By developing specific construction solutions, LafargeHolcim is innovating and seizing opportunities in the 3D printing market. Entering into a partnership with XtreeE, a French start-up company specializing in the development of large-scale 3D printing systems, this alliance has opened the door for the first time in Europe, to market concrete created using a 3D printer.

Photo credit: http://hackaday.com/2014/05/29/

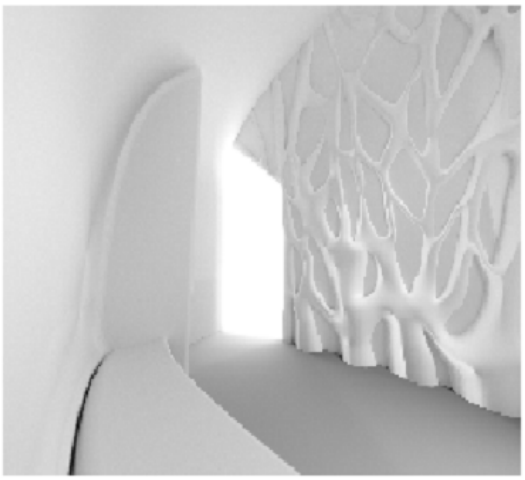
3D printing of concrete allows for complex geometric structures that are created at a reasonable cost along with shorter production time in comparison to traditional techniques. In bringing the digital revolution to the construction industry, LafargeHolcim has identified three promising markets: High value-added architecture, individual construction of affordable homes and the robotic construction of prefabricated building elements.

Furthermore, LafargeHolcim has developed and provided concrete mixes that are suitable for the 3D printer, and designed specifically for the creation of two different 3D printed structures”

- A load-bearing post printed by XtreeE and assembled by Fehr Architectural, with a height of 4 meters (about 13 feet), being used to support the playground roof of a middle school in Aix-en-Provence in France. This is the first 3D printed structural element to be marketed in Europe

- A pavilion created on behalf of the Ile-de-France regional authority using a revolutionary design, the fruit of a collaborative project bringing together XtreeE, Dassault Systèmes, ABB and LafargeHolcim

Load-Bearing Post



Pavillion

Photo credit:
http://www.lafargeholcim.com/lafargeholcim-innovates-with-3D-concrete-printing

"Innovation is part of our DNA in order to respond to the trends in tomorrow's construction market," explains Gérard Kuperfarb, Group Head of Growth & Innovation at LafargeHolcim. *"We are therefore proud to be positioned as a pioneer in 3D printing, a revolutionary technique that brings greater accuracy while considerably reducing construction times."*

Source: http://www.lafargeholcim.com/lafargeholcim-innovates-with-3D-concrete-printing