EUROPEAN PRECAST CONCRETE INDUSTRY FACTBOOK 2016



BIBM - Federation for the European Precast Concrete Industry

Industry figures

- 164,000 employees
- * ~ 8,000 production plants
- ✤ 5,500 companies
- 21 employees/plant on average
- ◆ 24 billion € of production in 2015

Introduction

- The downturn in the world economy as a result of the 2008 financial and economic crisis has had a profound impact on most sectors, and the precast concrete industry is no exception. However, the industry is seems to grow in the last years (see graph later).
 - EU precast concrete production in 2015 is estimated at 24 b€.



Façade



Pavement

What is precast concrete?



Being the second most consumed substance on Earth after water, concrete is a vital material.

A precast concrete product is a factory-made element manufactured with concrete and which, later, together with other pieces, will become part of a larger structure. Precast concrete elements are prepared, cast and hardened at specially equipped plants with a permanent location. The main advantages of such a process are

- Affordability: precast concrete combines the excellent quality of factory production with a relatively inexpensive material. The costs to repair and maintain concrete structures are low.
- Sustainability: made of natural local raw materials, available almost everywhere, precast concrete minimises the whole life cycle impact on the environment.
- Rapidity: factory-made products are independent of weather conditions and can be preceded separately from construction work on site. The use of precast concrete elements can shorten the disruption times caused by construction on site
- Safety and quality control: properties of the hardened concrete and position of reinforcement can all be checked before inclusion of an element in the final work. The intrinsic quality of an industrial product, manufactured in a controlled environment and with accurate methods

Precast concrete offers a wide range of colours, finishes and unlimited design possibilities difficult to match with any other material, while creating structures that can provide excellent energy performance from a life cycle perspective.

Precast concrete solutions provide:

- Highly energy-efficient commercial, residential, educational and healthcare facilities
- Drinking water, drainage, water sewage and sanitation systems
- Communication and transport infrastructure
- Shelter and protection against the forces of nature





The state of the European precast concrete industry

Precast concrete production in value 2009-2015 (in b€)



Precast Concrete Production in value

Source: Eurostat

Precast concrete, tomorrow's construction material

Energy efficiency in housing is the key answer to the climate change challenge

The European Union is committed to reduce greenhouse gas emissions by 20% as compared to 1990 levels and to reducing by 20% our energy consumption through by improved energy efficiency by 2020.

Buildings account for the largest share of total EU energy consumption (40%) and 36% of EU CO_2 emissions. Therefore the construction sector represents a huge potential in the area of reducing energy consumption and mitigate climate change. Broad policy guidelines are already in place, policy makers have to ensure their implementation at national level through appropriate legislation.

The thermal mass of concrete helps improve the energy performance of a house or a building which reduces the effect of the initial CO_2 footprint. In order to provide the most appropriate data about the environmental impacts of construction works, the Ecological footprint brings a solution while accounting for land and water use of human activity.

Provides high standard of living and safety

Concrete possesses all the advantages of a sustainable material with a low maintenance cost. It has excellent and proven fire resistance properties and it is earthquake-proof, with acoustic and thermal insulation qualities. Furthermore, it provides a healthy indoor air due to the low level of VOC (Volatile Organic Compounds) in concrete. All in all, it protects life, property and environment.

In addition, precast concrete is produced in a controlled environment which is closely monitored by plant employees, which allows great control of the quality of materials and the technicality. Since precast concrete plants are situated locally, concrete is transported only over short distances. Consequently it has a very favourable ecological footprint.

Social solution to demographic changes

Residential buildings must be adapted to two distinct demographic trends. First, the aging population requires an in-depth adaptation of existing infrastructures. Precast concrete is able to respond to the growing demand for independent living, assisted living and nursing homes.

Second, the increase of young people requires affordable and enjoyable new buildings. Precast concrete offers cost effective and quick solutions with high performance to owners and residents.

Smart investment in infrastructures

Infrastructure is the lifeline of any business activity, proper infrastructure increases business efficiency. A leading economy therefore needs excellent infrastructure including roads, power, highways, airports, ports and railways. Precast concrete offers solutions for many challenges such as noise protection, safety as well as sewage systems. Investing in upgrading existing infrastructure is a way to economic recovery with both short-term and long-term benefits.

Use of recycled and re-useable precast

Precast concrete is completely complying with the principles of circular economy, as it is fully recyclable and can be reused in other construction applications, e.g. smaller pieces of concrete are used as gravel for new construction projects. Furthermore, the concrete rubble will carbonate and absorb CO_2 from the atmosphere. 10% of total aggregate may be replaced by good quality crushed concrete e.g. in road construction.

To maintain a competitive sector, we need...

* A coherent EU level housing policy

There is an important interrelation between housing and sustainable development especially in terms of urban development, energy saving and the reduction of CO2. Despite the increased need for housing policies in Europe, the EU has no specific legislation on housing. Europe needs a common policy on social housing in order to solve growing social problems.

* An integrated policy on raw materials

Keeping an innovative and sustainable manufacturing industry is of strategic importance for achieving the objectives of the European Union. The principal industry need is the access to quality primary and secondary raw materials in a constant and affordable way; policies on mineral materials, locally available in large quantities, should favour this accessibility in a sustainable manner. In addition, affordable and equitable prices of raw materials are essential to a well functioning manufacturing sector.

A stable and coherent policy framework with medium and longterm objectives

Policy setting should be driven by a long term strategy shared by decision makers at the EU and national levels. Industrial development and innovation is possible only in a stable framework, where policies covering the construction sector are well coordinated between the different actors involved.

BIBM

BIBM is the Federation of the European Precast Concrete industry (Bureau International du Béton Manufacturé).

BIBM contribute to the development of the Precast Concrete Industry by acting at European and international levels. It provides the major platform of the sector in Europe, coordinating common development (technical and strategic) and promoting SME friendly legislation and stable standards. Furthermore, BIBM endorses the importance of sustainability and its three pillars and maintains a network of professionals, experts and industrialists to share their experience and piece of information for the progress of the industry.

Founded in 1954, it represents 15 national associations of precast concrete. The sector employs 165,000 people in 7,000 production plants across Europe (5,000 companies). Each plant employs on average 23 employees.

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