



INTERNATIONAL SOCIETY FOR CONCRETE PAVEMENTS

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ISCP e-NEWSLETTER
VOLUME 8, NUMBER 10

ORGANIZATIONAL MEMBERS & MAJOR EVENT SPONSORS:



WHAT'S NEW AT ISCP

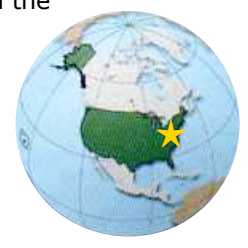
ISCP Annual Membership Meeting to be Held at TRB in January

The ISCP Annual Membership Meeting will be held on Saturday, January 21, 2012 at 5:30 pm in the Congressional Room of the Omni Shoreham Hotel, located at 2500 Calvert St NW, Washington, DC 20008, USA. This meeting is being held in conjunction with the Annual Meeting of the Transportation Research Board. All ISCP members and guests are invited to attend.

Agenda items will include reports from each of the eight active committees (including updates on the upcoming 10th International Conference on Concrete Pavements and the associated pre-conference workshop), announcement of election results, presentation of the approved 2012 Society budget, and other business. Members with agenda suggestions should submit them to: president@concretepavements.org.

An informal group dinner will be arranged to follow the meeting. Dinner details will be provided online and in the December newsletter.

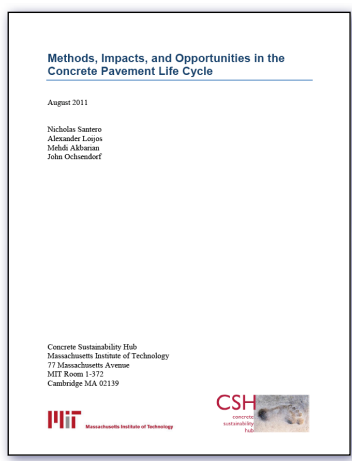
For the Omni Shoreham Hotel information, please go to: <http://www.omnihotels.com/findahotel/washingtondcshoreham/mapanddirections.aspx>
To contact the Omni Shoreham by telephone, please call: 1-866-599-6674



INDUSTRY RESOURCES

Concrete Sustainability Hub Publishes Concrete Life Cycle Report

The Concrete Sustainability Hub at the Massachusetts Institute of Technology (MIT), USA published a report titled "Methods, Impacts, and Opportunities in the Concrete Pavement Life Cycle" by N. Santero, A. Loijos, M. Akbarian and J. Ochsendorf in August, 2011. This publication contributes to a comprehensive approach on sustainability of the transport infrastructure. Life cycle assessment (LCA) offers a thorough approach to evaluate and improve the environmental impacts of pavements.



This research explores and advances three key areas relevant to the pavement LCA field: methodology, quantification, and the supporting science. Moreover, this research supports ongoing standardization efforts by proposing good-practice concepts for conducting any pavement LCA.

The Concrete Sustainability Hub at MIT is supported by the Portland Cement Association (PCA) and the Ready Mixed Concrete (RMC) Research and Education Foundation.

For a pdf of this publication, please go to: <http://web.mit.edu/cshub/news/pdf/MIT%20Pavement%20LCA%20Report.pdf>

NEW PUBLICATIONS ARE AVAILABLE THROUGH EUPAVE!



LIFE CYCLE ASSESSMENT FOR ROAD CONSTRUCTION AND USE

Charlotte Mészáros, Thomas Stengel and Christoph Götter
Centre for Building Research, Technical University München, Germany



"Life Cycle Assessment for Road Construction & Use"

The research presented in this publication was awarded the **Best Marketing Paper Award** during the 11th International Symposium on Concrete Roads in Seville, Spain. The brochure emphasizes the growing importance of ecological factors in road construction due to environmental considerations in politics and society. The study is based on the evaluation of environmental impact on motorways, which is performed through a life cycle assessment, according to ISO 14040.

For a pdf of this publication, please go to:
http://www.eupave.eu/documents/technical-information/inventory-of-documents/inventory-of-documents/eupave_life_cycle_assessment.pdf

...brochure emphasizes the growing importance of ecological factors in road construction due to environmental considerations in politics & society.



CONCRETE ROADS: A SMART AND SUSTAINABLE CHOICE

ENVIRONMENTAL ASPECTS
ECONOMIC ASPECTS
SOCIAL ASPECTS
OTHER POSSIBLE APPLICATIONS OF CEMENT AND CONCRETE



EUPAVE Appears in European Commission DG MOVE Report on Public Consultation on "Strategic Transport Technology Plan"

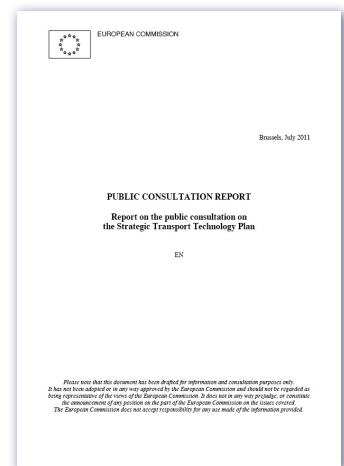
DG MOVE (Directorate-General for Mobility and Transport) published a report, in May 2011, about the results of the public consultation on the Strategic Transport Technology Plan (STPP) in which EUPAVE submitted its comments. EUPAVE appears as one of the many important European associations participating on this public consultation. The report: "Concrete Roads: A Smart and Sustainable Choice", appears in Annex II, page 24.

To download the brochure, please go to:
<http://www.eupave.eu/documents/graphics/publicities/sustainable-concrete-roads-eupave.pdf?lang=en>

For the *PUBLIC CONSULTATION REPORT on the Strategic Transport Technology Plan* (pictured right), please go to:
http://ec.europa.eu/transport/research/sttp/doc/report_sttp_public_consultation.pdf?lang=en

To download the "Additional Contributions" Report (23 MB), please go to DG MOVE's website:
http://ec.europa.eu/transport/research/consultations/2011_05_28_sttp_en.htm?lang=en

To request a hardcopy of either brochure, please send an e-mail to: info@eupave.eu (Members: \$4.00 U.S./€3, Non-Members: \$33.00 U.S./€25). The publications may also be downloaded from the EUPAVE website at: www.eupave.eu.



European Parliament 2011-2020 Road Safety Resolution Highly Favorable for Future of the Concrete Industry

The European Parliament approved a resolution on European Road Safety 2011-2020, passed on September 27, 2011, in which Members of the European Parliament (MEPs) proposed over 100 measures to improve road safety in the European Union. Among the measures, recommendations and actions that the resolution states, there are many which directly benefit the future use of concrete:

- "A well-preserved road infrastructure contributes to reducing fatalities and injuries of road users." The resolution considers infrastructure an important part in the EU strategy to drastically reduce road accidents to 50% by the year 2020.
- "...emphasizes the need for adequate road surfaces which enhance skid resistance, climatic and meteorological performance and visibility, and which require low maintenance, thereby increasing infrastructure user safety".
- The resolution also calls on the Commission to identify, and on the Member States to implement, suitable measures to prevent accidents in tunnels and to reduce the damage they cause. EUPAVE has always been defending, concrete is the best solution in tunnels due to fire safety reasons:
<http://www.eupave.eu/documents/technical-information/inventory-of-documents/pictures/safety-of-tunnels-final.pdf>
- "...recommends the use of road safety barriers with smooth surfaces." Concrete safety barriers best fit this recommendation.
- ...road maintenance workers are included within the category of "vulnerable road users who need to be better protected". For EUPAVE, investing in roads which require low maintenance, such as concrete roads, is the best way to protect road maintenance workers.

In summary, the resolution is definitely good news for EUPAVE and it is a huge success in our strategy outlining and defending the benefits of concrete in the EU.

The resolution proposes over 100 measures to improve road safety... superb news for EUPAVE & a huge success in our strategy outlining & defending the benefits of concrete in the EU.

CONFERENCE NEWS & UPDATES

Fort Miller Company Hosts Workshop on Precast Pavement Technology

The Fort Miller Company hosted a workshop on New Technologies for Precast Concrete Pavement Systems at their facilities in Schuylerville, New York, USA on November 9, 2011. More than 40 participants were present, representing engineering consultants, precast concrete fabricators, highway agencies, industry and other groups from the USA and Canada. Several new and improved technologies for precast concrete paving systems were introduced, including:



- A removable, reusable pavement system (Super-Paver®) for urban and other applications where access to underground utilities can be facilitated in a sustainable manner.
- A removable dowel load transfer system for the Super-Paver® system and for conventional concrete pavement installed in utility-intensive areas.
- The use of "headed" tie bars and short dowels to reduce dowel and tie slot lengths in jointed precast pavement systems.
- A new post-tensioned precast concrete pavement system (PPCPS) that uses non-planar precasting techniques and a double-groove grout-filled joint to eliminate the difficulties sometimes associated with the tongue-and-groove slab alignment feature found in other PPCPS.
- A self-propelled laser-based grading system that is capable of producing non-planar finished grades that can improve the accuracy of placement and alignment of any precast pavement system.



Replacement of Removable Urban Pavement System (RUPS)



Precast, Post-Tensioned Pavement with Non-planar Surface and Horizontal Curve

The technical program portion of the workshop included an overview of international precast concrete pavement technologies by ISCP Honorary Member and Past President, Dr. Shiraz Tayabji (Fugro Consultants, USA).

For more information on the workshop presentations and technologies, please e-mail Mr. Peter Smith of the Fort Miller Company at: psmith@fmgroup.com.

The Fort Miller Co., Inc.
Precast Concrete Solutions

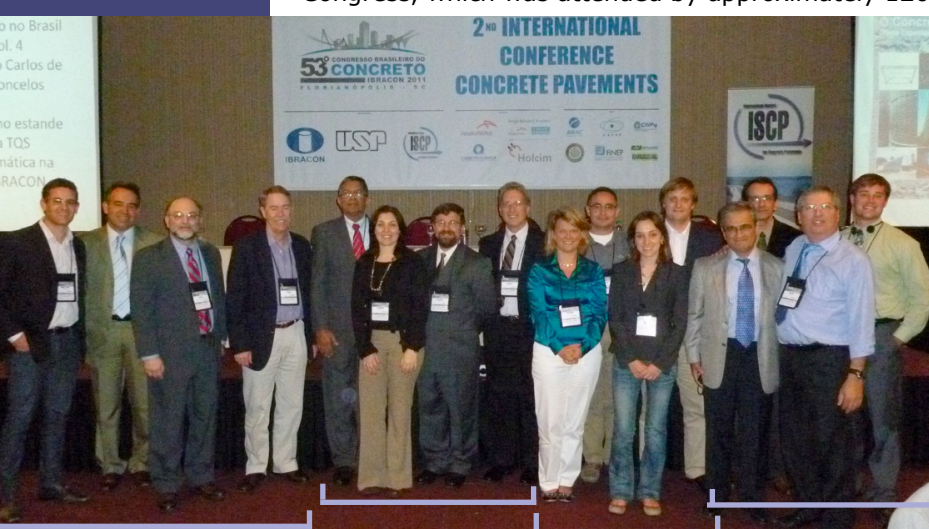
2nd International Conference on Best Practices for Concrete Pavements held in Florianopolis, Brazil

The 2nd International Conference on Best Practices for Concrete Pavements (organized by the Brazilian Concrete Institute (IBRACON) and the University of São Paulo and co-sponsored by ISCP) was held November 2-4, 2011 in conjunction with the 53rd Brazilian Concrete Congress in Florianopolis, Brazil. The conference was chaired by ISCP member Prof. Tatiana Cervo, Federal University of Brazil at Santa Maria; and was co-chaired by ISCP President Mark Snyder and Vice-President José Balbo. Several other ISCP members and Directors were also speakers and participants.

The Pavement Conference was one of 6 concurrent tracks at the Congress, which was attended by approximately 1200 delegates.



Bryan Perrie, ISCP Director-South Africa,
Mark Snyder, ISCP President-USA,
Jose Balbo, ISCP Vice-President-Brazil &
Shiraz Tayabji, ISCP Honorary Member & Past ISCP President-USA



More than 30 technical presentations were delivered in English and Portuguese (translation services provided) by speakers from 12 countries, representing 5 continents. Presentation topics included:

- concrete pavement recycling
- precast concrete pavement systems
- pervious concrete paving
- airfield pavement design procedures
- thin concrete pavements (TCP)
- load transfer system design
- sustainability topics
- . . . and much more

An award for **Best Paper of the Conference** was made to Kyriacos Neocleous, Angela Graeff, Kipros Pylakoutas (University of Sheffield) and Kostas Koutselas (Aggregate Industries UK) for their paper entitled "Steel Fibre Reinforced Roller-Compacted Pavements: Research and Practical Experience."

For a CD-ROM of the Conference Proceedings, please contact: Professor Cervo: cervo.tatiana@gmail.com or Professor Balbo: jtbalbo@usp.br

Andrigo Zanella: Federal Univ of Brazil at Santa Maria,
Alexandre Moraes: Construquímica,
David Brill: US-FAA,
Bryan Perrie: Cement & Concret Institute-So. Africa
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Shiraz Tayabji: Furgro Consultants,
Tatiana Cervo: Federal Univ of Brazil at Santa Maria,
Lev Khazanovich: Univ of MN,
Mark Snyder: ACPA-Penn Chapter
Anne Beeldens: Belgian Road Research Corp,
Sam Khoury: Ohio Univ,
Angela Graeff: Univ of Sheffield,
Juan Pablo Covarrubias: TCPavements
Jamshid Armaghani: Global Solutions,
Gelmo Chiara: Arcelor Mittal,
Jose Balbo: Univ of Sao Paulo,
Kyle Hoegh: Univ of MN

Successful "CONCRETE ROADS DAYS" in the Netherlands and ...

Cement & Beton Centrum held the Dutch Concrete Road Symposium on October 11, 2011. The last time such an event was organized was 13 years ago. Over 220 participated-many more than expected! The interesting program, the indoor/outdoor exhibits and unusual displays attributed to the high participation and attendance. A concrete bicycle path was constructed in front of the venue and a brand new slipform paver was on display.

EUPAVE was also present in the exhibition as a guest of the Cement & Beton Centrum. The program had parallel sessions covering a broad range of subjects. The majority of the symposium was dedicated to presentations on sustainability. In the parallel sessions, more technical issues and applications were presented such as:

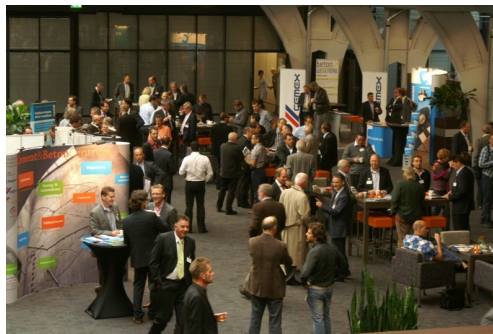
- Roundabouts
- Bicycle paths
- Optimized Exposed Aggregate Concrete
- Container terminals
- Bus lanes
- Slab Length of Fibermix Concrete Pavements

Several new brochures were presented. To download each of these brochures, please go to the EUPAVE website at: <http://www.eupave.eu/documents/technical-information/inventory-of-documents/inventory-cementbetoncentrum-publications.xml?lang=en>

All presentations are available on the website at: www.betonwegendag.nl



photo credits: www.betonwegendag.nl



... Germany

Just a week later, the German Road Research Association FGSV held the bi-annual "Betonstrassentagung" October 20 and 21. About 350 participants met in Cologne, Germany for many diverting and well-presented topics such as:

- exposed aggregate concrete
- truck parkings
- concrete safety barriers
- whitetopping
- dowel alignment
- . . . and many others

In particular, Mr. Jens Skarabis (the Technical University of Munich) gave a presentation about the assessment of the first and second curing of exposed aggregate concrete surfaces. He was granted the **Road Construction Research Award** from the Otto-Graf-Foundation. The result of numerous ongoing studies, research projects and the detailed guidelines and specifications undoubtedly contribute to the high quality of German concrete motorways.

Mr. Jens Skarabis,
Technical University of
Munich, granted the
"Road Construction
Research Award"
from the
Otto-Graf-Foundation

Round-Table Debate in Bologna, Italy

Fabio Miseri, from EUPAVE member AITEC, the Italian Cement Association, invited Luc Rens, ISCP Director, to be a central guest in a round-table debate that took place on October 7, 2011 at the SAIE International Building Exhibition in Bologna, Italy. A discussion, moderated by Mr. Marco Liconti (Italian news journalist), focused around 12 statements related to concrete pavements and sustainability.

An exciting interaction was immediately created among the more than 40 attendees representing public authorities: the National Road Authority ANAS, Regional Road Authority Veneto Strade, Local Road Authority Province of Bolzano, designers, academics, contractors, and material and equipment suppliers. The issues varied from very technical, (concrete mixes), to economical and societal. A topic of particular interest was the importance of international associations such as EUPAVE in the dissemination of experiences and good practices in initiating construction of concrete roads.

For statements and denotations (pictured left) from the October 7th Bologne Conference, please go to:
<http://www.eupave.eu/documents/graphics/newsletter13/bologna-conference-statements-on-concrete-roads.pdf?lang=en>



Bologna Conference
October 2011

- The concrete pavement market is growing all over the world (Latin America, North America, South East Asia, Russia, Australia, ...). In Europe, there are large differences between countries, some have even finished years of experience and others are just starting. Generally, there is a growing interest everywhere.
- A lot of competition between different pavement types: is it economic, advantages for road vehicles and it leaves them at least a choice, particularly in a global environment where prices fluctuate and where availability of natural resources can not always be guaranteed.
- The long lifetime and the little maintenance needed have traditionally been the main reasons to choose the concrete pavement. This still the case in a secondary approach because there are the advantages that result in high quality life cycle cost and life cycle maintenance. In some cases, however, it is more economic and convenient to choose alternative pavement types.
- Concrete and other types tend to be a problem for modern concrete road surfaces. Roadside performance is uneven and slip resistance is unduly variable.
- Concrete is 100% recyclable, not only in small lanes - urban or forest - but also in the highway lane of double layered concrete slabs. Concrete is a strong and long life product of building.
- There is a significant difference in fuel consumption between concrete and asphalt roads for heavy vehicles. That many researchers and tests can't be wrong. The benefit is always there for concrete. Keeping that the energy share is up to 100 times more abundant than the construction phase, this element can not be neglected in LCA studies.
- Concrete pavements are climate friendly and safe. They reduced the greenhouse products and don't reflect heat during which pavement is equipped. They offer better safety conditions.
- The benefits of concrete roads are even more true in tunnels. The fire resistance is an extra contribution to the overall safety.
- Concrete is the appropriate material for several urban solutions such as roundabouts, buslanes, busways, cycle paths.
- Repetitive solutions are being tested and implemented mainly on the way of TPO, in the top layer of a double layer pavement to create a porous surface.
- A concrete pavement can be built as an energy saving emitting roads. In that way, a lot of natural resources are saved and work site traffic is reduced.
- The ability to build light reflective surfaces has several advantages. It reduces the global heating effect, it prevents the wheel heat island effect and it allows saving on road lighting.



Britpave 20th Anniversary & Annual Dinner & Seminar Held at Savill Court Hotel, Surrey, UK

2011 is Britpave's 20th Anniversary year. This year's Annual Dinner and Seminar took place at the Savill Court Hotel in Surrey, UK. The seminar was opened by Britpave's Chairman Dr. Jim Troy and speakers from UK, America and Europe were invited to participate. Among many interesting presentations were those by Mr. John Roberts, International Grooving & Grinding Association and Mr. Mark Smallridge, Nigel Nixon & Partners Inc. Mr. Roberts gave a speech on diamond grinding, drawing attention to integrating engineering, economics and the environment. Mr. Smallridge presented experiences on roller compacted concrete pavements for mobile container terminals and other American Ports. Concrete barriers were mentioned by the UK Government Security Advisor from the Centre for the

Protection of National Infrastructure from "a robust defense system" point of view. EUPAVE was represented in the exhibition area. The drink reception, dinner and the coffee breaks were excellent platforms for networking.



CALL FOR PAPERS

Call for Abstracts & Papers DEADLINES Digest:

NOVEMBER 30, 2011: CALL FOR PAPERS for the 7th Symposium on Pavement Surface Characteristics, SURF 2012, to be held September 19-22, 2012 in Norfolk, Virginia, USA.

Currently through MARCH 9, 2012: CALL FOR PAPERS for the MAIREPAV 7 Conference (the Maintenance and Rehabilitation of Pavements and Technological Control), to be held in Auckland, New Zealand, August 28-30, 2012.

Currently: CALL FOR PAPERS - specifically targeting (but not limited to) durability and sustainability issues related to cement concrete pavements - for the 2nd International Conference on Sustainable Construction Materials (SUSCOM), to be held in Wuhan China, October 18-21, 2012.

UPCOMING EVENTS CALENDAR

NOVEMBER
/DECEMBER
2011

ACPA's 48th Annual Meeting

November 29 - December 2, 2011 in Indian Wells, California, USA
<http://www.pavement.com>

2nd International Conference Future Concrete

December 12-14, 2011 in Dubai, UAE
<http://www.futureconcrete.com/>

JANUARY
2012



ISCP Annual Membership Meeting

January 21, 2012 from 5:30-8:00pm EST
Congressional Room of Omni Shoreham in Washington, DC, USA
<http://www.concretepavements.org/Meetings/agenda.htm>

91st Annual Meeting of the Transportation Research Board

January 22-26, 2012 in Washington, DC, USA

APRIL
2012

2nd International Conference on Microstructure Related Durability of Cementitious Composites

April 11-13, 2012 in Amsterdam, the Netherlands
<http://microdurability.tudelft.nl/>

International RILEM Symposium for Multiscale Characterization, Modeling and Simulation of Infrastructure Materials

April 19-20, 2012 in Stockholm, Sweden
<http://www.rilem.net/gene/main.php?base=600040>

JULY
2012



3rd Advanced Workshop on Concrete Pavements

July 4-6, 2012 near Québec City, Québec, Canada
<http://www.concretepavements.org/3rdworkshop/>



10th International Conference on Concrete Pavements

Organized by ISCP, July 8-12, 2012 in Québec City, Canada
<http://www.concretepavements.org/10thiccp>

For events taking place in 2012 and 2013, please go to: <http://www.concretepavements.org/calendar.htm>

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ISCP thanks
EUPAVE, Tatiana Cervo, Peter Smith and José Balbo for contributions to this issue.
ISCP invites ISCP members and friends to submit articles and calendar items to the Editor-in-Chief for future issues.



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Secretary/Treasurer:
Neeraj Buch, Ph.D. secretary-treasurer@concretepavements.org

Please visit the **ISCP Website** at www.concretepavements.org for more information about ISCP.