

# CSMS 2023 INTERNATIONAL CONFERENCE: SUSTAINABLE CONCRETE: MATERIALS & STRUCTURES CONFERENCE AGENDA

**08:00 – 08:30**      **Registration**

**08:30 – 09:10**      **Opening of the Conference**

Chair: Prof. Ruben Paul Borg (*Conference Chair - fib TG 7.8 Convenor, University of Malta*)  
Prof. Domenico Asprone (*Chair fib Commission 7, University of Naples Federico II*)  
Prof. Alfred Vella (*Rector, University of Malta*)  
Hon. Dott. Stefan Zrinzo Azzopardi (*Minister, Ministry of Public Works and Planning*)

**09:10 - 09:30**      **Key Note Lecture**

**The Commitment of the fib SAG Sustainability initiative and Commission 7 towards sustainable concrete structures**  
Prof. Domenico Asprone (*fib Commission 7 Chair, University of Naples Federico II*)

**09:30 – 10:00**      **Forum 1: Concrete Quality**

Chair: Mr. Anthony Tabone (*CEO Philip A. Tabone*)  
Dott. Marthese Portelli (*CEO Chamber of Commerce*)  
Mr. Michael Stivala (*Chairman MDA*)  
Prof. Ruben Paul Borg (*Convenor fib TG7.8 & University of Malta*)  
Perit Janice Borg (*Head Maritime Section, Infrastructure Malta*)  
Ms. Denise Xuereb (*AX Construction*)

**10:00 – 10:15**      **Coffee Break**

**10:15 – 11:45**      **Session 1: Circular Economy & Concrete Based on Waste**

Chair: Prof. Liberato Ferrara (*Politecnico di Milano*)

**Performance-related approaches to use of waste materials in concrete structures**  
Prof. Kevin Paine (*University of Bath UK*)

**Use of ceramic industrial and construction waste as aggregate for concrete**  
Dr. Marta Roig-Flores, Lucía Reig, David Hernández-Figueirido, Vicente Albero, Ángel M. Pitarch, Ana Piquer (*Universitat Jaume I ES*)

**Plastic waste as a concrete mix component**  
Prof. Liborio Cavaleri (*University of Palermo IT*)

**The production and use of Libyan metakaolin in Concrete**  
Mr. Ahmed M M Hamed, Prof. Ruben Paul Borg, Ramadan Edreis, Danute Vaičiukynienė (*University of Malta MT, Industrial Research Centre Libya & Kaunas University of Technology*)

**Alkali activated binding composition with phosphogypsum**  
Prof. Danutė Vaičiukynienė, Prof. Ruben Paul Borg, Vilimantas Vaičiukynas (*Kaunas University of Technology LT, University of Malta MT*)

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## Session 1: Circular Economy & Concrete Based on Waste (Continued)

**Additive Manufacturing: 3D Printing of Concrete with a Low Environmental Impact**  
Mr. Kenneth Camilleri, Prof. Ruben Paul Borg (*University of Malta MT*)

**Principles of circular economy in building construction**  
Dr. Tereza Pavlů (*Czech Technical University in Prague CZ*)

### Discussion

## 11:45 – 13:00 Session 2: Recycled Materials, Bio-Materials, Sensor Systems

Chair: Prof. Kevin Paine (*University of Bath UK*)

**Alkali Activated materials based on waste**  
Prof. Ruben Paul Borg (*University of Malta MT*)

**The Effect of High-Volume Dosages of Lignite Fly Ash on the Properties of Concrete**  
Katalin Kopecsko, Gergely Kolos, Zaid A.A. Khaiqani (*Budapest University of Tech. & Economics HU*)

**Experimental investigation on the properties of cement mortars with the addition of recycled inert asbestos**  
Prof. Cristina Tedeschi (*Politecnico di Milano IT*)

**An EU policy to promote CDW recycling as concrete aggregates**  
João Nuno Pacheco, Jorge de Brito, Marco Lamperti Tornaghi  
(CSLAB PT, Instituto Superior Tecnico Lisbon PT, *European Commission Joint Research Centre Ispra*)

**Bio-Based Fibres for use in cement composite materials**  
Ms. Ashley Calleja, Prof. Ruben Paul Borg (*University of Malta MT*)

**Recycled bio-polymer feather reinforcement for cement-based materials**  
Ms. Elizabeth Spiteri Cornish, Prof. Ruben Paul Borg (*University of Malta MT*)

**The dynamics of Piezoelectric Micromachined Ultrasonic Transducer arrays embedded in reinforced concrete**  
Ing. Stephen Sammut, Prof. Edward Gatt, Prof. Ruben Paul Borg (*University of Malta MT, MCAST*)

### Discussion

## 13:00 - 14:00 Lunch Break

## 14:00 – 14:30 Forum 2: Sustainability of Concrete

Perit Vincent Cassar (*Chairman, ERA & President MIHA*)  
Perit David Xuereb (*MCESD & ESG Alliance*)  
Prof. Rebecca Dalli Gonzi (*Kamra tal-Periti & University of Malta MT*)  
Dr. Jeanette Munoz Abela (*Kamra Tal-Periti & University of Malta MT*)  
Mr. Karl Attard (*Attard Bros Ltd*)

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**14:30 – 15:45**

**Session 3: Materials and Structures, Historic Concrete**

Chair: Prof. Danute Vaičiukynienė (*Kaunas University of Technology, LT*)

**Investigations on composite mineral binders for self-compacting modified soil**  
Prof. Zymantas Rudzionis, Arunas Aleksandras Navickas, Gediminas Stelmokaitis  
(*Kaunas University of Technology LT*)

**Concrete admixture based on Intelligent Cluster System simplifies the transition to low-clinker concrete**  
Dr. Nicoletta Zeminian (*Master Builders Solutions IT*)

**An appraisal of a Historic Reinforced Concrete Structure: The Naval Reservoir**  
Ms. Maria Muscat, Prof. Ruben Paul Borg (*University of Malta MT*)

**Nonlinear Mechanical Analysis of a Historic Breakwater: the case of St. Elmo in Malta**  
Ing. Giovanni Cazzagon, Prof. Ruben Paul Borg, Prof. Liberato Ferrara, Prof. Massimiliano Cremonesi (*University of Malta MT, POLIMI IT*)

**Assessment of the Structural Health Monitoring of a Historic Reinforced Concrete Water Tower**  
Prof. Ruben Paul Borg, Prof. Edward Gatt, Dr. Gaetano Camarda, Prof. Liborio Cavaleri  
(*University of Malta MT, University of Palermo IT*)

**Military Heritage: Documentary Attitudes Towards Pillboxes in Malta**  
Mr. Paul Caligari, Prof. Ruben Paul Borg (*University of Malta MT*)

**Sustainability by Historical Concrete Structures**  
György L. Balázs (*Budapest University of Technology and Economics HU*)

**Discussion**

**15:45 -16:15**

**Forum 3: Development of Concrete in Malta**

Chair: Prof. Conrad Thake (*University of Malta MT*)  
Mr. Angelo Xuereb (*AX Group Malta*)  
Prof. Robert Ghirlando (*University of Malta MT*)  
Perit Mark Azzopardi (*Restoration and Preservation Department*)  
Mr. Jonathan Borg (*Superintendence of Cultural Heritage*)

**16:15 -16:30**

**Coffee Break**

**16:30 – 17:30**

**Session 4: Materials & Structures**

Chair: Prof. Liborio Cavaleri (*Universita' di Palermo IT*)

**The advances of fib TG 6.3 on sustainability performance assessment of precast concrete structures**  
Irene Josa, Tomas Plauška, David Fernández-Ordoñez, Albert de la Fuente  
(*University College London UK, CONSOLIS LT, fib, Universitat Politècnica de Catalunya ES*)

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## Session 4: Materials & Structures (Continued)

**Building better, for longer, with less: holistic lessons learned from a lustrum long research on Ultra High-Performance Concrete at Politecnico di Milano - DICA**  
Prof. Liberato Ferrara (*Politecnico di Milano IT*)

**The Behaviour of Plain Unconfined Concrete Under Cyclic Compression Loading**  
Dr. Randolph Carl Borg (*MCAST MT*)

**The influence of concrete mixture compaction parameters on the quality of formed concrete surface**  
Prof. Mindaugas Daukšys, Ernestas Latanauskas, Svajūnas Juočiušas  
(*Kaunas University of Technology LT*)

**Improvement of concrete Durability and Strength by water-soluble hydrophobic agents**  
Dr. Jakub Hodul (*Brno University of Technology CZ*)

**Sustainable Ternary Compositions for 3D Concrete Printing**  
Prof. Genadijs Sahmenko, Maris Sinka, Diana Bajare, Girts Bumanis, Alise Sapata, Peteris Slosbergs (*Riga Technical University LV*)

## Discussion

17:30 – 18:00

## Conclusion: The Initiative for Quality Concrete - MT

Prof. Albert de la Fuente (*Vice Chair fib Commission 7*)  
Prof. Domenico Asprone (*Chair Commission 7*)  
Mr. Anthony Tabone (*CSMS 2023 Organising Committee*)  
Prof. Ruben Paul Borg (*CSMS 2023 Chair Scientific Committee*)

18:30 - 20:30

## Reception (Foyer Valletta Campus)

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