European Precast Concrete Factbook

European Federation for Precast Concrete

2011

1. Executive summary

- 210,000 employees
- 8,000 production plants
- 26 employees/plant on average
- 26 billion euros of production in 2009
- -27.6% drop in production in 2009

2. Introduction

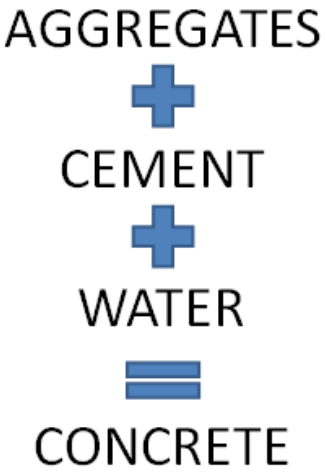
- The downturn in the world economy as a result of the financial and economic crisis has had a profound impact on most sectors, and the precast concrete industry is no exception. Although the situation varies from country to country, the precast concrete industry is facing very difficult times, especially as a result of the credit crunch affecting the construction sector.

- The crisis originated in the financial system and housing market has rapidly spread its negative effects over the real economy, via shrinking global demand and trade flows. The consequences of such a deteriorating scenario were contractions in growth. Following decreasing activity levels in the construction sector, precast concrete production volumes have declined or suffered from lower growth rates in most of the European countries.

- EU precast concrete production in 2009 is estimated at 26 b€, decreasing by -27.6% compared to 2008.

3. What is precast concrete?

a. Concrete



Being the second most consumed substance on Earth after water, concrete is an essential material.

Concrete is a mixture of sand, gravel and/or other aggregates (the matrix), bound together by cement.

b. *Precast concrete*

A precast concrete product is a factory-made elements 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

- 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
- 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 raw materials, locally available almost everywhere and in an enormous quantity, 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 by disruption times caused by construction sites

c. *Precast concrete products*

Building products

Infrastructure products

Street products

Products for specific applications

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
- Clean energy supply systems

4. The state of the European precast concrete industry

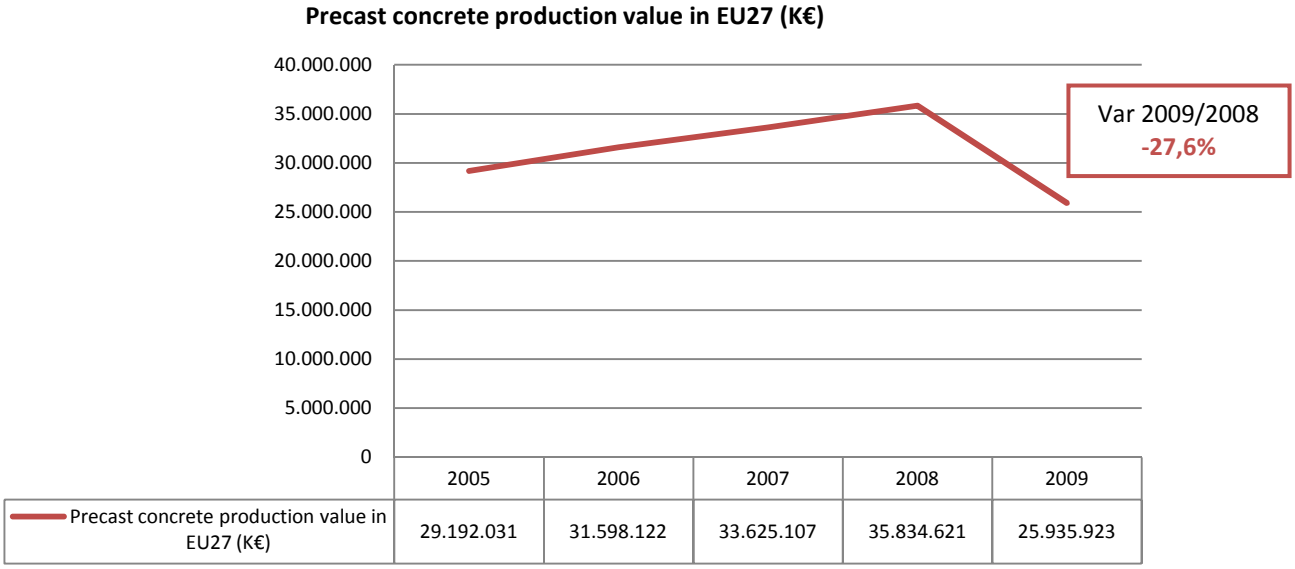
a. Precast concrete production in value

Production Value (k€)	2005	2006	2007	2008	2009	2009/2008%
Austria	652.872	679.605	687.620	826.259	721.023	-12,7
Belgium	999.923	1.111.099	1.182.903	1.247.124	1.104.059	-11,5
Bulgaria	44.835	66.523	87.211	114.989	79.490	-30,9
Czech Republic	434.439	395.833	690.499	794.313	588.954	-25,9
Denmark	153.144	158.634	-	811.967	469.876	-42,1
Estonia	90.648	120.870	151.680	96.131	44.871	-53,3
Finland	517.560	585.144	712.116	718.965	443.597	-38,3
France	3.100.425	3.408.413	3.172.543	3.586.453	2.945.788	-17,9
Germany	5.374.470	5.767.479	4.517.551	4.516.826	1.455.573	-67,8
Greece	84.610	88.088	116.515	139.762	63.405	-54,6
Hungary	272.684	286.418	314.829	358.869	260.090	-27,5
Ireland	608.167	692.034	665.231	626.504	329.737	-47,4
Italy	5.470.415	5.651.574	5.492.200	5.444.541	4.300.000	-21
Latvia	52.593	80.125	109.679	93.881	32.599	-65,3
Lithuania	89.267	131.419	164.240	143.865	62.248	-56,7
Poland	783.965	1.017.034	1.492.499	1.741.673	1.259.150	-27,7
Portugal	443.090	389.249	420.604	383.933	317.945	-17,2
Romania	183.983	239.087	335.085	374.478	233.579	-37,6
Slovakia	150.033	92.931	213.013	274.549	187.685	-31,6
Slovenia	51.673	65.128	74.145	98.887	87.348	-11,7
Spain	3.358.933	3.950.431	4.206.015	3.623.201	2.493.621	-31,2
Sweden	594.433	721.440	868.422	922.177	643.457	-30,2
The Netherlands	1.600.419	1.602.427	1.859.340	2.072.591	1.808.723	-12,7
The United Kingdom	3.474.329	3.474.204	3.525.686	2.713.768	1.945.902	-28,3
EU27	**29.192.031**	**31.598.122**	**33.625.107**	**35.834.621**	**25.935.923**	**-27,6**
Croatia	97.486	100.277	118.230	130.124	105.280	-19,1
Norway	478.481	564.484	598.327	552.205	383.028	-30,6

Source: Eurostat

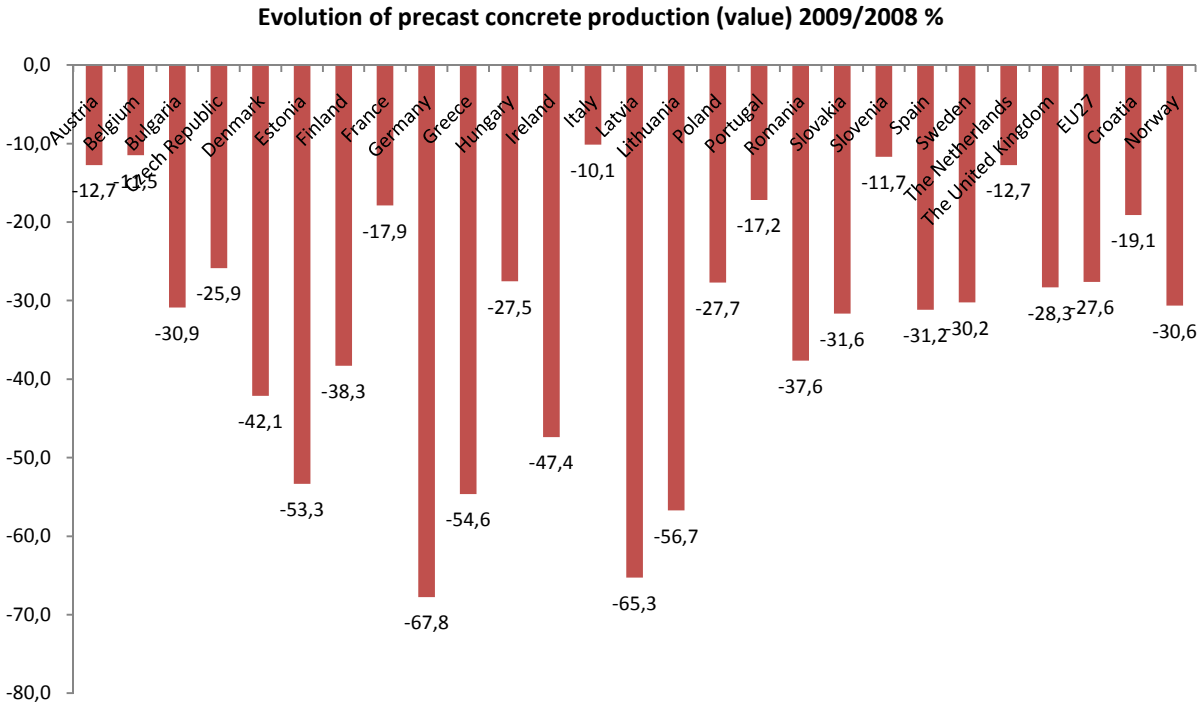
Missing data for Cyprus, Luxemburg, Malta, Iceland

b. Precast concrete production in value in EU27, 2005-2009



Source: Eurostat

c. Impact of the crisis on the precast concrete production (value) per EU Member States, 2008-2009



Source: Eurostat

5. Focus on tomorrow's policies

a. Energy efficiency in buildings as the key answer to the climate change challenge

40% of energy consumption is due to usage of building. The construction sector represents a huge potential in the area of reducing energy consumption. Broad policy guidelines are already in place, policy makers have to ensure their implementation at national level through appropriate legislation.

b. Smart investments in infrastructures and adaptation to demographic changes

A leading economy needs efficient infrastructures. Invest in upgrading existing infrastructure is a way to contribute to economic recovery with both short-term and long-term effects.
Residential buildings must be adapted to two distinct demographic trends. First, the aging population requires an in-depth adaptation of existing infrastructures. Second, the increase of young and low qualified people requires affordable and enjoyable new buildings.

c. 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.

d. A stable and coordinated policy framework

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.

6. BIBM

- BIBM (from the French acronym Bureau International du Béton Manufacturé) is the European Federation for Precast Concrete. It gathers 18 national associations of precast concrete, regional or product associations and companies.

- The federation acts as spokesman for the precast industry to the European Union institutions and other public authorities, and communicates the industry's views on all issues and policy developments with regard to technical, environmental, energy and promotional issues. Permanent dialogue is maintained with EU institutions, international authorities and associations.

- BIBM plays a significant role in the promotion of concrete and construction materials industries in cooperation with other relevant European organizations. The federation regularly co-hosts conferences on specific issues aimed at improving the market perception of the industry.