

**arsenal research** is located in Vienna. The institute was founded in 1950 as an research institution of the government. In the early years it consisted of institutes for Machinery Engineering, Electrotechnical Engineering and Geotechnical Engineering. The institute was always oriented towards practical applications with strong measurement- and testing facilities. Very early also a working group on vibrations and acoustics was started. During the years it became an important non- university research institution of the republic. Since 1960 – under the name Bundesversuchs- und Forschungsanstalt Arsenal (BVFA) - it belonged to the Ministry of Construction and Technology. In the year 1970 BVFA was shifted to the Ministry of Sciences. In 1997 privatisation was started and BVFA was transformed into a private limited company. In 1998 the internal organisation of **arsenal** was completely changed and the new name **arsenal research** was born. In 1999 it became a subsidiary company of Austrian Research Centers Seibersdorf.

In June 2001 the Holding Company Austrian Research Centers was funded, where **seibersdorf research** and **arsenal research** are the two main subsidiary companies.

The Republic of Austria is the main share holder. In the latest organisation form **arsenal research** consists of the following Business Areas:

- Vehicle Testing Station
- Transport Technologies
- Transport Routes Engineering
- Monitoring, Energy and Drive Technologies
- Renewable Energy Technologies
- Engineering

**arsenal research**, being an application-oriented R&D enterprise, offers a comprehensive service portfolio in the areas transport and energy.

Qualified employees generate, by the use of most modern computer simulation as well as top-quality measurement and test engineering, solutions for our customers.

Integration in international science networks enables **arsenal research** to extend the service portfolio according to the respective requirements in order to meet customer's demands.

**arsenal research** started a new thematic positioning in the area Transport and Infrastructure Technologies. The Corporate Strategic Focussing is on the topics:

- vehicle
- transport infrastructure
- energy systems

The Business Area, which is involved into the SAMCO network is **Transport Routes Engineering**. The unit covers the fields road monitoring, traffic safety, transport telematics, acoustics, vibration- and shock testing, vibration- and structure borne noise protection, structural dynamics and earthquake engineering, structural monitoring. The structural dynamics related activities are given in more detail in what follows:

1. Earthquake resistant design of structures (bridges, buildings, dams, etc).

2. Dynamic in-situ testing of structures in order to elaborate dynamic properties of existing structures. FE- modeling of structures. Model updating. Assessment of earthquake capacity of existing structures. Measures for retrofit and seismic upgrading.
3. Structural monitoring. Safety inspection via measurement of vibrations. Quality assessment.
4. Vibration- and shock-tests in the laboratory.
5. Vibration- and structure borne noise protection, especially in railway engineering, prognosis of vibration and structure borne noise, measures for reduction.

In 2002 the Business Area will have 15 co-workers, among them 8 graduated in the fields civil engineering, mechanical engineering, agricultural engineering, electronics and computer sciences.