CELEBRATING
75 YEARS
OF IRISH CEMENT
1938 - 2013
There was early recognition of the importance of construction and that the new State should be capable of providing the basic materials for the industry from its own resources. This led to the passing of the Cement Act by the Oireachtas in 1933, the formation of Cement Limited in 1936 and the commissioning of production plants at Drogheda and Limerick in 1938.

Over the past 75 years capacity has been increased to meet the needs of the developing Irish economy, the plants have been upgraded and expanded, and a new green field plant was constructed at Platin in the early 1970s to replace the original Drogheda plant. Platin was subsequently expanded twice through two major investments. As technology moved forward, product composition and performance have been continuously improved, modified and adapted to meet customer and regulatory demands.

Irish Cement has played a key role in Ireland's national growth and development. Projects, large and small, have been built with Irish cement over the past 75 years in all corners of the country which reflect the changing pattern of Ireland's lifestyle and its development since 1938.

Today, modern production plants at Platin and Limerick incorporate the most up-to-date and efficient production technologies and serve home and export markets with a portfolio of eco-efficient products which will make a lasting contribution to the built environment.

This commemorative publication outlines the story of the development of Irish Cement Limited, a company that has played a major strategic role in the growth and development of Ireland over the last 75 years and which is well positioned to maintain and develop this role into the future.
The 23rd May 1938 was a very historic day in the development of modern Ireland. These extracts from the national newspapers of 24th May 1938 show how the exciting news of the simultaneous official opening of the two new cement factories at Limerick and Drogheda by the Minister for Industry and Commerce, Mr. Sean Lemass, was recorded for posterity. The availability for the first time of a sustainable supply of Irish-made Portland cement was a major national event.
Throughout the 1920s the new independent Irish State emerged from the conflict and destruction of the War of Independence and the ensuing Civil War. Rebuilding infrastructure and public buildings was undertaken largely with imported cement as the only surviving small 40 year old indigenous plant at Drinagh Co. Wexford closed in 1925. The leaders of the new State were preoccupied with reviving the precarious national finances and dealing with the ongoing political problems. While there must have been concern about the lack of an indigenous source of the vital raw material for construction, no action was taken to develop a national cement industry for close to a decade.

The Cement Act of 1933 provided the legal framework for the development of a cement industry in Ireland and in that year proposals for the establishment of a cement industry were invited from a number of interested parties. In 1934 the Irish Free State executive Council approved the issue of a cement licence to fLSmidth A/S of London and Copenhagen. This Company was and remains today one of the world’s leading designers and constructors of cement manufacturing plant in the world.

The two plants were brought into operation in the Spring of 1938 with cement deliveries commencing from Limerick on 11th April and from Drogheda on 9th May. Mr. Sean Lemass, Minister for Industry and Commerce at the time, officially opened both plants simultaneously at 12.15pm on 23rd May 1938.

Irish normal and Rapid Hardening Portland cement, packed in hundredweight (~50 kilogramme) paper sacks rapidly replaced imported cement in the major housing programme of the late 30’s. The tradition of building houses in mass concrete was at this time giving way to block walling and the first steps in building major new regional hospitals were being taken. Concrete had now become the predominant building material and the basic ingredients were now all manufactured in Ireland. Due to the increased demand it was decided in 1939 to double capacity at the Drogheda plant.

1930s

**HISTORICAL BACKGROUND**

**DROGHEDA AND LIMERICK**

Cement Limited was registered as a Limited Liability Company in May 1936. Agreement was reached to proceed with the construction of a 150,000 tonne cement factory on the north bank of the River Boyne east of Drogheda and a 75,000 tonne cement factory on the south bank of the River Shannon about 5 kilometres west of Limerick city.

The lands for the cement factories and associated quarries were promptly acquired and contracts were placed with fLSmidth A/S in late 1936 for cement plant machinery. Construction contracts were also negotiated and plant and construction began immediately. The construction of the two cement plants, at a time when the economy in Ireland and globally was in deep depression, represented the biggest investment and construction in the State since the Shannon Hydroelectric Scheme ten years previously.

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**23’ MAY 1938**

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The second production unit at Drogheda, which doubled capacity at the plant to 300,000 tonnes, commenced operations in late 1940.

The first half of the decade, dominated by the Second World War, was an extremely difficult time for all living in Europe. Global shortages of necessities affected normal life and industrial production. The shortages of fuel, paper sacks and spare parts deeply affected the cement factories. However, an interesting agreement was reached for a period with the British authorities whereby cement from Drogheda was exported to Northern Ireland in return for supplies of coal to allow production to continue in the cement kilns. Successful experiments with low-grade fuels to fire the kilns were undertaken during these years. Home sales fell to about 150,000 tonnes per annum during the war years.

After the war, life gradually returned to normal through the latter years of the decade. Construction revived and demand for cement rapidly recovered.

During the decade several large construction projects were undertaken, notably Busáras, the Central Bus Station at Store Street in Dublin, the Liffey Hydroelectric Scheme and the expansion of Dublin Airport. The new aprons and runway areas at Dublin Airport with their significant demand for large volumes of concrete resulted in the first deliveries of cement in bulk in 1946.

Readymixed concrete, the product that would revolutionise construction throughout the world in the twentieth century, was pioneered commercially in the USA in the 1920s and introduced to the UK in the 1930s. Readymixed concrete was produced in Dublin for the first time in 1949, thus leading to a growth in demand for bulk cement from the end of the decade.

Readymixed concrete
In the beginning of the decade, demand for cement continued to increase and significant cement imports were required to meet demand. In late 1951 plans were developed to extend both Works. In 1954 a third unit of 150,000 tonnes at Drogheda and a second unit of 100,000 tonnes at Limerick came into production. Imports ceased.

The economy turned down again in the mid 1950s and during the years 1956-58 the level of construction activity declined. To utilise the excess capacity, cement and clinker were successfully exported, mainly to the UK.

It was in the late 1950s that significant investment was made in buildings, plant and machinery to farm the company’s lands held as long term reserves. The investment at Cooperhill farm in Limerick was probably the single biggest investment in the history of the State in a farm at the time.

The move towards increased use of bulk cement accelerated and by the end of the decade almost 18% of output was delivered in pressurised bulk containers.

Ready-mixed concrete production grew into an established industry, particularly in the larger towns and cities.

The potential of concrete as a structural material was developed further as prestressed concrete was introduced in bridge construction and other long span structures.

The Treaty of Rome was signed in 1957 and gave birth to the European Economic Community (EEC), later to become the 27 member European Union (EU). This signing of this Treaty was probably the most significant political event of the 1950s and had little impact on Ireland at the time. However, over subsequent decades the various Treaties enhancing and developing the Treaty of Rome were central to defining Ireland’s social and economic progress and indeed Ireland’s place in the world.
A new era dawned with the advent of a new decade during which protective tariffs were phased out and industrial development was encouraged through tax incentives and grants. The Programme for Economic Expansion published in 1958 was generally credited with playing a major role in assisting to lift Ireland’s economy out of the deep recession of the late 1950s. Construction was one of the first sectors to benefit in the new decade and demand for cement grew steadily year on year.

The signing of the Anglo Irish Free Trade Agreement in 1965 removed British import restrictions on Irish goods and removed Irish import restrictions on British manufacturers. This led to a progressive increase in Irish agricultural and industrial exports and ultimately paved the way for Ireland’s entry into the EEC in the 1970s.

In addition to the growth in demand for cement in the home market, export markets to Great Britain and Northern Ireland were vigorously pursued, peaking at a record 350,000 tonnes in 1968.

Production capacity was increased to meet the growing demand levels of the decade by the introduction of three new kilns at Limerick in 1961, 1964 and 1965. These additions added a total new capacity of 555,000 tonnes per annum and brought total production levels to over 1 million tonnes. Expansion of the Drogheda Works had been ruled out due to the confined nature of the site and quarry and material transport constraints.

Significant improvements were made to the cement distribution network. The national rail operator, CIE, introduced special liner trains for cement to service bulk depots at Cork and Belfast.

Major investments during the decade included a new bulk storage depot, commissioned at Cabra in the Dublin suburbs to service onward road distribution in the city and environs, and a fuel oil terminal at Foynes, Co. Limerick.

In the construction industry large projects continued to encourage the development of ready mixed concrete and consequently the demand for bulk cement continued to increase.

Demand for improved architectural facades lead to the development of coloured masonry in commercial and industrial buildings and precast cladding also became popular as a facing material.

Towards the close of the decade it was clear that new cement production capacity would be needed in the east of the country to meet the demands of the expanding economy and in March 1968 it was announced that a new cement factory would be built at a green field site at Platin about 5 kilometres south west of Drogheda.

THREE NEW KILNS ADDED AT LIMERICK BROUGHT CAPACITY TO OVER 1 MILLION TONNES

1960s
Platin kiln 1, the first dry process plant in Ireland, was commissioned in 1972, increasing production capacity by over 400,000 tonnes per annum. As market expectations remained high for the decade, planning for expansion began immediately. Platin kiln 2, a new 4 Stage Pre Heater Platin kiln, was conceived, designed and planned. Commissioned in 1977, it added over 1 million tonnes of capacity. Production at the original Drogheda plant was phased out and an innovative and far seeing plan was developed at the site to convert the cement plant, using much of the existing equipment, into a new sea water magnesia production plant to manufacture high grade refractory magnesia for export.

The increased demand for cement throughout the country led to further significant developments in distribution systems. Palletisation of Packed Cement, which considerably improved handling and distribution of this product, was introduced at Platin Works in 1976 and at Limerick Works in 1978. A countrywide network of local depots for bulk and packed cement at railheads was put in place to improve customer service and facilitate a more rapid response to short term fluctuations in market demand.

Within the broader construction industry, an increased interest in cements for special applications developed. The manufacture of Sulphate Resisting Portland Cement for special concrete applications and Oilwell Cement for use in offshore exploration projects was undertaken in response to market developments.
BIRTH OF CRH

During the 1970s two major events occurred in the Irish cement and building materials industry.

Cement Limited and Roadstone Limited, the principal producer of aggregates, concrete products and asphalt in Ireland at the time, merged to form Cement Roadstone Holdings Ltd., subsequently renamed CRH plc, which has since grown to become one of the world’s leading building materials companies with a presence in all five continents and employing 76,000 people. Approximately 3,500 operating locations in 35 countries.

In 1970, the Group had sales amounting to the equivalent of €328 million. By the end of the 1980s, CRH had sales of €3.5 billion and operations in 18 countries.

Since that time, CRH has grown to become one of the world’s leading building materials companies with approximately 3,000 operating locations in 35 countries, an enterprise value of approximately €95.5 billion and employing 76,000 people. CRH has a clear, consistent strategy: to invest in and grow its existing businesses and to acquire or invest in companies that are related to its strategy. This strategy has been driven by three key principles: the importance of profit and cash generation, the importance of innovation and the importance of customer satisfaction.

In 2010, CRH acquired a majority stake in Schwenk Beton, the leading cement manufacturer in north east China. In 2012, CRH reported sales of €17.4 billion and operations in 35 countries.

Today, CRH is a FTSE 100 and Fortune 500 Company with operations in 35 countries.

IRISH CEMENT LIMITED

In 1970, Ireland joined Europe and European integration. In 1973 the UK and Ireland became members of the European Economic Community (EEC), the first steps in the creation of the single European market.

Ireland’s membership of the EEC laid the foundations for social, economic and political development into the future. Today, CRH is a FTSE 100 and Fortune 500 Company with operations in 35 countries.

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Expansion of Government policies of the late 1970s saw cement demand rise above 2 million tonnes in 1979. Following the highly successful introduction of the new dry process kiln at Platin during the 1970s the Company commenced a major modernisation project at Limerick Works in 1980 in order to upgrade the plant and ensure that market demands would be met into the future.

The new 4 Stage Pre-Heater kiln 6 dry process line was brought into production in 1983. Unfortunately, the 700,000 tonnes of additional annual capacity came on line at a time when the economy had moved into recession. A significant drop in construction activity had occurred and demand for cement began to reduce year on year. As a result the older wet process kilns at Limerick were taken out of service.

Demand in the home market gradually decreased to a level of the order of 1.2 million tonnes in 1987 but recovered to about 1.5 million tonnes at the end of the decade.

Following the completion of Limerick kiln 6 the focus at both Limerick and Platin Works was on maintaining efficiencies with existing equipment. However, one major project was undertaken to convert Platin from oil firing to lower cost coal firing.

Irish Cement Limited responded to the recession in a number of ways:

- In 1982 Irish Cement Consultancy Services (ICCS) was formed to profitably market the considerable engineering skills in the areas of cement process technology, cement plant operations and cement plant construction, built up over many decades, with a view to maintaining these skills within the Company.

- Export opportunities in the UK were identified and significant quantities of cement were shipped to that market towards the end of the decade.

- Market development activities were undertaken in the home market to encourage the use of concrete in a number of market segments, particularly the agriculture sector.

**LIMERICK EXPANSION KILN 6**

**NEW KILN 6 LINE AT LIMERICK ADDED 700,000 TONNES OF CAPACITY**

**RESPONDING TO RECESSION**
The relative depression of the previous decade gave way to a significantly improved economic outlook in the early years of the 1990s. The European Single Market came into being in 1992 and opened up a larger market for Irish manufacturers. Foreign Direct Investment in Ireland increased, encouraged by the availability of a young, well educated work force. European structural funds flowed to assist the development of significant infrastructure projects. A period of sustained economic growth, now commonly referred to as the “Celtic Tiger” took hold in the early years of the decade.

Cement demand increased year on year from 1993 right through the decade with demand increasing over the period by approximately 1 million tonnes.

The Company responded to the increased demand by planning and implementing a number of major projects to enhance capacity at Limerick and Platin.

Kiln Control Systems and Quality Control and Monitoring Systems were enhanced to ensure quality was maintained at higher throughputs. A modern Grate Cooler, replacing the existing planetary coolers was installed in 1998 on the Platin K2 2 production line.

There was increasing attention paid to the environmental performance of both plants and new Integrated Pollution Control Licences were granted by the Environmental Protection Agency to Platin and Limerick Works.

In the broader economy, the National Development Plan led the way in ensuring infrastructural developments, neglected in the previous decade, commenced. The development of a new interurban national motorway network was planned and projects implemented. The housing stock was increased significantly and apartments became a new feature of the built environment. City and townscapes were improved significantly in appearance leading to increased demand for a wide variety of concrete products for use in hard landscaping and architectural facades.

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In addition, a major product development programme was launched in the early years of the decade to establish the most sustainable eco-efficient low carbon product portfolio for the future. Cem II Portland – Limestone cement, produced by inter grinding unburnt naturally occurring limestone with clinker was identified as the sustainable flagship product for the future and was introduced to the market in 2007. Cem II quickly replaced Cem I as the main cement used throughout Ireland.

Following on from maximising energy efficiency in kiln and mill technologies and the introduction of Cem II cements, Irish Cement implemented, towards the end of the decade, the final lever in sustainable cement production – the substitution of fossil fuels with alternative waste derived fuels.

The most significant global recession since the 1930s began in 2007. Activity in the Irish economy, particularly in the construction sector, declined dramatically from 2008 up to and beyond the end of the decade. Irish Cement adapted to the changed environment by seeking out new export markets in the UK and continental Europe.

One of the most noteworthy developments affecting the global cement industry at the turn of the century was represented by the challenge of climate change and the need to minimise carbon emissions in production. Through ongoing upgrading projects at both Works, and particularly through the investment in Kiln 3 at Platin, Irish Cement ensured energy efficiency was maximised and carbon emissions were minimised.

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The €200 million investment in the modern 5 Stage Pre Heater Plate Kiln 3 line introduced the most up to date energy efficient cement plant technology to Irish Cement. The new pre-calciner kiln and roller mill technologies commissioned in late 2008 ensured that production would be to world best practice standards in terms of energy efficiency and carbon emissions. The new plant also facilitated the production of a new portfolio of low carbon eco-efficient CEM II products. Furthermore, the plant was designed to accommodate the introduction of alternative fuels to replace a significant proportion of traditional fossil fuels, thereby reducing dependency on imported energy sources, and significantly reducing the carbon footprint of production.
2010s
AND THE FUTURE

ALTERNATIVE FUELS

In 2011, following appropriate Licensing, alternative fuels were introduced by Irish Cement for the first time, commencing with the use of Solid Recovered fuel (SRf) at Platin Works. Efforts are continuing to identify other sources of alternative fuel for the future with the objective of achieving world class standards of over 70% fossil fuel replacement.

MARKET DEVELOPMENTS

In 2013, as the Company celebrates its 75th Anniversary, there are signs that we have reached the trough of the current recession in Ireland and we can look forward to a more optimistic future.

ECO-EFFICIENT PRODUCTS

Irish Cement Limited is a leading producer of a range of cement products, including CEM II, that are specifically designed for environmental performance, including low carbon footprint. These products are supplied to a wide range of applications and are used in the construction of buildings, roads, infrastructure and a host of other applications. In addition, Irish Cement Limited is committed to ongoing investment in new cement plant processes and technology that will allow for continued improvement in environmental performance.

NEW ECO-EFFICIENT CEM II PRODUCT PORTFOLIO FROM ENERGY EFFICIENT PLANTS

The story of the development of Irish Cement Limited has paralleled that of the development of Ireland. There have been periods of growth and periods of recession. Through all of these years, Irish Cement Limited has made a notable contribution to the local communities in which it operates, giving much needed employment in the north east and South West of the country. In every corner of Ireland, the sustainable development of the built environment – houses, schools, hospitals, farms, roads, commercial and industrial buildings and infrastructure of all kinds - has been made possible through concrete made with the Company’s products over this period.

Irish Cement Limited thanks all its stakeholders and partners, particularly its employees, suppliers and customers for their support over the past 75 years and looks forward to continuing its partnership with them in building a sustainable future for Ireland.

THE FUTURE

Irish Cement Limited is committed to the sustainable development of the built environment, offering innovative solutions to meet the needs of a changing world. The Company is dedicated to reducing its environmental impact, while continuing to provide high quality cement products to meet the needs of its customers.

For more information, please visit www.irishcement.com.