Technical Program

COMS 2015
KRAKÓW | POLAND
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Sunday, 13.09.2015

9.00 –	Exhibition stands assembling
14.00 – 20.00	Registration
12.00 – 18.00	**Boot Camp** Presenters & Mentors: S. Walsh, J. Bryzek, J. Elders, A. Groen, R. Harms, R. Quintana
18.30	**Welcome Reception**

Monday, 14.09.2015

9.00	Welcome (R. Walczak, S. Volker)	
9.30	**Keynote I:** *European electronic strategy* K. Rouhana ("Components & Systems" DG Communications Networks, Content and Technology, European Commission, Belgium)	Room Renoir
10.00	**Keynote II:** *Polish R&R Policy towards commercialization of high-tech achievements* J. Kątcki (The National Centre for Research and Development, Poland)	
10.30 – 11.00	**Coffee break and poster/exhibition visit**	
11.00 – 12.30	**Session I** *Technology transfer in Poland* Chair: P. Grabiec (ITE, Warsaw)	Room Renoir
11.00	*Technology transfer – case study of Polish projects* J. Dziuban (Wrocław University of Technology, Poland)	
11.20	*Meaningful meanings of integration: microelectronics in Poland – past, present and future* P. Grabiec (Institute of Electron Technology, Poland)	
11.40	*Strategy and vision of Polish Economy growth based on Key Enabling Technologies commercialization* T. Nasiłkowski (InPhoTech Sp. z o. o., Poland)	
12.00	*Commercialization of new technology in the Polish Universities* W. Grzebyk (Wrocław University of Technology, Poland)	
12.30 –14.00	**Lunch**	
14.00 – 15.50	**Session II** *Commercialising MNT products (1)* Chair: R. Mehalso (Microtec Associates, USA)	Room Renoir
14.00	**Keynote III:** *Microcommercialization: pitfalls and challenges on this journey* S. Curran (C-Voltaics Inc., USA)	
14.30	*The pathway for micro/nano product commercialization* R. Mehalso (Microtec Associates, USA)	
14.50	*Development of the programmable Bio-Nano-Chip: bridging the commercialization gaps* J. McDevitt (New York University College of Dentistry, USA)	
15.10	*Commercialization pathways and a map for avoiding the valley of death* E. Harvey (MiniFAB, Australia)	
15.30	*Accelerating technology transfer with joint European action to address SMEs specific needs* R. Hamelin (Blumorpho, France)	
15.50 – 16.20	**Coffee break and poster/exhibition visit**	
16.20 – 18.00	**Session III** *Commercialising MNT products (2)* Chair: R. Mehalso (Microtec Associates, USA)	Room Renoir
16.20	*Making things matters: bringing product ideas from concept to manufacture in academia* R. Ford (Pennsylvania State University, USA)	
16.40	*Enabling connection technology for integrating nanostructures, circuits and sensors* M. Vinson (Averatek, USA)	
17.00	*Commercializing of terahertz imaging for micro/nano scientific and industrial applications* D. Arnone (TerView Ltd., UK)	
17.20	*Changes in technology transfer, investments and systems* S. Kassicieh (Univ. New Mexico, USA)	
17.40	*Extreme precision microsystem product commercialization* S. Whigham (Polatis Limited, Poland)	
18.00	*Challenges in the wide-scale deployment of IoT* I. Thukral (Boston Analytics, USA)	
19.00	**Dinner in Holiday Inn Degas Hall**	

Technical Program

Tuesday, 15.09.2015

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9.00	Opening remarks (D. Tolfree)	
9.15	**Keynote IV**: *Microchip acoustofluidics enables novel bioanalytical applications and commercial opportunities* T. Laurell (Lund University, Sweden)	Room Renoir
9.45	**Keynote V:** *40 years on and microfluidics is now commercial – what took so long?* E. Harvey (miniFAB, Australia)	
10.15 – 10.45	**Coffee break and poster/exhibition visit**	
10.45 – 12.15	**Session IV A (Room Renoir A)** *Health care and biomedical diagnostics* Chair: T. Laurell (Lund University, Sweden)	Parallel session
10.45	**Invited talk:** *ANGELAB: EU project to develop Non Invasive Prenatal Diagnostics systems based on a modular Lab-on-a-Chip format* J. Ruano-Lopez (Ikerlan, Spain)	
11.15	**Invited talk:** *Lab-on-a-chip- based instrumentation for rapid detection of biological weapons: from pure science to level 8 of technology readiness* R. Walczak (Wrocław University of Technology, Poland)	
11.45	*Efficient nanophotonic biosensing for low cost real-time bioassays* D. Hill (University of Valencia, Spain)	
10.45 – 12.15	**Session IV B (Room Renoir B)** *Industrialisation of bio/chemical sensors* Chair: S. Kaminaga (SPP Techn., Japan)	Parallel session
10.45	**Keynote VI:** *Industrialization perspectives of chemical sensors* M. Fleischer (Siemens, Germany)	
11.15	**Invited talk:** *Recent advances in spectroscopic and calorimetric process analysis for microfluidic processes* S. Loebbecke (Fraunhofer ICT, Germany)	
11.45	*Lab-on-a-Chip systems for the evaluation of new anticancer therapeutical methods* M. Chudy (Warsaw Technical University, Poland)	
12.15 – 14.00	**Lunch**	
14.00 – 16.00	**Session V A (Room Renoir A)** *Nanotechnologies and additive manufacturing* Chair: S. Curran (C-Voltaics Inc., USA)	Parallel session
14.00	**Invited talk:** *Nanoimprint Lithography (NIL) as key enabling technology for volume manufacturing of MNT products* R. Weinhäupl (EV Group, Austria)	
14.30	*Nano materials for optimization of polymer systems* G. Dillon (Behrend College, USA)	
14.50	*Hybrid nanocomposites: an effective way to enhance properties of electrical devices* A. Rybak (ABB Research Cen., Poland)	
15.10	*The commercialization of Detonation Nano Diamonds for multiple applications* J. Meriano (Silicon Sense Inc., USA)	
15.20	*Supply chain risks for additive manufacturing* J. Hernandez (Sandia, USA)	
15.40	*The advent of additive manufacturing (AM)* A . Groen (Netherlands)	
14.00 – 15.40	**Session V B (Room Renoir B)** *Work force development* Chair: S. Neuen (Science@OC, USA)	*Parallel session*
14.00	*Sustainable nanotechnology: teaching the workforce* D. Newberry (Dakota County Tech. College, USA)	
14.30	*Technology transfer from Sandia National Laboratories using entrepreneurial and commercialization Ecosystems* R. Stinnett (Sandia, USA)	
15.00	**Invited talk:** *Business and education building the future workforce together* S. Neuen (Science@OC, USA)	

16.00 – 16.30	**Coffee break and poster/exhibition visit**	
16.30 – 17.30	**Panel Session** *Building a commercially successful company* Chair: D. Tolfree (MANCEF) Participants: E. Harvey (miniFAB, Australia) S. Curran (C-Voltaics Inc., USA) D. Arnone (TerView Ltd., UK)	Room Renoir
18.00 -	**Transfer to Wieliczka Salt Mine and Gala Dinner**	

Wednesday, 16.09.2015

9.00	Opening remarks (S. Walsh)	
9.15	**Keynote VII:** *BrontoBytes generated by TSensors, foundation for the abundance and our future* J. Bryzek (eXo, USA)	Room Renoir
9.45	**Keynote VIII:** *Development and funding of MEMS and sensors for IoT and mHealth in Japan* S. Kaminaga (SPP Techn., Japan)	
10.15 – 10.45	**Coffee break and poster/exhibition visit**	
10.45 – 13.00	**Session VI A (Room Renoir A)** *Emerging smart systems* Chair: J. Dziuban (Wrocław University of technology, Poland)	Parallel session
10.45	**Keynote IX:** *Chip-scale atomic devices: miniature precision instruments using atoms, lasers and MEMS* J. Kitching (NIST, USA)	
11.15	**Invited talk:** *Silicon-glass platform for vertical multi-wafer integration of optical microsystems: applications in on-chip microscopy* Ch. Gorecki (FEMTO-ST, France)	
11.45	*Single-chip scanning probe microscopes* N. Sarkar (ICSPI Corp., Canada)	
12.05	*Internet of Things systems* S. Walsh (Univ. New Mexico, USA)	
12.25	*Holistic system integration of wide band gap devices* D. Kearney (ABB Corporate Research Centre , Switzerland)	
10.45 – 13.00	**Session VI B (Room Renoir B)** *Emerging MEMS and NEMS* Chair: J. Bryzek (eXo, USA)	Parallel session
10.45	*EU open-access Nanolab* J. Hoedemaekers (MESA+, Netherlands)	
11.05	*Nanometrology with and for MEMS/NEMS technology* T. Gotszalk (Wrocław University of Technology, Poland)	
11.25	*Toward new integrated high-vacuum MEMS instrumentation* A. Górecka-Drzazga (Wrocław University of Technology, Poland)	
11.45	**Invited talk:** *Advanced trillion MEMS and 3D printed sensors for all of us* A. Oja (VTT, Finland)	
12.15	**Invited talk:** *Carbon nanotubes and their role in ultra-low power sensing* C. Roman (ETH, Switzerland)	
13.00	**Closing remarks and lunch**	