OGIES

CROWNE PLAZA BERLIN | GERMANY

23-24 NOVEMBER 2017

Sebastian Reineke

Michel Guglielmi

Co-founder and Partner

Chair for Organic

Semiconductors

Diffus Design

Technologies

CFA Tech

Hani Kanaan Smart Lighting

IAPP

CHAIRMAN



Siebe van Mensfoort CEO Simbeyond B.V.



SPEAKER LINE-UP



Armin Wedel **Division Director Functional Polymers** Fraunhofer Institute for Applied Polymer Research





Marc Luennemann CEO and Managing Director OSRAM OLED Beat Ruhstaller Professor Zurich University of **Applied Sciences** Chairman







saes

group







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DIFFUS

Christian May Head of Division Flexible **Organic Electronics** Fraunhofer FEP



Kimmo P Jokinen OptoFidelity



Wolfgang Görgen **Managing Director OLEDWorks GmbH**



Whilk Gonçalves





Advanced Chassis Body & Interior Groupe PSA





Corrado Carretti Opportunity and Technology Scouting Manager SAES Getters S.p.A.

Mathias Mydlak

Product Manager

Cynora

Fluxim AG





Mikko Söderlund Head of Industrial Solutions Beneg





Uwe Vogel Head of Division Microdisplays

Fraunhofer & Sensors, Deputy Director Fraunhofer FEP



OLED TECHNOLOGIES SUMMIT

CROWNE PLAZA
BERLIN | GERMANY

23-24 NOVEMBER 2017

Format of the OLED Technologies summit

This 2-day summit delivers case-studies, workshops and panel discussions from our distinguished expert-speakers.

This year we will look as such topics as:

- OLED market innovation & design changes
- Breakthrough manufacturing solutions, materials and technologies
- OLED lighting encouraging perspectives: technology and design innovations
- Innovative applications: Virtual & Augmented Reality, Wearables, Home & Office devices & vehicle/aviation displays
- Future of displays: flexible, foldable and transparent
- Commercialization of OLED displays
- Opportunities and Challenges for OLED across industries
- Brand Building and Customer Engagement with OLED
- Advanced Materials for AMOLED Displays

Who should attend:

This summit will create a platform for companies active along the OLED value chain – manufacturers and distributors of OLED optical, electronic, thermal components, applications and modules, OLED tools producers, developers of IT solutions for OLED, technical and industrial engineering consultancy firms as well as laboratories and qualification bodies with the following **Job Titles:**

- CEOs/CIOs/Managing Directors
- CTOs/ Technology VPs
- Technical Directors/Heads
- VPs/Directors/Managers of Product & Innovations
- OLED Technology VPs/Directors/Heads/Managers
- Head of Product Management
- Quality Directors & Managers
- R&D Directors/Heads/Managers
- Business Development Directors/Heads
- Sales & Marketing Director/Heads
- Application Technology & Scientists
- Consultants & Analysts
- Etc.

About Venue:

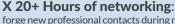
Crowne Plaza Berlin City Centre

Nürnberger Str. 65 10787 Berlin Phone: + 49 30 - 21 007 0 Email: info@cp-berlin.com www.cp-berlin.com





X 12+ Industry Case Studies



forge new professional contacts during numerous networking breaks between sessions & during the special Networking Dinner on November 23



X 100+ Pages of the Post- summit documentation package available upon demand*

From across the following Industries:

- Consumer Goods/ Home Appliances
- High-Tech, Electronics & Wearables
- Materials
- Automotive /Aerospace & Defense
- Lighting
- Displays
- & Others

Media Partners













08:30 Check-In and Welcome Coffee



09:00 Opening Address from the Chairman

"Breaking the Ice" Speed Networking Session

Meet your colleagues, exchange business cards and have a maximum number of 1-on-1 talks in a short space of time! Our Speed Networking session will help you to form those initial relationships early, find out who is facing the same challenges as you and get a nice preview of what a longer conversation could bring!

EXPLORING OLED BEST PRACTICES

09:40 Case Study:

09:10

New technologies for Colouring in displays*

- Application of Quantum Dots
- Environmentally friendly technologies
- Innovative Film technologies for organic light-emitting diodes
- Integration of OLED modules into clothing

Armin Wedel

Division Director Functional Polymers Fraunhofer Institute for Applied Polymer Research



10:20 Case Study:

Creating an open access European flexible OLED pilot line

- Open access, customized flexible OLED services
- Bridging the gap between R&D and mass manufacturing
- Accelerating integration of flexible OLEDs in diverse applications other application fields

Christian May

Head of Division Flexible Organic Electronics Fraunhofer FEP



11:00 Morning Coffee and Networking Break



11:20 Case Study:

Enabling R&D Methods for OLED Displays and Lighting

- Extraction of electrical OLED material parameters from DC, AC and transient techniques
- OLED light-outcoupling enhancement methods
- Analyzing angular luminescence of OLED emitter layers
- Numerical investigation of OLED pixel cross-talk

Beat Ruhstaller

Professor, Zurich University of Applied Sciences Chairman, Fluxim AG



NEXT GENERATION OF OLED APPLICATIONS

12:00 **Case Study:**

Opportunities and Challenges for OLED in Automotive Lighting Applications

- OLED strongly design driven Automotive industry as innovation driver
- Segmentation and Flexibility as key differentiators
- Technology challenges: Robustness and Reliability
- Automotive applications to be a stepping stone for other application fields

Marc Luennemann

CEO and Managing Director OSRAM OLED GmbH



12:40 Case Study:

Advances in OLED stack development using a simulation-assisted approach

- Accelerating development of materials and stacks for OLED displays, lighting and signage applications
- Combining Device Physics, Molecular Engineering and Computer Science competences
- Facilitating shorter feedback loops between material suppliers and device manufactures
- Aimed towards reduced R&D costs and shorter time-to-market

Siebe van Mensfoort

Simbeyond B.V.

Business Lunch

14:00 Case Study:

13:00

OLED for Automotive: Application in Lighting and Displays

- Automotive lighting and signalization
- Displays
- Car design

Whilk Gonçalves

Advanced Chassis Body & Interior **PSA Groupe**



SIMBEYOND

14:40 Case Study:

RGB sub-patterning for upcoming ultra-high definition AMOLED

- motivation for AMOLED RGB sub-patterning at micron sub-pixel pitch scale
- current state-of-the-art
- new approaches for high-resolution OLED RGB micro-patterning
- conclusion

Uwe Vogel

Head of Division Microdisplays & Sensors, Deputy Director Fraunhofer FEP



15:20

Case Study:

Outlook on Practical use of OLED Lighting

Solid State Lighting will be the future lighting technology and OLED will be a significant part of it. OLEDWorks will give a technology overview and explain the possible future of OLED Lighting. Several application examples will be shown taking into account the OLED Product Direction for distinction.

Wolfgang Görgen **Managing Director OLEDWorks GmbH**



16:00 Afternoon Tea and Networking Break



16:20 Case Study:

The liberation of light

- The materialité of Light: Light as a sensual experience
- The fluidity of Light: Light as an interactive experience
- The powering of Light: Light as a poetic and esthetic experience

Michel Guglielmi

Co-Founder **Diffus**



17:00

Chairman's Closing Remarks and End of Day One

19:00

Networking Dinner (Crowne Plaza Restaurant)



08:30 Check-In and Welcome Coffee



09:00 Opening Address from the Chairman/Recap of Day 1

ENHANCING PERFORMANCE & COMPETITIVENESS WITH INNOVATIVE OLED MATERIALS

09:10 Case Study:

Monolithic OLEDs with addressable beam shape

- device optics for beam shape control
- driving concept for active beam shaping
- incorporation of passive optical elements

Sebastian Reineke

Chair for Organic Semiconductors IAPP



09:50 Case Study:

Measuring and Understanding VR Presence Factors with OLED

- Display inspection requirements for Near-eye displays
- Motion blur and ghosting effects in full vs low persistence displays - how to quantify and judge the results in perceptual manner
- VR display resolution the path and caveats to reach perceived 20/20 vision

Kimmo P Jokinen

OptoFidelity



Morning Coffee and Networking Break 10:30



11:00 **Case Study:**

SAES encapsulation approaches and products for OLED technology

- OLED degradation phenomena
- Encapsulation approaches
- SAES Functional Chemicals
- SAES products for OLED Technology

Corrado Carretti

Opportunity and Technology Scouting Manager SAES Getters S.p.A.



11:40 Case Study:

Highly efficient emitting materials for OLED applications

- Role of highly efficient materials in OLED devices
- TADF technology as a key to OLED revolution
- Commercialization plan of first RGB-TADF emitters

Mathias Mydlak

Product Manager Cvnora



12:20 Case Study:

Opportunities and challenges for OLED emitting sources across industries segments

- Overview about the fine sources of light
- Short introduction about OLED technologies
- OLED production cost, and reduction perspectives
- Where / or how the OLED technology has an added value
- Conclusion

Hani Kanaan

Smart Lighting Technologies CEA Tech



EVOLUTION AND REVOLUTION OF OLED TECHNOLOGIES

13:00 **Business Lunch**

14:00 Case Study:

Robust & reliable OLED thin-film encapsulation

- OLED thin-film encapsulation requirements
- Motivation for ALD conformal & pinhole-free
- ALD equipment for TFE State-of-the-art & future outlook

Mikko Söderlund

Head of Industrial Solutions Benea



14:40 Case Study:

Recent Progress in Solution Processed Organic Light Emitting Diodes

- Hetero structure OLEDs by solution processing
- Improved out coupling of light by plasmonics
- Large area printed transparent électrodes

Emil List-Kratochvil

Institut für Physik, Institut für Chemie und IRIS-Adlershof

Humboldt-Universität zu BerlinBeneg



15:20 Wrap-Up Discussion and Chairman's Closing Remarks

Post-Conference Refreshments 15:30



SPOTLIGHT ON OUR SPEAKERS

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Siebe van Mensfoort CEO Simbeyond B.V.

Siebe van Mensfoort obtained his PhD in Applied Physics on experiments and modelling of blue polymer-based OLEDs at Philips Research in 2009. Since then, he has worked as Project Manager at Philips Lighting, as Management Consultant at A.T. Kearney and as Business Developer at Prodrive Technologies. He is co-founder and CEO of Simbeyond B.V., a company specialised in molecular-scale software tools for efficiently developing new OLED materials and stacks.



Christian May
Head of Division Flexible Organic Electronics
Fraunhofer FEP

Dr. May is acting as Division Director Flexible Organic Electronics at Fraunhofer Institute for Organic Electronics, Electron Beam and Plasma Technology FEP. He studied Physical Metallurgy at Freiberg University of Mining and Technology. First he was with a vacuum coating system supplier as project manager dealing with large area thin film deposition. Since 2003 he is with Fraunhofer active in OLED development, with a special focus and huge knowledge in flexible OLED for lighting applications. Currently he is involved in the Internal Advisory Board of the EU project PI-Scale targeting an open access pilot line service for flexible OLED. Dr. May is the spokesman of the OE-A (Organic and Printed Electronics Association) roadmap team Lighting.



Corrado Carretti
Opportunity and Technology Scouting Manager SAES Getters S.p.A.

Corrado Carretti, graduated in Physics at the Milano University, acquired more than 15 years of experience in the field of Vacuum Technology, Gettering and Display Technology (CRTs, FEDs, PDPs, OLEDs) in SAES Getters R&D labs. Since 2008, he was appointed as Knowledge Manager, focusing the items related to both technological information and scientific knowledge creation and dissemination. Then, in 2013 he became Responsible of the Opportunity and Technology Scouting Department, having the mission of identify new business opportunities in a medium-long time horizon, and monitoring the global innovation trends related to a wide range of technologies, materials and applications, in view of a long term sustainability of the Company.

He published more than 20 scientific papers, some of which focused on either Display technologies or Innovation practices, and filed 10 patents.



Uwe Vogel Head of Division Microdisplays & Sensors, Deputy Director Fraunhofer FEP

Skilled worker in semiconductor microelectronics in 1983, diploma in information technology in 1991, doctoral degree in biomedical engineering in 1999. Center for Applied Optics Studies at Rose-Hulman Institute of Technology (Terre Haute/Indiana, 1992), Dresden University hospital/hearing research (1995-98). With Fraunhofer in Dresden/Germany since 1998, starting as analog IC designer. Since 2000 head of Analog/Mixed-Signal IC design group, later on focusing on OLED-on-Silicon, i.e., design of OLED-on-silicon devices, technology and applications (e.g., in smart glasses or/and optoelectronic sensors), backplanes, OLED microdisplay for near-to-eye display/augmented-reality, 3D displays, display driver IC, high-speed data transmission.

Since 2010 head of division "Microdisplays and Sensors", since 2014 Deputy Director of Fraunhofer FEP.



Mikko Söderlund Head of Industrial Solutions Beneg

Dr. Mikko Söderlund is Head of Industrial Solutions at Beneq, leading supplier of thin-film coating equipment and services based on atomic layer deposition technology. He has Masters in Electrical engineering (1998) from Helsinki University of Technology, and Doctor's degree (PhD) on Micro – and Nanotechnology 2010, also from Helsinki University of Technology. Dr Söderlund has more than 10 years experience in photonics and nanotechnology-based product development, marketing and sales. In 2010 Dr. Söderlund joined Beneq to lead the development of ALD-based thin-film encapsulation solutions, which has enabled Beneq to achieve a leading position as a supplier of industrial ALD TFE systems for both large sheet substrates as well as for roll-to-roll coating of flexible ultra-barrier films.



Sebastian Reineke
Chair for Organic Semiconductors

Prof. Dr. Sebastian Reineke (M) studied physics in Heidelberg and Dresden. He obtained the Diplomphysiker degree in 2005 and the Ph.D. degree in 2010 from the TU Dresden, respectively. From April 2011 to September 2013 was postdoctoral fellow within the Soft Semiconductor Group of Prof. Marc A. Baldo (Massachusetts Institute of Technology). Following his postdoctoral stay, he was visiting scientist (DFG Rückkehrstipendium) with Prof. Jochen Feldmann (Lehrstuhl für Photonik and Optoelektronik, LMU München). In May 2014 he accepted an assistant professorship position (Jun.-Prof.) for Organic Semiconductors at the Institut für Angewandte Physik and Dresden Integrated Center for Applied Physics and Photonic Materials (IAPP). In summer 2014, he joined the German Excellence Cluster cfaed of the TU Dresden as a principle investigator. Since June 2016, he is now professor for Organic Semiconductors. Sebastian Reineke was awarded the Professor-Schwabe-Prize in 2006 and the Emanuel-Goldberg-Prize in 2009, acknowledging his Diploma and Ph.D. thesis, respectively. In 2015, he was awarded with a Starting Grant of the European Research Council - the most prestigious award for excellence in research for young researchers. Between 2011 and 2013, he has been member of an advisory board of the US Department of Energy that develops the Multi-Year Program Plan for solid-state lighting. He has a 10+ years experience working in the field of organic semiconductors and has co-authored more than 50 peer-reviewed publications (h-index of 27).



Emil List-Kratochvil
Institut für Physik, Institut für Chemie
und IRIS-Adlershof
Humboldt-Universität zu Berlin

Prof. Emil List-Kratochvil joined Humboldt-Universität zu Berlin in 2015 as Professor for Hybrid Devices at the Department of Physics and Chemistry. He is also a member of the Integrative Research Institute for the Sciences (IRIS Adlershof). He is an expert in the field of (printed) semiconductor devices and structure to property relations in organic semiconductors. Prof. Emil List-Kratochvil is author of more than 200 scientific publiactions and 15 patents in the field. Prof. Dr. Emil List Kratochvil and his research group (AG Hybrid Devices) are working on electronic and optoelectronic hybrid components (based on hybrid material systems and organic or hybrid semiconductors), additive resource-efficient deposition techniques (inkjet printing) and in-situ nanostructuring and synthesis methods. By the combining novel electro-active materials with appropriate structuring and processing methods novel principles and applications in the field of sensor devices, photovoltaics and optoelectronic devices are explored and developed. Based on his 15 years of experience in working in joint R&D-projects with partners from academia, startup companies and industry, the AG Hybrid Devices will not only work on basic research projects but will also undertake an effort to transfer findings from basic science to applications.

SPOTLIGHT ON OUR SPEAKERS

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Mathias Mydlak Product Manager

Dr. Mathias Mydlak joined CYNORA in 2011, after receiving his PhD at the University of Münster on Iridium- and Platinum-based OLED emitters. Following the initial year as a device scientist and two years of business development at CYNORA, he is now supporting the material integration by the customers as the product manager.



Beat Ruhstaller Professor, Zurich University of Applied Sciences Chairman, Fluxim AG

Prof. Dr. Beat Ruhstaller is lecturer at the Zurich University of Applied Sciences ZHAW and founder of Fluxim. After a Diploma in Physics from ETH Zürich he obtained his PhD in Physics at the University of California, Santa Cruz (USA), in 2000. He was a postdoc at the IBM Zurich Research Laboratory in the display technology group before joining ZHAW, where he headed the Institute of Computational Physics from 2007 to 2010. In 2006 he founded Fluxim which he has managed as CEO since 2011. Fluxim has successfully brought R&D tool innovations from the lab to the OLED display and lighting as well as solar cell industry.



Kimmo P Jokinen OptoFidelity

Kimmo Jokinen is a CTO and co-founder of OptoFidelity, a high-technology firm that helps the smart and connected devices ecosystem companies to enhance their products' user experience. The clients include the clear majority of the most valuable technology companies in the world.

Before the entrepreneur career at OptoFidelity, Kimmo served as Principal Software Engineer and System Consultant in companies like Honeywell and Atostek. Kimmo holds master's degree in measurement technology, and is specialized in machine vision and robotics.

MEDIA PARTNERS



OLED-Info has been the leading international OLED publication for over 10 years, with a readership of more than 120,000 professionals a month. We provide a multitude of services to the OLED market based on our extensive and up-to-date knowledge hub and close ties with industry leaders. Our consultancy services include market outreach assistance. display brokerage, business development, financial intermediation and more.

An OLED uses organic semiconductors to create thin light emitting panels. OLEDs are used to create thin, beautiful, flexible and efficient display and lighting panels, and are the future technology of choice.

https://www.oled-info.com/



In Latin. "Veritas et Visus" means "Truth and Vision". Our mission is to provide readers with pertinent, timely and affordable information about the fascinating and rapidly expanding flat-panel display industry. Our goal is to help organize all the scattered news from around the world into a format that is simple and useful to readers with specific interests in the flat-panel display industry. To accomplish our goal we offer a series of five specialty newsletters devoted to helping people better understand what is going on in the display industry. Our five newsletters cover the following areas flexible displays, display related standards and regulations, 3D technologies, high-performance displays, and touch/gesture-based implementations. http://www.veritasetvisus.com



Whilk GONÇALVES Advanced Chassis Body & Interior **PSA** Groupe

Whilk GONÇALVES was graduated in physics in 1988, with a M.Sc. degree in optics and magnetic paramagnetic resonance (1990) and a PhD in solid state physics in 1996. In 1998 he joined the VALEO group, responsible for the optical design of headlamps and rear lamps, optical simulation and advanced research projects as an Expert in Optics. In 2011, Dr. Gonçalves joined the PSA Group, as the Head of innovation on interior and exterior lighting at the DRIA - Department of Research and Advance Engineering, responsible for the technological roadmap on lighting and the validation of new technologies and for the integration on PSA car projects.



Wolfgang Görgen Managing Director OLEDWorks GmbH

Wolfgang Goergen has over 20 years of professional experience in engineering, project and account management in the semiconductor, equipment manufacturing and organic electronic industries. Wolfgang was closely involved with the development of equipment and systems of the state-of-the-art OLED manufacturing facility in Aachen, its later operation and continuous improvement. With his wide network in the organic electronic industry throughout the whole value chain from suppliers, through manufacturing to B2B-customers he balances strategic and operational aspects to drive OLED lighting commercialization forward.



The Global Information Hub for Lighting Technologies

LED professional is the comprehensive publication and platform, connecting experts in the design, testing and production of the latest lighting technologies information from around the world.

https://www.led-professional.com/



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Besides finding events, you can also search for other professionals from your industry attending the event, schedule meetings and connect. https://10times.com/



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