Preliminary Program

Tuesday, May 25

09.00	**Tutorial**	
	Sputtering Technologies	Dr. Matthias Fahland
	Ultra-thin-glass; mechanical reliablility, panel level packaging	Dr. Wiebke Langgemach
	Applications of Electron Beam Technology	Dr. Stefan Saager
	Web charging in roll-to-roll electron beam evaporation on polymer films	Bastian Zeis
12.00	**Opening and Welcome**	Prof. Dr. Elizabeth v. Hauff Dr. Cindy Steiner
12.10	**Keynote Lecture**	
12.35	**Session 1:** **Scalable Manufacturing of Flexible Photovoltaics**	Chair: Dr. Michael Hoffmann
	Flexible photovoltaics enable lightweight, conformable solar-energy generation on surfaces and in applications inaccessible to conventional rigid modules. Scalable manufacturing is a key requirement for transferring flexible photovoltaics from laboratory-scale development to commercial applications. This session examines materials, processes, and equipment for solar cells fabricated on flexible substrates, with a particular focus on roll-to-roll manufacturing of perovskite and organic photovoltaics. Topics include coating, printing, vacuum deposition, laser processing, interconnection, encapsulation, process control, reliability, and sustainability. The session highlights pathways that link device performance with robust, cost-effective, and industrially scalable production of flexible photovoltaic modules.	
	Lecture 01	Netherlands Organization for Applied Scientific Research TNO
	Lecture 02	ROWO Coating GmbH
	Lecture 03	ASCA GmbH & Co. KG
13.35	Poster Pitches	
13.45	Coffee Break	
14.10	**Session 2:** **Battery Technologies – Driving sustainable energy innovation**	Chair: Claus Luber
	The energy transition is progressing worldwide, but many challenges remain unresolved. Batteries play a decisive role in the ecologically sustainable design of our energy systems. Various strategies and manufacturing technologies are competing with each other on the market in order to realize the required efficiency and cost savings. Thin-film coatings and layer systems produced using vacuum coating technologies play an important role in this. The session ‘Battery Technologies – Driving sustainable energy innovation’ focuses on roll-to-roll vacuum coating technologies for next generation Li-ion batteries and beyond.	
	Lecture 04	Btry AG
	Lecture 05	NorcSi GmbH
	Lecture 06	AGC Glass Europe
15.10	Poster Pitches	

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15.20	Coffee Break	
15.55	**Session 3:** **Korean-German partnership:** **New window technologies for energy related topics**	Chair: Dr. Matthias Fahland
	Improving the energy efficiency of buildings is essential for reducing global energy consumption and carbon emissions. Windows play a key role, influencing both heat losses in winter and solar heat gains in summer. While advanced glazing and vacuum-coated solar control solutions have significantly improved performance, cost-effective retrofit options for existing buildings remain limited. This session focuses on innovative solar control films and functional coatings for energy-efficient glazing. Special attention is given to a Korean-German collaboration that developed a wet-coated polymer film as an alternative to conventional vacuum-coated technologies. Topics include coating materials, optical performance, durability, retrofit applications, and pathways toward industrial implementation.	
	Lecture 07	CFC Teramate
	Lecture 08	Korea Institute of Industrial Technology KITECH
	Lecture 09	Fraunhofer IKTS
16.55	Poster Pitches	
17.05	**Closing Day 1**	
17.10	Bio Break	
17.20	**Lab Tour**	
18.10	**Dinner including Poster Session**	

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pro flex 2027
ROLL-TO-ROLL COATING OF FLEXIBLE MATERIALS

Wednesday, May 26

08.30	**Session 4:** **Functionalization of films for sustainable packaging**	Chair: Jan Hesse
	Discover how flexible coating technologies can deliver sustainable, high-performance packaging under the Packaging and Packaging Waste Regulation (PPWR) while meeting stringent food-contact requirements. The session spans conventional and bio-based plastic films as well as paper, highlighting recyclable barrier and sealing solutions, safe material design, migration control, and pathways from regulatory compliance to industrial implementation.	
	Lecture 10	VON ARDENNE GmbH
	Lecture 11	Walki Group Oy
	Lecture 12	Felix Schoeller Holding GmbH & Co. KG
09.30	Exhibitor / Sponsor Pitches	
09.40	Coffee Break	
10.10	**Session 5:** **From Data Streams to Process Intelligence:** **Machine Learning and AI for Roll-to-Roll Coating**	Chair: Jens Drechsel
	Roll-to-roll manufacturing creates data at every step – from coating and curing to in-line inspection and final product tests. Yet this information is often stored separately and used only after a problem occurs. This session explores how practical data management, machine learning and AI can connect process and quality data for faster decisions in production. Topics include learning from limited data, detecting defects early, making coatings more reliable, reducing waste and predicting maintenance needs. Applications range from recyclable packaging and barrier films to optical coatings and flexible electronic devices.	
	Lecture 13	Alleima AB
	Lecture 14	t.b.a.
	Lecture 15	t.b.a.
11.10	Exhibitor / Sponsor Pitches	
11.20	Coffee Break	
11.50	**Session 6:** **Multifunctional films and smart surfaces**	Chair: Dr. Stephanie Lukoschek
	Flexible products are evolving into multifunctional systems that combine optical, protective, haptic, and sensing functions. This development is creating new opportunities across sectors such as mobility, electronics, healthcare, and consumer applications. Bringing these concepts from development to scalable manufacturing requires the right interplay of materials, processes, and production technologies. This session focuses on technologies and manufacturing concepts for next-generation multifunctional films and smart surfaces. Topics include functional materials, advanced coating and roll-to-roll processes, emerging applications, and industrial scale-up. The session highlights pathways for translating innovative surface concepts into robust, scalable, and manufacturable products.	
	Lecture 16	Intellivation LLC
	Lecture 17	Uppsala University
	Lecture 18	Plasmalex SAS
12.50	**Closing Remarks and Lunch**	