Organic Electronics Saxony

Competence Overview

2025

Organic Electronics Saxony

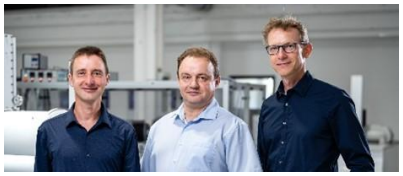
Value Chain


INDUSTRIAL DEVELOPMENT & PRODUCTION
beeOLED
CREDOXYS
MATERIAL INNOVATION
DICO ELECTRONIC
ELANTAS
MIMOTYPE
novaled
ORELTECH
RECOM
EDELMETALL-RECYCLING
ACCOMPLAST
Coating Consulting
CONTRONIX
DER BLICK FÜRS GANZE
FREUDENBERG
SIEBDRUCK SCHAFFT SINN
KET Market
TechBlick
CONNECT · ENGAGE · LEARN
SweepMe!
WOLFRAM
Designer und Ingenieure
Adenso
solutions you need
creavac
FLEXO
Kurt J. Lesker Company
mBRAUN
Clean. Engineering. Expertise.
SEMPA
PART OF MEPTAGON GROUP
Sunic system
watttron
The benchmark of efficiency
adSphere
born
KNITTING ENGINEERS
Flexora
KUNDISCH
A Phoenix Mecano Company
GETT.GROUP
PRUUVE
SmartNanotubes
TES frontdesign
MATERIALS
PROCESS INTEGRATION & SERVICES
PRODUCTION TECHNOLOGIES
APPLICATIONS
Fraunhofer IKTS
HTWD
iapp
IHM
ipf Leibniz-Institut für Polymerforschung Dresden
AVT
Fraunhofer IZM
HZDR
HELMHOLTZ ZENTRUM DRESDEN ROSSENDORF
iP³
Fraunhofer IVV
Fraunhofer IWS
EKFZ
Digital Health
ITM
LEADING IN FIBRE & TEXTILE TECHNOLOGY
Forschungsinstitut der Exzellenzuniversität
pm TUC
BASIC & APPLIED RESEARCH

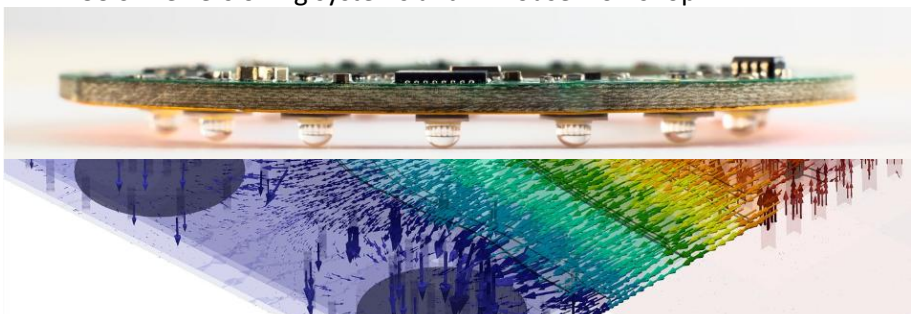
Our members

1. Accomplast GmbH
2. Adenso GmbH
3. adSphere GmbH
4. beeOLED GmbH
5. BORN GmbH
6. Coating Consulting
7. Contronix Engineering GmbH
8. CREAVAC PVD AG
9. CREDOXYS GmbH
10. DICO Electronic GmbH
11. ELANTAS Europe GmbH
12. Else Kröner-Fresenius-Center for Digital Health
13. FLEXOO GmbH
14. Flexora GmbH
15. Fraunhofer IKTS
16. Fraunhofer IVV
17. Fraunhofer IWS
18. Fraunhofer IZM
19. Freudenberg Industrie Siebdruck GmbH
20. GETT Gerätetechnik GmbH
21. Helmholtz-Zentrum Dresden-Rossendorf e.V. (HZDR)
22. Dresden Integrated Center for Applied Physics and Photonic Materials (IAPP), TU Dresden
23. Institute for Electronics Packaging and Assembly Technology (IAVT), TU Dresden
24. Institute of Semiconductor and Microsystems Technology (IHM), TU Dresden
25. Inuru GmbH
26. Institute for Printing, Processing and Packaging (iP3), HTWK Leipzig
27. Leibniz-Institute of Polymer Research Dresden (IPF)
28. Institute of Textile Machinery and High-Performance Material Technology (ITM), TU Dresden
29. KETMarket GmbH
30. Kundisch GmbH & Co. KG
31. Kurt J. Lesker Company
32. M. Braun Inertgas-Systeme GmbH
33. Mimotype Technologies GmbH
34. Novaled GmbH
35. OrelTech GmbH
36. Institute for Print- and Media Technology (pmTUC), TU Chemnitz
37. PRUUVE GmbH
38. RECOM Recycling GmbH
39. SEMPA SYSTEMS GmbH
40. SmartNanotubes Technologies GmbH
41. Sunic System
42. SweepMe! GmbH
43. TechBlick
44. TES Frontdesign GmbH
45. watttron GmbH
46. WOLFRAM Designer und Ingenieure

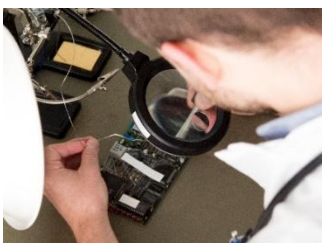
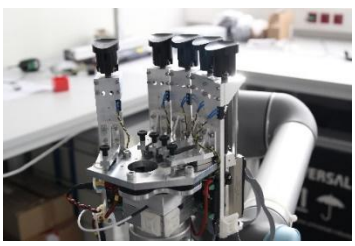
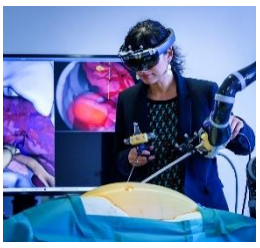
Partner	Competences
ACCOMPLAST GmbH www.accomplast.de **Address:** An der Hopfendarre 2-4 09212 Limbach-Oberfrohna Germany **Contact:** Tim Weihrauch vertrieb@accomplast.de +49 3722 630182	**ACCOMPLAST** has become firmly established as an important supplier to the automotive and electronic markets as a result of its focus on reliability, individuality, high quality and innovation. Our wide spectrum of technologies is based around plastic injection molding (1K/2K) and include state-of-the-art surface finishing and fully automatic assembly systems. We manufacture and maintain most of the tools in-house. Furthermore, we design and engineer fully automated systems for assembly of plastic and metal parts and effectively integrate them into our production. **Core Competences:** • Injection molding • Custom engineering of fully automated assembly systems • Surface finish using painting and laser marking, PVD coating and vacuum metallization 
Adenso GmbH www.adenso.solutions **Address:** Am Weiher 3 OT Boxdorf/Dresden 01468 Moritzburg Germany **Contact:** Uwe Beier, CEO uwe.beier@adenso.de +49 351 79597979 	**Adenso** business units and core competencies: Wafer Handling Robots: www.waferhandling.solutions adControl Cluster.Platform: www.adControl.solutions R2R winding systems: www.R2R.solutions Automation: www.automating.solutions With the adControl Robot.Platform our customers can easily and safely configure their own cluster systems: flexible, versatile and delivered fast! **Core Products:** • WHR wafer handling robots • FOUP300 VAC LoadPort • R2R winding systems • UTG processing solutions • DTS device tester sorter • Stealth.Carrier • Assembly lines • adControl Cluster Control 

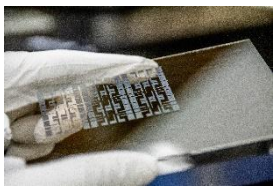
Partner	Competences
adSphere GmbH www.adSphere.solutions **Address:** Am Weiher 3 OT Boxdorf/Dresden 01468 Moritzburg Germany **Contact:** Uwe Beier, CEO uwe.beier@adenso.de +49 351 79597979 	Based on its competences and special technologies in functional layers, lamination technologies, substrate handling, and confectioning, **adSphere** develops new business models for large area and flexible sensor solutions for the market of tomorrow. **Core Technologies:** • Substrate handling • Laminating technologies • Functional sensor layers • Sealing technologies **Core Products:** • adSphere.Controller • Flexglass.Sensor 
beeOLED GmbH www.beeoled.com **Address:** Niedersedlitzer Str. 75c 01257 Dresden Germany **Contact:** Dr. Jan Blochwitz-Nimoth info@beeoled.com +49 351 850705 00 	**beeOLED** was founded by the two OLED-experts Dr. Carsten Rothe (CTO, ex Novaled) and Dr. Volodymyr Senkovskyy (COO, ex Novaled) in November 2020. Since then, it has grown to 22 employees (as of 08/2023). Led by serial entrepreneur and Novaled co-founder Jan Blochwit-Nimoth (CEO), the deep tech start-up is developing an efficient and stable deep blue emitter to enhance displays in cell phones, tablets, laptops, TV and other displays. The goal is to solve the “Blue Poblem” of today’s OLED displays using Lanthanide-complexes as emitters. beeOLED’s technology is based on making the elementary emission of atoms fit for unse in today’s vacuum-processed OLED-displays. 

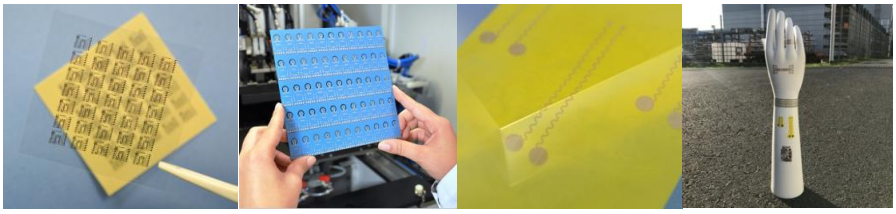
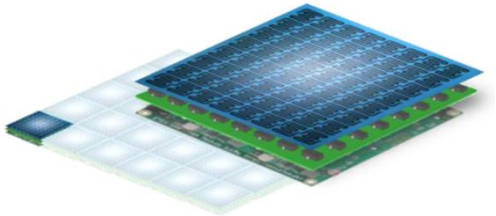
Partner	Competences
BORN GmbH - KNITWEAR FOR FASHION & ENGINEERING www.born-germany.de **Address:** Poststraße 4 37351 Dingelstädt Germany **Contact:** Michael Schneider michael.schneider@born-germany.de +49 36075 50 60	**BORN GmbH** was founded in 1991 and is a family-run, integrated textile company with more than 40 employees at two sites. Using the latest textile and knitting machines, we develop and produce trend-setting innovative textile products for our customers. Since more than 10 years, our product portfolio includes medical textiles such as orthopedic human and veterinary bandage systems. One of our main focus areas is the segment of Tec & Lifestyle products, where various innovative "wearables" are developed and produced. Within this sector we have many years of experience developing “Smart Textiles”, together with our partners from Industry and Universities. Our goal is to further expand our position as an innovation and market leader for intelligent, textile-based products at the interface of medical and sports applications. Together with our customers we want to effectively facilitate the everyday lives of people and companies in the long term. **Core competences:** • Development and production of technical textiles and wearables, especially EMS-products • Medical textiles, from textile orthoses to medical textiles • Fashion & Design textiles
Coating Consulting **Tobias Müller** www.coatcon.de **Address:** An der Stadtmühle 1a 04416 Markkleeberg Germany **Contact:** Tobias Müller t.mueller@coatcon.de +49 176 363 380 53 	**Coating Consulting** Tobias Müller is a service provider in the field of surface technology and deals with the development, production, consulting and training in thin film coating**.** **Consulting** I advise you on questions about thin-film technology. You can take advantage of my support with questions about coating systems as well as coating technologies. I have many years of experience through research and contract production, especially in the coating of plastics – but also on other substrates. **Further training** Another field of activity is education and further training. In addition to thin-film technology and vacuum technology, I also deal with relating to system technology and plastics. **Project management** I am happy to help with the implementation of development and research projects. In addition to the placement of potential partners, I also support work on / in projects. **Production of samples** If necessary, I can also make small samples myself, as far as the existing thermal vapor deposition system allows or do more extensive samples through partners. Surface characterization and analysis of layer systems are also part of the portfolio.

Partner	Competences
Contronix Engineering GmbH www.contronix.de **Address:** Nizzastr. 6 01445 Radebeul Germany **Contact:** Carsten Schurig schurig@contronix.de +49 351 4829213	Founded in 2003, **Contronix Engineering GmbH** develops application-specific electronic assemblies for a wide range of customers. In addition to the focus on the use of state-of-the-art components in particularly compact designs, one of Contronix's focal points is the strongly mechanic-integrated electronic development, which is enabled by the use of modern EDA development software coupled with a mechanically dimensionally accurate library of all electronic components. Our circuit boards fit into the housing – at the first attempt. Of course, EMC-compliant PCB layout is just as important as seamless production transfer and support. In addition to customers from classic industry and universities, Contronix develops complete electronic concepts for several innovative start-ups. Target quantities range from individual sample assemblies to cost-optimized products suitable for large-scale production. **Core Competences:** • **Simulation** for critical components, antennas, high-power applications • **Development** of PCBs with > 10 years of experience and extended library • **Software development** for firmware of integrated electronic systems • **Tools** like versioning systems and in-house workshop 
CREAVAC PVD AG www.creavac.de **Address:** Sporbitzer Ring 9 01259 Dresden Germany **Contact:** Dr. Steffen Heicke info@creavac.de +49 351 218380	**CREAVAC** is focused on coating of plastic parts. In addition to job coatings, CREAVAC features new vacuum coating technologies including equipment design, construction as well as research and development. Surface finishing of plastic parts includes lacquering and vacuum metallization by PVD technology for decorative coatings, partially transparent IR-reflective layers, solderable coatings, ESD or EMI shielding etc. In addition, CREAVAC provides further technologies, such as laser engraving and tampon printing. In the area of coating equipment, CREAVAC focuses mainly on technologically oriented specialized solutions. We offer vacuum equipment for production and laboratory use with different coating sources like thermal evaporation, E- beam and sputter techniques, PLD or plasma technologies. **Core competences:** • Job coating • EMI/ESD- coating • IR-reflective layers • Vacuum coating equipment • Technology and equipment development 

Partner	Competences
CREDOXYS GmbH www.credoxys.com **Address:** Liebigstraße 26 01187 Dresden Germany **Contact:** Dr. Sascha Dorok sascha.dorok@credoxys.com Dr. Julia Stolz julia.stolz@credoxys.com	**CREDOXYS** is a young start-up from Dresden, Germany with the aim to take Organic Electronics to the next level. We develop materials from first ideas to scale-up in chemical production. The next generation of OLED displays and organic solar cells can be realized only with the help of new performance materials. To provide these materials, we build on an experienced team of chemists and physicists with strong expertise in material development and organic electronics. Starting from our rich portfolio of ideas, we translate customer requirements to material design following specific structure-property relationships. We quickly find solutions for our customers that make their products more efficient, long-lasting, and powerful. **Core competences:** • Proprietary functional organic and metal-organic materials for application in OLED, OPV and related organic electronic and future technologies • Special focus on redox active dopants and transport materials • Customized solutions for maximum performance
DICO Electronic GmbH www.dico-electronic.de **Address:** Rotenbergstr. 1a 91126 Schwabach Germany **Contact:** Andreas Löhnert a.loehnert@dico-electronic.de +49 9128 92 50 646	**DICO Electronic** has been a technological partner since 1986 and a supplier of pastes and materials in the field of printed electronics since 2009. The delivery portfolio includes conductive pastes based on silver, nickel, gold but also copper. The spectrum also includes insulation, carbon and sensory pastes for all conceivable applications in medical, automotive and industrial electronics. The delivery capability is rounded off with cleaners and a wide range of accessories for production. Furthermore, electro-mechanical elements such as plugs, crimp contacts, snap domes and ribbon cables for membrane keyboards and input systems are an important field of activity. An extensive stock ensures excellent delivery performance. 

Partner	Competences
ELANTAS Europe GmbH www.elantas.com/europe **Address:** Großmannstraße 105 20539 Hamburg Germany **Contact:** Ben Ehlert Ben.Ehlert@altana.com +49 40 78946 462	**ELANTAS Europe** is a leading manufacturer of insulating and protective materials for the electronics and electrical industry. The Product Line Printed Electronics offers a wide range of conductive, insulating and functional screen-printing inks for applications such as membrane switches, touch surfaces, in-mold electronics, hybrid electronics, sensors, batteries, wearables, RFID antennas and electroluminescent lighting. **Core competences:** • Established industrial production of functional inks in Europe • High level technical support for printed electronics • Integrated printing laboratory for customized testing • European and global sales network • Innovative technologies (silver inks, carbon inks, insulators, adhesives)
Else Kröner Fresenius Center for Digital Health digitalhealth.tu-dresden.de **Address:** Fetscherstr. 74 01307 Dresden Germany **Contact:** Sabine Marschollek ekfz@ukdd.de +49 351 458 7558	The **Else Kröner Fresenius Center for Digital Health (EKFZ)** is a joint interfaculty initiative of the TU Dresden, the Carl Gustav Carus University Hospital Dresden, several Fraunhofer Institutes and the Helmholtz-Zentrum Dresden-Rossendorf. The research center focuses its research activities on innovative medical digital technologies at the direct interface to the patient. It is initially focusing on the areas of: • Robotics and Coworking • Implants, Sensors and Devices • Connected Care To develop the topic of digital health in a holistic way, the EKFZ for Digital Health supports Interdisciplinary Innovation Projects (IIPs) that deal with medical technology, health economic aspects and the social impact of digital health technologies.   

Partner	Competences
FLEXOO GmbH www.flexoo.de **Address:** Speyerer Straße 4 69115 Heidelberg Deutschland **Contact:** Dr. Janusz Schinke sales@flexoo.de	**FLEXOO** is the expert in printed electronics, specialising in flexible printed sensors. We offer customised printing solutions for our customers' challenges. Our expertise is based on a solid understanding of materials, processes and printing technologies that are essential for the development of flexible and hybrid electronic systems. We are continuously expanding our portfolio in the field of printed electronics. FLEXOO is your partner with end-to-end realisation capabilities, offering both the development and industrial production of customised integrated sensor, heater, circuit or antenna solutions. We start with an idea or a problem and bring your customised, functional printed product to production readiness on one of our two industrial printing machines, with an open mind to start at any point in between. We create unprecedented printing technology and translate the latest science into mass-produced products.   
Flexora GmbH www.flexora.de **Address:** Gutzkowstraße 30 01069 Dresden Germany **Contact:** Clemens Haist clemens.haist@flexora.de +49 351 25060 556	**Flexora** is a start-up of the IAPP - Dresden Integrated Center for Applied Physics and Photonic Materials at TU Dresden and offers innovative, cost-efficient sensor technology for industrial applications. With our unique printing technology, we produce flexible sensor foils that make it possible to precisely monitor physical parameters on large surfaces - for greater efficiency and sustainability in your production and operations.

Partner	Competences
Fraunhofer IKTS **Fraunhofer Institute for Ceramic Technologies and Systems IKTS** www.ikts.fraunhofer.de **Address:** Winterbergstr. 28 01277 Dresden Germany **Contact:** Dr.-Ing. Sindy Mosch sindy.mosch@ikts.fraunhofer.de +49 351 2553-7898 	As a research and technology service provider, the **Fraunhofer Institute for Ceramic Technologies and Systems IKTS** develops advanced high-performance ceramic materials, industrial manufacturing processes as well as prototype components and systems in complete production lines up to pilot-plant scale. The institute operates in nine market-oriented business divisions in order to demonstrate and qualify ceramic technologies and components as well as non-destructive testing methods for new industries, product concepts and markets within and beyond the established fields of application: Materials and Processes, Mechanical and Automotive Engineering, Electronics and Microsystems, Energy, Environmental and Process Engineering, Bio- and Medical Technology, Non-Destructive Testing and Monitoring, Water as well as Materials and Process Analysis. Flexible substrates made of polymers are used in printed electronics for the architecture of circuits and the integration of microsystems. The temperature resistance, which is limited to a maximum of 200 °C, necessitates the application of low-sintering inks for metallization and functional coatings. As **one core competence** in this field, the IKTS offers (nano-) suspensions from a variety of materials, such as Ag, Au, Pt, Cu, ITO, CNT or graphene to be applied by screen, inkjet, and aerosol printing and cured by selective laser sintering. 
Fraunhofer IVV **Fraunhofer Institute for Process Engineering and Packaging IVV** www.ivv.fraunhofer.de **Address:** Heidelberger Str. 20 01189 Dresden Germany **Contact:** Fabian Kayatz fabian.kayatz@ivv-dd.fraunhofer.de +49 351 4361431 	The **Fraunhofer IVV** Branch Lab for Processing Machinery and Packaging Technology Dresden undertakes applied R&D on machine processes. Product safety and efficient processes are our priority. For flexible materials, we develop solutions for efficient thermal joining and intelligent forming. We assist you with the development of cleaning systems, the hygienic design of processes, and the microbiological validation of your processing machinery. We use modern data analysis methods to analyse and improve your processes and realize innovative approaches for industry 4.0. **Core competences for 3D electronics**: • Precise thermoforming using forming air stream impact technology and cera2heat® (more homogeneous material distribution upon forming) • Versatile thermoforming test rig with various forming and heating methods (pressure/vacuum, contact/radiation heating) • Several analysis and measurement instruments (wall thickness and geometry measurement gauge, infrared and high-speed camera, etc.) • Analysis and parameterization of the forming processes and formed parts using numerical simulation • Use of artificial intelligence for the realization of adaptive processes 

Partner	Competences

Fraunhofer IWS

Fraunhofer Institute for Material and Beam Technology IWS Dresden
www.iws.fraunhofer.de

Address:
Winterbergstr. 28
01277 Dresden
Germany

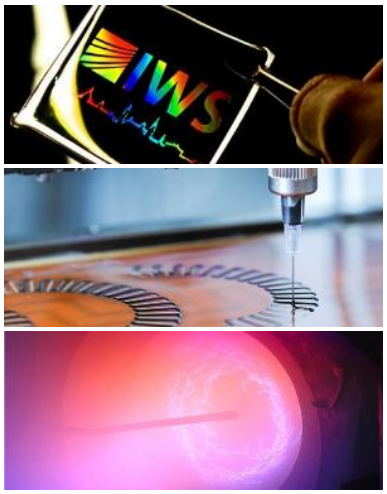
Contact:
Dr. Jens Möller
jens.moeller@iws.fraunhofer.de
+49 351 83391 3090

The **Fraunhofer Institute for Material and Beam Technology IWS Dresden** is characterized by two overlapping work areas: laser technology and surface technology. The development of technologies and systems using tailor-made laser light and the production of functional surfaces are exciting fields of research with great prospects for the future.

In the field of flexible electronics, Fh IWS has developed laser processes for cutting of plastic substrates as well as structuring of thin functional layers. Furthermore, Fh IWS has profound knowledge in additive manufacturing and printing, e.g. for thermoelectric generators or piezoelectric sensors. Finally, Fh IWS develops technologies for evaluation of ultra-barrier materials for organic electronics.

Core Competences:

- Ablation and Cutting
- Microtechnology
- Joining
- Thermal Surface Technology
- Additive Manufacturing and Printing
- Chemical Surface Technology
- PVD and Nanotechnology
- Materials Characterization and Testing



Fraunhofer IZM

Fraunhofer Institute for Reliability and Microintegration IZM
www.izm.fraunhofer.de

Address:
Gustav-Meyer-Allee 25
13355 Berlin
Germany

Contact:
Christine Kallmayer
christine.kallmayer@izm.fraunhofer.de
+49 30 46403228

Fraunhofer IZM helps companies assemble robust and reliable electronic systems and integrate these into the application environment.

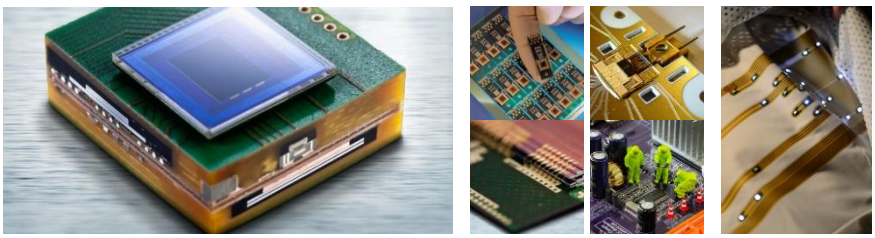
We work on

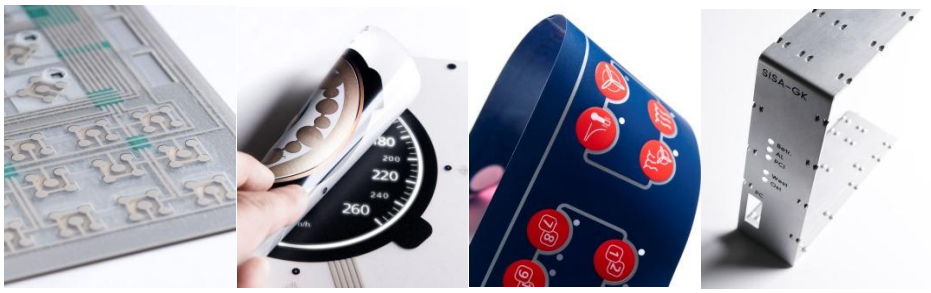
- Wafer Level System Integration
- System Integration & Interconnection Technologies
- Environmental & Reliability Engineering
- RF & Smart Sensor Systems

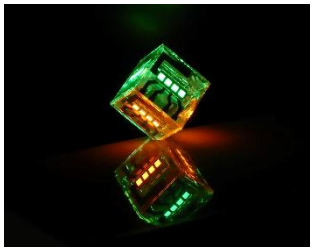
Main target areas are automotive, healthcare, industrial electronics and textile electronics.

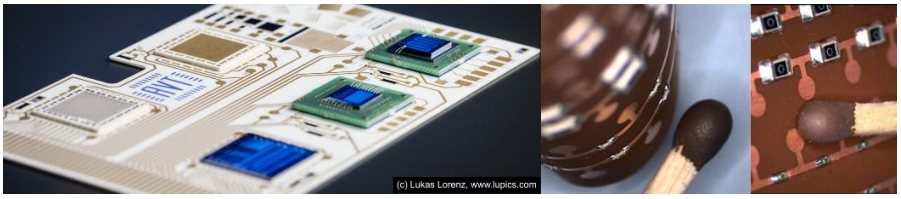
Core competences in flexible technologies:

- Printing
- Bonding & Assembly
- Testing
- Stretchable electronics
- Thermoforming
- Electronic textiles



Partner	Competences
Freudenberg Industrie Siebdruck GmbH www.siebdruck-freudenberg.de **Address:** Am Feld 4 01257 Dresden Germany **Contact:** Giorgio Abdallah g.abdallah@siebdruck-freudenberg.de +49 351 27012-19	**Freudenberg Industrie Siebdruck GmbH** offers a wide range of capabilities in screen printing and uses printed electronics to realize industrial applications. The wide range of customer products is enriched by individual customer solutions, which are developed together with the customer. **Core technologies:** ● Screen Printing ● Printed Housings ● Laser technology ● Pick and Place ● Final Assembly **Core products:** ● Flexible Membrane Keyboards ● Touch Sensors ● Sensor Technology ● Cover Films ● Cover Plates ● Housings ● Printed Electronics 
GETT Gerätetechnik GmbH www.gett-group.com **Address:** Mittlerer Ring 1 08233 Treuen Germany **Contact:** Pierre Beer p.beer@gett.de +49 163 8634785 	**GETT Gerätetechnik** creates products & brings product ideas to life that make a difference. They make people's lives easier, generate enthusiasm & conserve the earth's resources. The holistic product experience gives every user a satisfied smile. The aim is to create intelligent and intuitive human-machine relationships. Interaction with HMI solutions from GETT should be perceived as an experience and a relief. Freed from complicated processes and unnecessary information, customers become more efficient and have more room for the essentials! The products help to improve hospital hygiene worldwide, ensure reliability in production and pave the way for customers to a smart, modern factory. With team spirit, expertise and ideas for the future, GETT is consistently driving this mission forward and shaping your future of tomorrow. Our claim summarises our daily work in a nutshell - ***CREATING BETTER HUMAN MACHINE RELATIONSHIPS***. GETT develops and produces both assemblies and complete, turnkey operating solutions. The added value at GETT is created by hand. This gives the production a distinctly handcrafted character. We are able to realise even the smallest quantities of individual products for our customers. Thanks to the two production sites in Germany and China, GETT can design and calculate these on a project-specific basis. The principle of design for manufacturing applies - minimum manufacturing costs with uncompromising product quality.

Partner	Competences
Helmholtz-Zentrum Dresden - Rossendorf e. V. www.hzdr.de **Address:** Bautzner Landstraße 400 01328 Dresden Germany **Contact:** Prof. Dr. Jürgen Fassbender j.fassbender@hzdr.de +49 351 2603096 	The **Helmholtz-Zentrum Dresden-Rossendorf (HZDR)** is a member of the Helmholtz Association of German Research Centers. Alongside research areas in the fields Energy, Health and Matter, HZDR conducts in-house research in material science with ion beams, micro-/nanostructuring and rapid thermal processing. By using thin film and printing technologies, HZDR researchers fabricate bio-/chemical, optical, temperature, nanoelectronics, gas and magnetic field sensors on rigid and flexible large area substrates: • flexible and printable sensors on polymeric foils (thickness: 1 to 150 µm) • high volume production (kg scale) of functional pastes for screen and dispenser printing of temperature sensors, thermistors, magnetic field sensors, components for printed batteries, gas sensors (e.g. CO_2 or NO_x) • impedimetric biosensors (from nano- to microscale) on rigid substrates and flexible polymeric foils, surface functionalization, biological assays • microfluidic technologies for high-throughput contactless screening in drug discovery, real time monitoring of food quality and water cleanness • lithographic patterning and thin film deposition over 300 mm wafer scale • roll-to-roll inkjet printing with integrated rapid thermal annealing • rapid thermal treatment technology for defect engineering • ion beam modification of materials including doping of semiconductors • high-precision analysis of tribological coatings for combustion engines, aerospace applications or cutting tools • In situ processing of transparent thin films, 2D materials, nanocomposites
IAPP - Dresden Integrated Center for Applied Physics and Photonic Materials, TU Dresden www.iapp.de **Address:** Nöthnitzer Str. 61 01187 Dresden Germany **Contact:** Prof. Dr. Karl Leo karl.leo@tu-dresden.de +49 351 46337533 	Within the Technische Universität Dresden, the **Dresden Integrated Center for Applied Physics and Photonic Materials (IAPP)** is an interdisciplinary research network for organic electronics, especially OLED, OPV, OTFT, organic lasers, organic sensors, bioelectronics and related devices and technologies. Strong competences in research on basic phenomena like charge transport, organic doping or device concepts build the basis for future developments. The IAPP covers the full bandwidth of important topics: synthesis of (organic) materials, alternative electrodes, basic research and new effects, electrical, optical and morphological analyses, device fabrication and test as well as lifetime and controlled aging. The IAPP consists of four chairs around flexible and organic electronics: • Prof. Dr. Karl Leo, chair for optoelectronics • Prof. Dr. Sebastian Reineke, chair for organic semiconductors • Prof. Dr. Xinliang Feng, chair for molecular functional materials • Prof. Dr. Stefan Mannsfeld, chair for organic devices   

Partner	Competences
Institute for Electronics Packaging and Assembly Technology (IAVT) www.avt.et.tu-dresden.de **Address:** Helmholtzstr. 10 01069 Dresden Germany **Contact:** Prof. Dr. Karlheinz Bock karlheinz.bock@tu-dresden.de +49 351 46336345 	Together with the Center for Microtechnical Production (ZµP), the **Institute for Electronics Packaging and Assembly Technology (IAVT)** forms one of the largest university research institutions for electronic packaging in Germany. **Core topics in research**: • Bio-compatible electronic packaging • Organic and inorganic substrate technologies • Assembling technologies for first-level- and second-level interconnects • Micro and nano materials for system integration • Process optimization and quality management • Development of sensors for non-destructive testing and structural health monitoring • 3D integration and optical interconnect technologies • Module reliability and material parameters of interconnect materials • Characterization and diagnostics in electronics packaging IAVT/ZµP has further profound knowledge in rigid-flex connections for flexible and printed electronics. 
Institute of Semiconductor and Microsystems Technology (IHM) http://tu-dresden.de/ing/elektrotechnik/ihm **Address:** Nöthnitzer Str. 64 01187 Dresden Germany **Contact:** Prof. Andreas Richter andreas.richter7@tu-dresden.de +49 351 46336336 	The **Institute of Semiconductor and Microsystems Technology** was founded in 1990 at the Faculty of Electrical Engineering of the Technische Universität Dresden. It unites four professorships, which perform teaching and research tasks in the fields of semiconductor technology, microsystems technology, optoelectronic components and systems and nanoelectronic materials. The research at the chair of microsystems technology contains the following **core topics**: • Microfluidics • Unconventional chemical computing • Silicon-based microsystems for medicine, life sciences, cyberphysical systems • Organic and polymeric microsystems • Autonomous smart microsystems • Microsystems for displays and optics • Sensor systems (plasmonic and magnetic micro and nanotransducers etc.) • Next generation human-machine interfaces • Organic and printed electronics • Smart materials and technologies 

Partner	Competences

Inuru GmbH
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Patrick Barkowski
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Inuru is a company specialized in organic light emitting diodes used e.g. in animated advertisement. Paper-like OLED light sources are eco-friendly and flexible with printed electronics!

Advantages:

- animated advertising with 8 x higher visibility than classical ads
- advertisement on paper, but with light inside
- thin and flexible
- easy to integrate
- ready to use: no plugs, cables or smartphones needed

Core Competences:

- Functional ink development
- Printed OLED devices
- Paper based products like business cards, magazine inlays etc.
- Full assembly including power supply, electronic wiring etc.



Institute for Printing, Processing and Packaging iP3
www.htwk-leipzig.de

Address:
Gustav-Freytag-Str. 42
04277 Leipzig
Germany

Contact:
Prof. Dr. Lutz Engisch
lutz.engisch@htwk-leipzig.de
+49 341 30762464

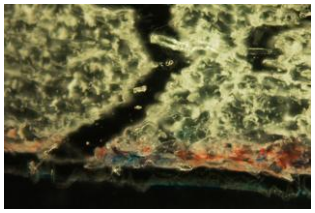
The **Institute for Printing, Processing and Packaging (iP3)** at the Hochschule für Technik, Wirtschaft und Kultur (HTWK) Leipzig acts at the crossing between industry and research with market-oriented topics ranging from graphics products to functional coatings and packaging.

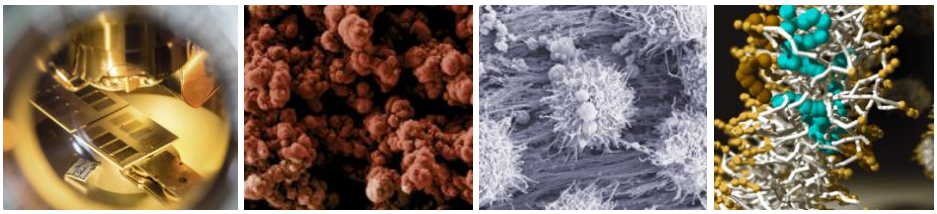
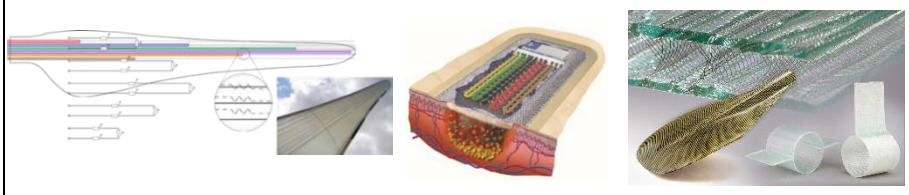
Packaging cannot be virtualized but will continue to be produced in the future through printing and processing processes. Nevertheless, digital printing brings about major changes, such as automation or digitization of all process stages. In addition, printing processes are increasingly being used for electronic applications.

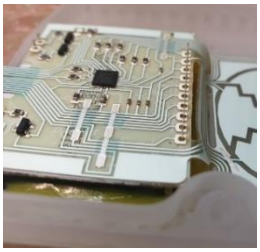
iP³ Leipzig also sees itself as a service provider in the network of research, industry and teaching. Our professional competence and modern technical equipment enable independent measurement and testing, application-oriented R&D, consulting and further training.

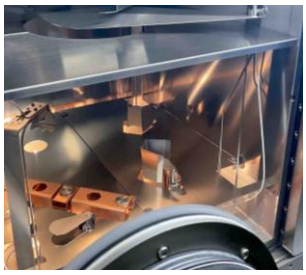
The **research fields** include:

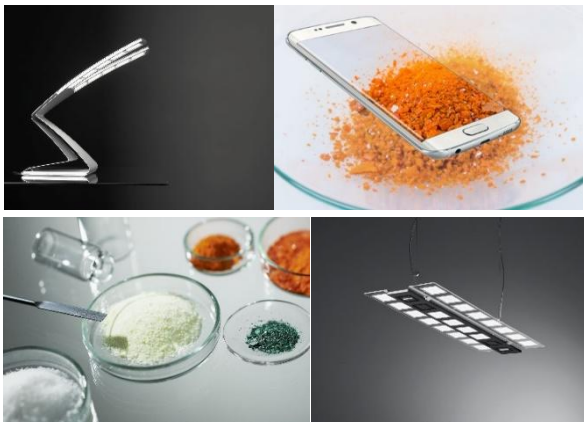
- 3D surface structures in the printing and packaging industry
- Interaction and migration in packaging and between packaging and content
- Printed functionalities and intelligent packaging

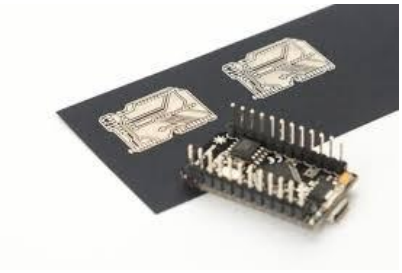
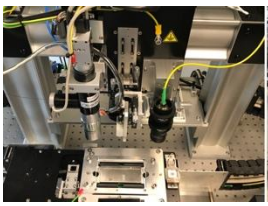
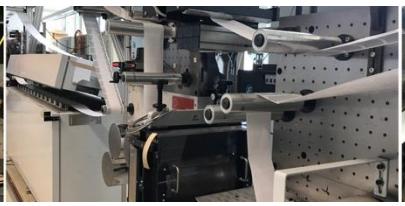




Partner	Competences
Leibniz-Institute of Polymer Research Dresden (IPF) www.ipfdd.de **Address:** Hohe Straße 6 01069 Dresden Germany **Contact:** Prof. Dr. Carsten Werner werner@ipfdd.de +49 351 4658 531	The **Leibniz Institute of Polymer Research Dresden (IPF)** is one of the largest polymer research facilities in Germany. The focus of activities at the IPF lies on the advancement of basic scientific knowledge for the development of functional polymer materials and polymer materials with new or improved characteristics for medicine, transport and mobility, as well as energy efficiency and advanced communication technologies. The **institute's profile** is determined by four strategic areas: • Functional nanostructured interfaces and polymer systems • Biology-inspired interface and material design • Polymer networks and supramolecular structures • Process-controlled structure formation in polymer materials **Core tools** for our work in those areas are • synthesis and modification of polymer materials • theoretical penetration, processing, and testing • polymers and polymer hybrids for organic electronics devices • controlling characteristics of polymer materials, biomaterials, and composites by selective interface design 
Institute of Textile Machinery and High Performance Material Technology (ITM) https://tu-dresden.de/ing/maschinenwesen/itm **Address:** Hohe Straße 6 01069 Dresden Germany **Contact:** Dr. Dilbar Aibibu dilbar.aibibu@tu-dresden.de +49 351 463 44040	The **Institute of Textile Machinery and High Performance Material Technology (ITM)** is a world leading research institution and is one of the most powerful of Technische Universität Dresden. Among other things, the ITM carries out extensive research and development work on the combination of technical textiles and microsystems technology, which leads to an interactive data and information medium and to the realisation of sensor and actuator networks. **Fields of application** include the following high-tech applications: • Structural monitoring and vibration damping of composites • Medical textiles (wound monitoring, artificial muscles, implant monitoring) • Human-machine interaction (CeTi cluster of excellence: eGloves, eSuits) In addition, ITM has extensive expertise in the development of tailor-made functional materials and textiles as well as in the development of fibre-based sensor and actuator systems, including layout design on demand. The **core competences** include the functionalisation of textile materials, yarn development, the integration of functions into textile construction processes, the development of intelligent textile structures for elastomer components, the development of construction, bio and medical textiles, etc. 

Partner	Competences
KETMarket GmbH ketmarket.eu **Address:** Käthe-Kollwitz-Ufer 82 01309 Dresden Germany **Contact:** Dr. John Fahlteich john.fahlteich@ketmarket.eu +49 151 4070 7380 	**KETMarket's** mission is to drastically accelerate the adoption of new technology in the market by providing fast-track access to various technologies for SMEs. We operate the largest digital innovation marketplace in the world which provides easy access to technologies, innovation services, knowledge, and funding opportunities at one place. The KETMarket marketplace makes finding project partners, suppliers, technology services and customers simple. Core end user markets are advanced materials, smart architecture, printed and large area electronics, clean energy solutions and clean and smart vehicles. Supported by our marketplace and our strong partnership with multiple major European Innovation Networks, we deliver to SME and industry profound technology consulting services, R&D and development project planning, access to funding and finance and qualification services towards a reliable and strong value chain. Research and technology organizations benefit from KETMarket by gaining a platform to promote their technologies and services to SMEs across Europe leading to new collaborations and partnerships that drive innovation. Investors benefit from KETMarket's technical due diligence services and gain insights into the market potential of investment opportunities. This enables informed decisions and maximizes return on investment.
Kundisch GmbH & Co. KG www.kundisch.de **Address:** Steinkirchring 56 78056 Villingen-Schwenningen Germany **Contact:** Sebastian Gepp Sebastian.Gepp@kundisch.de +49 1516 474 7288 	**Kundisch GmbH & Co. KG** was founded in 1979 and specialises in the manufacture and development of printed electronics, high-quality touch systems, membrane keyboards and operating units. Kundisch is the technology leader in the field of high-quality copper keyboards. As a material for printed electronics, Kundisch utilizes the clever combination of copper and printed silver to get the best properties for each application. With this expertise especially hybrid electronics can be manufactured at high reliability. The range of applications for the products extends from simple hand-held devices to sophisticated medical technology apparatus. As a subsidiary of the Swiss Phoenix Mecano AG, Kundisch is represented worldwide with its products and services. **Core products:** • Printed and hybrid Electronics • Membrane keyboards, touch systems and HMI Systems • Digital Label System and E-Paper Integration • Customized USB keyboards   

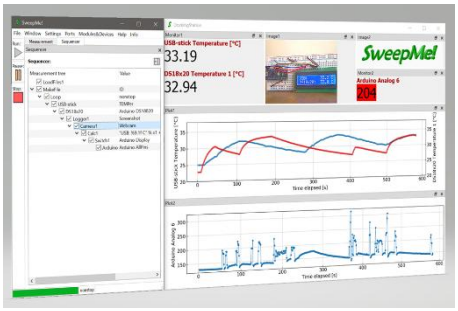
Partner	Competences
Kurt J. Lesker Company www.lesker.com **Address:** Fritz-Schreiter-Str. 18 01259 Dresden Germany **Contact:** Andreas Wieser andreasw@lesker.com +49 151 1117 5110	**Kurt J. Lesker Company** is a global leader in the design and manufacture of vacuum technology solutions for research and production applications. With our four divisions – Vacuum Mart, Process Equipment, Materials and Manufacturing – we offer the broadest range of products and service solutions in the vacuum industry. From the simplest components to complex vacuum chambers and precision computer-controlled deposition systems, our company works with you to provide solid and economical solutions for all your vacuum research and development needs. We offer over 14,000 products, customized solutions, expert technical support and outstanding customer service to meet your needs. **Core Competences:** • High-quality vacuum equipment for R&D and production • Largest stock of vacuum parts in Europe • Materials center • Superior customer service 
M. Braun Inertgas-Systeme GmbH www.mbraun.com **Address:** Vacuum Deposition & Sublimation Niedersedlitzer Str. 75 01257 Dresden Germany **Contact:** Daniel Kasemann d.kasemann@mbraun.de +49 351 40791620	**M. Braun Inertgas-Systeme GmbH**, **MBRAUN** for short, is a medium-sized, globally active company specializing in the development and production of standard and customer-specific inert gas system solutions. These tightly sealed systems, also known as gloveboxes, generate and maintain an inert atmosphere and offer protection against oxygen, moisture and dust. They are used in laboratories, research facilities and industrial applications, especially where the protection of materials and/or operators is required. With headquarters in Munich and a second office in Dresden as well as subsidiaries worldwide, including the USA, China, Korea, India, Great Britain and France, MBRAUN has established itself as a reliable partner for institutes and companies. The company offers comprehensive expertise ranging from advanced glovebox systems to customized solutions for demanding applications in research and industry. The service portfolio ranges from thermal treatment, vacuum coating and personal protection to automated material handling.   

Partner	Competences
Mimotype Technologies GmbH https://www.linkedin.com/company/mimotype **Address:** Friedrichstraße 17 10969 Berlin Germany **Contact:** Claudio Flores claudio@mimotype.org +49 176 82423579	**Mimotype Technologies** is a Berlin-based Start-up working in the research and production of bio-inspired Materials. It uses the open-source code of nature to extract specific molecules that can be used in an industrial scale as a new generation of advanced materials. These advanced materials have several advantages: They have proven in billions of years of evolution, they are cleaner and cheaper in their production, compared with their chemical counterparts, and they are 100% biodegradable. Currently Mimotype has two prototypes in its pipeline: 1. **Bio Nanophotonic Arrays (BNAs):** Inspired by the Japanese Ostracod "umi-hotaru", Mimotype works on using the bioluminescent properties of the "fireflies of the sea" to create a new generation of clean and biobased OLED-emitter materials. 2. **Project gold:** Mimotype works on using the goldbeater skin, found in animal intestines and already used 100 years ago in Zeppelin and as wetness protection by the Inuit, as new bio-based "Gore-Tex" to reduce the environmental impact of the textile industry.
Novaled GmbH www.novaled.com **Address:** Elisabeth-Boer-Str. 9 01099 Dresden Germany **Contact:** Dr. Marc Lünnemann info@novaled.com +49 351 79890100	**Novaled GmbH** is a leader in research, development and commercialization of technologies and materials that enhance the performance of OLEDs (organic light-emitting diodes) and other organic electronics. Novaled offers OLED product manufacturers a unique combination of proprietary technology, materials and expertise, and is currently the only company in the OLED industry licensing and selling organic conductivity doping technology and materials for use in the commercial mass production of display products. Novaled has developed strategic partnerships with key OLED innovators and producers throughout the world and, with a broad portfolio of more than 500 patents granted or pending, has a strong IP position in OLED technologies, structures and materials. **Core Competences:** Materials for OLED applications (dopants, transport materials, emitters) 

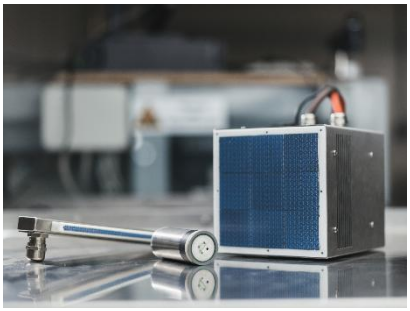
Partner	Competences
OrelTech GmbH www.oreltech.com **Address:** Rudower Chaussee 29 12489 Berlin Germany **Contact person:** Dr. Klaus Mertens klaus@oreltech.com	**ORELTECH** is a trailblazer in the field of new metallization inks and is focused on R&D of new technologies for printing thin functional metal coatings. These inks can be easily printed on a variety of substrates including plastic, paper, textiles, ceramics, transparent substrates and 3D structures. ORELETCH inks do not contain nanoparticles, are significantly environmentally friendlier and more cost-effective than the alternatives. This technology utilizes inkjet/aerosol printing and other conventional printing methods as well as cold plasma for curing. This allows keeping the process temperature at <70°C and working with even the most sensitive substrates. ORELTECH offer functional metal-based inks for different applications and assistance in integration of metallization technology into customer's production line. **Core competences:** • Functional metal-based inks • R&D for custom products  
Institute for Print and Media Technology, TU Chemnitz www.tu-chemnitz.de/mb/PrintMedienTech **Address:** Reichenhainer Str. 70 09126 Chemnitz Germany **Contact:** Prof. Dr. Arved Hübler arved.huebler@mb.tu-chemnitz.de +49 371 53123610 	The **Institute for Print and Media Technology** at the TU Chemnitz is specialized on printing technologies and printed electronics applications. The pmTUC covers all printing processes from gravure printing to inkjet, in machine design as well as in processing. A lot of different application fields are addressed, like organic photovoltaics, sensors, memristor, printed loudspeakers, energy storage and more. **Core Competences:** • Printed functionalities and devices • Semi-industrial laboratory printing equipment   

Partner	Competences
PRUUVE GmbH www.pruuve.de **Address:** Nöthnitzer Str. 61 01167 Dresden Germany **Contact:** Dr. Philipp Wellmann kontakt@pruuve.de +49 351 463 34905 	The **PRUUVE GmbH**, a spin-off from the IAPP - TU Dresden, develops electronics-free and flexible UV sensor films (UV strips) for industrial UV applications in growth markets. The films glow when the desired UV dose is reached. In combination with the readout device (MACS), this enables rapid process monitoring in UV curing or UV disinfection as well as documentation for QM. In addition, the films can also be used as self-luminous labels or in security applications in the future.
RECOM Recycling GmbH recomgmbh.com **Address:** Grünewaldstraße 11 63739 Aschaffenburg Germany **Contact:** Tanju Isikci tanju.isikci@recomgmbh.com +49 6021 3918178 	**RECOM Recycling GmbH** has been an innovative partner to leading companies in the electronics and semiconductor industries in the field of precious metal recycling for nearly 30 years. With state-of-the-art technologies and continuously refined sampling methods, we set benchmarks in precise analytics and the recovery of rare precious metals. Our strength lies in combining decades of experience with a clear commitment to innovation. We develop intelligent solutions across the entire precious metal value chain – from recycling and procurement to physical transfers and deliveries – actively contributing to the long-term viability and raw material security of our clients. **Core Technologies:** • Precise Sample Preparation • Advanced Analytics • Recovery and Refining • Digital Process Tracking **Core Products and Services:** • Recycling Solutions for Process Waste • Precious Metal Account Services • Precious Metal Procurement • Transfer and Logistics Solutions

Partner	Competences
SEMPA SYSTEMS GmbH www.sempa.de **Address:** Grenzstraße 13 01109 Dresden Germany **Contact:** Johannes Grübler gruebler@sempa.de +49 351 8881033 	**SEMPA SYSTEMS** develops, produces and sells ultra-purity media systems and ready-to-use solutions for specialty gases and chemicals for the semiconductor, photovoltaics, electronics and glass fiber industry. SEMPA has been part of the Meptagon Group since 2021. **Core Competences:** • Bulk and special gas distribution systems • Chemical supply systems in stainless steel • Control software and automation of our systems • Customer-specific development projects • Asian representation by local partners Some examples are TMAI and ozone systems for AlOx backside passivation or supply systems for IGZO residues. **WVTR measurement** In cooperation with Fraunhofer IWS, we developed the HiBarSens© system for ultra-high precision measurements of the water-vapor permeation through ultra-barriers, like used for organic electronics applications.   
SmartNanotubes Technologies GmbH https://smart-nanotubes.com/ **Address:** Dresdner Str. 172 01705 Freital Germany **Contact:** Dr. Viktor Bezugly bezugly@smart-nanotubes.com +49 351 85073684 	**SmartNanotubes** deals with the production smell detector chips Smell iX16 and ready-to-use devices Smell Inspector, which can detect different gases and odours. Applications range from environmental and safety applications, quality control, home and work safety to wearables and IoT lifestyle products. **Smell iX16** is compact and makes it affordable for any use-case. Smell iX16 is 100 times more sensitive and lighter than traditional tools for electronic smell detection and uses less energy. It can be easily integrated into different electronic devices.  Through a proprietary developed API, our developer kit **"Smell Board16x4"** and the ready-to-use device **"Smell Inspector"** are compatible with Arduino and Raspberry Pi, enabling developers, companies and research institutes to implement Smell iX16 easily in their projects and conduct comprehensive tests. The data from these tests is directly transmitted through the API to the creators, allowing them to constantly improve the product.

Partner	Competences
Sunic System Ltd. www.sunic.co.kr **Address:** Maria-Reiche-Str. 1-7 01109 Dresden Germany **Contact persons:** Seong Woo Chung swchung@sunic.co.kr +49 351 88969255	**SUNIC SYSTEM** supplies OLED evaporation systems along the whole value chain from R&D to mass production. The main system is the G6H Mass Production Line, which has been successfully installed and operated in customer sites for several years. Furthermore, SUNIC has been involved in the pilot production market with G2.5 for PM & OLED Lighting during the last 10 years and finally achieved Market Share No. 1 worldwide with pilot systems. In addition, since the beginning of OLED industry, SUNIC has contributed to the development of this industry with R&D equipment for more than 20 years and achieved Market Share No. 1 with standard R&D equipment among OLED material suppliers. Recently, SUNIC entered a new challenging field, which is microdisplays for applications such as VR/AR and already installed several systems for mass production both for 200mm and 300mm based wafer sizes for market leading manufacturers in China. SUNIC has particular strength not only in fabrication equipment but is also known among all customers for its excellent customer service experience.
SweepMe! GmbH https://sweep-me.net/ **Address:** Bienertstraße 18 01187 Dresden Germany **Contact:** Dr. Axel Fischer contact@sweep-me.net +49 351 41882423 	**SweepMe!** is a flexible and modular measurement and control software. Users can combine ready-to-use modules to create their custom procedures in short time. All instruments are connected via drivers that are made available to all users. **Services:** • Creating new content, e.g. new modules or drivers • Creating setups and support • Licenses for add-on modules • Consulting (equipment, Measurement techniques)  **Typical use cases:** • Characterization of on-wafer semiconductor devices • Control of thin-film deposition in vacuum chambers • Spectral characterization of solar cells and photodetectors • Characterization of light-source such as organic light-emitting diodes • Memory device testing, e.g. write-read-erase-read cycles and retention time measurements • Acquisition of data from multiple sensors • Connecting to databases or IoT-Servers

Partner	Competences
TechBlick www.techblick.com **Address:** Arndtstrasse, 47 60325 Frankfurt a. M. Germany **Contact:** Christoph Wenschinek Christoph@TechBlick.com +49 176 64401865 Dr. Khashayar Ghaffarzadeh Khasha@TechBlick.com +49 176 61704139 	**TechBlick** is a year round event series with over 350+ analyst selected live online presentations and 30+ masterclasses. With a single annual pass, members have access to its portal where they can join the monthly conferences, liaise with sponsors, network with fellow attendees and watch past presentations. **Uniques for our Members:** • **All-year-round events on emerging technologies** Our events do not begin and end in one or two days. Instead, the event goes on for the entire year. What this means is that we organize regular major and mini conferences on select emerging technology topics throughout the year for our members • **In-Personal Virtual Events -** Our events take place LIVE online but are extremely interactive. In fact, the networking and LIVE (online) exhibition experience will match, and even surpass, what you can do in the physical world • **On your screen anywhere anytime -** All our content will be available on-demand all-year-around on any device, putting a searchable library of talks on select emerging technologies at your fingers tips. • **Community Centre Platform -** Our online platform is fully integrated meaning that it brings together the agenda, the streaming, the on-demand, the booths, the attendee-to-exhibitor video links, and, crucially, the community together in one easy-to-use online platform which is accessible anytime, anywhere, and on any device.
TES Frontdesign GmbH www.tes-frontdesign.de **Address:** Friedrich-Bueckling-Str. 19 16816 Neuruppin Germany **Contact:** Martin Hannaleck Martin.Hannaleck@tes-frontdesign.de +49 3391 594448	**TES Frontdesign** is one of the leading suppliers of individual machine user interfaces in Germany. The company offers the full service and engineering chain from customer-specific foil-based keypads up to complete interfaces including housing and assembly of electronic components with special focus on small and medium quantities. The core competence is complete manufacturing with a high production depth at a single location as unique feature. We continuously increase our market share in our three focus areas: foil keypads, housing solutions, and components assembly. **Core competences:** • Customer specific foil keypads and touch input systems • screen printing, Laser cutting • front panels based on aluminum, PCBs, stainless steal • Electronics assembly, printed electronics • Stainless steel housings including surface finish • Glass processing   

Partner	Competences
watttron *The benchmark of efficiency* **watttron GmbH** www.watttron.com **Address:** Dresdner Str. 172c 01705 Freital Germany **Contact:** Ronald Claus von Nordheim ronald.claus-von-nordheim@watttron.com +49 351 85073041 	**watttron**'s patented technology is both simple and ingenious: The heating circuits of the small dynamic matrix heating elements are screen-printed on thin ceramic plates allowing for custom designed heating circuit layouts that are both simple and efficient. The combination of a low thermal mass and a high thermal stability allow high resolution and ultra-dynamic customized heating patterns. Integrated sensors close to the heating circuits ensure precise monitoring of the surface temperature during the entire process. The heating technology serve different industries and sectors to make processes more flexible, faster and resource-efficient, in addition to improving time and control. **Core Competences:** • Design and layout of the temperature field • Production of the heating system • Installation and initial operation supervision  
WOLFRAM Designer und Ingenieure **WOLFRAM Designer und Ingenieure** www.wolframdesign.de/ **Address:** Mengsstr. 35 01139 Dresden Germany **Contact:** Sebastian Wolfram wolfram@wolframdesign.de +49 351 82872170 	**WOLFRAM Designer und Ingenieure** is a complete solution design consultancy creating unique success for the industrial and transport sector. Our experienced team consists of engineers and designers, providing services with regard to the entire product development process – from the initial idea in the form of design sketches to the detailed CAD construction of a product right up to mass production. Working together with our customers, we assess the potential and unique selling proposition and define the innovation strategy. Together with our customers, we create innovations in the fields of industrial goods, automotive design and consumer products. In the field of OLED technologies, WOLFRAM Design/Engineering creates innovative light sculptures using state-of-the-art OLED technology and precious materials, which have never been seen before in light design. **Core Competences:** • innovation research • conceptualization • industrial design • CAD mechanical engineering