ERMCO 2018 CONGRESS

June 7-8, 2018 in Oslo, Norway

Concrete contribution to a changing world

Venue: Radisson Blu Plaza Hotel
Today, 2018, as we head towards a number of new challenges and opportunities for the construction sector, concrete professionals are facing new goals such as sustainability and the circular economy. Our Community has to find answers and solutions to these goals. For this purpose, we need the essential help of ERMCO, the European Ready Mixed Concrete Organization.

After 30 years, our three-yearly Congress has come round again to Norway. We are grateful to the Norwegian Ready Mixed Concrete Association, FABEKO, for hosting this productive and valuable meeting in Oslo. The Congress presents an opportunity to take stock of where we are currently and where we will could be in the future. I am therefore delighted that FABEKO and ERMCO have been able to put together such a varied and interesting programme.

The programme addresses important issues such as: concrete specification; production and distribution; sustainability and social responsibility; innovation and design for the future; infrastructure; and adaption to climate change. After a plenary session, these topics will be presented and debated in 4 different sessions with 45 speakers from all over the world and 16 Sponsors.

During two days in the heart of wonderful Oslo the whole ready-mixed concrete industry will meet to share ideas and discuss the future of our sector. I firmly believe that this Congress will lead to the development and implementation of many new ideas and foster innovation in our industry.

Yavuz Işık
ERMCO President
Oslo is the capital of Norway, situated between the Oslo Fjord and the green hills of Oslomarka! The combination of city life and easy access to outdoor activities makes Oslo a unique destination. We hope you able to enjoy Oslo and Norway when you are here at midsummer.

Innovation has always been an important part of our culture. Huge projects for improved infrastructure are now using some of the outstanding technologies which has been developed through decades of record breaking concrete structures for the oil and gas structures in the North Sea.

At ERMCO 2018 Congress in Oslo you will be presented some of the latest innovations which connects new technical solutions with low carbon concretes and sustainable structures in concrete.

The Congress’ main theme is “Concrete contribution to a changing world». We have added «Concrete moves…» to express the change in technology and the increasing focus at sustainability in all decisions.

FABEKO wishes you warmly welcome to ERMCO 2018 Congress.

Terje Bakken
FABEKO President

The Norwegian Ready Mixed Concrete Organisation –FABEKO is honoured to welcome you to the 18'th ERMCO Congress here in Oslo.

The Norwegian Concrete Association is pleased to welcome you to Oslo for the 18th ERMCO Congress.

We are a professional society with 1300 members and we work for the Norwegian concrete industry in several areas. It is important for us to influence on the conditions for the use of concrete as a construction material. In addition, we put a lot of effort in R&D, education, proliferation of knowledge and information. We want to promote competitive execution techniques that highlights the economic, technical and environmental qualities of concrete. A major activity for us, is to create and host arenas for professional activities and engage our members for participation in committees and working groups.

We have long traditions of cooperation with the Norwegian Ready Mixed Concrete Organization. Their members have been a highly valued resource in a lot of the projects and activities our Association has managed. The core activities of cooperation, have been on education, best practice reports, courses and conferences.

A lot of the members in FABEKO is also members of the Norwegian Concrete Association. So, in a lot of areas, we have mutual interests in how we can promote the use of concrete as a sustainable solution in the future development of our society. We therefore look forward to this congress and the opportunity to get new acquaintances and new knowledge.

Eivind Heimdal
President of The Norwegian Concrete Association
Dipl.-Ing. Sebastian Spaun

Mr Sebastian Spaun (49) is Managing Director of the Association of the Austrian Cement Industry since 2015.

“Heating, cooling and storing energy with concrete”

After seven years of research and accomplishment of several practical examples, Sebastian Spaun will present a planning guide for the use of concrete for heating and cooling of buildings.

M Sc Kjersti Kvalheim Dunham

Mrs Kjersti Kvalheim Dunham is the Programme manager of the Coastal Highway Route E39- project in Norway

“Coastal Highway Route E39 – extreme structures”

The Coastal Highway Route E39 runs 1100 km from Kristiansand to Trondheim on the west coast of Norway. The huge infrastructure project includes world record-breaking, extreme structures in concrete.

Per Ritzler

Mr Per Ritzler is Senior adviser at the Norwegian Scenic Routes, with responsibility for national and international promotion of the Tourist Routes.

“Norwegian Scenic Routes- traces of our time”

Norwegian Scenic Routes consists of 18 selected routes through the most beautiful scenery Norway has to offer. The architects combine concrete, wood, steel and glass to produce installations at resting places and viewpoints which withstand dramatic weather and great variations in temperatures.
M Sc Rob van der Meer

Mr Rob van der Meer is director at HeidelbergCement in charge of Public Affairs and Climate Change in the department of Global Environmental Sustainability of HeidelbergCement in Heidelberg

“The Concrete Initiative: The concrete’s role in creating a sustainable construction sector in Europe”

The Concrete Initiative is a project led by CEMBUREAU, BIBM and ERMCO. The aim of the work is to offer a glimpse into the wonder and complex world of concrete that is instrumental in creating a better world for its citizens.

Concrete keeps you safe, it keeps you warm, it builds communities and powers our futures

M Sc Marco Borroni

Mr Marco Borroni is Operations and new plants manager at Unical, Buzzi Unicem Group, ATECAP Board member and ERMCO board member

“Innovation and trends in ready mixed concrete production”

In addition to providing a sophisticated material, the concrete producer provides above all a service to the construction industry, of which it is in fact the main partner for the realization of simple and complex works. The aim is to introduce the concept of sustainability in the construction sector through the so-called circular economy. This entails an increasing attention within the limits of the quantities actually available, of recycled materials and the elimination of all waste.
PROGRAM
Thursday 7 June
Radisson Blu Plaza Hotel

PLeonum Session 09:00-12:00
Chairman: Mr. S. Tosterud

09:00 Welcome to ERMCO 2018
President of ERMCO Mr. Y. IŞIK, President of NB Mr E. Heimdal, President of FABEKO Mr T. Bakken

The Norwegian Scenic Routes – traces of our time,
The Norwegian Scenic Routes, Per Ritzler
The Concrete Initiative: The concrete’s role in creating a sustainable construction sector in Europe,
HeidelbergCement, Rob van der Meer

Break 10:15-10:45

Coastal Highway Route E39 – Extreme structures,
Norwegian Road Administration, Kjersti Kvalheim Dunham
Heating, cooling and storing energy with concrete,
Association of the Austrian Cement Industry, Sebastian Spaun
Innovation and trends in ready mixed concrete production
Buzzi Unicem, Marco Borroni

Lunch 12:00

Hall A – 13:30-16:40
Concrete Specification, Production and Distribution
Chairman: Mr. M. Borroni

Alpha Concrete Beton System,
BT3 Betontechnik, Arnold Trenkwalder
Winter concreting full scale field trial of rock tower foundations,
Northern Research institute NORUT, Bård Arntsen
The Mile in the Middle: Measuring and Managing Concrete in Transit,
GCP Applied Technologies, Matthew Nazarenko
BetonQuali – Digital Qualification platform for the concrete industry,
German Ready Mixed Concrete Association, Hannes Krüger

Break 14:50-15:20

Admixtures – essential ingredients of 21st century,
EFCA, Nihal Kinnersley
Increase of air content of concrete after mixing,
Aalto, Jouni Punkki
Service life design of concrete structures according to fib MC2010 and ISO 16204,
S Helland Konsult, Steinar Helland
Swot analysis on the specification of durability by performance,
Tom Harrison, Independent Consultant and Visiting Industrial Professor, University of Dundee

Gala dinner 19:30 Radisson Blu Plaza Hotel

Hall B – 13:30-16:40
Sustainability and Social Responsibility
Chairman: Mr. J.M. Potier

The CSC Responsible Sourcing Certification Scheme for concrete- A global update,
CSC, Stefan Van Uffelen
CSC RSS: Market implementation in Germany- system operator’s perspective,
BTB, Olaf Assbrock
**CSC RSS: Producer’s perspective and implementation outlook,**
Heidelberger Beton, Christian Artelt

**CSC RSS: Market implementation in Turkey,**
THBB, Asli Ozbora

**Carbon capture at cement-plants: potential effect on environmental properties of concrete,**
Norcem, Kjell Skjeggerud

*Break 14:50 - 15:20*

**Admixtures and sustainable concrete,**
EFCA, Juerg Schlumpf

**How we are reaching zero emissions from concrete transport and delivery,**
Bellona, Christian Eriksen

**Development of concrete with lower climate impact in Sweden,**
SB Svensk Betong, Malin Löfsjögård

*Gala dinner 19:30 Radisson Blu Plaza Hotel*

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**PROGRAM**

**Friday 8. June**

Radisson Blu Plaza Hotel

**HALL A – 09:00-12:20**

**CONCRETE SPECIFICATION, PRODUCTION AND DISTRIBUTION**

*Chairman: Mr. O. Assbrock*

- *Digital Concrete: the integration of production process in the industry 4.0 era,*
  SIMEM, Federico Furlani

- *From concrete specification to delivery: COLCRETE, a BIM based platform,*
  BRAINS DIGITAL, Alessandro Cattaneo

- *New telematics and water control system for truck mixers,*
  Liebherr, Philipp Fleischer

- *Pumping behaviour of modern concretes- Characterisation and prediction,*
  Technical University Dresden, Egor Secrieru

*Break 10:20-10:40*

- *Operations research in concrete distribution: an European performance benchmark,*
  Institute for Operations Research and Management GmbH, Dr. P. Flachskampf

- *The Betonakademie education program,*
  GVTB, Christoph Ressler

- *WiTraBau – Transfer of knowledge into the ready mixed concrete industry,*
  German Ready Mixed Concrete Association, Andreas Tuan Phan

- *An Overview of How Research from the MIT Concrete Sustainability Hub Research is Being Implemented,*
  National Ready Mixed Concrete Association, Robert Garbini

- *Blue Helmet – Occupational Health and Safety Awards,*
  Turkish Ready Mixed Concrete Association, Selcuk Ucar

*Lunch 12:20*

**HALL B – 09:00-12:20**

**SUSTAINABILITY AND SOCIAL RESPONSIBILITY**

*Chairman: Mr. T. Harrison*

- *Ready Mixed Concrete Production Using CO2 waste,*
  Carbon Cure, Sean Monkman

- *Recycling of concrete and aggregates – strategies and developments with a view to Germany,*
  Technical University Kaiserslautern, Wolfgang Breit
Utilising the inherent CO2-binding capacity of concrete – sustainable initiatives towards circular economy,
SINTEF Building and Infrastructure, Christian J. Engelsen

Recybéton : Historic of the different steps,
SNBPE, Sophie Decreuse

Break 10:20-10:40

Evolution og Green Certification for RMC in India,
RMCMA, Vijay Kulkami

Environmental solutions in concrete industry,
Mapei, Sven Henrik Norman

Effect of wash water on the properties of Concrete,
Istanbul Technical University, M. Hulusi Ozkul

Utilisation Of Low Grade – Unconventional Aggregates In Concrete,
HeidelbergCement, Rolands Cepuritis

Seismic performance of structural members constructed with recycled concrete aggregate,
Istanbul Technical University, Caglar Goksu Akkaya

Lunch 12:20

HALL A – 13:20-15:40
INNOVATION AND DESIGN FOR THE FUTURE
Chairman: Mr. F. Biasioli

RM Digitization and Real-Time Visibility of concrete properties from load to pour,
CommandAlcon, Rob Piosik

Estate developers and the Green Road to Future urban development,
Grønn Byggallianse, Katharina Bramslev

The PowerHouse alliance, the road towards plus-houses,
PowerHouse Alliance, Sverre Smeplass

Break 14:20-14:40

Simsalabim – Hard Concrete Made Easy,
Norconsult, Roe Setnes and Eivind Bjørhei

Shell design efficient utilization of concrete for new applications as floating cities,
Dr Techn Olav Olsen, Tor Ole Olsen

Closing session – plenum

HALL B – 13:20-15:40
INFRASTRUCTURE AND ADAPTION TO CLIMATE CHANGE
Chairman: Mr. J. E. Hjelle

Life cycle cost analysis of lighting and pavement in Italian road tunnels,
Buzzi, Marco Borroni

Resilience: Essential for sustainability
NRMCA, Robert Garbini

Building a Sustainable Infrastructure for Connecting the Continents: Crossing the Bosphorus,
Istanbul Technical University, Yilmaz Akkaya

Break 14:20-14:40

Sustainability policies in Europe: Challenges and opportunities for concrete pavements
EUPAVE, Luc Rens

Ready Mixed Industry Innovation in Latin America,
Federación Iberoamericana del Hormigón Premezclado, Manuel Lascarro

Closing session – plenum
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Sightseeing in Oslo

Parallel to the program at the ERMCO 2018 Congress, a sightseeing-tour in Oslo is arranged for accompanying persons Thursday 7. June.

The tour starts at the Radisson Blu Plaza Hotel at 10:00 (the venue of the Congress)
You will be picked up by a comfortable bus at the hotel and a professional guide will take you to some of the most famous sights in Oslo and serve you lunch at a restaurant during the tour.

The sights you will be visiting are:

- The Holmenkollen ski arena
- The Viking Ship Museum
- The Frogner Park

The bus will take you back to the hotel at 14:00-14:30.

The fee for joining the sightseeing-tour is NOK 960 or approximately EUR 100 per person
This includes bus transport, professional guiding and lunch.

Gala dinner

A Gala dinner is arranged for participants at ERMCO 2018 Congress. Dinner will start Thursday 7. June at 19:30 at Radisson Blu Plaza Hotel. This Gala dinner is included in the fee for participants at Congress.

Accompanying persons are welcome to join the dinner. The cost for accompanying persons is NOK 1.050,-. This includes a 3 course meal with drinks and light entertainment.
Oslo is building with concrete

After the program of the ERMCO 2018 Congress, some of the ongoing projects and famous buildings at Oslo’s seaside will be presented. These projects use ready mixed concrete in combination with other materials to display unique architectural qualities combined with a strong focus at sustainability.

The projects are presented at the Radisson Blu Plaza Hotel Friday 8. June as from 16.00-17:00 and the participants may also join an outside walk to study the buildings after the presentation. The same tour will also be arranged Saturday 9. June as from 09:00 for those not able to join the Friday walk.

The buildings presented are:

- The new Deichman Library which will be presented by architect Einar Hagem, Lund Hagem Arkitekter
- New Munch Museum, shortly presented by Jan Eldegard Hjelle, FABEKO.

Tour ends outside the Norwegian National Opera and Ballet. There is no fee for joining these presentations.
About ERMCO

The European Ready Mixed Concrete Organization (ERMCO) was established in Munich on 27 October 1967. 51 years ago, at the invitation of the German Ready-mixed Concrete Association, over a hundred delegates from twelve European countries met to discuss the development of ready-mixed concrete in Europe and the establishment of a European organization to represent the industry.

ERMCO has expanded from its initial twelve to eighteen Full and seven Corresponding and Associate Members today. Besides the majority of European countries, ERMCO Members are from all four continents – North and South America, Middle and Far East. – so the Organization has links with the representatives of the ready mixed sector all over the world.

Every year ERMCO holds its General Assembly, the Meeting of Representatives, and every three years its International Congress hosted by one of its members associations. In 2018, FABEKO, the Norwegian Ready Mixed Concrete association, will host the Congress in Oslo 7-8 June.

About FABEKO

The Norwegian Ready Mixed Concrete Association, FABEKO organize all major companies producing ready mixed concrete in Norway. The members of FABEKO represents more than 95 % of the yearly volume of ready mixed concrete produced in Norway.

FABEKO was established in 1964 and have during the period of 54 years developed into a strong organization which supports the members on many different tasks like:

- Member service
- Organisation of meetings and conferences
- Arranging competence level courses.
- Improving environmental footprint of concrete
- International cooperation
- Recruiting of personnel to the industry
- Information to members and market
- Certification of concrete pumps
- Promotion of concrete together with the organization Byggutengrenser