ICCX Western Europe meets ICCX digital 365.

# Digital construction as the main topic of the first in-person event for the precast concrete industry after a long time





After a long dry spell for face-to-face events in Europe, ICCX Western Europe will now give the go-ahead for face-to-face events. On November 3 and 4, representatives of the concrete and precast concrete industry will meet to discuss the latest developments in the multi-faceted fields of digital construction with precast concrete elements. ICCX Western Europe will also include a hybrid event day to widen the circle of potential participants and connect the digital world with the real world.

The conference programme and the accompanying trade exhibition offer a wide range of information for every visitor. The focus of the conference programme is on the very broad field of digital construction with precast concrete elements. When preparations for ICCX Western Europe began in Bonn in 2019, there was no Corona pandemic. At that time, how-

ever, it was already the organisers' idea to title the conference "digital building". No one would have thought, however, that a pandemic would be able to turn the world upside down, and with what force the Corona pandemic would later drive digitisation in so many areas of our lives. The lecture topics of ICCX Western Europe are therefore extremely topical and of great importance today.

# Digital building with precast concrete elements

From planning to production and execution on the building site - digital processes are indispensable and massively on the rise

The **keynote speech** on the morning of 3 November will be given by **Christoph Gröner**, an entrepreneur who is well known from the media. With his Gröner Group, he is striv-



The speaker, Peter Vahrenhorst, is a chief detective at the North Rhine-Westphalia State Criminal Police Office. He is responsible for the prevention of cybercrime with a focus on the economy. In his presentation on the topic of "The Challenge of Cybercrime", he will highlight the dangers posed by digitisation to a concrete plant and explain how to protect against them.



Prof.- Dr.-Ing. Michael Eisfeld is professor for structural engineering and CAD at the University of Applied Sciences Bielefeld and test engineer for structural analysis in the field of structural concrete. He will present advantages and fields of application of BIM models in the production of precast



Presenting on BIM Automation for Precast Civil Engineering, Dr Philip Crossett, Head of Automater Processes at FP McCann, UK, will demonstrate how digital planning tools can support efficient production.



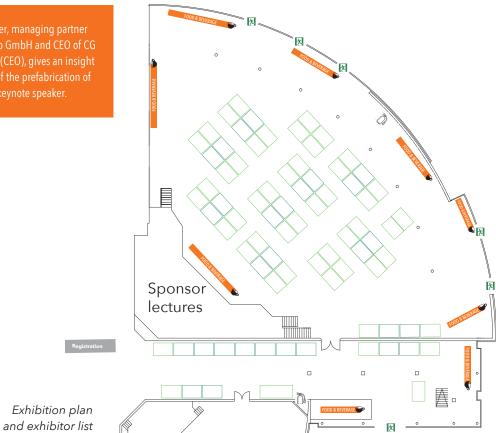
Andreas Kreutzer, who studied business administration, worked for six years as a marketing manager in the Austrian and German branded goods industry. Since 1991 he has been managing director of "branchenradar.com Marktanalyse GmbH" in Vienna and founder of the consulting network Kreutzer Fischer & Partner, Vienna-Berlin. He will

present a market analysis from Austria, which for many years has been concerned with the collection of market data on production, customer groups and areas of application specifically for concrete block paving as well as prefabricated concrete walls and slabs in Germany and Austria.

CPI - Concrete Plant International - 5 | 2021



Elementum AG (CEO), gives an insight into his vision of the prefabrication of



Status as per 30. August 2021

Company	Country	Internet
A.W.M. SpA	Italy	www.awm.it
Aalborg Portland A/S	Germany	www.aalborgportland.com
Afinitas / BFS	Germany	www.afinitas.com
AMCS Group	Germany	www.amcsrouting.com
apilion	Germany	www.apilion.de
ASSYX	Germany	www.assyx.com
Avermann Betonfertigteiltechnik	Germany	www.avermann.de
B.T. innovation	Germany	www.bt-innovation.de
B+S Engineering	Germany	www.bs-eng.de
BEKAERT	Belgium	www.bekaert.com
BETA Maschinenbau	Germany	www.beta-mb.de
BRECON Vibrationstechnik GmbH	Germany	www.brecon.de
Calenberg Ingenieure GmbH	Germany	www.calenberg-ingenieure.de
Conplex BV	Netherlands	www.conplex.com
Consent FZCO	United Arab Emira	ates www.consent.ae
CONSTRUX	Belgium	www.construx.eu
Contex Hartmetall Verschleißtechnik	Germany	www.contex-gmbh.de
CureTec	Germany	www.curetec.de
Ecoratio	Germany	www.ecoratio.com
EIRICH	Germany	www.eirich.de
Friedr. ISCHEBECK	Germany	www.ischebeck.de
FRIMA GmbH & Co. KG	Germany	www.frima-emden.de
Ha-Be Betonchemie	Germany	www.ha-be.com
Haarup Maskinfabrik A/S	Denmark	www.haarup.dk
HESS GROUP	Germany	www.topwerk.com/hess-group
HOWAL GMBH	Germany	www.howal.com
Hydronix Ltd	United Kingdom	www.hydronix.com
i-Theses	Belgium	www.i-theses.com
IAB Weimar / CERIB	Germany	www.iab-weimar.de
Innogration GmbH	Germany	www.innogration.de
Inter-Minerals	Germany	www.interminerals.com
Kappema GmbH	Germany	www.kappema.com
KEIMFARBEN GmbH	Germany	www.keim.com
KOBRA	Germany	www.kobragroup.com
Kraft Curing Systems	Germany	www.kraftcuring.com
KTI-Plersch	Germany	www.kti-plersch.com
Liebherr-Mischtechnik GmbH	Germany	www.liebherr.com
mbk	Germany	www.mbk-kisslegg.de
MCT ITALY SRL	Italy	www.marcantonini.com
myWood	Slovakia	www.mywood.de

Company	Country	Internet
Namtas Concrete Block Machines	Turkey	www.namtas.com
OGS	Germany	www.ogs.de
OMAG Service GmbH	Germany	www.omag.de
OXO H2O Solutions / Oxocrete	Canada	oxoh2o.com
Peikko Group	Finland	www.peikko.de
Pemat	Germany	www.pemat.de
Penta	Italy	www.penta-automazioni.it
PERI AG	Germany	www.peri.de/pave
Polarmatic	Finland	www.polarmatic.com
Polblat	Poland	www.polblat.de
Prilhofer Consulting GmbH & Co. KG	Germany	www.prilhofer.com
PRINZING PFEIFFER	Germany	www.topwerk.com/prinzing-pfeiffer
PROGRESS GROUP	Germany	www.progress-group.info
Putzmeister	Germany	www.putzmeister.com
QUADRA	France	www.quadra-concrete.com
RATEC	Germany	www.ratec.org
RECKLI GmbH	Germany	www.reckli.com/de/
Rekers GmbH	Germany	www.rekers.de
REMEI BPB BETRA	Germany	www.remei.de
Rhein-Chemotechnik GmbH	Germany	www.rhein-chemotechnik.com
RIB SAA Software Engineering	Austria	www.rib-saa.com
ROTHO	Germany	www.rotho.de
SAMJUNG	South Korea	www.samjungltd.com
SIGNODE	Germany	www.signode.com
Sika Deutschland GmbH	Germany	www.sika.de
SIMEM Deutschland	Germany	www.simem.com
SR SCHINDLER	Germany	www.topwerk.com/sr-schindler
TECHMATIK S.A.	Poland	www.techmatik.pl
Tecwill	Finland	www.tecwill.com
TEKA Maschinenbau GmbH	Germany	www.teka.de
Thomas Eisenhandel GmbH	Germany	www.thomas-eisen.de
Top Mineral GmbH	Germany	www.topmineral.com
Top-Werk GmbH	Germany	www.topwerk.com
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Venator	United Kingdo	om www.venatorcorp.com
Vollert	Germany	www.vollert.de
WASA AG	Germany	www.wasa-technologies.com
Weckenmann	Germany	www.weckenmann.com
Wi Solar GmbH	Germany	www.wi-solar.de
Zenith	Germany	www.zenith.de

09:30	Christoph Gröner	Germany	Prefabrication - the future for builders, project developers,	
07.30	Christoph Groner	Germany	planners, architects and entrepreneurs	
0:30		Germany	Round Table Discussion with Christoph Gröner about the future of prefabrication	
	Sponso	ored presentations of	during the break in the exhibition area: <b>Theses</b> *	
3rd Nov	vember 2021 / Digital Build	ling Tomorrow		
12:30	Prof. Peter Mark & Dr. Patrick Forman	Germany	Fast construction with adaptive modular prefabrication	
	Prof. Michael Eisfeld	Germany	Advantages and fields of application of BIM models in the production of precast elements	
	Benno Strack	Germany	Model-based data exchange with IFC4precast - Status Quo	
	Thomas Friedrich	Germany	Digitalisation of the production process	
	Sponso	ored presentations o	during the break in the exhibition area: ecoratio wsoLAR	
3 <sup>rd</sup> Nov	vember 2021 / Concrete an	d Precast Technolog	y	
15:30	Prof. Ludger Lohaus & Tobias Schack	Germany	Living architectural concrete with planned colour tone deviations	
	Prof. Jürgen Oecknick & Michael Erhardt	Switzerland Germany	Decorative precast concrete facades - the way from the material concept to the final solution	
	Prof. Marc Sanabra	Spain	Digitally Customized Hollow Core Slabs: Reducing Material Comsumption and Increasing Margins	
	ICC	X evening event be	gins 19:00 with music band PRIME	
4 <sup>th</sup> Nov	rember 2021 / BIM & Conc	rete Products		
09:30	Henning Kortmann	Germany	Digital detection and sorting of faulty concrete products	
	Dr. Justus Lipowsky	Germany	Automated masonry construction with robots	
	Dr. Kais Mehiri	France	Smart board to enhance concrete block machines - new way for board characterization	
	Philip Crossett	UK	BIM automation for box culvert and tank production	
	Sponso	ored presentations o	during the break in the exhibition area: KOBRA	
4 <sup>th</sup> Nov	rember 2021 / Ecology & E	conomy		
12:30	Thomas Friedrich	Germany	Future-oriented project InnoLiving – economically and ecologically optimised building	
	Prof. Harald Kloft	Germany	Re-thinking precast concrete construction with additive manufacturing technologies: lightweight, economical, sustainable	
4 <sup>th</sup> Nov	rember 2021 / Markets Tod	ay and Tomorrow		
15:00	Andreas Kreutzer	Austria	Same language - different markets. Concrete pavers and precast concrete walls and ceilings in Germany and Austria	
	Peter Vahrenhorst		The dangers of digitization in concrete plants	



Prof. Dr. Peter Mark will discuss the Priority Programme (SPP) 2187 with his lecture "Adaptive modular construction concepts using production line methods – precise fast construction of the future". The priority programme is coordinated by the Ruhr University Bochum. Around 50 researchers from all over Germany are collaborating to build

faster, more precisely and with less use of resources using prefabricated modules

ing for a consistent reorganisation of the construction and property industry, in which digital construction with precast concrete elements plays a decisive role. According to its own statements, the Gröner Group is currently driving forward more than 80 project developments throughout Germany with a total development volume of around EUR 5 billion.

The influence of digital construction with precast concrete elements using BIM, the extent to which  $\mathrm{CO}_2$  emissions can be reduced and the fact that all this can be successfully implemented not only on the scale of the Gröner Group but also on a smaller scale will be addressed in the subsequent discussion round. The participants of the discussion round, which will highlight the entire process chain from project developers to planners, architects, building contractors and precast concrete producers with regard to the future of construction, will be:

- Christoph Gröner, Managing Partner of the Gröner Group
- Hermann Weckenmann, Managing Partner of Weckenmann Anlagentechnik GmbH & Co. KG
- Prof. Peter Mark from the Ruhr University Bochum, coordinator of the DFG Priority Programme "Adaptive modular construction concepts using production line methods - precise fast construction of the future"
- Robert Neubauer, Managing Partner of RIB SAA Software Engineering GmbH

A very varied two-day conference programme invites you to form your own opinion on digital building or to reinforce it and to discuss it with experts from the professional environment.

The topics are by no means limited to structural precast construction for classic residential and commercial buildings:



Benno Strack, spokesperson of the working group "ifc4precast" in building SMART e.V. will give a status quo on model-based data exchange with IF-C4precast. IFC4precast is a new concept to support the BIM process in the best possible way, especially for the precast industry.

there will also be presentations on masonry construction with robots, BIM in underground construction and additive manufacturing, to name a few examples.

### Evening event with networking character

The evening event on November 3, in compliance with current and valid hygiene measures, will also provide ample opportunity for interdisciplinary exchange with colleagues, customers and also competitors - a special feature of ICCX events, which are known for their cross-competitive information exchange and unique networking character.

# ICCX Western Europe meets ICCX digital 365. - the first "hybrid day" on 4 November 2021

The conference programme in Bonn will be presented simultaneously in German and English on both days. On 4 November, numerous lectures will be held additionally and also broadcast live in the conference room of the ICCX digital 365. On this "hybrid day", the concepts of the face-to-face event ICCX Western Europe and the digital event ICCX digital 365. will be merged. While the ICCX Western Europe on site in Bonn enables a personal exchange between exhibitors and visitors, the exhibitors and participants of the ICCX digital 365. have the entire world - in the truest sense of the word - of the Internet as a meeting place. In Bonn, there will be terminals where visitors can immerse themselves in the digital world. Conversely, visitors to ICCX digital 365. from all over the world can get the real live character of the face-to-face event on their screens at the digital booths of exhibitors who also have a booth in Bonn.

The world keeps turning - and the innovative companies go with it! The concept of the Hybrid Day is an additional offer



Thomas Friedrich, managing partner of Innogration GmbH, will hold two lectures, firstly on the digitisation of the production process and secondly a presentation of the InnoLiving project, providing deep insights into the successful planning and production of multifunctional precast elements and showing how energy from the environment is col-

lected via concrete elements, partially stored in them and distributed via them.



In their lecture, Prof. Ludger Lohaus and Tobias Schack will first present results that contribute to the understanding of the mechanisms involved in the development of desired colour deviations in concrete. Small-scale laboratory experiments are used to explain how such colour deviations can be produced in a targeted manner. Based on this

possibilities for the production of precast elements with "vivid" colour shades are discussed.





The path from the material concept to the final solution that must be followed in order to produce high-quality and decorative precast concrete facades will be shown by Prof. Dr. Jürgen

Oecknick (Managing Director of PSA Zurich Area GmbH) and Michael Erhardt, Managing Partner of Hemmerlein Ingenieurbau GmbH in their joint presentation. On the basis of projects already realised, they illustrate their concept of a dual linkage of the interrelationship of optimised material concepts with the practised holistic process engineering - from the implementation of the planned structural system to formwork construction, concreting and surface treatment to the professional assembly of the elements on the construction site.

that does not change anything for the purely physical visitor and exhibitor, but gives many options to expand the radius of action and the view of new things.

# Trade exhibition with international exhibitors at the Maritim Hotel in Bonn

The trade exhibition with approx. 80 exhibitors from Germany, Europe and the rest of the world will also offer visitors the long-awaited opportunity to sit down together again and find technical solutions for the daily challenges of production or to present new products as well as plant and machine concepts.

Another highly interesting technical-scientific contribution to the discussion will be provided by the poster session on the



"Grooved Hollowcore" is the name given to new types of floor elements with deep grooves on the upper side for the design of structurally continuous slabs. Prof. Marc Sanabra of the Polytechnic University of Barcelona has developed this technology, which allows a reduction of the component thickness by up to 25 % compared to conventional,

simply supported hollow core slabs. Several leading machine manufacturers already offer machines for the production of these highly efficient hollow core slabs.

DFG Priority Programme 2187 "Adaptive modular construction concepts using production line methods - precise fast construction of the future", which will also be shown as part of the exhibition.

The Maritim Hotel Bonn offers the ideal setting for ICCX Western Europe 2021 and is very easy to reach for visitors from Germany and abroad thanks to its central location and connections to airports and the railway.

# Reduced admission price for subscribers of CPI Concrete Plant International as well as for members of concrete associations in partnership with CPI

Subscribers to the leading international trade journal for the concrete and precast concrete industry, CPI Concrete Plant International, are once again at an advantage at ICCX Western Europe, as is so often the case: You can purchase your participation ticket at an extra-low preferential price via the event website (www.iccx.org). Hotel accommodation can also be booked via the official ICCX website.



Kortmann Beton is known throughout Germany for special solutions and surface elements made of concrete in accordance with the Federal Water Act, prefabricated elements for underground construction as well as paving stones. Managing partner and concrete technologist Henning Kortmann will present his unique concept for digital

detection and sorting of defective concrete products. This system allows the machine settings to be checked and optimised more quickly and professionally.



Dr. -Ing. Justus Lipowsky, Head of the Process Technology Research Department at IAB Weimar GmbH, presents an innovative and promising approach to digitisation and automation in masonry construction - a cable robot, the use of which not only increases productivity in construction companies, but can also counteract the shortage of skilled workers



Dr. Kais Mehiri, head of the innovation department of the French research institute CERIB presents an intelligent production board for the improvement of concrete block making machines. Abilys® is a smart production board with sensors for diagnosing preventive measures required or acute repair



Prof. Dr.-Ing. Harald Kloft, head of the Institute of Structural Engineering (ITE) and the Digital Building Fabrication Laboratory (DBFL) at the TU Braunschweig will present additive manufacturing as the key to resource-efficient components in the precast industry. The Collaborative Research Centre TRR 277 of the two Technical Universities

of Braunschweig and Munich aims to research additive manufacturing in an interdisciplinary, cross-location research project as a novel digital manufacturing technology fundamental for the construction industry.

# WWW.ICCX.ORG

If you're not a regular CPI Worldwide reader by now - just do the maths: a subscription is certainly worthwhile for you too. Upon proof of their membership, members of the partner concrete associations will also receive discounted admission tickets to this unique event, which will certainly remain a lasting memory for all participants.

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Organisation



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