



TECOSIM

Facts and Figures



With its some 650 employees, TECOSIM is a highly capable partner for development processes and a world-leading specialist in computer-aided engineering (CAE). The group has locations in Germany, India, Japan, the UK, Romania and the USA.

The company assists customers in the transport, energy, industry and health sectors. The engineers carry out challenging tasks in simulation, design, construction, electronics, and software development either in their own branches or on site on the client's premises. Virtual benchmarking methods complete the portfolio. TECOSIM has also set up comprehensive expertise centres for current technological further developments in the automotive industry. These centres bring together knowledge of automation and machine learning, electromagnetic simulation, multi-body simulation and high frequency NVH /statistical energy analysis (SEA), ready to provide it for specific tasks.

TECOSIM is certified for its quality management (ISO 9001) and its data and information security (ISO 27001, TISAX) on a regular basis.



LOCATIONS WORLDWIDE

TECOSIM UK

Norwich
Basildon
Coventry

TECOSIM USA

Detroit
Irvine

TECOSIM Romania

Cluj-Napoca
Bucharest

TECOSIM Germany

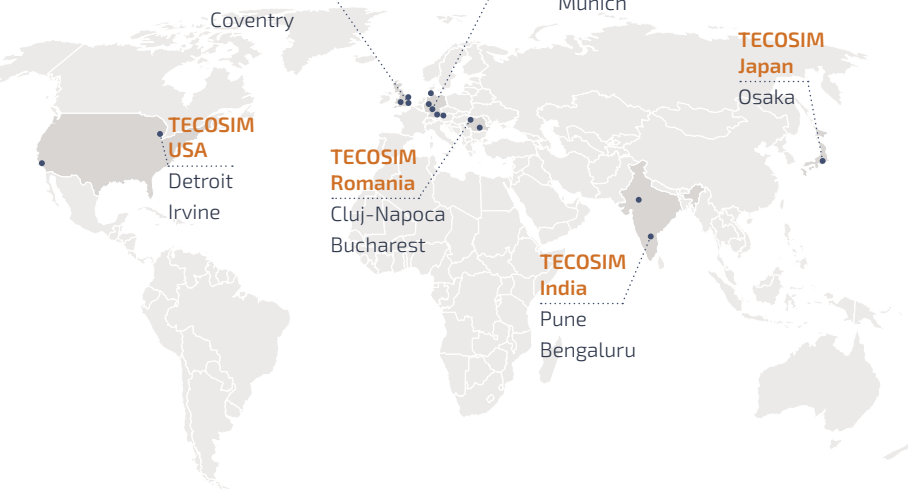
Hamburg
Cologne
Wiesbaden
Stuttgart
Munich

TECOSIM Japan

Osaka

TECOSIM India

Pune
Bengaluru



AT A GLANCE



650

Employees



30

Nationalities¹



7,500

Years' experience
in engineering²



15

Locations
in 6 countries
on 3 continents

43

Million
euros
turnover



300

Customers



¹ Workforce worldwide

² Total professional experience in engineering for all employees

THE TECOSIM STRATEGY

Vision

We empower businesses with innovative solutions and advanced technologies to shape a sustainable future. Implemented by a team dedicated to exceeding engineering expectations and building enduring collaborations. Together, we will deliver visionary solutions that make a lasting impact on the world.

Strategy

- Innovation leadership in all fields of activity
- Broadening of business activities
- Geographical expansion
- Best price strategy
- Strengthening of the brand

Values



EXCELLENCE



PROACTIVE



GROWTH &
EMPOWERMENT



COLLABORATION



FLEXIBILITY

TECOSIM helps to improve people's lives and preserve the environment through its products and services.

Engineering better living

SERVICE PORTFOLIO

Engineering services

As a development partner, TECOSIM and its experts provide engineering services in areas such as

- Design and model construction
- Design engineering and mechatronics
- Product, project and quality management
- Electronics development
- Trials and testing
- Software development

Structure simulation

Structure simulations improve performance or manufacturing for components and products.

- Crash simulations
- Stiffness and durability tests
- Fatigue testing
- Vibration and NVH analysis

Optimisation

In engineering design, optimisation is used to find the best design that meets the desired performance criteria while minimising costs, maximising efficiency, or satisfying other constraints.

- Optimisation of Model Parameters
- Thickness Optimisation of sheet and casting parts
- Topology, Bead and Morph Parameter Optimisation
- Multidisciplinary and Multi-Objective Optimisation
- Lightweight-driven Optimisation

Computational fluid dynamics (CFD)

Computational fluid dynamics simulations enable users to calculate and map the complex sequences in machines or processes using fluid flows.

- One-dimensional and multi-dimensional fluid dynamics calculations
- Thermal calculations
- Fluid-structure interaction

SERVICE PORTFOLIO

Multi-body simulation

Multi-body simulation maps the interplay between complex mechanical systems with a number of components.

- Drive, chassis and vehicle components, such as convertible car roofs
- Occupant safety
- Kinematic simulation (movement simulation)

System simulation (1D)

System simulation examines highly complex overall systems where many sub-systems interact with one another, such as:

- Mileage and consumption
- Heat and exhaust aftertreatment systems
- Flow systems, such as fuel-injection hydraulic systems

Electromagnetic simulation

Electromagnetic simulation examines the behaviour of electromagnetic fields in models of real structures and their surroundings (antennas, vehicles, motors, people, microchips, buildings). It is used to analyse electromagnetic compatibility (EMC) issues, although it is primarily employed to optimise antenna and other electrotechnical structures in an extensive variety of scenarios.

- Electromagnetic compatibility
- Electric drive
- Antennas, sensors, cables
- Battery shielding
- Car2X

SERVICE PORTFOLIO

Software development

TECOSIM develops customised company software for its clients. In addition to the development itself, the comprehensive offer can also include provision of the required infrastructure, such as offices, hardware and software, the selection of qualified employees and the formation of entire project teams.

Personnel services

TECOSIM specialises in recruiting engineering professionals and assists clients with filling vacancies in their company. The talent acquisition specialists prioritise establishing a working relationship based on trust, ensuring stability, providing feedback and tailoring the client and candidate journey to meet their specific needs.

Production simulation

As a recognised partner to the automotive industry, TECOSIM is familiar with complex OEM requirements and offers an extensive variety of solutions for the following production areas:

- Car body manufacture (e.g. process and system planning)
- Production planning (e.g. tool and software planning)
- Production lines (digital factory)

TECOSIM places a particular focus on integrating electric vehicles into production lines.

PRODUCT PORTFOLIO

Virtual benchmarking

TEC|BENCH is a process solution which provides virtual comparison with competitors' products. Experts use hardware data to produce CAE models in several stages, forwarding valuable virtual information acquired from these models directly into the customers' development environment.

Other advantages:

- Deep analysis of competitor products using digital twins
- Savings on time and costs, including on development of new drive concepts/ electric transport
- Unites the key fields of engineering expertise: testing, benchmarking, scanning, reverse engineering and simulation
- Optimally integrates into the early development stage



pSeven and pSeven Enterprise

TECOSIM is partnering with the software developer pSeven SAS and is responsible for sales and first-level user support for the flagship solutions pSeven and pSeven Enterprise in Germany, Austria and Switzerland.

pSeven is a desktop application for integration and automation of various CAD/CAE and other engineering tools, design optimization and predictive modeling. pSeven Enterprise is a cloud-native low-code platform developed to collaboratively automate engineering processes at scale.



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