EPoSS Annual Forum 2025

ACCELERATING INNOVATIONS IN SMART SYSTEMS

EMPOWERING COMPETITIVE EUROPEAN SOLUTIONS

JUNE 3–6, 2025 – NEUCHÂTEL, SWITZERLAND

AGENDA

(Status: May 2025)

DAY 0 – Tuesday, June 3, 2025 | EPoSS Day – EPoSS Members only

Time	Subject			
12:00 – 13:00	Registration and Lunch			
13:00 – 16:30	**EPoSS Working Group Meetings and Workshops** *details to follow*			
13:00 – 14:30	WG 1	WG 2	WG 3	WG 4
14:30 – 15:00	Coffee Break			
15:00 – 16:30	WG 5	WG 6	WG 7	WG 8
16:30 – 17:00	Break			
17:00 – 18:30	**EPoSS Executive Committee Meeting**			
19:30	**EPoSS Executive Committee Dinner** Restaurant VIO			

Organised by

EPoSS. European Association on Smart Systems Integration

Co-organised by

csem

EPoSS Annual Forum 2025

ACCELERATING INNOVATIONS IN SMART SYSTEMS

EMPOWERING COMPETITIVE EUROPEAN SOLUTIONS

JUNE 3–6, 2025 – NEUCHÂTEL, SWITZERLAND

DAY 1 – Wednesday, June 4, 2025

Time	Subject		
12:00	**Start of Annual Forum 2025**	**09:00 – 12:00**	**EPoSS General Assembly** **EPoSS Members only**
12:00 – 13:00	Registration and Lunch		
13:00 – 14:30	**Opening Session** *Moderation: Elisabeth Steimetz, Markus Ulm*		
	Welcome by EPoSS Chairman		Markus Ulm, SVP, Bosch
	Welcome by Local Host		Alexandre Pauchard, CEO, CSEM
	Welcome by Region		Matthieu Aubert, Director, Canton of Neuchâtel
	EU funding and news (WT)		Arian Zwegers, Deputy head of unit, DG CNECT
	Swiss funding (WT)		Giuditta Rusconi, Advisor, SERI
	SwissChips: Fostering Chip-Design Research in Switzerland		Prof. Christoph Studer, ETHZ
	tbd		Alain-Serge Porret, VP Integrated and Wireless Systems, CSEM
14:30 – 15:00	Coffee break		
15:00 – 16:15	**Spotlight Session: Innovations in Smart Systems for Competitive European Solutions** *Chair: Wolfgang Dettmann (Infineon)*		
15:00 – 15:15	Beyond-CMOS Era: INL's Contribution to Future Microelectronics		Filipe Alves, INL
15:15 – 15:30	Ultra-low power Edge Intelligence utilizing Neuromorphic hardware		Sayani Majumdar, Tampere University
15:30 – 15:45	Next-Generation Self-Powered IoT Sensors for Smart, Sustainable and Integrated Systems		Cristina Rusu, RISE
15:45 – 16:00	Unlocking the Potential of All-Day Eye Tracking: Bridging the Technological Gap with Laser Feedback Interferometry		Thomas Schlebusch, Bosch
16:00 – 16:15	European funded initiatives for the Software-Defined Vehicle of the Future		Eric Armengaud, Armengaud Innovate GmbH

Organised by

Co-organised by

DAY 1 – Wednesday, June 4, 2025

Time	Subject	
16:15 – 16:30	Coffee break	
16:30 – 18:00	**The European Chips Act Pillar 1 – State of Play** *Moderation: Elisabeth Steimetz*	
16:30 – 16:45	Chips 4EU – status of the implementation of the Chips Act Pillar 1	Jari Kinaret, Director of Chips Joint Undertaking
16:45 – 17:00	European Chips Skills Academy	Victoria Cummings, SEMI Europe
17:00 – 18:00	Panel discussion: How will the Chips JU Pilot Lines and Competence centres empower innovation and workforce in Europe?	“FAMES” Pilot Line – Susana Bonnetier (CEA Leti)
		“APECS” Pilot Line – Stephan Guttowski (Fraunhofer FMD)
		“PixEurope” Pilot Line – Cian Ó Murchú (Tyndall National Institute)
		Austrian Perspective on Chips Act – Christina Hirschl (SAL)
		Finnish Perspective on Chips Act – Jyrki Kiihamaki (VTT)
		Polish Perspective on Chips Act - Grzegorz Janczyk (Łukasiewicz-IMiF)
19:30	**EPoSS Dinner Event** Restaurant Café des Amis	

EPoSS.
European Association on
Smart Systems Integration

csem

EPoSS Annual Forum 2025

ACCELERATING INNOVATIONS IN SMART SYSTEMS

EMPOWERING COMPETITIVE EUROPEAN SOLUTIONS

JUNE 3–6, 2025 – NEUCHÂTEL, SWITZERLAND

DAY 2 – Thursday, June 5, 2025

Time	Subject	
08:30 – 09:00	Registration and Welcome Coffee	
09:00 – 10:00	**Session: Accelerating Innovations through Advanced Packaging Technologies** *Chair: Przemyslaw Gromala (Bosch)*	
09:00 – 09:15	Advancing Memory Security Through Chiplet Technology: Implementation and Challenges	Richard Willems, Swissbit
09:15 – 09:30	Design-Centric Thermal Management Strategies for Advanced 2.5D/3D Packaging	Andras Vass-Varnal, Siemens
09:30 – 09:45	Maskless and Multi-Material Ultra-Precise Dispensing for Heterogeneous Integration	Piotr Kowalczewski, XTPL
09:45 – 10:00	Direct Atomic Layer Processing for Enhanced Side Edge Passivation in Advanced Packaging	Karolis Parfeniukas, ATLANT 3D
10:00 – 11:00	**Part 1: Poster Pitches & Poster Gallery (with coffee)** *Chair: Sven Rzepka (Fraunhofer ENAS)*	
11:00 – 12:00	**EPoSS Start-Up Award (Pitches)** *Chair: Martin Martens (EPoSS)*	
12:00 – 13:00	Lunch and Networking	
13:00 – 14:00	**Part 2: Poster Pitches & Poster Gallery (with coffee)** *Chair: Cian Ó Murchú (Tyndall National Institute)*	
14:00 – 15:30	**Session: Key Technologies for Competitive Smart Systems Solutions** *Chair: Patrick Cogez (AENEAS)*	
14:00 – 14:15	Ultra low power on-chip FMCW RADAR front-ends for short-range sensing applications	Paulo Dal Fabbro, CSEM
14:15 – 14:30	Intelligent wireless temperature measurement platform (< 325 °C) using NEM Switch Technology	Piers Tremlett, Microchip Technology
14:30 – 14:45	Three-dimensional folded MEMS platform for area efficient piezoelectric sensors and actuators	Dennis Becker, Hahn-Schickard

Organised by

EPoSS.
European Association on
Smart Systems Integration

Co-organised by

csem

DAY 2 – Thursday, June 5, 2025

Time	Subject	
14:45 – 15:00	Silicon capacitors are key ingredients for differentiated smart system integration	Jean-Marc Yannou, Murata
15:00 – 15:15	Energy harvesters based on perovskite semiconductors	Quentin Jeangros, CSEM
15:15 – 15:30	Enhancing Battery Management Systems with Advanced Printed Sensor Technologies	Ruben Redrose, CeNTI
15:30 – 18:00	**Site Visits** Company 1: CSEM Battery Lab Company 2: CSEM Observatoire More site visits tbd	
19:30	**EPoSS Dinner Event & Start-up Award Ceremony** Dinner Cruise 19:30 – 23:00	

DAY 3 – Friday, June 6, 2025

Time	Subject	
08:30 – 09:00	Registration and Welcome Coffee	
09:00 – 10:05	**Session: Smart and Digital Health Solutions** *Chair: Michael Scholles (Fraunhofer IPMS)*	
09:00 – 09:20	Hearing Aids – Smart Systems at the Ear	Stefan Launer, Sonova
09:20 – 09:35	Smart labware for standardized in vitro complex cell models	Stéphanie Boder-Pasche, CSEM
09:35 – 09:50	Silicon-Integrated Terahertz Broadband Receivers for High-Precision Hyperspectral Imaging	Vishal Jagtap, Tyndall
09:50 – 10:05	Advancing Digital Health: Integrating Edge Computing, AI, and IoT for Enhanced Health Monitoring and Well-being	Nieves Hernandez-Gonzalez, University of Las Palmas de Gran Canaria
10:05 – 11:20	**Session: Edge AI and Cybersecurity Empowering European Sovereignty** *Chair: Phillippe Dallemagne (CSEM)*	
10:05 – 10:20	Knowledge-enhanced process models for semiconductor manufacturing	Harald Kuhn, Fraunhofer ENAS
10:20 – 10:35	Mixed-signal edge-AI accelerator toolchain	Maen Mallah, Fraunhofer IIS
10:35 – 10:50	TEF-PREVAIL – A multi-hub Test and Experimentation Facility for edge AI hardware demonstration & prototyping	Sergio Nicoletti, CEA LETI
10:50 – 11:05	Instruction Set Extension of RISC-V Processor for Post-Quantum Cryptography Algorithms	Berna Ors, Istanbul Technical University
11:05 – 11:20	Post-compromise security for embedded and hardware constrained IoT devices	Damien Vizar, CSEM
11:20 – 11:30	Coffee break	

DAY 3 – Friday, June 6, 2025

Time	Subject	
11:30 – 12:45	**Session: Accelerating Adoption of Green ECS** *Chair: Erika Györvary (CSEM)*	
11:30 – 11:45	Sustainability and Skills: Services from Smart Circuit and Skills4chips	Christine Neuy, microTEC Südewest e. V.
11:45 – 12:00	Investigations on the rework and second life of electronic packages in EECONE	Moritz Schlagmann, Infineon
12:00 – 12:15	Silk Fibroin Technologies for Sustainable and Biodegradable Electronics	Xavier Muñoz Berbel, IMB-CNM
12:15 – 12:30	Sustainable and cost-efficient In-mold 3D electronics combining non-contact molten metal printing and thermoforming	Zhe Shu, Hahn-Schickard, Uni Freiburg
12:30 – 12:45	Lightweight Electronics by Injection Moulding in Seamless Architecture: a sustainable and green printed electronics approach for the manufacturing of automotive interior components	Paulo Pedrosa, DTx
12:45 – 13:00	**Closing Remarks**	
13:00 – 14:00	Lunch and Networking	
14:00	**End of Annual Forum 2025**	

Address:
EPFL Neuchâtel
Rue de la Maladière 71b
2000 Neuchâtel
Switzerland

EPoSS Day might take place at csem – tba.

Social Media: LinkedIn

Organised by

EPoSS. European Association on Smart Systems Integration

Co-organised by

csem

APPENDIX | Poster Session 1 | Sequence and Themes

DAY 2 – Thursday, June 5, 2025 10:00 – 11:00

No.	**Poster Pitches and Poster Sessions** *Chair: Sven Rzepka (Fraunhofer ENAS)*	
1	Alliance of Chips Competence Centers for Enhanced Semiconductor Services	Fabrizio Fallarini MESAP
2	ICOS – Fact sheets and a decision making tool for international cooperation	Julia Kaltschew VDI/VDE-IT
3	The IHP OpenPDK Initiative: Status and FOSS CAD/EDA Roadmap	Wladek Grabinski MOS-AK; ihp
4	INFRACHIP - European Research Infrastructure on Semiconductor Chips	Cian Ó Murchú Tyndall National Institute
5	Enabling Next-Generation Smart Systems: Wafer-Level TSDC for Reliable Piezoelectric and Ferroelectric Devices	Stephan Tiedke Aixacct Systems GmbH
6	Optical addressing of laser-written spin defects in SiC using a 3D-printed micro-assembly including micro-optics	Andreas Tortschanoff Silicon Austria Lab
7	Mixed-Timing Design Flow for Mixed-Signal Neuromorphic Processors	Ferdinand Pscheidl Fraunhofer EMFT
8	Advanced engineering methodology for smart systems design	Petri Solanti Siemens Electronic Design Automation GmbH
9	EARASHI – fostering EU sustainable digital transition (AI-Data-Robotics related) to improve worker well-being and safety in manufacturing	Isabelle Dor CEA
10	AITIANa: AI-powered design Tools for InnovAtion in microelectronics	Suzanne Lesecq CEA Leti
11	Integration of PicoRV32 and MicroBlaze V RISC-V Processors for 5G SA and Beyond Communication Systems on FPGA	Deepak V Katkoria Logiicdev GmbH

APPENDIX | Poster Session 2 | Sequence and Themes

DAY 2 – Thursday, June 5, 2025 13:00 – 14:00

No.	**Poster Pitches and Poster Sessions** *Chair: Cian Ó Murchú (Tyndall National Institute)*	
1	BioSensei – The Future of Environmental Monitoring	Richard Murray Tyndall National Institute
2	Towards PFAS-free aqueous production of cathodes for greener Li-ion batteries	Anaël Jaffrès CSEM
3	Label-free non-contact glucose monitoring in organ-on-a-chip systems using NIR/MIR spectroscopy	Vitalijs Zubkovs CSEM
4	A novel implantable multiparameter sensor capsule and eHealth platform for diagnosing GERD	Patrick Sugrue Tyndall National Institute
5	An Innovative Smart Printer Tag for Enhanced Traceability in Textile Industry	Flávio Silva CeNTI
6	AI-based quality control system for textile finishing	Miguel Monteiro CeNTI
7	Industrial gateway system for Industry 5.0 applications	Natale Testa STMicroelectronics SRL
8	A Dynamic Correlation Tool for Digital Twin Development Platform of Long Haul Heavy-Duty Electric Vehicles	Sachin Kumar Bhoi Vrije Universiteit Brussel
9	Large-Scale ViL and SiL Testing and Validation for Connected and Autonomous Mobility	Mujdat Soyturk BigTRI Bilisim A.S.
10	Adaptive Digital Twins for Condition and Health Monitoring of Powertrain Components	Sajib Chakraborty Vrije Universiteit Brussel