



NGlobal GmbH -
your first call
in Niedersachsen!

NGlobal
Niedersachsen Global GmbH



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Automotive expertise

- Automotive industry heavily based in Niedersachsen: the Volkswagen Group based in Wolfsburg is one of the world's biggest car manufacturers.
- Efficient supply industry: some 700 businesses, including sub-suppliers, Tier 1 suppliers and innovative development partners.
- High degree of research in the automotive sector: companies' own R&D departments, numerous university institutes and non-university research institutions.
- Highly qualified workforce: future generation of skilled employees trained at Niedersachsen's universities and colleges.

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The automotive industry in Niedersachsen

Importance of the automotive industry:

Volkswagen

Supply industry

Research and development

Qualification and training

Interdisciplinary technologies



NGlobal in Niedersachsen

NGlobal is the state owned One-Stop-Agency for economic development and international cooperation with main focus on **Inward Investment, Foreign Trade, Niedersachsen Marketing**. NGlobal is committed to enhancing Niedersachsen's economy by attracting foreign investment and new companies to the state, and encouraging inter-enterprise collaboration and joint ventures. The experts at NGlobal support Niedersachsen companies seeking to develop and expand their activities abroad. Niedersachsen, the logistics state, connects the world by sea, air, road and rail through its central location, where the continent's north-south and east-west transportation routes intersect. It is the home of Volkswagen AG and of the world's biggest trade fairs.

Niedersachsen's economic strengths:

- Mechanical and Plant Engineering
- Mobility (Automotive, Logistics, Aerospace, and Telematics)
- Energy
- Life Sciences, Healthcare
- Food
- Media and Service Industries

NGlobal holds representations in: China, India, Russia, South Africa, USA and UAE and works with partners in: Cuba, Poland, Saudi Arabia and Scandinavia.

NGlobal – Your Experts on Niedersachsen – Let's get in touch! www.nglobal.de



Importance of the automotive industry: Volkswagen

The most important industry in Niedersachsen is the automotive industry and its suppliers – thanks to the Volkswagen Group based in Wolfsburg. With 9 makes of car, an annual production figure of more than six million vehicles, approx. 60 production plants around the world and 370,000 employees, the Group is one of the world's top three car manufacturers. The proportion of people employed by the automotive industry in Niedersachsen is around twice as high as the national average, and the supply and automotive industry provides work for some 150,000 people in the region. Of these, no less than two thirds work for VW at one of the company's five plants in Niedersachsen: in Wolfsburg, Braunschweig, Emden, Hanover and Salzgitter. VW's main plant in Wolfsburg accounts for 48,000 of these jobs (8,000 of which are in research and development), while a further 13,000 or so are based in Hanover, where light commercial vehicles are assembled. Large goods vehicles are also manufactured in the region, such as buses, lorries and MAN components in Salzgitter. Together with the two Mercedes-Benz plants in Bremen and Hamburg, northern Germany therefore constitutes the largest automotive cluster in Europe.



Supply industry

Efficient suppliers are a fundamental prerequisite for the success of a car manufacturer – and Niedersachsen can lay claim to around 700 such companies. One of the biggest, Continental AG, has its head offices in Hanover, and a further 50 out of the top 100 automotive suppliers are likewise based in Niedersachsen. There is therefore virtually no car component that could not be sourced in Niedersachsen – in spite of today's global economy – be it seats from Stadthagen, steering systems from Lemförde, airbags from Braunschweig or multimedia from Hildesheim. And in the last ten years, the suppliers have undergone a process of ongoing change, maturing into today's innovative development partners and Tier 1 suppliers.

Let us take Continental AG as an example of this process of change: today, the company's traditional tyre business is only of secondary importance to its activities in the field of developing and manufacturing complex systems for suspension control and driveline technology, for example. Countless innovations such as ABS and ESC have made their way into car manufacture thanks to development work carried out by suppliers. They are currently working on seeing the development of electronic assistance systems for intelligent navigation, lane keeping and distance control through to production.



Research and development

Approximately half of the research and development capacities of industry in Niedersachsen is taken up by the automotive industry. Numerous university institutes and non-university research institutions benefit from the high level of research in the industry too, and are often the result of the close cooperation between the business and science sectors.

The most recent example of such a joint venture is the Automotive Research Centre Niedersachsen (NFF), which was founded in 2008. It is based in Braunschweig and Wolfsburg, and is supported by the State of Lower Saxony and the Volkswagen Group. There are various other research institutions in Hanover, such as the Hannover Centre of Production Technology (PZH), the Centre for Vehicle Components and Systems (ZFKS) and the Institute of Production Engineering and Machine Tools (IFW) at the Leibniz Universität Hannover.



Qualification and training

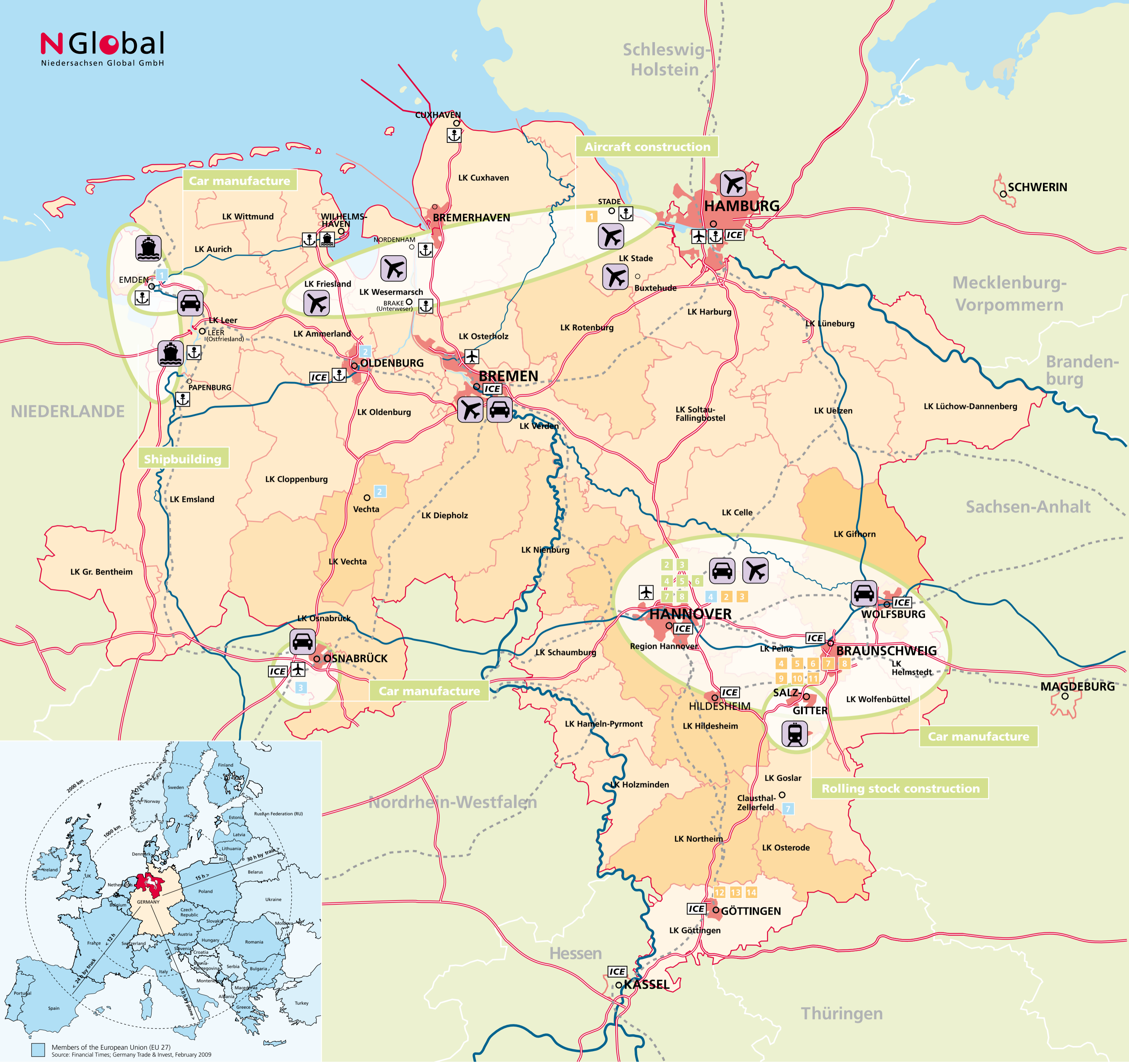
The next generation of engineers for Niedersachsen's automotive industry primarily comes from the region's colleges and institutes of technology in Hanover, Braunschweig and Clausthal. In addition to the conventional fields of study such as mechanical engineering and electrical engineering/electronics, these institutes also offer studies in areas specifically tailored to the needs of the automotive industry. A high degree of practical relevance is maintained by numerous project partnerships between the colleges and the automotive industry, by the awarding of research contracts and by establishing third-party funded projects. For example, in 2009, just under two hundred university graduates are currently working on their theses at Volkswagen.

Practically orientated training in the industry sector is safeguarded thanks to the willingness on the part of the automotive and supply industry to offer training placements. In vehicle construction alone, tens of thousands of young people are trained as mechanics, mechatronics engineers or in another skilled trade every year, for example. In addition, the professional and trade associations' training establishments offer specialised vocational training courses leading to further qualifications.



Interdisciplinary technologies – the mobility of the future

An ever-increasing volume of traffic and increased mobility call for innovative technologies and sustainable mobility concepts. There is also a need to minimise the impact on the environment caused by traffic. An array of networks have been established in Niedersachsen in which science, businesses and politics work together on developing solutions. There is, for example, the Niedersachsen Telematics Initiative, which focuses on developing traffic management systems and brings together universities, medium-sized businesses and companies such as Bosch, Siemens and Volkswagen to achieve more efficient and common carrier-independent usage of the infrastructure by interlinking location, navigation and traffic data. The work of the region's Nano and Material Innovations Initiative and the Niedersachsen Fuel Cell Initiative includes developing functional materials and mobile applications of alternative energy sources for cars. The CFK-Valley research and development group in Stade is working on developing and industrially manufacturing components made of carbon fibre composites, for use both in aircraft and car manufacture.



Key players in the automotive industry

- 1 Niedersächsisches Forschungszentrum für Fahrzeugtechnik – NFF
- 2 Laser Zentrum Hannover
- 3 Produktionstechnisches Zentrum Hannover – PZH
- 4 Europäische Forschungsgesellschaft für Blechverarbeitung e.V. – EFB
- 5 Mechatronik Zentrum Hannover
- 6 Dt. Institut für Kautschuktechnologie
- 7 Zentrum für Fahrzeugkomponenten und -systeme
- 8 Kompetenzzentrum Automotive

Universities

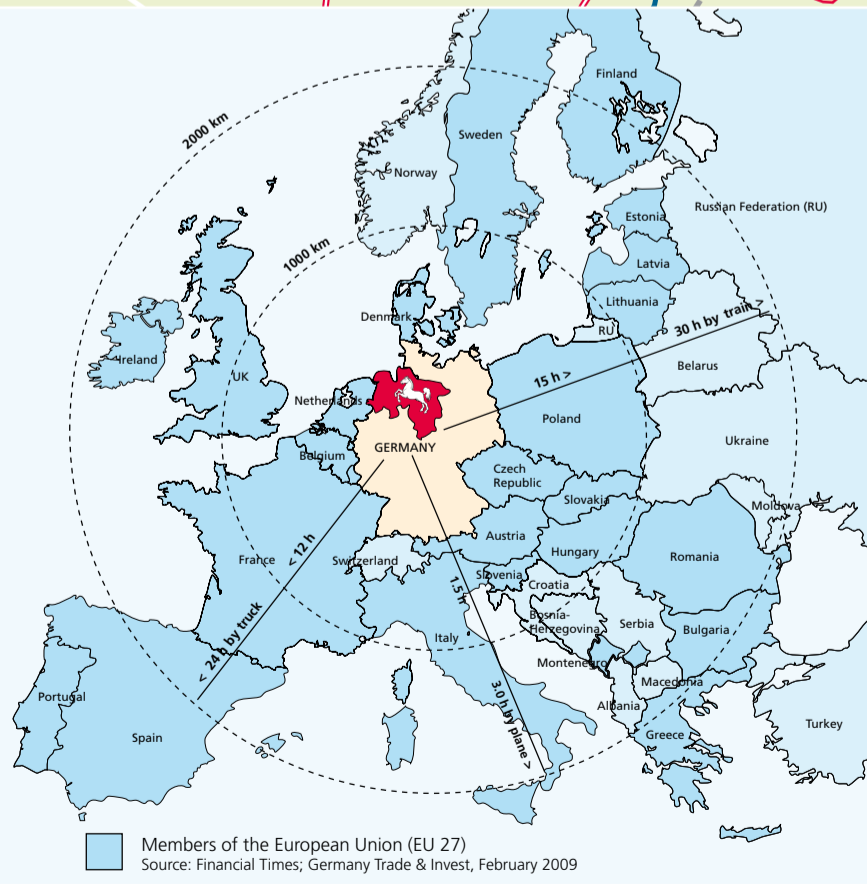
- 1 FH Oldenburg/Ostfriesland/Wilhelmshaven – Standort Emden – FB Technik
- 2 FHWT Vechta-Diepholz-Oldenburg – Maschinenbau/Mechatronik
- 3 FH Osnabrück – FB Maschinenbau
- 4 Leibniz Universität Hannover – FB Maschinenbau
- 5 TU Braunschweig – FB Maschinenbau
- 6 FH Braunschweig/Wolfenbüttel – FB Fahrzeug-, Produktions- und Verfahrenstechnik
- 7 TU Clausthal – Fakultät für Maschinenbau

Additional key players in the mobility industry

- 1 CFK-Valley Stade
- 2 Logistikinitiative Niedersachsen
- 3 Wissens- und Innovationsnetz Polymertechnik
- 4 Landesinitiative Telematik
- 5 Gesamtzentrum für Verkehr Braunschweig
- 6 Kompetenznetz Adaptronik
- 7 Institut für Verkehrssicherheit und Automatisierungstechnik
- 8 Luftfahrtbundesamt
- 9 Forum Mobilität Niedersachsen
- 10 Forschungsflughafen Braunschweig
- 11 Dt. Zentrum für Luft- und Raumfahrttechnik
- 12 Kompetenznetzwerk Produktion und Logistik
- 13 Landesinitiative Brennstoffzelle
- 14 Landesinitiative Nano- und Materialinnovationen

Major production locations

- Car manufacture
- Shipbuilding
- Aircraft construction
- Rolling stock construction



Members of the European Union (EU 27)
Source: Financial Times, Germany Trade & Invest, February 2009

Legend

- Intl. airports
- Deep-water port
- Waterways
- Niedersachsen
- ICE high-speed train stops
- Federal motorways
- Major cities
- Railway lines
- Federal states

