ERMCO NEWS

FROM MEMBERS AND PARTNERS

"DECARBONISING THE CEMENTITIOUS MATERIALS SECTOR" - ECF WORKSHOP

On January, 23rd the European Climate Foundation (ECF) has organized in Brussels a workshop on options, technologies



and incentives for "decarbonising" the European cementitious materials sector.

The workshop was led by Professors K. Scrivener (EPFL), coauthor of the UNEP

report on "<u>Eco-Efficient Cements</u>", and G. Habert (ETH Zürich). They are currently drafting a report on this subjet with reference to the European context.

The workshop was intended to introduce a strategy to move from an "energy efficiency" approach at cement plant only to a "resource efficiency" approach along the whole value chain.

Low CO₂ solution for cement, concrete and structures were the main issues on the agenda. Presentations are available at the following LINK.

"BETTY THE TRUCK MIXER"

A STORY FROM 2050.....

Once upon a time, in the middle of the 2050's, there was a young truck mixer, named TM63X, nicknamed "BETTY", living in a large community of digital equipment for constructions along the fjords of Oslo. It was a fully digital-born machine, equipped with the latest state of the art, set up for any task service, capable to deliver any kind of concrete within a radius of 100 km around its community. Its life was very happy, since it was surrounded with many good friends. Most of the other truck mixers in the fleet were very young, all of them self-driving and fully digitalized; the group of pumps in the community also were very young and pretty, so that nearly every day the washing shift, at the end of the deliveries, was a kind of party - playing with a lot of water and rubber balls until the time of refuelling and recovering into the garages.....continues here.

INNOVATION IN READY MIXED CONCRETE PRODUCTION: "GREEN TECHNIQUES" FOR CONCRETE DELIVERY AND PLACING



The trucks of the nearby future will no doubt be different from what they are today – because vehicles allowed to move inside cities will have to be quiet and almost free of CO₂ emissions. This means new (electric) engines, new apparatus for pumping... in a simple word – INNOVATION. To better focus on the industry needs the ERMCO WG "Green techniques for concrete delivery". has been setu up. ERMCO invites all interested trucks and/or pumps companies and equipment producers to participate to WG meetings, to identify needs and solutions, as well as the extension of the potential future market for the new machines. If you want to be involved, please e mail to secretariat@ermco.eu and we will be in touch with you.

ERMCO 2018 CONGRESS — OSLO CLICK HERE FOR THE FINAL PROGRAMME

ERMCO NEWS

APPLICATIONS

CONCRETE FOUNDATION OF NEXT WORLD'S TALLEST BUILDING



Designed by Spanish/Swiss architect and engineer Santiago Calatrava Valls, Dubai Creek Tower will be the world's tallest building. A pile cap of approximately 20 metre thick multilayered, tiered reinforced concrete top covers and transfers the loads to the foundation piles. To date, about 25,000 cubic meters of concrete have been poured, weighing about 60,000 tonnes — half the weight of the CN Tower in Canada. About 12,000 tonnes of steel reinforcement has also been placed— nearly twice the weight of the Eiffel Tower.

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POLYSTYRENE CONCRETE BLOCKS GIVE ARCHITECTS NEW OPTIONS FOR CONSTRUCTION



Polystyrene concrete blocks are lightweight, strong and offer impressive thermal properties. They are created from a combination of materials including waste products.

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70% OF THE WORLD'S POPULA-TION LIVE IN CONCRETE STRUC-**TURES @ConcreteInitiative** For every €1 spent on 70% of the world's construction output a total of €3 are generated in total economic population live in concrete structures activity (GDP increase) The concrete in a The value of concrete standard family house production in Europe is €74 billion costs less than €7000 The energy consumption Existing concrete of conventional buildings technology enables is typically buildings that use 150-200 kWh/m2/year 50kWh/m2/year or less Every km of concrete The concrete used in road can reduce the the Channel Tunnel is CO2 emissions of contractually vehicles by 1000-4000 guaranteed to last for I tonnes over a 120 years 30 year period

WORLD'S FIRST 3D PRINTED BRIDGE MADE FROM MICRO REINFORCED CONCRERE





The Institute of Advanced Architecture of Catalonia (IAAC) is trying to bring the 3D

printing manufacturing technique to the architectural scale. For this scope they have designed and built the first 3D printed pedestrian bridge in the world, 12 meters long and 1.75 thick, using micro reinforced concrete. **READ MORE**

CONCRETE MADE

