



***REGIONAL SYSTEM OF THE RELATIONSHIP***

***AMONG***

***INDUSTRY - UNIVERSITY - STATE***

***(Practice - Intervention - Theory : PIT)***

***in the***

***SAXONY REGION***

***- AUGUST HORCH AKADEMIE -***

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Transfer of Innovation

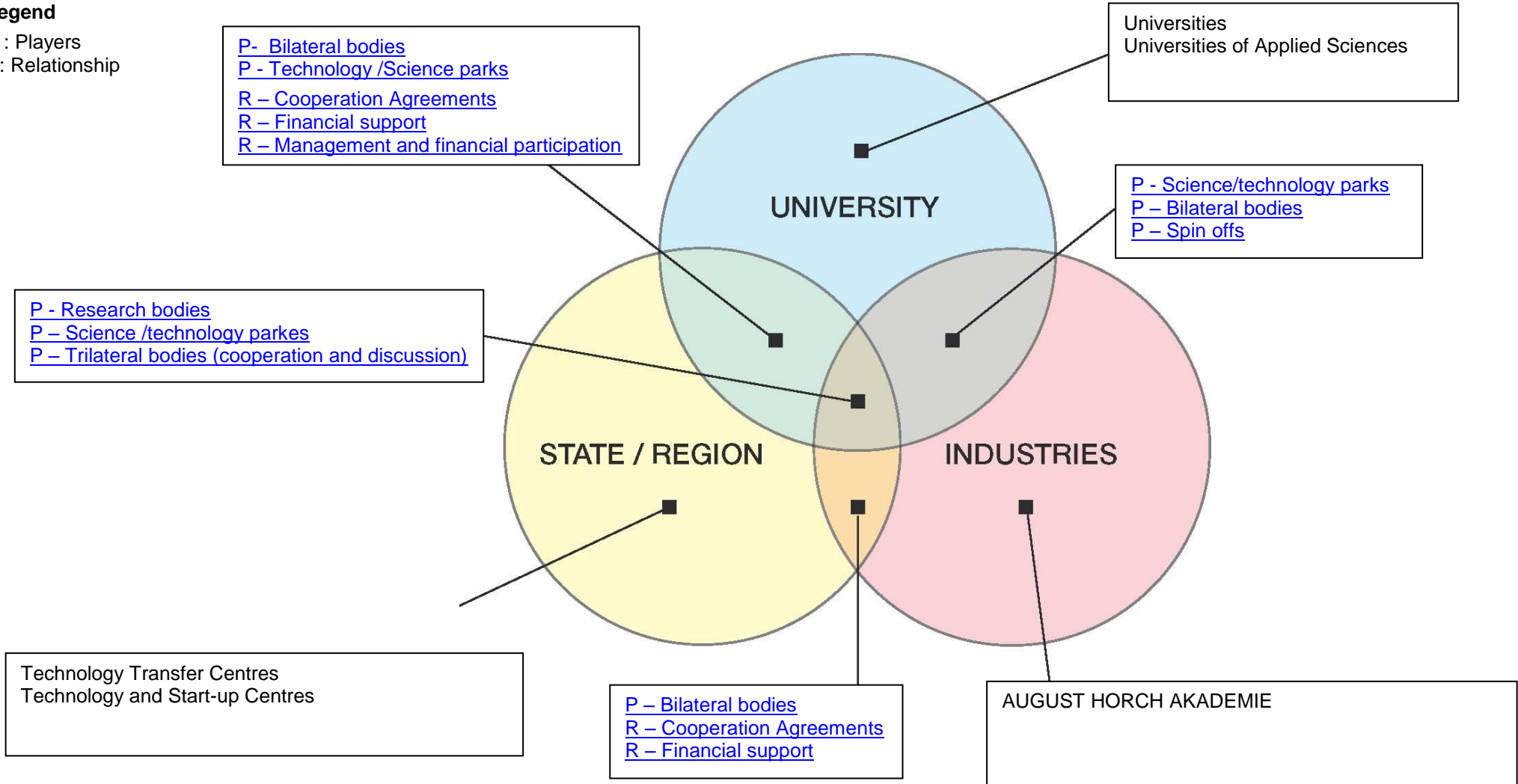
**REBASING – Research-based  
Competence Brokering**

**WP III – Transfer of Methodology: Knowledge for competitiveness**

In order to describe the local partnership contexts with regard to REBASING focus on Competence broker, accordingly with DIMEG, we propose each partner to describe its local environment on the basis of the triple helix model, describing the relationship among Industry – University – State (practice – intervention – theory: PIT). Please list in the related field the organization and bodies working in your national or regional context, describing as well the formal and/ or non-formal relationship among them.

**Legend**

P : Players  
R: Relationship



## Industry (I)

Saxony has a long tradition as a business location. Early on they created a powerful industry. Today, the Federal State's most dynamic provinces and has the highest job density in eastern Germany. Since 2000, Saxony's economy has grown by 13.9% (March 2011) and represents the strongest growth of all provinces. With an investment ratio of 20.0% (preliminary actual 2009) Saxony is 2nd among all the federal states in Germany.

The Federal State of Saxony has a long standing tradition as a location for industry and commerce. Already around 1798 is when the industrial revolution started here. The basis for this was the centuries-old textile industry and the mining deposits based on the heavy industry of the region. Saxon world were known mainly by the products in the factory at Meissen porcelain produced. From Leipzig to Dresden 1835-1839, the first German long distance railway was built, the steamboat traffic began on the same 1835th In the course of technical development, new industries emerge alongside the traditional textile industry, especially the mechanical and electrical engineering, but also the wood processing industry and the glass industry gained considerable importance. To Chemnitz and Zwickau developed the vehicle. On the progressive industrialization of Germany in the 19th and at the beginning of the 20th Century Saxon companies significantly involved, for example by the automotive industry by August Horch in Zwickau.

The paramount importance of the industrial sector remained after the second world war made by the socialist management of the economy, she was in some cases even increased. The slowdown in investment activity but led to increasing loss of competitiveness. Only the reunification of Saxony inaugurated the opportunity to build on its traditions.

With 4,168,732 inhabitants (31.12.2009) Saxony is the most populous country in the new countries. 25% of total population in the eastern states (including Berlin) lives here. With 226 inhabitants per square km, Saxony has also the highest population density among the former East Germany (Neue Länder and Berlin 151, Germany: 229).

Saxony has the second highest density of the Eastern German States. In December 2009 the density of industry in Saxony counted 67 workers in the manufacturing sector per 1,000 inhabitants (new federal states incl. Berlin: 52, Thuringia: 76).

2010 approx. 46% of all patent applications in Eastern Germany have been made in Saxony. Approx. 46% of the R&D personnel (research and development) in Eastern Germany was working in Saxony in 2008.

In September 2010, the total turnover in Saxony's industry increased by 8.8 % to € 4,300.0 million compared to the previous month; this exceeded the result of the respective month last year by 5.9 %.

### **Saxony has is especially strong in the following Hightech Sectors**

- [AUTO! - Automotive Industry](#)
- [MICRO! - Microelectronics/IT](#)
- [MACHINE! - Production Engineering](#)
- [GREENTECH! - Environmental and Energy Technology in Saxony](#)
- [Logistics](#)
- [Nanotechnology](#)
- [Photovoltaics](#)
- [Printed & Organic Electronics](#)
- [Railway Technology](#)
- [Renewable Energies](#)

## Industry (I)

### COMPANY PROFILE of AUGUST HORCH AKADEMIE

#### Brief Introduction to History

##### **August Horch**

- August Horch (1868 – 1951) founded the first car manufacturer in Zwickau in 1904 named *Horch & Cie. Motorenwagen-Werke*
- build the first models of the legendary Horch with 6-cylinder engine in 1907
- left the company in 1909 due to financial troubles and dissensions with the board of directors .

##### **The Audi Automobilwerke GmbH**

- were founded by August Horch using the Latin translation of his name in 1910 on today's location of the company following a dispute with the former Horch AG to use the German name again
- received in 1910 the fabricant mansion as a gift by the city of Zwickau and build in 1912 the new Audi factories which are today offices and training workshops
- when August Horch designed its first sport vehicle named AUDI Type A in 1910, he set a new benchmark with regard to innovation and quality for his competitors.

##### **The Auto Union AG**

- was founded in 1932 as a merger of the four Saxonian car manufacturers Audi – DKW – Horch – Wanderer
- chose as their company sign the four joint rings in order to symbolize the merger
- was worldwide known as a holding for their simple, sport, luxurious and compact cars until 1945

##### **The VEB Sachsenring Automobilwerke**

- were founded as a nationally owned enterprise after the end of the Second World War after liquidating the former Audi factories
- produced from 1957 to 1989 the famous Trabant with over 10,000 employees in Zwickau with its final assembly in factory No. II, today's company facilities
- terminated the car production on their location in Zwickau in 1991

##### **The New Consortium and August Horch Akademie**

- has been founded in 1991 as a training and employment centre for the emerging automotive subcontracting industry
- since 1995 AUGUST HORCH AKADEMIE sets the same benchmark for its products and services like his famous namesake. For the purpose of his tradition we continue today what was started over 100 years ago.
- has initiated a vast number of projects and became one of the leading project promoting organisations in Saxony
- is today an expert of formal and informal training within the automotive industry

#### Core Competences:

**MANAGEMENT TRAINING** (Sales & Marketing, Communication & Teamwork, Leadership & Management, Project & Quality Management)

**INCENTIVE PROGRAMMES** (Outdoor Trainings, Team Trainings, Travel Packages, Events)

**PROJECT CONSULTING** (Project Development, Project Management, Evaluation)

**COMPETENCE IN PROJECT MANAGEMENT** (Vocational Orientation - VET - Skills Development - HR Management - Adult Education - Lifelong Learning - Age Management - Change Management – Continuing Improvement Process - Demographic Change - Regionomic Change)

## Industry (I)

### ENTREPRENEURIAL CONDITIONS IN EASTERN GERMANY

#### Structure of the companies:

- 98% of enterprises are SEs
- only very few companies have their own R&D and HR departments
- most companies have a strategic corporate business planning of less than 1 year
- many SMEs are dependent to few customers (see Pareto)
- R&D and HR development not be seen as an investment into one's own future
- in R&D and HR management many SMEs still follow an ad hoc strategy without long term planning.

### STRENGTHS AND WEAKNESSES OF COMPANIES IN EASTERN GERMANY

#### Strengths:

- Company specific services and partners
- Physical infrastructure
- Public infrastructure
- Technological knowledge, innovation

#### Weaknesses:

- Availability of capital
- General situation of the market
- Political and legal conditions
- Missing R&D infrastructure

## Industry (I)

### ENTREPRENEURIAL CONDITIONS IN EASTERN GERMANY

#### ADVANTAGES AND DISADVANTAGES OF THE REGION

##### Advantage

- Funding environment (Objective 1)
- Infrastructure (roads, energy, communication)
- Purchasing power (higher than in Eastern EU)
- Real estate prices
- Research infrastructure
- Environmental quality
- Family friendly environment

##### Neutral

- Labour cost
- Availability of human resources

##### Disadvantage

- Tax volume
- Image
- Quality of life

## Overlap University / State – Region (US):

As one step to promote new technologies and innovation coming from university research, there are some consulting and transfer centres offering technology consulting to industry. Moreover there are two patent information centres helping researchers and industry to safeguard and exploit their intellectual property using patent registration for new products and innovations.

The following Centres can be named as Players are operating within this field in Saxony:

### Patent Information Centres

- [↳ Patentinformationszentrum Technische Universität Chemnitz](#)
- [↳ Patentinformationszentrum Technische Universität Dresden](#)

### Technology Consulting Centres

- [↳ TAC Technologieagentur Chemnitz GmbH](#)
- [↳ BTI Technologieagentur Dresden GmbH](#)
- [↳ Eurotransfer- und Beratungsring Neiß e.V., Görlitz](#)
- [↳ AGIL - Agentur für Innovationsförderung und Technologietransfer Leipzig, mit Patentinformationszentrum](#)

## State – Region (S):

In order to support the start-up of technology driven industries in Eastern Germany, the Federal State of Saxony as well as the Regions and Municipalities have set up and financially support numerous Business and Innovation Centres (BIC). Those centres should have close links to Universities and start-up enterprises, presenting an interface between both of them. However, many of those BICs have experienced financial problems due to the high load of re-financing their equipment and building infrastructure. For this reason, some of those centres have become real estate agencies instead of being technology catalysts.

The following Technology and Start-up Centres can be named as Players are operating within this field in Saxony:

### Technology and Start-Up Centres

#### Chemnitz Region

- [↳ Business and Innovation Centre \(BIC\) Zwickau GmbH](#)
- [↳ Gründer- und Innovationszentrum Freiberg/Brand-Erbisdorf GmbH](#)
- [↳ Technologieorientiertes Dienstleistungszentrum Lichtenstein GmbH](#)
- [↳ Technologieorientiertes Gründer- und Dienstleistungszentrum Annaberg der WFE GmbH](#)
- [↳ TechnologiePark Mittweida GmbH](#)
- [↳ Technologie Centrum Chemnitz GmbH](#)
- [↳ CAP Oelsnitz GmbH](#)

#### Dresden Region

- [↳ Innovations Centrum Meißen GmbH](#)
- [↳ LAUTECH Lausitzer Technologiezentrum GmbH](#)
- [↳ ROTECH GmbH Technologiezentrum Rossendorf](#)
- [↳ ENO Entwicklungsgesellschaft Niederschlesien Oberlausitz GmbH](#)
- [↳ Technologie- und Gewerbezentrum Sebnitz GmbH](#)
- [↳ Technologie- und Gründerzentrum Bautzen GmbH](#)
- [↳ Technologiebetreuungs- und Gründerzentrum Oberlausitz - Niederschlesien GmbH Niesky](#)
- [↳ TechnologieZentrumDresden GmbH \(mit BioInnovations- und NanoelektronikZentrum\)](#)
- [↳ Zentrum für Technologiestrukturentwicklung Region Riesa Großenhain GmbH](#)

#### Leipzig Region

- [↳ Business & Innovation Centre \(BIC\) Leipzig GmbH](#)
- [↳ Technologie- und Gründerzentrum Torgau GmbH](#)
- [↳ BIO-NET LEIPZIG Technologietransfergesellschaft mbH](#)



## Overlap University / Industry (UI):

### R & D ENVIRONMENT IN SAXONY

The main issue in Eastern Germany: there are virtually no headquarters of globally acting enterprises, where R&D departments and their staff are situated. Technology transfer is therefore a primary responsibility of Technology Transfer Centres which operate in the overlap of University and Industry.

Those centres can be characterized as follows

- no formal link to industry, neither to SMEs
- no formal HR resources made available for Competence Brokering (CB)
- more than 1,000 funding programmes in Germany
- more than 6 Billion Euros/a funding in education and R&D
- market driven vs. politically driven
- most similar programme in Saxony: Innovation Assistant

The following Centres can be named as Players are operating within this field in Saxony:

### Technology Transfer Centres

Chemnitz Region

- [↗ Cetex Institut für Textil- und Verarbeitungsmaschinen gemeinnützige GmbH](#)
- [↗ Transferzentrum Textiltechnologie im Sächsischen Textilforschungsinstitut e.V.](#)
- [↗ FTZ - Forschungs- und Transferzentrum e. V. an der Westsächsischen Hochschule Zwickau](#)

Dresden Region

- [↗ GWT-TUD GmbH - Gesellschaft für Wissens- und Technologietransfer an der Technischen Universität Dresden mbH](#)
- [↗ IMA Materialforschung und Anwendungstechnik GmbH, Dresden](#)
- [↗ EFDS - Europäische Forschungsgesellschaft Dünne Schichten e.V.](#)
- [↗ Papiertechnische Stiftung, Heidenau](#)
- [↗ Transferzentrum im ILK Institut für Luft- und Kältetechnik gGmbH Dresden](#)
- [↗ Dresdner Transferstelle für Vakuumtechnik e. V.](#)
- [↗ Zentrum für Produktionstechnik und Organisation der Fakultät Maschinenwesen der TU Dresden](#)

Leipzig Region

- [↗ Technologietransferzentrum Druckvorstufe in der SID Sächsisches Institut für die Druckindustrie GmbH, Institut des Vereins POLYGRAPH Leipzig e.V.](#)
- [↗ Kunststoff-Zentrum in Leipzig gGmbH](#)

## Universities (U):

The Federal State of Saxony has long-established and powerful universities. The locations of Chemnitz, Dresden, Freiberg and Leipzig offer a wide range of subjects from engineering, natural sciences, humanities, social sciences, economics and law. In addition to the required international university in Zittau of cross-border education and support of German, Polish and Czech students. The research and teaching potential of the five universities will be enriched by the affiliated institutes. These institutions, such as the Humanities Center for History and Culture of East Central Europe at the University of Leipzig, make a special contribution to knowledge transfer between academia and industry.

The following Universities are situated in Saxony:

- [Technische Universität Chemnitz](#)

Studying on a high technical level of interdisciplinary and efficiently by living cheap - this is the Technical University of Chemnitz, a very good choice. Chemnitz, Saxony is advantageous students pavement. Another benefit is also the clarity of the site with workshop buildings, libraries, dining halls, dormitories and sport facilities on student life.

A special feature of the University consists of the interdisciplinary combination of research and teaching in engineering and natural sciences with economics, humanities and social sciences. In addition, the faculties to seek an increasing internationalization and modularization of study opportunities. Worldwide, the University maintains contacts with over 160 universities.

- [Technische Universität Dresden](#)

The Technical University of Dresden is one of the strongest research universities in Germany. Currently, more than 35,000 students are enrolled. You will especially benefit from a practical teaching. Attaches great importance to the University of the creation of more international and interdisciplinary courses. The University takes part in the European system for credit transfer, the services provided to foreign universities recognize academic achievements. Due to high professional and social skills, the graduates have excellent opportunities in the labor market.

- [Technische Universität Bergakademie Freiberg](#)

For over 240 years, the University in Freiberg is in close contact with industry specialists for the future. In Freiberg, currently around 4,000 students benefit from the advantages of smaller universities: short distances, personal service, no waiting for internships and no overcrowded classrooms.

The University is characterized by a clear structure with six faculties and the Interdisciplinary Ecological Center of the inter-faculty initiated the environmental teaching and research, promotes and operates. The practical cooperation strengthens it brings substantial benefits for teaching. The majority of students complete their training in the 25 degree programs in engineering, geosciences, natural sciences and business management in general studies.

- [Universität Leipzig](#)

The University of Leipzig in 1409, created after the Technical University of Dresden, the second largest university in Saxony. From time immemorial the university combines more than most start-ups later a wide range of subjects. This is reflected in the offer against more than 200 courses. These range from the humanities and social sciences about the nature and sports sciences to human and veterinary medicine. In addition, in recent years, courses with an international focus, such as European Studies or Urban Management was formed. The increasing internationalization is also reflected in the transition to the new Bachelor and Master degrees. In addition, nearly 3,000 foreign students at the University of Leipzig are enrolled.

- [Internationales Hochschulinstitut Zittau](#)

Established in 1993, International Graduate School Zittau is attended by students from mainly Central and Eastern European countries, especially from the Czech Republic, Poland and Germany. In a challenging study, students are introduced to current international responsibilities and included in the formulation of international and interdisciplinary approaches. Students will work in modern laboratories to cross-border research topics and are recommended as experts for the Central and Eastern European labor market. Because they have special knowledge of the historical and cross-cultural particularities of the Czech Republic, Poland and Germany. Partner universities are the Technical University Mining Academy in Freiberg and the University of Applied Sciences in Zittau and Görlitz, Silesian Technical University Gliwice and Wroclaw University of Economics in Poland and the Technical University of Liberec in the Czech Republic. The members of the Institute Council of Graduate School Zittau include the presidents of the partner universities for a new type of Saxony-university cooperation.

## Universities (U):

Anyone who wants a practical degree course is right at one of the five Universities of Applied Sciences in Saxony. Here you can have a university degree in the field of engineering, economics, media and social sciences or any artistic area.

The following Universities of Applied Sciences are situated in Saxony:

- [HTW Dresden](#)

The Academy of Sciences in Dresden is the second largest university in Dresden. Art, design, economy and environment form the basis for the 28 offered diploma, bachelor's and master's degree programs. Among them are for higher education in Saxony-time study opportunities such as agriculture, horticulture and landscape management. The academic life at university is diverse. The annual research budget is more than four million euros. These are mainly used to equip laboratories and employment of project staff.

An example of this in Dresden, the activities of the university on the territory of the existence of justification. In addition, the university fosters global collaboration with numerous research facilities. Scholars and students are regularly engaged in, inter alia, the United States of America, the People's Republic of China, Australia or South Africa.

- [HTWK Leipzig](#)

The College of Engineering, Business and Culture of Leipzig was founded in 1992 by the union of predecessor institutions. As the largest university in Saxony, it offers its more than 6,200 students a future-oriented studies in engineering, information, economic, social and cultural studies programs. Today, more than two-thirds of the students their student life on campus in the south of the city after that were constructed in recent years, the new laboratory building and the impressive dining hall. The training promises many years of experience and success is a good preparation for the labor market. Focus, inter alia, in an exchange of information, communication and media skills, in a network of study subjects and in the internationalization of the study.

- [Hochschule Mittweida](#)

The university of applied sciences in Mittweida was founded in 1992 emerging from existing schools. The educational institution is required above all a practice-oriented teaching. In specialist areas such as technology, economics and media are now around 5,300 students studying in 31 degree programs. Nevertheless, the university also has small seminar groups and, therefore, intensive care facilities for the students.

In addition to expanding the university as a place of academic instruction is practice-oriented research attention. The Centers for laser application, sensors, conveyor and elevator systems as well as media development and management are widely known. For the performance of Mittweida are also numerous promotions in cooperative promotion procedures, the Excellence Initiative to obtain the promotional rights in the field physics and laser technology, participation in international projects, the maintenance of numerous collaborations, and regular orientation of scientific conferences.

- [Hochschule Zittau / Görlitz](#)

Small is beautiful - this is the most eastern university in the region where Germany, Poland and the Czech Republic meet. Located in a beautiful environment with a high cultural value, the university offers an attractive and appealing environment. There are currently about 3850 students enrolled, including about 550 foreigners from 37 countries. A practical, interdisciplinary and international teaching and research with more than 50-year-old tradition mark the university. Contacts with 250 companies and institutions and to 115 universities in 38 countries provide an excellent basis for this. Attractive to study acting with integrated vocational training, the cooperative engineering education and the courses available in the framework of the international network Neisse University. New teaching buildings, libraries and cafeterias at the university of Zittau and Görlitz locations form the basis for an optimal study.

- [Westfälische Hochschule Zwickau](#)

In Zwickau the studies are dominated by the car. Further technical and technical-scientific study opportunities and a wide range of economics courses to choose from. Special attention is devoted to University of the international university cooperation within European and global programs of bilateral cooperation. In teaching and research, the university maintains close contact with many foreign universities. The University of the West Saxon in a position, its students and graduates excellent opportunities for study abroad to offer degrees.

## **Universities (U):**

Technology transfer in Saxony is supposed to be provided by Universities and Universities of Applied Sciences. However, until now there are significant weaknesses within the University-Industry-Interface, caused by the following points:

### **Characteristics:**

- different strategies within the organisations
- no common network with industry
- no central contact point
- hardly linked to start-up centres