

## Tire and vibration control technologies as the core, Working on new technologies, the development of new products.

The core competence of the Toyo Tire Group is our technical strength. Toyo Tires offers new value through differentiation of its core tire and vibration control technologies.

We are working to raise the bar of quality even higher through our tire technologies: Nano Balance Technology, which controls rubber material design at the molecular level; T-MODE, a high-efficiency and high-precision tire design base technologies through fusion with AI; e-balance, our new environmentally friendly truck & bus tire technology platform; and A.T.O.M., which achieves high-quality tire production.

Utilizing our vibration control technologies, we are focused on developing featuring our core anti-vibration rubber that controls passenger car engine and body vibration.

We are also working to develop new products by integrating technologies developed independently for tires and auto components.



### Nano Balance Technology

Being the essential material of tires, TOYO TIRES' rubber has a technologically unique and exclusive design on a nano level (1 nanometer = 1 billionth of a meter). Our rubber is derived through simulation, function creation, precision control and research. That is Nano Balance Technology from Toyo Tires.



### T-MODE

T-MODE is a platform using simulations with AI integrated design technology to develop innovative tires with even higher speed and more functions.



### e-balance

A new technology for truck and bus tires that achieves the "e" effect of ecology, energy, economy and endurance.



### A.T.O.M. (Advanced Tire Operation Module)

A.T.O.M. is a highly scalable, proprietary system that can flexibly respond to changes in production plans as market demand trends dictate. It features high quality, a small footprint, multi-product small-lot production, and a high level of automation.

## Technology to support business development center

We are embracing the challenge of raising new tire performance to a new level, performing precise performance evaluations to deliver remarkable products to society. In developing tire technology, technology development sites in the United States, Japan and Europe are where we refine our proprietary knowledge and cutting-edge technology, and where we perform actual vehicle testing on tire test courses.

The keys to our Automotive Parts Business are gathering information on new technology in the ever-evolving automobile industry, establishing new technologies in order to achieve the performance requirements of car makers, and developing high-added-value products. The Automotive Parts Technical Center is where we tackle these keys from multiple angles and develop the technical capability to

analyze and evaluate in order to create the exact auto parts that customers are seeking.



The Tire Technology Center (Hyogo)



North America R&D Center (United States)



European R&D Center (Germany)



The Automotive Parts Tire Technology Center (Aichi)



Tire Test Course (Miyazaki)



Tire Test Course (Hokkaido)

## Corporate Technology Center, Developing Core Technology to Support the Future

The Corporate Technology Center, where we establish the direction of technology development for the company as a whole, is positioned in the company as a common platform from which basic technology flows down to each business unit. The Corporate Technology Center develops the seeds of proprietary technology in each business unit, which in turn leads to individual manufacturing technology. The Center is also working on new research with an aim of developing technologies of the future.

The Toyo Tires Group is further working to create new materials and technologies, boost our core technology and enhance the environment of our research centers in order to contribute to growth of our core businesses, and we are further bolstering our research and testing environments with our sights set on creating new businesses.

Toyo Tires is also harnessing its production technology functions to create a synergistic effect in an effort to fortify our R&D foundation that will support our company's business well into the future.



Corporate Technology Center (Hyogo)