

Simulation and Test Facilities

Beyond its aerospace facilities, the DLR has designed and built several dedicated facilities for transport research, some of which are quite unique:

- RailSiTe, laboratory for railway operations and train control technology
- Driver assistance laboratory
- Traffic Tower, a virtual traffic management center
- An all-wheel chassis dynamometer test bench with exhaust gas analysis and climate chamber
- A power management test bench for examination of electric power trains
- A test range for online traffic data measurement, fusion and processing
- Measuring vehicles
- A conceptual design laboratory for the computer-assisted design of complex systems

The German Aerospace Center's activities are complementary to those of other established transport research institutes. Our aim is to add value to German transport research and to keep Germany competitive within the international research community. The DLR has partners and customers in higher education and research institutes as well as among politicians, administrators and small, medium and large companies in the transport sector.

DLR at a Glance

DLR is Germany's national research center for aeronautics and space. Its extensive research and development work in Aeronautics, Space, Transport and Energy is integrated into national and international cooperative ventures. As Germany's space agency, DLR has been given responsibility for the forward planning and the implementation of the German space program by the German federal government as well as for the international representation of German interests. Furthermore, Germany's largest project-management agency is also part of DLR.

Approximately 5,100 people are employed in DLR's 27 institutes and facilities at eight locations in Germany: Koeln-Porz (headquarters), Berlin-Adlershof, Bonn-Oberkassel, Braunschweig, Goettingen, Lampoldshausen, Oberpfaffenhofen, and Stuttgart. DLR also operates offices in Brussels, Paris, and Washington, D.C.



DLR

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DLR Transport Research

Mobility through
Innovation



DLR

Responding to a Growing Demand

People's desire to be mobile is a mixed blessing. High mobility is convenient on the one hand, as well as being a source of stress and irritation on the other. Any next-generation transport system must be able to ease this conflict and prevent system overloads. Hence, new transport technologies, concepts and strategies are an essential requirement for the future.

The German Aerospace Center has been making a consistent effort to develop and expand its transport research activities into what is its most recent research segment. Based on its own transport expertise and taking advantage of transport-related synergies from the fields of aviation, space technology and energy research it contributes its own input towards future mobility. This symbiosis of disciplines which is unique in Germany ensures that research findings are relevant and receive the full benefit of our innovative high-tech solutions.



Air borne traffic data collection



Dynamic driving simulator



Railway and train laboratory RailSiTe

Following an overall policy of securing mobility while conserving resources and protecting the environment as well as enhancing safety, the DLR is working to develop new vehicle concepts, build efficient traffic management systems and address other basic transport issues.

Preparing for Tomorrow's Mobility

The DLR is the only German national research center with a complete transport segment in its portfolio. What makes it outstanding is its system competence, its interdisciplinary excellence, and a unique capability to build and operate large-scale test facilities.

The DLR research focus is on innovative, greener, and safer concepts for road and rail vehicles. It seeks solutions for a more efficient management of road transport, rail services and airport terminals. Beyond that, it looks at the wider implications of increasing traffic and the associated environmental effects. Ensuring the mobility of people, goods and services during major public events and in disaster is another field in which the DLR's wide-ranging expertise is much in demand.

Together with Partners

DLR transport research is focused on current transport problems and needs. It makes available solutions, facilitating their commercial application through existing or newly-founded or hived-off companies. It cooperates with leading manufacturers of road and rail vehicles as well as top service providers in Germany and in Europe.

One way in which we cooperate with excellent higher education institutes is in setting up so-called "virtual institutes" operating under shared management. Research themes of these institutes include human-centered automation, airport planning and management as well as transport analysis.

The DLR also maintains partnerships with other national and international research institutions as well as with leading associations and organizations. The European Conference of Transport Research Institutes (ECTRI), an association of major transport research organizations in Europe, counts the DLR among its founding and board members. Moreover, the DLR is an active member of ERTICO, a European tripartite group of representatives from business, academic research and politics which promotes intelligent transport and service systems. The DLR also serves on several advisory committees to the European Commission.

Outside Europe, the DLR is in close contact with transport research institutes in China, Russia and the USA.