

Bundesministerium für Wirtschaft und Klimaschutz





German EV Delegation 2022













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Sectors, size

Batteries	
Sensors	
3D Mapping	
Charging infrastructure	10-20 employees
Components	20-100 employees
🍰 Energy	100-500 employees
🖘 Cables	2,000-5,000 employees
🛱 Electronics	
🏎 Vehicles	
Standards	
Parts	



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German EV Delegation Programme

DAY 01 (24.1	0.22)	DAY 02 (25.10.22)	
9am	Arrival	Mission Presentation	GTAI GERMANY TRADE & INVES
1pm	Lunch	Lunch	TRADE & INVES
2pm	Country Briefing	Technical visit to WMMG & B2B	
DAY 03 (26.10).22)	DAY 04 (27.10.22)	West Midlands
9am	B2B	Technical visit	Growth Company
1pm	Lunch	Lunch	
2pm	B2B Networking	Technical visit	
			SMMT DRIVING THE MOTOR INDUSTRY

SWMG

THE UNIVERSITY OF WARWICK

Trade Horizons

Charge Construct

- Charge Construct is a 360° provider of charging infrastructure. We accompany our customers from consulting and planning through the realisation of charging infrastructure projects, incl. civil and underground engineering, charging hardware, electrical installations to charge point operations and billing.
- As a young company founded in 2020, we have managed to grow to 50 team members in less than two years in a highly regulated yet dynamic market environment and continue to reach more customers and more regions.
- Our goal is to accelerate the transition to mobility based on renewable energy. This change-over is only possible if everyone has access to charging infrastructure.



Kautex

• Kautex globally is one of the 100 largest automotive suppliers in the world in terms of sales volume. Kautex is located in 13 countries with over 30 facilities.

KAUTEX

Textron Compar

• As a Tier One automotive supplier, Kautex designs, develops and manufactures traditional and hybrid fuel systems, advanced cleaning solutions for assisted and autonomous driving, engine camshafts and plastic industrial packaging solutions. A pioneer in the design and manufacture of automotive plastic fuel systems, Kautex is expanding its portfolio to offer smart products and data-driven services to our customers, including thermoplastic composite and composite-metal hybrid battery systems and software-controlled ADAS cleaning solutions.

Pracht

- Founded in 1923, PRACHT is still a family-run, medium-sized company. The current managing director is Jonathan Pracht, the fourth generation.
- PRACHT stands for enthusiasm for innovative technologies that bring sustainable change. In the field of lighting, this applies to LED industrial luminaires and to the topic of charging columns in the field of e-mobility.

ENGINEERING PLASTICS

• In a rapidly growing and confusing market with a large number of different charging solutions, the name PRACHT stands for reliability, high quality, safety and honest simplicity. This is exactly where the PRACHT product strategy in the field of charging infrastructure comes in: Simple. Double. Charge.

3D Mapping Solutions

- 3D Mapping high-precision road surface models are used as basis for high-end simulators or simulation applications for all kinds of possible purposes in the field of virtual testing and virtual development. Therefore, 3D Mapping Solutions builds the bridge between real world and the digital twin for testing and simulation applications. High-precision as built-plans are exported into appropriate formats including all objects, attributes and the complete, complex topological structure and thus may be used directly for customer applications.
- Examples are the use of high-fidelity maps as in-car reference for autonomous driving developments, simulation for vehicle dynamics development and driving simulation on digital twins of complete road networks.



Coneva

- Coneva develops and operates a unique energy software-as-a-service platform optimizing decentralized energy assets to maximize cost savings and realize additional value through local optimization and energy market integration
- 1. Energy Management & Flexibility Marketing
 - a. Al- & forecast-based management of photovoltaics and battery systems
 - b. Cross-sectoral, including powerful electric vehicle charging support
 - c. Integration into smart grids and markets
- 2. Communities
 - a. Accounting & Optimization of Physical and Virtual Communities
 - b. Sustainability app and energy landscape as customer front-end and engagement tools
- 3. Smart Charging
 - a. Dynamic load management to avoid overload situations, limit infrastructure costs and optimize network charges
 - b. Integration into the higher-level energy management system including wholesale arbitrage
- 4. Multi-Site Energy Monitoring
 - a. Processing of data from different sources
 - b. Infrastructure enables further services such as data analysis, energy management or market integration



Lenord

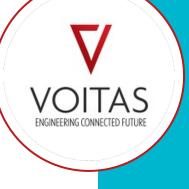
- Lenord + Bauer is specialist in sensors for motor feedback for more than 30 years, especially for electric traction drives in railway and vehicle on- and off-road-market.
- For all types of motors, e.g. inductive asynchronous or permanent magnet machines Lenord + Bauer provides reliable, high resolution and accurate sensor solution, based on magnetic or inductive technology.
- For markets who are looking for resolver replacement solution, the new inductive rotor position sensor will be presented. Lenord + Bauer is able to provide custom fully functional prototype sensors within 4 weeks by using a new fully digital configure to order process.
- The new two channel speedsensor with ISO26262 capability, based on long term proven hall technology, could be a solution for speed and direction measurement in inductive motors.

Voitas

• At VOITAS we are on a journey to continuously optimize our engineering and connect innovations with products for an inspiring and exciting future.

Following our passion for new technologies, we provide solutions of the highest quality. Thanks to the many years of experience of our engineers, we offer a wide range of services designed with specific needs and expectations in mind. We are helping our clients to combine innovations with their products to create the future together.

 Our activities focus on ADAS and electromobility - technologies of the future. We combine our extensive experience in the construction and development of wiring systems with the software development of ADAS control units and create new architectures and methods from the prototype phase to series production. We are not only an engineering Partner for several OEMs like PORSCHE or AUDI, but develop our own e-mobility products like our brand new VOITAS Wallbox Premium. 100% self-developed and produced.



Wentronic

- Wentronic Solutions was founded in 2016 and is part of Wentronic Group.
- Wentronic Solutions is ISO9001 certified.
- Location in Braunschweig, sitting in the same buildings as Wentronic GmbH which was founded 1992. Therefore we have access to IT-, logistics- and other services of Wentronic GmbH.
- Largest Business Segment is currently Automotive (OEM) Business. 2nd largest Business Segment is RV industry (RV manufacturer). In addition we have some customers in audio industry.
- For more details please visit our new website: www. wentronic-solutions.com
- For R&D projects Wentronic Solutions works together with a partner of electronic engineers in Braunschweig.
- We develop and deliver electronic components / products according to customer specification.
- Most products are currently produced in China. In midterm future this will probably change.
- The focus of our Business is deliver goods to B2B customers of Automotive and RV industry.
- Product categories: USB-Charger, USB-cables, Wireless charging modules for integration in car/RV, charging cables and adapter for electro mobility, solar regulator for RV's, other electronic components.

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IP500

- The IP500[®] Alliance is an international industry initiative of leading manufacturers, users and operators. The aim of the Alliance is to jointly define, develop and provide a wireless, manufacturer-neutral and secure communication IoT platform for LP WAN & PAN applications for smart industrial and commercial buildings.
- The IP500 platform guarantees maximum interoperability and security for the interdisciplinary
 and interdepartmental interplay of different building automation products (sensors & actors) by
 using central, generally introduced and accepted industrial IEEE standards and local frequency
 regulations (ETSI, FCC, etc). The IP500[®] standard is also the first and only solution that meets all
 regulations according to EN and VdS based on the True Dual-Band operation in Sub-GHz & 2.4
 GHZ frequency bands, as well as asynchronous mesh network topology. It therefore ensures
 communication between devices and control in safety-relevant applications such as fire
 protection, alarms or access via a secure, wireless network with ultra-low power consumption of
 end nodes.
- A globalization of the IP500 standard has its representatives in Europe, North and South America, India and Asia (Japan).



Evum Motors

- EVUM Motors stands for a new kind of commercial vehicle: With all-wheel and electric drive, the aCar combines economy and ecology. With its modular concept, it is the indispensable helper in agriculture, commerce and industry, in municipal use and for demanding leisure applications. Originally designed as an all-purpose vehicle for developing and emerging countries, the robust and maneuverable aCar is also the most economical and environmentally friendly solution for a wide range of tasks in this country. One for all.
- The EVUM aCar is fully electrically powered and drives without noise and local emissions. EVUM Motors' big mission is to solve everyday transportation tasks through robust, simple all-electric mobility on and off the road. Make work easier, get transportation tasks done, get deliveries to their destination safely. That is the great purpose of the EVUM aCars.



Wickeder

- Wickeder Westfalenstahl GmbH headquartered in Wickede (Ruhr) is the parent company of the Wickeder Group and manufacturer of <u>clad materials</u>. These materials are used in diverse markets: in consumer industry, the <u>electrical industry</u>, the <u>automotive industry</u> or in the <u>energy sector</u>.
- <u>Clad Materials</u> are intelligent combinations made of two or more metals that are cold rolled under high pressure and are subsequently inseparably bonded together. The portfolio is growing constantly, as new developments and specific customer requirements are developed in our in-house laboratory.
- We develop and engineer materials for customer requirements in our in-house tech center. We use our knowledge in materials science and advise comprehensively the best material grade or clad combination for diverse applications in consumer, electro, energy, E-mobility, smart grid, H2, battery ...
- We work as a team with our customers starting with an idea, first prototype, during industrialisation up to scaled mass production.
 Furthermore, Wickeder Westfalenstahl has partnerships with leading analytical laboratories and institutes to provide best reporting.
- We can offer mass production in our worldwide organized production facilities (EU, US, PRC).
- Our engagement is in sustainable climate protection, e.g., by saving material resources by increasing performance of the materials, increasing efficiency of applications or simply by planning and realising so-called green loops to give scraps a second life or direct re-use it for new production.



Digatron

- Digatron Power Electronics is one of the leading companies for battery testing electronics and also one of the oldest. Founded in 1969 by Rolf Beckers and still family owned, means independent.
- We have subsidiaries in Italy, USA, India and China. In Italy we also own a company that produces equipment for battery production: Digatron Systems.
- We produce battery testers for small currents and voltages (6V, several mA) up to very large battery packs for EVs, like 250 kW and 1500 V.

