

JEC WORLD 2019

engineering, information and communications technology, plastics, mechanical engineering and metal production and processing. In Germany, these sectors, not including the tertiary supplier industry, represent annual sales of over €1 trillion. There are over 720,000 jobs, €200 billion in sales and more than 6,000 companies and research facilities linked directly to new materials in NRW.

The North Rhine-Westphalia Pavilion at JEC World 2019 will present 19 players which will showcase their latest innovations: 3D Core GmbH & Co. KG; Barthels-Feldhoff GmbH & Co. KG; Bender GmbH; Coatema Coating Machinery GmbH; ELKOM Elektro-Heizplattentechnik GmbH; F.A. Kumpers GmbH & Co. KG; Gustav Grolman GmbH & Co.

KG; Güth & Wolf GmbH; gwk Gesellschaft Wärme; I.T.E.C. GmbH; ISRA SURFACE VISION GmbH; J.H. vom Baur Sohn GmbH & Co. KG; KARODUR Wirksteller GmbH; Pergan – The Peroxide Company; Propex Fabrics GmbH & Co. KG; Quarzwerke GmbH (hpf minerals); ROBUST Habicht & Heuser; Sphretex GmbH; ZSK Stickmaschinen GmbH. The joint NRW Pavilion, Booths E56/F56 in Hall 5A is presented by NRW.International – the export promotion agency of the NRW region – in cooperation with the Chamber of Commerce and Industry of Cologne, kunststoffland NRW e.V., the cluster NanoMicroMaterialsPhotonic.NRW (NMWP.NRW), and the EnergyAgency.NRW (EnergieAgentur.NRW).

www.nrw-international.de

GERMANY

SAXONY ECONOMIC DEVELOPMENT CORPORATION SAXONY : A LONG TRADITION IN MATERIALS SCIENCE

Saxony's companies and research institutes provide outstanding expertise for "lightweight construction in efficient material combinations." In doing so they offer all the requisite competences for the entire value creation chain in lightweight construction, ranging from materials development and characterisation, to the engineering and design of components, all the way through to innovative processing technologies, including quality testing. In lightweight construction, Saxony can build on its long tradition in materials science. In Dresden around 2,500 materials scientists and engineers can be found working on the lightweight materials and products of tomorrow at the Dresden University of Technology (TU Dresden), at numerous institutes such as Fraunhofer, Leibniz, Max Planck and Helmholtz, and at many companies in the city. With the Cluster of Excellence 'Merge Technologies for Multifunctional Lightweight Structures' (MERGE) in Chemnitz and the Institute of Lightweight Engineering and Polymer Technology in Dresden, Europe's two largest R&D centres for lightweight construction are located in Saxony.

In Saxony, the automotive industry is a strong sector. The BMW Plant Leipzig is one of the most modern and sustainable automobile factories worldwide, with a current staff of approximately 5,300 employees. More than 980 cars roll off the assembly line every day, of which 120 are vehicles of the BMW i3 and i8 model series. The latter excel not

only with their alternative drive systems, but also with their car bodies made of the lightweight material carbon fibre reinforced plastics (CFRP). It was for the first time ever, that large-series production was implemented for passenger compartments made of CFRP.

Another example is ThyssenKrupp, which has not only built an R&D centre for the development of car battery production technologies near Chemnitz, but it has also concentrated its entire R&D activities in the CFRP sector near Dresden since 2013.

Last, but not least, Saxony's lightweight construction expertise can be found in many products around the world. For example, every passenger who boards an Airbus is literally supported by Saxon technology, as the floor plates are manufactured by the principal supplier EFW Elbe Flugzeugwerke in Dresden (a company of the ST Aerospace and Airbus groups).

For JEC World 2019 we have adapted our pavilion design so that it now perfectly suits the overall topic of the show. The new design is much more open, more transparent – it appears to be lighter. Our intention is to reflect the innovative lightweight and composites competences in Saxony.

business-saxony.com



WIRTSCHAFTSFÖRDERUNG
SACHSEN

SPAIN

ASOCIACIÓN ESPAÑOLA MATERIALES COMPUESTOS (AEMAC) DISCOVER SPAIN'S COMPOSITES COMMUNITY

The Spanish Association of Composite Materials (AEMAC) has the vision of serving as interaction between the scientific, technical and business community, representing our community in international forums. We have encouraged our associates to attend JEC World 2019, promoting a national pavilion. Our main aim is to show the capabilities of our community. At Pavilion **ESPAÑA** (Hall 5, Booth M100) you will meet with six partners. **AIMEN**, highly specialised in materials and advanced manufacturing technologies, will show its research in the composites and multi-material fields, the results of European projects and its technical capabilities in composites manufacturing. The main innovation will be the latest results of multi-material structures in different sectors where one-shot processes were applied to obtain the joint. **FIDAMC** is a foundation for the research, development and application of composite materials. It has the capacity to devise experimental plans for the validation of functional concepts, moving from the early innovation process stages to the most advanced, near to industrial application. Its experience in the aeronautics sector allows it to transfer all acquired knowledge to other sectors where weight reduction and protection of the environment are important objectives.

POLYMEC, a Spanish family-owned company founded in 1981, is dedicated to the manufacture of reinforced polyester profiles with glass, carbon, basalt fibres and graphene by pultrusion. At present, the company has a total of more than 40 people who work to obtain new and innovative materials. **TECNALIA** is the first privately-funded applied research centre in Spain. Its main fields of research and expertise in composites are: development and manufacture of high-performance composite parts; new production systems and processes for the automated production of composite components and assembly of structures; and development of functional materials and layers for improving composite materials properties and functions integration for struc-

ture weight reduction. **THE UNIVERSITY OF GIRONA** is a leading centre on composite materials, with outstanding contributions on the characterisation, development and simulation of these materials over more than 20 years of experience. It will present its capabilities seeking for collaborations and partnership. Students will have the chance to discover the university's official Master's in Mechanics of Materials and Structures. **TITANIA** is a leading European supplier of materials testing, where characterisation of composite materials and their processing are regular activities. Combination of either autoclave and out-of-autoclave manufacturing, together with a full range of destructive testing, NDT and engineering tools, allows Titania to provide comprehensive services ranging from quality to R&D fields. **ZIUR Composite Solutions**, part of **MBHA GROUP**, focuses on the design, development and manufacturing of prototypes and serial production of structural composite solutions for industrial, automotive and aerospace sectors. The company will show different composite products that will be introduced to the market during next year. These include a new fully-composite stabiliser bar for heavy duty trucks.

www.aemac.org



UK

DEPARTMENT FOR INTERNATIONAL TRADE UK AT THE FOREFRONT OF THE COMPOSITES SECTOR

The UK has, from an early stage, been at the forefront of developing scientific research into new composite materials and technology. It already has a vibrant and competitive composites industry, which is supported by the world-class National Composites Centre and national trade body Composites UK. The existing composites landscape has an important role to play in assisting the wider manufacturing sector in its transition to the use of advanced materials, which could transform products and their performance. In the 2016 UK Composites Strategy the Composites Leadership Forum predicts that the UK market for composite parts will grow from £2.3 billion in 2015 to £12.5 billion by 2030, with a large part of this driven by the need to develop

INDIA

FRP INSTITUTE HUGE POTENTIAL IN INDIA'S COMPOSITES MARKET

The size of the Indian composites industry is 360,000 tonnes and the growth rate is around 8%. However, the growth in composites is likely to accelerate into double digit figures above 10%. The per capita usage of composites in India is still around 0.25 kg, which is much lower than that in the USA of 10 kg. This highlights the huge potential for existing and new players in the Indian composites industry. India is projected to be the fastest growing economy over the next decade. The increase in infrastructure spend by the government and its Smart Cities Mission, targeting 100 projects throughout the country, have created a huge market for the composites industry. India is dependant largely on imported oil and petroleum and there is always a priority to develop alternate energies like wind power. Massive requirements in infrastructure, mass transport, water management, need for internal and external water transport, sewage and effluent treatment plants, water conservation, telecommunications, and construction are likely to provide further potential growth areas. Major investments are being made by leading Indian companies in the field of composites and many of the existing players are also expanding their capacities thus making the future outlook

for the industry very bright. Strong growth in the use of composites is seen in the defence, aerospace, automotive, chemical, electrical and marine sectors. The opening up of the defence industry to private sector participation will provide an incentive to foreign companies to enter into strategic partnerships with Indian companies and leverage the domestic market as well as target the global market. The Indian aerospace industry is witnessing an unprecedented growth. Thus composites manufacturers will have an enhanced and active role to play in catering to aerospace and defence requirements in India. The Indian Pavilion at JEC World, Booth E61 in Hall 5, has been jointly organised by the FRP Institute and PLEXCONCIL (The Plastics Export Promotion Council) since 2005. At JEC World 2019, the India pavilion is 10% bigger in size than last year. The Indian exhibitors participating offer products and services such as wind turbine components, composites resins, dispensing equipment for composites industry, engineered non-crimp fabric reinforcements, filament winding machines, solid surfaces, pultrusion machines, speciality moulds and dies, and design, development, prototyping and production solutions for composites.

www.frpinstitute.org



Department for
International Trade

research organisation and part of the High Value Manufacturing Catapult) and will promote the UK's excellence in composites by advertising the UK Composites Strategy, showcase 22 companies from across the UK's composite supply chain and act as a site to facilitate interaction with the UK and global composites industry. We look forward to seeing you on Stand S50, Hall 6, to meet and establish partnerships with the UK companies taking part. Department for International Trade, Welsh Government, Composites UK and National Composites Centre representatives will be on hand to offer practical advice on doing business with the UK's vibrant composite materials market. www.gov.uk/government/organisations/department-for-international-trade

N°127 March - April 2019 / JEC COMPOSITES MAGAZINE

67

Preview JEC World