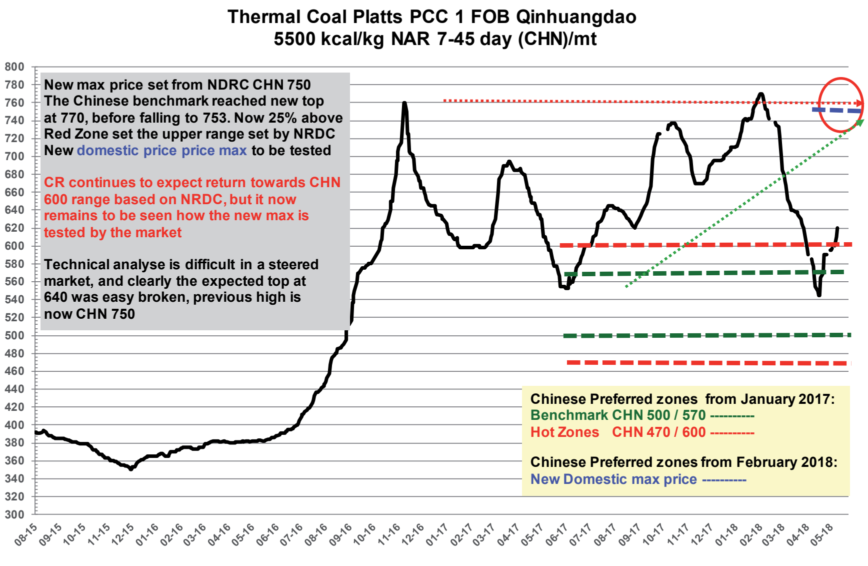
Source: Cimeurope

COAL GLOBAL DEVELOPMENTS

The coal market was also dominated this year by events, supply and demand issues in China, sending its ripple effect through the markets.

The coal market was basically in one long uptrend during the year, seeing a strong demand from all places, especially Asia. In Europe, where renewables are still moving forward, the demand was supported by low water reservoirs and fear of French nuclear production cuts, making power producers import more coal for stocks.

In China the authorities introduced preferred zones for the price of domestic coal, aiming to find a sweet spot for both coal producers and power producers. The CHN 470-600 level was quickly broken by the lack of supply from Chinese miners and severe weather conditions in in Australia and Indonesia. This led to coal prices all across the Pacific Basin to go up and also drove Atlantic coal prices at levels unseen since the peak in November 2016. China introduced a new maximum limit of CHN 750 ($118) and may have more measures to increase demand– to be seen during 2018.



Source: Cimeurope

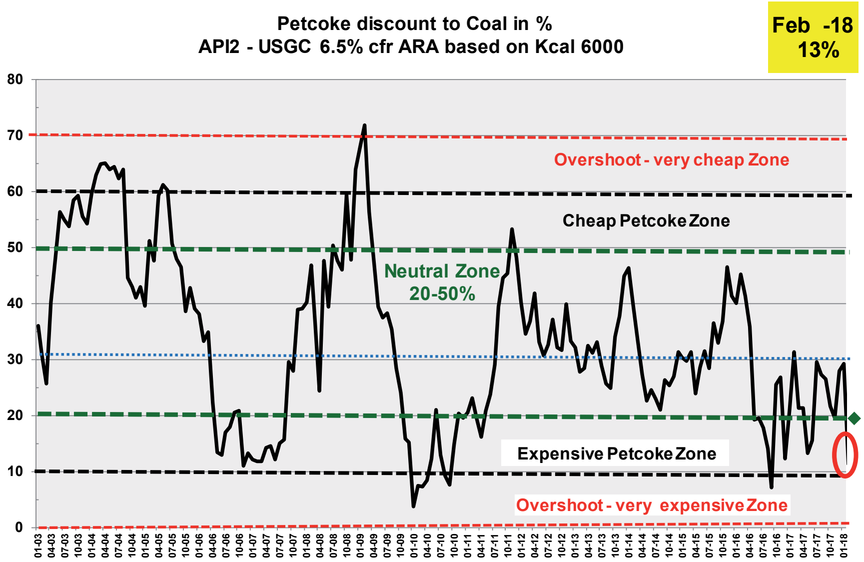
PETCOKE MARKETS - TRENDS PRICES

Petcoke markets were relatively stable in the beginning of 2017. The 6.5% sulphur range was between $55 - $65, following upwards the trend in the coal markets with discounts being in the neutral zone close to the long-term average both for FOB and ARA petcoke.

Venezuelan production and export of the medium 4.5% sulphur more or less disappeared from the markets due to the political and economic situation in the country, underpinning the medium sulphur prices. However, when Hurricane Debbie Struck the US Gulf coast leading to massive floods as well as shut downs of almost all refineries, the supply fell and prices went upwards without a lot of trading. This led the petcoke prices in the 70s for 6.5% FOB.

A shock demand came from India in November – December, when Indian authorities and Courts came out with a new legislation on the use of petcoke, introducing a total ban for its use around Delhi and 3 other states. This took the markets by surprise as India is the world's biggest importer of petcoke. The prices instantly fell by more than 20%. However, after a few court cases, the cement and lime sector were exempted from the ban and petcoke can again be used within the sectors. However, the 2.5% import tax raised to 10 pct., making petcoke more expensive for Indian users.

The market is currently awaiting more news on the implementation and possible sulphur limits in India, and CEMREVIEW is following the development here as well as in other countries, where potential new legislation can impact the market.

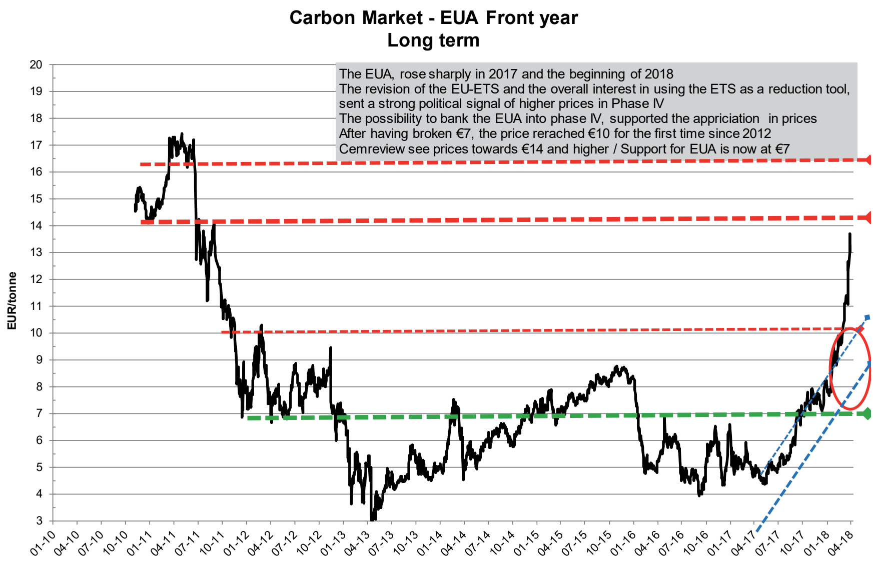


Source: Cimeurope

CARBON MARKET (EUA)

A special focus is drawn at the development of the EUA prices after the EU-ETS revision during 2017.

From a lacklustre trading range of €4-6 during years, the price broke up above €6 and CEMREVIEW argued based on all indications in the political and environmental debate, that the carbon market price would climb further. Breaking the €6 confirmed this and the predictions of a €10 price was reached in February 2018. We maintain a view towards €15 and even higher the closer we come to phase IV.



Source: Cimeurope

EVENTS

In 2017, CEMBUREAU & The Concrete Initiative organised 3 events:

EU-ETS AND THE ROLE OF THE CEMENT INDUSTRY

The event in the European Parliament, hosted by MEPs Ivo Belet (EPP; Belgium) and José Blanco López (S&D, Spain), gathered over 60 MEPs as well as other organisations and NGOs. It aimed to debate the latest developments on the EU-ETS directive and showcase the industry's efforts in terms of innovation. Taking place on 1 February, ahead of the parliamentary vote, the event gave stakeholders the change to reflect on future initiatives and CEMBUREAU the opportunity to position the cement industry as an enabler for the low carbon economy.

ENERGY STORAGE IN BUILDINGS – THE POTENTIAL IN THE ENERGY PACKAGE

Increasing renewable energy uptake will bring the need for greater energy flexibility and storage in order to match supply with demand. What if buildings could play this role, by offering thermal storage capacity that is currently untapped? This event explored this concept and made the link between the different elements of the Energy Package, from energy performance of buildings (EPBD) to electricity market design.

CONCRETE DIALOGUE 2017: RENEWING EUROPE'S INFRASTRUCTURE

From water supplies to energy production, roads to bridges, infrastructure plays an essential role in our day-to-day lives. Without finding ways to improve it, we will not be able to face future environmental concerns. That is why The Concrete Dialogue 2017: 'Renewing Europe's infrastructure: needs, challenges and opportunities' debated and addressed the infrastructure challenges in Europe and identified sustainable solutions for the future.

The event hashtag became a trending topic in Belgium, thanks to everyone's engagement. Check out the twitter debate

#ConcreteDialogue2017
@ConcreteDialog

PUBLICATIONS

Below is a series of publications, position papers and fact sheets produced or commissioned by CEMBUREAU and The Concrete Initiative during the course of 2017.

PUBLICATIONS

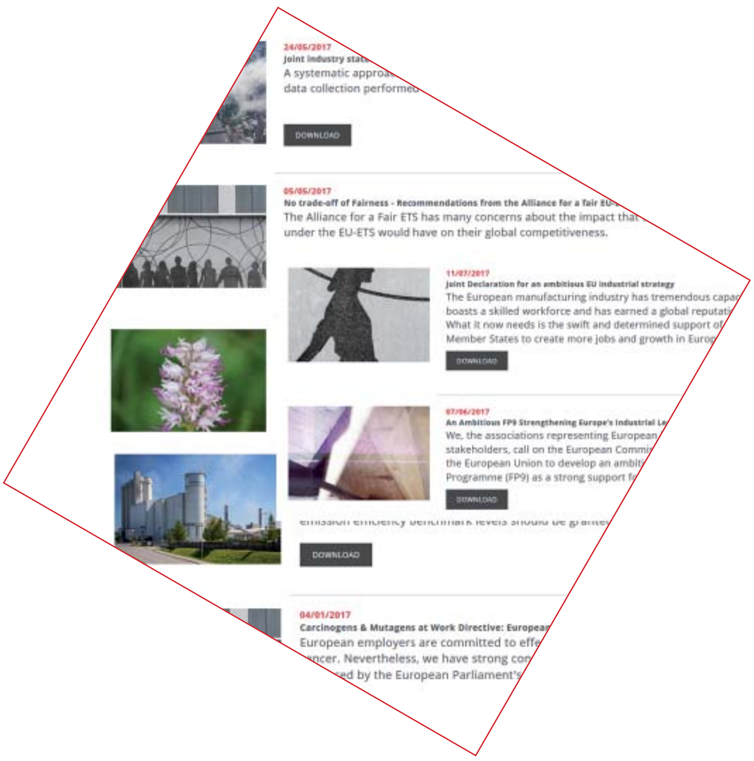
- EU-ETS Phase IV CSCF application and market balance
- Status and prospects of co-processing of waste in EU cement plants
- Cement Standards of the World
- World Statistical Review 2004 – 2014
- Renewable energy in buildings: Unleashing the potential of thermal mass for electricity grid flexibility
- Evaluation of the energy performance of cement kilns in the context of co-processing

POSITION PAPERS

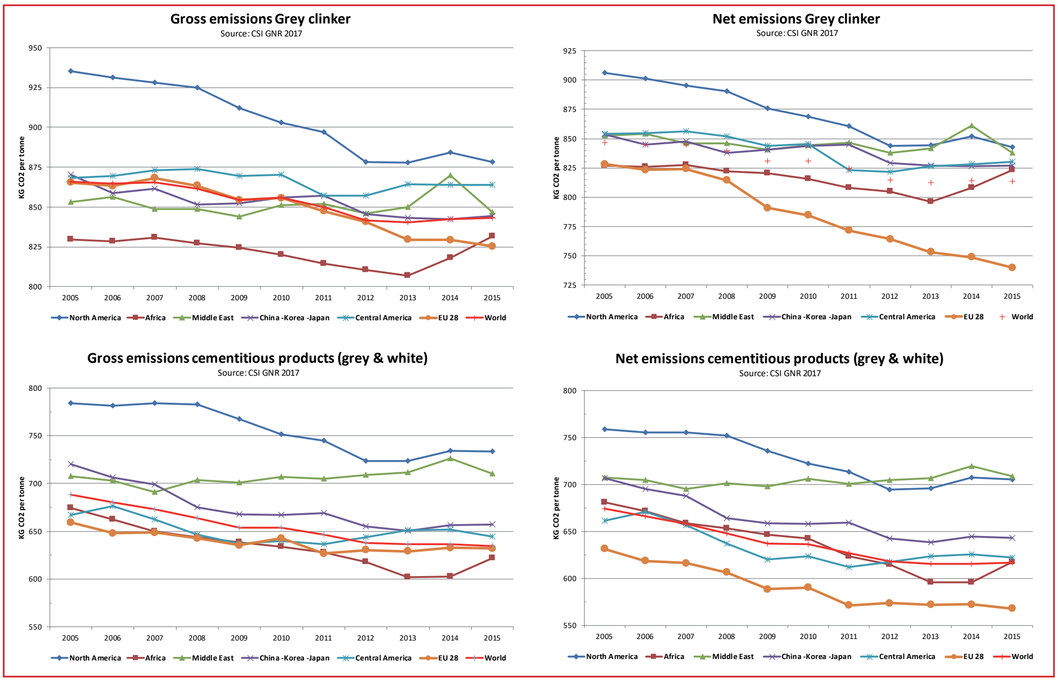
- Carcinogens & Mutagens at Work Directive: European employers highlight concerns
- EU-ETS: Tiered approach impacts seriously the majority of energy-intensive industries
- Birds & Habitats Directives: Recommendations for improving their implementation
- No trade-off of Fairness - Recommendations from the Alliance for a fair EU-ETS
- Joint industry statement on representative EU pollution standards
- An Ambitious FP9 Strengthening Europe's Industrial Leadership – Joint Declaration by Industry and RTOs
- Joint Declaration for an ambitious EU industrial strategy
- Call from the Alliance of Energy Intensive Industries to safeguard the competitiveness dimension of the Energy Union
- How to ensure a simple and effective Smartness Indicator
- CEMBUREAU Position Paper on Plastics Strategy

FACTSHEETS

- Circular Economy: Role of the concrete sector



EMISSIONS REPORTING: GNR & BEYOND

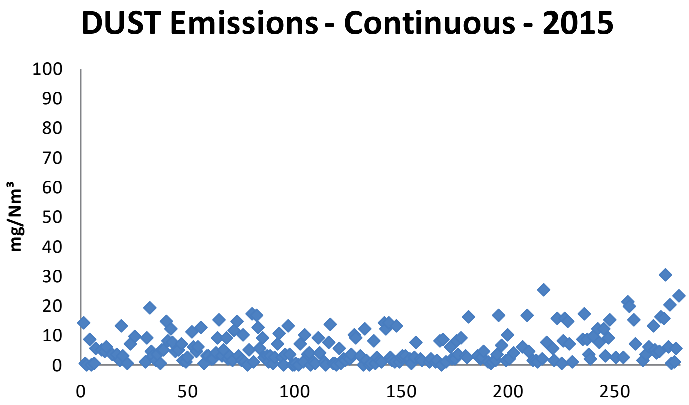


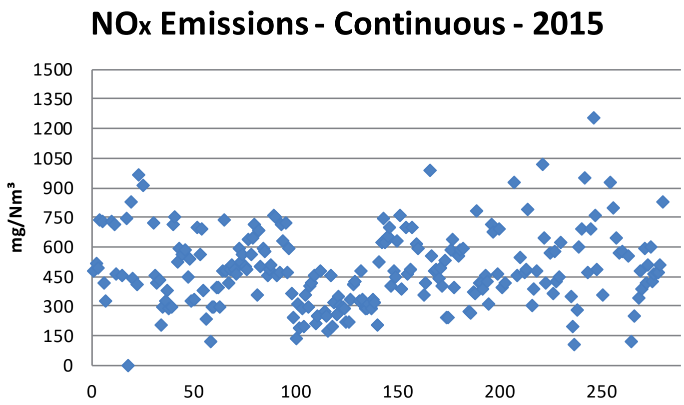
Since its launch, CEMBUREAU has contributed to the World Business Council for Sustainable Development - Cement Sustainability Initiative's (WBCSD-CSI) "Getting the Numbers Right" (GNR) project, which aims at monitoring and addressing CO_2 emission trends from the cement industry at global level.

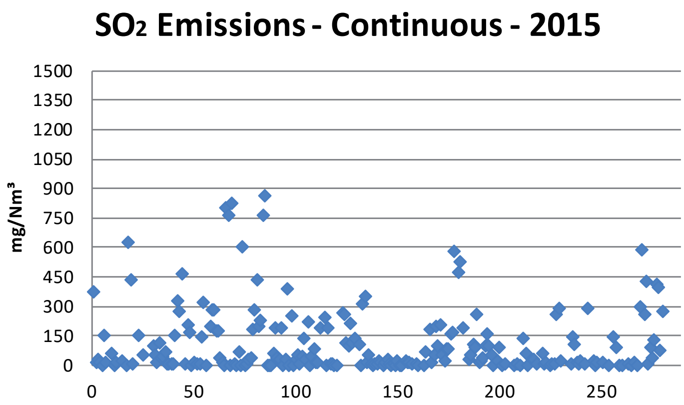
According to the latest data available, in 2015 the European cement industry has continued to reduce its emissions per tonne of product. This data, published by the GNR project, shows that between 1990 and 2015, the EU28 cement industry has reduced its:

- **gross** CO_2 emissions per tonne grey **clinker** by -9%
- **net** CO_2 emissions per tonne grey **clinker** by -17%
- **gross** CO_2 emissions per tonne **cementitious** (all) by -13%
- **net** CO_2 per tonne **cementitious** by -21%

As this data show, the European cement industry is still amongst the world best performers and on a continuous decreasing trend with its emissions. It is important to note that whilst the data for the EU covers close to 100% of plants (the ones of company members of CSI as well as non-CSI companies reporting to GNR through CEMBUREAU coordination) this is not the case for other jurisdictions, where it is mainly the best performing plants which are contributing to the GNR data collection (the ones of companies belonging to CSI only).







Source: PwC

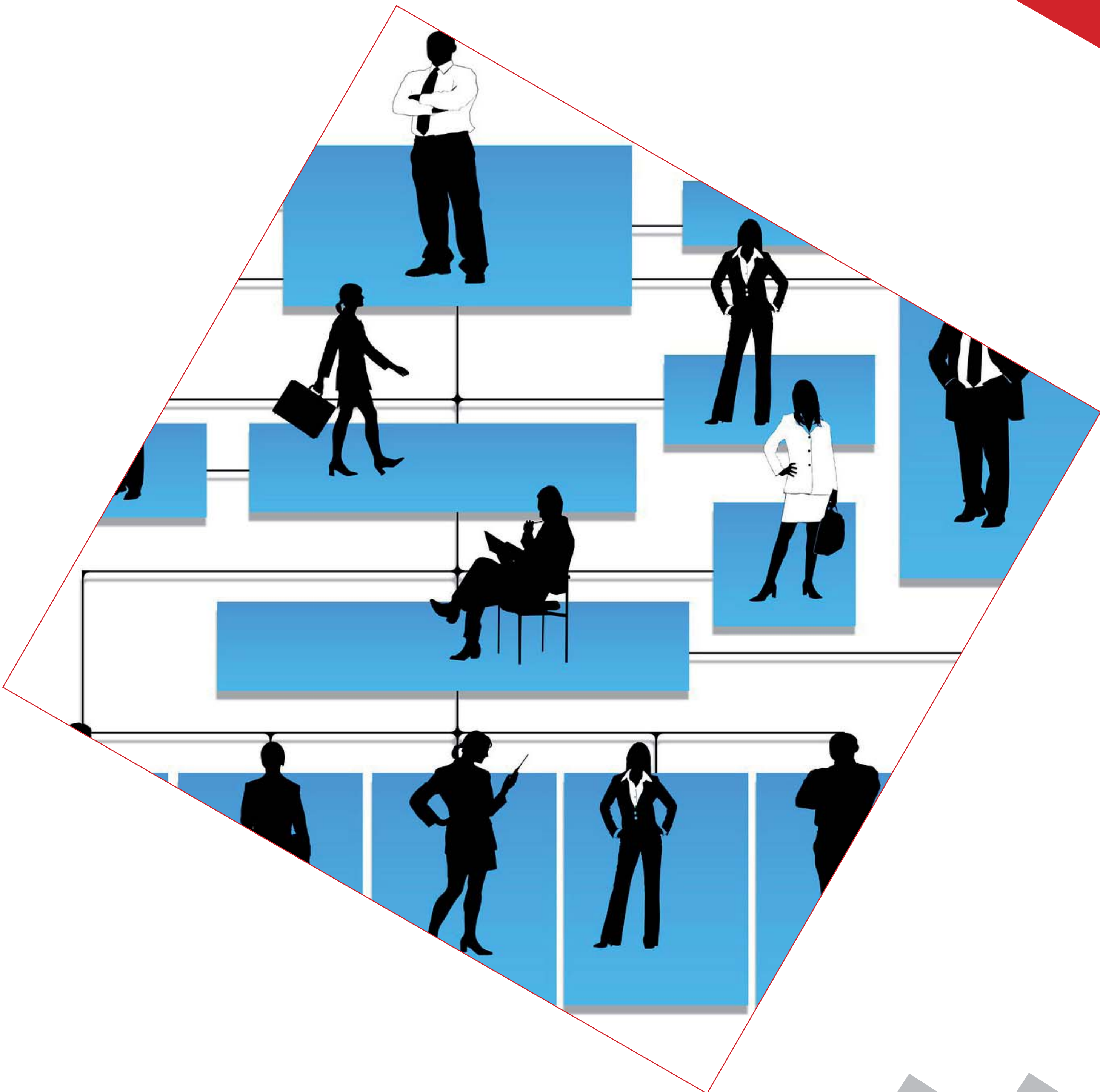
PARTNERSHIPS

CEMBUREAU is a key player in the mostly Brussels-based scene of European Trade Associations. CEMBUREAU interacts regularly with a number of these associations, often joining forces under alliances in order to achieve a common goal:

- Alliance for a Competitive European Industry (ACEI)
- Alliance of Energy Intensive Industries (AEII)
- Alliance for a #FairETS
- Business and Biodiversity Platform (B@B)
- Construction Products Europe (CPE)
- European Association for Co-processing (EUCOPRO)
- European Cement Research Academy (ECRA)
- European Concrete Paving Association (EUPAVE)
- European Concrete Platform (ECP)
- European Minerals Day (EMD)
- European Network for Silica (NEPSI)
- European Network for Sustainable Quarrying and Mining (ENSQM)
- Fire Safe Europe (FSEU)
- Industrial Emissions Alliance
- Joint Declaration for EU Industrial Strategy #Industry4Europe
- Low Emissions Intensity Lime and Cement (LEILAC)
- Non-Energy Extractive Industries Panel (NEEIP)
- Raw Materials Supply Group
- REACH Alliance
- Sustainable Process Industry through Resource and Energy Efficiency Public-Private Partnership (SPIRE)
- World Business Council for Sustainable Development – Cement Sustainability Initiative (WBCSD-CSI, global)

ABOUT CEMBUREAU

Situation on 15 May 2018



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http://cembureau.eu/about-cembureau/our-members/

ABBREVIATIONS GLOSSARY

ARA	Amsterdam-Rotterdam-Antwerp area
BOELV	Binding Occupational Exposure Limit Value
BREF	Best Available Techniques Reference Document
CCS	Carbon Capture and Storage
CCU	Carbon Capture and Utilization
C&DW	Construction and Demilition Waste
CEN	European Committee for Standardisation
CHRS	Comprehensive Health Risk Study
CLP	Classification, Labelling & Packaging
CMD	Carcinogens and Mutagens Directive
CSI	Cement Sustainability Initiative
CSO	Construction Sector Output
ECB	European Central Bank
EFSI	European Fund for Strategic Investments
ELV	Exposure Limit Value
EPBD	Energy Performance of Buildings Directive
EPDs	Environmental Product Declarations
EUA	European Emission Allowances
EU-ETS	EU Emissions Trading System
FOB	Freight on Board
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GNR	Getting the Numbers Right
KPI	Key Performance Indicator
Kt	Kilotonnes
MEPs	Members of the European Parliament
Mt	Million tonnes
NEC	National Emission Ceilings Directive
NEPSI	The European Network for Silica
PCR	Product Category Rules
PEF	Product Environmental Footprint
RCS	Respirable Crystalline Silica
REACH	Registration, Evaluation and Authorisation of Chemicals
RMC	Ready-mixed concrete
SDA	Social Dialogue Agreement
UNEP	United Nations Environment Programme
WtE	Waste-to-Energy

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CEMBUREAU
The European Cement Association

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