



SACHSEN-ANHALT

Investment and Marketing  
Corporation

PLASTICS INDUSTRY SAXONY-ANHALT

**EXPERTS IN  
PLASTICS.**



[www.invest-in-saxony-anhalt.com/chemical-and-plastics-industry](http://www.invest-in-saxony-anhalt.com/chemical-and-plastics-industry)

## A LOCATION WITH POTENTIAL.

THE MOST IMPORTANT REASONS TO INVEST IN SAXONY-ANHALT:

- /// **Hub of the chemicals sector in Central Germany:** a centre of tradition and innovation for the chemicals and plastics industry in the heart of Europe.
- /// **Efficient value added chain:** based on the availability of raw materials, local plastics producers and processors as well as end customers from different sectors and suppliers of technology
- /// **Highly qualified and flexible workers:** education and training by universities and technical colleges as partners to industry
- /// **Innovation:** research organisations assist with product developments and speed up market launches in many fields of polymer technology.
- /// **Industrial and commercial space:** superb links to the European transport network (road, rail, air, transport of resources via pipelines).

/// Endless-fiber reinforced fabrics: At Fraunhofer PAZ innovative products and procedures are transferred from laboratory to process scale.





## PLASTICS FOR THE TOUGHEST OF CONDITIONS, DAILY APPLICATIONS AND VERY SPECIAL NEEDS.

**Without plastic film there would be nothing.** It is used to package food and protect flavours. It makes animal feed long-lasting and makes asparagus sprout quicker, it is used when building houses and in aerospace application. Plastic films made of polyethylene (PE) for a huge array of different every day and special applications are manufactured in Saxony-Anhalt. Synthetic rubber that meets the highest demands of the automobile industry, that significantly improves the rolling resistance of tyres and, in this way, helps to reduce the fuel consumption, is also a product produced in Saxony-Anhalt. As well as surface-protecting additives for lacquers or special spun-bonded fabric made from polypropylene (PP), which are now used in such diverse application areas ranging from the automobile to the medical care due to their high lengthwise and lateral tensile strength and their textile characteristics. With innovative technology and special additives, polymers are connected with other materials, for example,

with wood. Their resistance to adverse weather and a unified appearance are what set the terrace tiles made of wood-plastic composites apart and make them so special. Polyurethane and epoxy adhesives are used in the automobile industry as a disc and chassis adhesive. The manufacture and processing of plastics can look back upon an 80-year tradition in Saxony-Anhalt – a time characterised by diversity and a spirit of innovation.

In 2015, the plastics industry in Saxony-Anhalt had about 100 facilities that employed more than 20 workers. With its approximately 9,600 employees, the industry turns over more than €3 billion. In addition to many of these companies that are often part of larger concerns, it is particularly smaller companies that are leaving their mark. With innovative products, reliability and proximity to the customer, the plastics companies are highly successful in the mass and niche markets in Germany, Europe and worldwide.



/// The name ValuePark® stands for the industrial park concept developed by Dow Olefinverbund GmbH. This is more than just a generic term for a loose syndicate of companies sharing an industrial park, because all the partners operating at ValuePark® are integrated into an extensive material flow system, the supply and production chains and, of course, the joint service and safety management system.

## CHEMICAL PARKS: CONCENTRATED ON CORE SKILLS.

**In Saxony-Anhalt's chemical and plastics centres, companies are closely interlinked with each other through a varied material flow, as well as a close delivery chain.**

**In ValuePark Schkopau, plastics manufacturers and processors are able to concentrate completely on their core skills.** The Dow Olefinverbund GmbH operates the chemical park that has excellent connections to the traffic infrastructure. Companies such as Manuli Stretch Deutschland GmbH or Advanced Performance Films avail of the advantages it offers. ValuePark partners are connected through a variety of material flows, delivery and production chains, in common service and safety management. In addition to this, Dow is the initiator of the Ausbildungsverbund Olefinpartner, an apprenticeship association.

A network with added value is also the Chemiapark Bitterfeld-Wolfen. It is here that Hi-Bis GmbH produces special Bisphenol, which is used by Covestero AG and processed into highly heat resistant plastic. A complex internal material network has been established between the companies AkzoNobel, Evonik Industries AG, Heraeus Holding GmbH and Linde AG, which has its roots in the Chloralkali process. Furthermore, pipes to transport the technical gasses connect the industrial chemical facility sites Bitterfeld-Wolfen, Schkopau, Leuna, Zeitz and Piesteritz. The company Radici Chimica Deutschland GmbH, manufacturer of adipic acid,

has, among others, invested in the Chemical and Industrial park Zeitz. The company PURALUBE Germany GmbH, for example, extracts basis oils from old oils at the site.

But not only that, plastics specialists are also to be found outside of the chemical parks: in Magdeburg, the company Schuberth GmbH manufactures head-protection systems for work safety applications which are even used in Formula 1, the RPC Group manufactures dimensionally stable plastic packaging in Theeßen, Clopay Aschersleben GmbH delivers breathable film, Wavin plastic pipe systems come from Westeregeln.



/// At Fraunhofer PAZ polymer products and technologies along the entire value chain are being developed or optimized – including monomer and polymer synthesis as well as plastics processing. With its portfolio and scale Fraunhofer PAZ is unique in Europe.

## BETWEEN RAW MATERIALS AND RE-GRANULATE.

With crackers and pipelines, the plastics industry's added value increased and a large variety of intermediate and final products developed.



/// In Bernburg the recycling specialists of Multiport and Multiport process plastic waste to compounds and grist. High-quality products like plastic-cable canals and drainage channels are made exclusively of recyclates for customers worldwide.

**Chemical raw materials such as ethylene and propylene are the “blood” that flows through the veins of the Olefinverbund in Central Germany.** His “heart” is the Dow-listed company’s cracker in the town of Böhlen in Saxony. The raw materials that are gained

there from a petroleum basis are pumped to the chemical facility sites via a pipeline network spreading over 1,300 kilometres. It is not only the Dow facilities in Böhlen, Schkopau, Leuna and Teutschenthal that benefit from the material network, but also many more companies in the plastics industry.

Braskem Europe GmbH based in Schkopau concentrates on the production of polypropylene. The company RKW HydroSpun GmbH uses PP granulate to produce extremely fine continuous filaments, which are then processed to hard-wearing spunbound nonwovens. In Schkopau Trinseo Deutschland GmbH processes and refines the styrene coming out of Böhlen into polystyrene and rubber products such as standard and high-performance tyres. In Leuna

## FINANCIAL SUPPORT

### SUBSIDIES

#### Investment

/// Up to 35 % of eligible costs, depending on company size

#### Research and development

/// Development of new products and processes

/// Support for individual or shared projects

#### Personnel

/// Personnel training

/// Free, practice-based targeted training, also in the future workplace

### LOANS

/// For pre-financing of orders

/// For the cost of product development and R&D projects

### GUARANTEES

/// Public guarantees for investment loans

### EQUITY CAPITAL

/// Capital reinforcement from open and silent participations

DOMO Chemicals GmbH produces, among other things, caprolactam polyamide 6 granulate and nylon 6 granulate, that is processed further into high-quality plastics and yarns.

The raw material for a wide product range in the case of POLIFILM EXTRUSION GMBH in Weißandt-Göolzau is polyethylene. PE is processed in order to produce packaging, construction, agricultural and stretch films, among many other products. Thanks to Bernburg’s recycling specialists Multiport and MultiPet GmbH, used plastic packaging and PET bottles are returned to the economic cycle as pure re-granulate and PET flakes. These raw materials are then reused by companies such as Thermoplast GmbH, manufacturer of angle sleeves and weather-resistance plastic gutters, for example.



/// Protective foils, technical foils, packaging foils or stretch foil – Europe's largest provider of PE-based foil solutions Polifilm scores with a well-established and internationally competitive research infrastructure.

## PROGRESS THROUGH RESEARCH.

**The close interconnection with science and training acts as a catalyst for innovation in Saxony-Anhalt's plastics industry.**

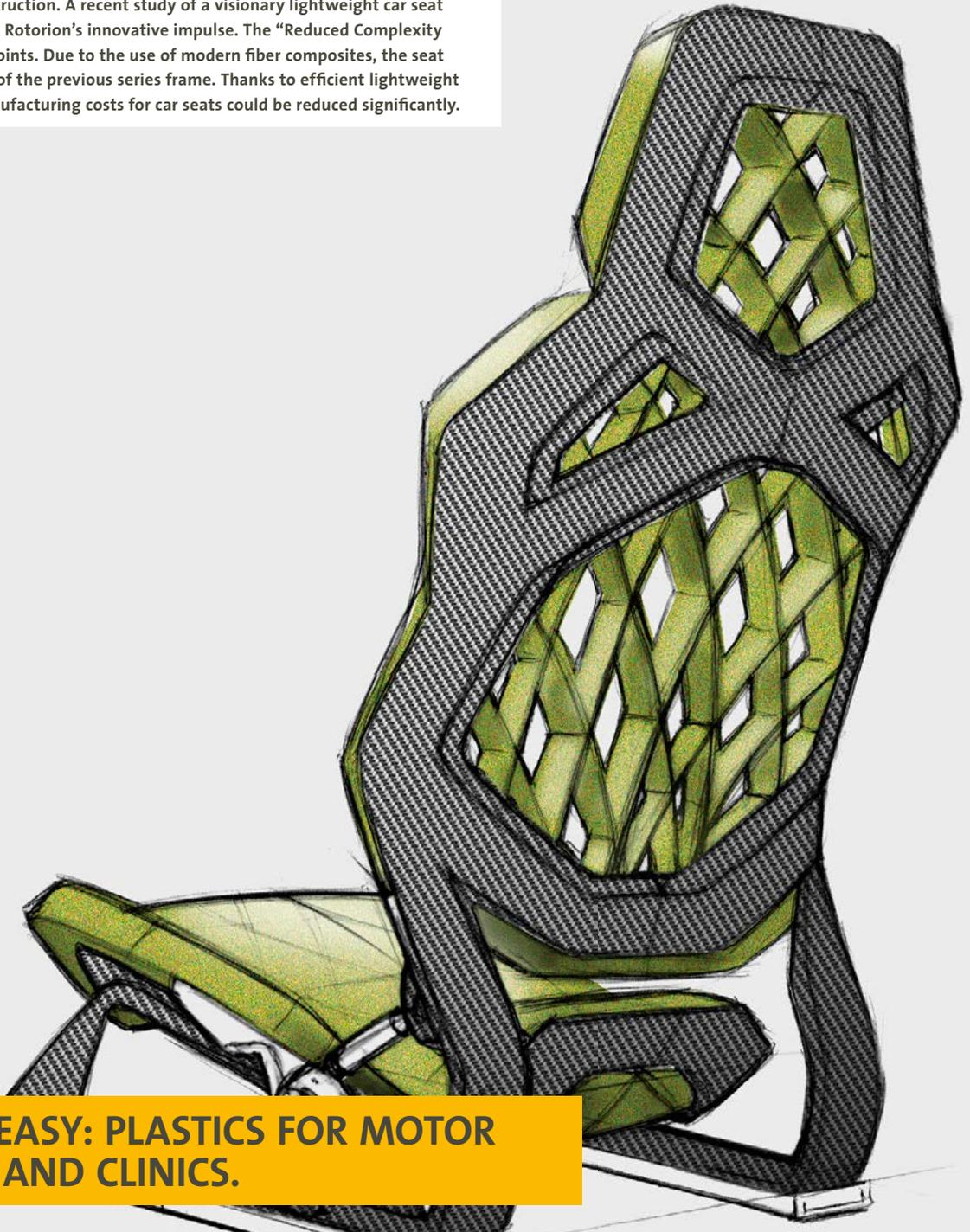
**With over 22 universities and research institutions, the Federal State of Saxony-Anhalt is closely interconnected with the plastics industry.** This ensures that there is suitably qualified personnel available, and accelerates the transfer of knowledge. The Fraunhofer-Pilotanlagenzentrum für Polymersynthese und -verarbeitung PAZ (Fraunhofer Pilot Facility Centre for Polymer Synthesis and Processing) in Dow ValuePark Schkopau is one of these catalysers. In the competence centre operated jointly by the Fraunhofer-Institut für Angewandte Polymerforschung IAP (Fraunhofer Institute for Applied Polymer Research) and Fraunhofer-Institut für Mikrostruktur von Werkstoffen und Systemen IMWS (Fraunhofer Institute for Microstructure of Materials and Systems), innovative products and processes are developed and then transferred from the laboratory into the pilot scale. The Fraunhofer PAZ has dedicated itself to the synthesising

of monomer to high-performance polymers such as synthetic rubber, as well as the processing of fabrics that are strengthened with continuous filaments and partially strengthened, very strong and robust thermoplastic-based fibres that are then used to manufacture semi-finished products and parts.

By laminating such fabrics onto thermoplastic honeycomb cores, a new type of semi-finished product is created which is light, robust and cost-efficient. The Fraunhofer IMWS and the ThermHex Waben GmbH based in Halle/Saale are developing such "organo-sandwiches" in a joint project. New types of coatings, for example for the reverse-side encapsulation of thin-layer solar modules, in order to reduce weight and costs, as well as to optimise the weather resistance, are developed in the Institut für Kunststofftechnologie und -recycling e.V. IKTR (Institute for Plastics Technology and Recycling) in Weißandt-Görlau.

The knowledge and skills specific to the plastics industry that is available in the Martin-Luther University Halle-Wittenberg and in the other universities within the Federal State are brought together in the Kunststoff-Kompetenzzentrum Halle-Merseburg (Polymer Competence Centre Halle-Merseburg). The Polymer Service GmbH Merseburg, the Institut für Polymerwerkstoffe Merseburg (Institute for Polymer Materials) and the Zentrum für Faserverbunde und Leichtbau Haldensleben (Centre for Fibre Composites and Lightweight Construction) support companies with comprehensive technical-engineering and scientific services. The excellent research, teaching and training that is being carried out in universities right across Saxony-Anhalt makes the industry competitive. Bachelor and Master courses of study, as well as apprenticeships, master-apprenticeship schools and further training courses cover the need for highly-qualified expert employees.

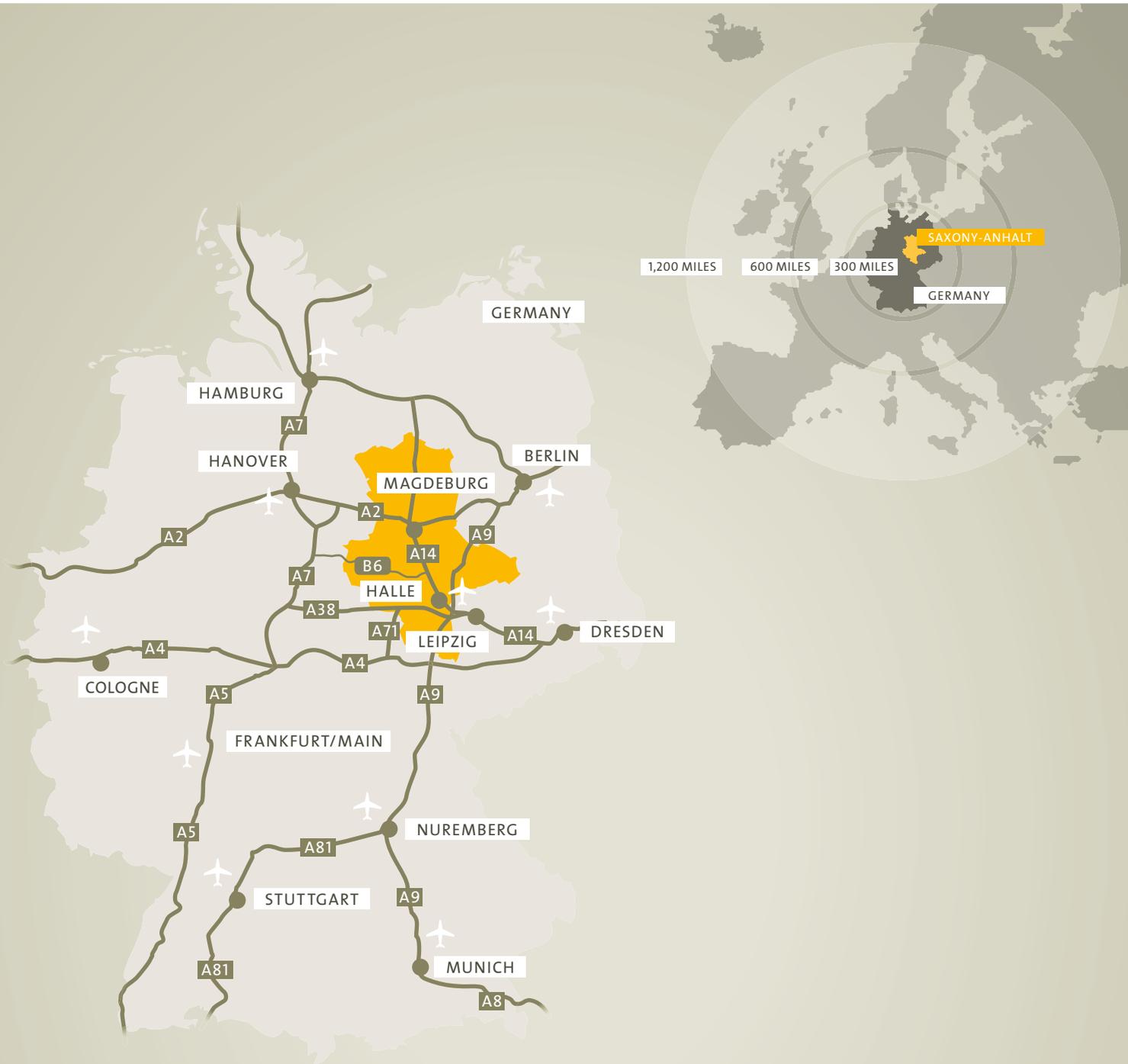
/// Every gram counts. IFA Rotorion is ambitious and committed in regard to lightweight construction. A recent study of a visionary lightweight car seat highlights the IFA Rotorion's innovative impulse. The "Reduced Complexity Seating" has no joints. Due to the use of modern fiber composites, the seat weighs only half of the previous series frame. Thanks to efficient lightweight engineering, manufacturing costs for car seats could be reduced significantly.



## RELIABLY EASY: PLASTICS FOR MOTOR VEHICLES AND CLINICS.

**From the automobile industry to dental technology – semi-finished and finished plastic products produced in Saxony-Anhalt can be encountered in every area of modern life.** In Haldensleben, the joint and drive-shaft specialist IFA Rotorion Holding GmbH develops and manufactures light composite fibre components for a wide range of different vehicle classes – from electric cars to touring saloons, and right through to super sports cars. With the design study of a light car seat construction or the development of the IFA torsion springs, which are very short due to the special properties of the composite fibres, the company showcases impressive examples of innovative lightweight constructions which combine savings in weight and energy consumption with greater safety and robustness.

Plastics offer a huge range of properties and possible applications: in the medical technology segment and depending on the purpose for which it is required whether that be in surgery or in the provision of nursing care, different demands are made of surfaces' properties, flexibility or compressive strength. The companies Novoplast Schlauchtechnik GmbH und Primed Halberstadt Medizintechnik GmbH, meet these demands in combination with a mix of materials and technologies. Novoplast provides, among other things, hoses for infusions, dialysis, diet or endoscopy. Primed focusses on extraction systems, as well as on products for infusions, wound drainage or diagnostics.



**IMG – YOUR PARTNER FOR**

- /// site selection
- /// subsidy and financing issues
- /// permitting assistance
- /// full line project management

All inquiries are dealt with in confidence. Our service to you is free of charge.

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