



EURIPIDES FORUM 2012

13-15 JUNE 2012

GRAZ | AUSTRIA

PROGRAM

» Day 1 – 13 June 2012

Registration at 08:30

Opening ceremony

- 09:30 Opening Remarks
Christian Buchmann, State of Styria - Austria
Thomas Krautzer, Federation of Austrian Industries (IV) - Austria
Andreas Gerstenmayer, AT&S – Austria
Heinz Moitzi, AT&S – Austria
- Welcome by the EURIPIDES Chairman
Jean-Luc Maté, Continental - France

SESSION 1 >> RFID – flexible substrates, ultra thin semiconductors, printed electronics. Chairperson: **Wolfgang Pribyl**, JOANNEUM RESEARCH - Austria

- 10:05 **Keynote: Flexible Integrated Smart Systems - Trends and Challenges**
Marc Koetse, Holst Centre (TNO) - The Netherlands

| Coffee Break from 10:40 to 11:00 |

- 11:00 **Printed Electronics - Quo Vadis?**
Emil List, NanoTecCenter Weiz / TU Graz - Austria
- 11:20 **Innovative Wafer and Interconnect Technologies - Enabling High Volume Low Cost RFID Solutions**
Christian Zenz, NXP Semiconductors Austria GmbH - Austria
- 11:40 **Smart Label – High Volume Production Aspects and Product Outlook**
Frank Kriebel, Smartrac Technology Dresden - Germany
- 12:00 **Universal Local Storage Technology and Potential Applications**
Michel Durr, CEA-Leti - France

| Lunch from 12:30 to 13:30 |

Eols' SESSION >> Expressions of Interest

- 13:30 Proposal ideas and consortia preparation for EURIPIDES Call 14

| Coffee Break from 15:00 to 15:20 |

- 15:20 **Embedded RFID Reader - Making PCBs Communicate**
Giuliano Manzi, austriamicrosystems AG - Austria
- 15:40 **INTERFLEX: an Energy Autonomous and Wireless System-in-Foil for Air Quality Monitoring**
Matthias Mahlich, Robert Bosch GmbH - Germany
- 16:00 **Integrated Nanosensors for Health and Environmental Monitoring**
Hubert Brückl, AIT Austrian Institute of Technology GmbH - Austria
- 16:15 **Flexible and Disposable Electronics Technology and Opportunities**
Luigi Occhipinti, STMicroelectronics - Italy

POSTERS' SESSION >> Presentation of EURIPIDES projects

- 16:40 Presentations: **3DICE - ENERPAC - BoB - SPRINTRONICS – COSEC-ID - IMATERA - THOR – INTEX – MIDIMU-HD**
 Posters: **MIDIMU-HD - MiniMEMS - MEGA - SINETRA**

- 17:30 Reception by the Governor of the State of Styria, Franz Voves

- 19:15 Social event >> Gala Dinner at Burg Rabenstein (Bus departure)**

» Contact & Information

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REGISTER NOW: www.euripides-eureka.eu/forums/2

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» Day 2 – 14 June 2012

Opening at 08:30

SESSION 2 >> Medical Technology – biocompatible material & packaging, smart sensors. Chairperson: **Robert Gfrerer**, human.technology.styria - Austria

- 08:35 **Keynote: Smart Sensors in Medical Devices**
Hans-Otto Maier, B. Braun Melsungen AG - Germany
- 09:10 **Trends in Medical Sensors**
Gerald Urban, Albert-Ludwigs-Universität Freiburg - Germany
- 09:30 **From Bioresorbable Material to Sensor Applications in Medical Technology**
Annelie-Martina Weinberg, Mathias-Spital Rheine – Germany / TU Graz - Austria
- 09:50 **Building Smaller, More Reliable Medical Electronic Devices through 3D Integration**
Charlotte Jennequin, IPDiA - France

| Coffee Break from 10:10 to 10:30 |

- 10:30 **Medical Engineering: between Innovation and Legislation**
Thomas Pieber, Medical Univ. Graz / JOANNEUM RESEARCH - Austria
- 10:50 **Trends in Medical Applications of Smart Gas Sensors**
Maximilian Fleischer, Siemens AG / Corporate Techno. - Germany
- 11:10 **Overview on Medical Technology**
Christian Val, 3DPlus - France

| Lunch from 11:30 to 12:30 |

SESSION 3 >> Smart Power Technologies/Applications. High Temperature Interconnect and Substrates, Energy Harvesting using Semiconductors, High Current Components, Inverter Modules, E-car and Smart Grids.

Chairperson: **Raimund Ellinger**, AVL List GmbH - Austria

- 12:35 **Keynote: Power electronics in highly integrated powertrains for electrical vehicles with polyphase motors**
Reiner John, Infineon Technologies AG - Germany
- 13:10 **Automotive battery technologies and simulation approaches for Lithiumion batteries**
Daniel Watzenig, VIF Center / TU Graz - Austria
- 13:30 **A new ceramic capacitor technology for power electronics**
Günter Engel, EPCOS OHG (TDK-EPC Corporation) - Austria
- 13:50 **Evolution of international regulations and societal demand on Power Devices and Packaging Technologies**
Emanuele Scrofani, STMicroelectronics - Italy

| Coffee Break from 14:10 to 14:30 |

- 14:30 **Energy Harvesting – Why Environment and Reliability are Essential for System Dimensioning?**
Andreas Middendorf, Fraunhofer Gesellschaft / IZM - Germany
- 14:50 **Market trends in MEMS**
Jean-Christophe Eloy, Yole Développement – France
- 15:10 **New Advanced Packaging Technology at AT&S**
Mark Beesley, Austria Technologie & Systemtechnik AG – Austria
- 15:30 **A Short Cruise in the Research Landscape of Styria**
Roswitha Wiedenhofer, FH Joanneum - Austria
- 15:50 **EPoSS Roadmaps and Strategy for 2020**
Thomas Köhler, VDI/VDE Innovation+Technik GmbH - Germany

Closing ceremony at 16:10

» Day 3 – 15 June 2012: Company Tour / Technical Visits

From 08:30 to 12:00 >> BOOK your visit on the [Registration form](#)





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SPEAKERS



Jean-Luc MATE

Jean-Luc Maté is currently the Vice President Strategy & Technology at Continental Automotive France SAS. In 1978 he graduated in Microelectronics Engineering from the National Polytechnic Institute of Grenoble. A year later he founded RENIX Automotive Electronic control module JV Renault / Bendix.

In 1988 he was made technical director for electronic systems at Siemens Bendix and then 3 years later Vice-President for E/E system and vehicle architecture engineering. In 2001 Jean-Luc Maté joined Siemens VDO, first as Vice-President Interior Systems, then as Vice-President Strategic Marketing and Innovation Management for Body and Chassis and finally, in 2006, as Executive Vice President Strategy Technology and Innovation Management Western Europe.

Since 2007 Jean-Luc Maté has been the Chairman of the EUREKA - EURIPIDES cluster.



Marc M. KOETSE

Marc M. Koetse studied chemistry in Groningen the Netherlands. After graduation in 1997 he started as a PhD-student at the Université catholique de Louvain (Belgium) in the field of polymer chemistry and material science. He received his degree in 2001 under the supervision of Prof. Dr. A. Laschewsky.

After two years working as a post-doc at the Eindhoven University of Technology (the Netherlands) in the field of organic electronics, he started at TNO Science and Industry (Eindhoven, the Netherlands) to work mainly on organic photovoltaics. In 2006 he made the move to the newly founded Holst Centre in the same city. Here he started a group developing lamination and interconnection technology of foil based modules. Recently he became project leader in the Sensor Tags and Systems program where he is responsible for the integration of organic and inorganic electronics into generic sensor platforms such as a smart bandage.



Dr. Frank KRIEBEL

He studied electronic engineering at the University of Technology Dresden, where he received his degree and subsequently completed a Ph.D. on assembly technologies of large area chips.

He has been working in several fields of microelectronics, interconnection technologies, sensor components, 3-D packages and Micro-systems since more than 30 years. He has more than 15 years' experience in the RFID field as well as in high volume production processes. Frank Kriebel is one of the founders of KSW Microtec in 1994. He has more than 15 years' experience in the RFID field as well as in high volume production processes. Frank Kriebel is one of the founders of KSW Microtec in 1994. KSW was one of the leading companies for development and production of RFID Smart Labels. KSW is owned since end of 2011 by SMARTRAC-Group and acting as SMARTRAC TECHNOLOGIES Dresden GmbH. He has now the responsibility for advanced research & development at the R&D centre of Excellence in Dresden in the SMARTRAC GROUP.



Christian ZENZ

Director Packaging & Assembly for Identification. After graduating in polymer physic at the Graz University of Technology in 2000, he joined NXP Semiconductors (formerly Philips Semiconductors). He has been leading several projects in Research & Development in the area of banking and eGovernment applications. In 2007 he was appointed Technology Manager for Packaging and Assembly. In his current position

he is also responsible to develop and introduce wafer backend and assembly technologies for low cost RFID applications together with customers and suppliers.



Michel DURR

Michel Durr received his engineering degree in Electronics from ENSERG, Grenoble, France, in 1984. He started as digital ASIC design engineer and project leader in Thomson CSF Semiconductor for space, military and avionic applications in Grenoble and Paris. In 1993 he was responsible of the digital ASIC design team handling about 20 ASIC's/year. In 2000, he managed the central digital design activity of

ATMEL Grenoble working for various applications like CMOS Imager, fingerprint IC's, RF transceiver. In 2003, he was heading the RF and mixed signal design team developing RF products in the ISM band < 1 GHz and sensor data acquisition ASIC's for industrial and automotive market. In 2008, in e2v, he managed the high speed data converter team developing state of the art multi-gigasample ADC's and DAC's. In 2010 he joined CEA-LETI as program manager in charge of setting collaboration programs with industrial partners in the field of analog , RF and Imager IC design.



Giuliano Manzi

Giuliano received the Degree in electronic engineering from the "Università Politecnica delle Marche", Ancona - Italy, in 2001. He co-founded a spin-off company WEST L'Aquila (Wireless Embedded Systems Technologies, L'Aquila). In 2005, he was with the EMC Department, Philips Research, Eindhoven - Netherlands, working on coexistence between wireless 802.11 and UWB communication systems. He received the Ph.D. degree from the Univ. of L'Aquila in 2006. During his Ph.D. study his research interests were focused on EMC, numerical methods, modeling techniques, shielding techniques, electrostatic discharge phenomena, UWB signal interferences and coexistence of wireless systems. From 2006 to 2011, he was with the Radio Frequency Identification Systems (RFID) Reference Design Center of Philips Semiconductor (now NXP Semiconductor), Gratkorn, Austria.

Since 2011 he is with austriamicrosystems AG(now AMS). He is currently working on UHF and HF RFID system design and application optimization.



Matthias MAHLICH

Currently employed within corporate sector research - advance production technology - plastics engineering. Experience within the area of electronic packaging since 1997 at different companies. Joined Bosch in 2008 and was working in different internal projects, now within EU-Project "Interflex".



Hubert BRÜCKL

Currently, he is heading a research group for "Integrated Sensor Systems" in the Health & Environment Department at the AIT Austrian Institute of Technology, and is vice head of the business unit "Molecular Diagnostics". His scientific interests cover thin films, magnetism, sensors and nanotechnology.

He received his PhD in Physics from the University of Regensburg in 1992. After Postdoc at the Technical University of Darmstadt, a research sabbatical at Siemens AG, positions as group leader at the Institute of Solid State and Material Research (IFW) in Dresden and as research associate in the Department of Thin Films and Nanostructures at the University of Bielefeld, he got the Habilitation and an assistant professorship in Bielefeld. He got more than 140 peer-reviewed publications, holds several patents, and got several awards.



Luigi OCCHIPINTI

He works for STMicroelectronics since 1995, covering several positions associated with R&D programs and initiatives for More than Moore and post-silicon roadmaps. Currently Programs Director of Flexible & Disposable Electronics within Central R&D of the Industrial and Multisegment Sector (IMS), reporting to the Group VP and General Manager of R&D. His scientific field interests include a number of emerging technology areas for the post-CMOS roadmap,

heterogeneous integration, polymer and printed electronics, advanced bio-systems, advanced signal processing and nonlinear computation. Luigi Occhipinti is author of more than 70 scientific publications in international journals and conference proceedings, editor in chief of one book on organic electronics, and inventor of about 40 industrial patents and patents applications filed worldwide. He is member of advisory boards for European and International co-operation projects, as well as member of several scientific and standardization committees in the area of nanotechnologies, flexible electronics and energy.



Hans-Otto MAIER

Hans-Otto Maier is Senior Vice President Center of Excellence Automated Infusion Systems. In his more than 30 years career in the medical industry he gained comprehensive experiences not only in the development of medical devices and pharmaceutical products but also in marketing as well as in production.

Together with his team he has the goal to strengthen the innovation leadership of B. Braun in the automated infusion technology. One important milestone is target controlled infusion. For this purpose, smart infusion pumps must be supported by sensors for the online measurement of the relevant parameters. The development of such sensor systems is performed in our office in Graz, because at this location, B. Braun cooperates with institutes which have excellent know-how in this field.



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Gerald A. URBAN

He becomes full professor of sensors at the Institute for Microsystems Technology at the Albert Ludwig University Freiburg/Germany. From 1998 to 2001 he was Dean of the faculty of applied science and since 2005 was a member of academic senate, from 2008 - 2010 he was spokesman of academic senate. At present he is member of the directorate of the Freiburg materials research center.

He was co-founder of the startup companies OSC in Cleveland and Vienna and of the company Jobst technology and Epainters. He is external member of the Austrian Academy of Sciences and series editor of the SPRINGER series "Bio- and Chemosensors". His main interest focuses on research and development of micro- and nanosensor applications. He has published more than 100 papers and 64 patents and got four awards.



Annelie-Martina WEINBERG

University of Graz, Orthopedic Department and Mathias-Spital Rheine Germany.

Currently director for the Departement of Trauma Surgery and Orthopedic Surgery Mathias –Spital Rheine. Research Director of the Laura Bassi Center of Expertise BRIC in Graz. Main focus in research are degradable implants in surgery especially for trauma treatment. Second focus are special solutions for children and growing mechanismen.

With more than 20 years spend in orthopedic trauma she published books and a high number of international papers in the area of medicine. She is reviewer for several medical papers and companies in her research topic.

Her lab is able to analyse every material in any cells and in any animal including all test needed for evaluation in medicine. She is well known in Austria for degradable materials in medicine.



Charlotte JENNEQUIN

Currently responsible for Strategy and Partnerships at IPDiA. With more than 20 years spent in semiconductors industry, she began her career as ASIC designer within Thomson Military and Space. She has integrated Philips Company, in 1996 as product engineer for the AD/DA converters, before taking the responsibility in 2000 of themanagement of subsidized projects. She worked for NXP, Paris, France, where she was responsible, among others, for the projects management in relation with European commission and Public Authorities.

Within IPDiA since 2009, she drives the development of strong R&D partnerships with research labs and industrial partners to strengthen industrial innovation.



Maximilian FLEISCHER

Maximilian Fleischer works as Senior Principal Scientist for sensors and additionally leads the Chemical Sensors research group of Siemens Corporate Technology.

His work includes piezoelectric motors, semiconducting metal oxide, high-T electrochemical and work function based gas sensors, tunable laser diode spectroscopy, NIR-spectroscopy for sensing applications, and living cell based sensors. He co-authored 230 scientific publications

and more than 170 patent families. He is acting as member of the editorial board of MST, co-chairman of the steering committee of the EUROSENSORS conference, as member of various scientific comities, two Fraunhofer boards of trustees as well as honorary professor for the Budapest University of Technology and Economics.



Daniel WATZENIG

He received his MSc in electrical engineering and his PhD in technical science from Graz University of Technology, Austria, in 2002 and 2006, respectively. In 2009 he received the "veni ad docendi" (habilitation) on electrical measurement and signal processing. He is author or co-author of over 100 peer-reviewed scientific articles, book chapters, conference papers, and patents. He is reviewer of several recognized international journals (IOP, IEEE Transactions,...).

His research interests focus on vehicle electrification, battery technology, Car-2-X, automotive sensor signal processing, statistical inverse problems, and robust estimation methods. He is currently heading the Automotive Electronics and Software Department of the Virtual Vehicle Research Center in Graz.

He is currently Divisional Director of the Automotive Electronics Department at the Virtual Vehicle Research Center located in Graz, Austria.

Since 2009 he is Associate Professor for Electrical Measurement and Signal Processing at Graz University of Technology. Since 2008 he is Senior Member of the IEEE Signal Processing, Vehicular Technology, and Instrumentation & Measurement Society. In addition, he is member of the editorial board of the OVE E&I journal.



Dr. Günter ENGEL

EPCOS OHG, Electronic Parts and Components, Member Company of TDK-EPC. Currently director for innovation themes within the Corporate Materials Research Dept. (CMRD) of EPCOS OHG.

He began his career 1978 at AVL GmbH in Graz, and switched 1990 to Siemens Matsushita in Deutschlandsberg, which later became EPCOS. From 1992 until 2009 he was heading the Ceramic Multilayer Technology Development Department, and was involved in

development and market launches of piezo actuators, varistors, ceradiodes, thermistors, filters and capacitors. His present main activity is the so-called CeraLink project that aims in providing an advantageous new ceramic technology for capacitors for power electronics.



Emanuele SCROFANI

STMicroelectronics – Industrial & Multisegment Sector Currently Manager of Package Engineering & Development Department in Catania.

Born in Ragusa (Italy) on 1966 he achieved graduation in the University of Catania (Italy) during 1991 as Doctor in Electronic Engineering. After military service he joined STMicroelectronics (Catania site) during 1993 as Product Engineer of Power MOSFETs transistors. He was resident in Casablanca during 1996 supporting the qualification of TO220, MAX220 and DPAK/IPAK assembly lines in the STMicroelectronics site for Power Transistors. From 1997 to 2007 he worked as Product Engineering Manager inside Low Voltage Power MOSFETs Product Unit.

From 2007 August 1st is managing the Packaging Engineering & Development Department in Catania inside the Industrial & Multi Segment Group of STMicroelectronics, taking care of Advanced, Development and Industrial activities for Power Divisions. His activity is in general centered on all the Packaging solutions of Power Devices with particular focus on Intelligent Power Module and Hi End Power Modules.



Mark BEESLEY

Mark Beesley is the Chief Operating Officer for AT&S's Advanced Packaging Business Unit, focussed on the ramp up of the brand new embedded component semiconductor packaging technology, ECP. ECP delivers dramatic benefits in form factor reduction, performance, reliability and ease-of-use.

Mark is a trained Mechanical Engineer, with fifteen years experience in the field of high performance printed circuit production. For the last two years he has led the ramp up of AT&S's innovative embedded component packaging technologies, based in Leoben, Austria.



Roswitha WIEDENHOFER

Graduation in Geophysics (1992) at Karl Franzens University, Graz; Doctoral studies sub auspiciis presidentis rei publicae (2010) at Technical University Vienna. After a scientific career as applied geophysicist at Joanneum Research (JR), Leoben (1992-1998) she was engaged in strategic research planning assisting the managing directors of JR.

As head of staff unit "Coordination Research & Development" at the University of Applied Sciences (UAS), "FH JOANNEUM" from 2004 onwards she is amongst others also responsible for strategic planning of R&D activities of the UAS and implementation of measures focusing on a tight collaboration with economy. She represents the UAS in several (inter)national working groups in relation with R&D and innovation focusing on the strategic goals and future development of R&D on a regional and national level.

Besides she works as a consultant for industry (in RDI and knowledge management) and assists Austrian Ministries and public institutions in the design and implementation of industry-science innovation programs and coordinative activities on an EU level.

