

# BRIDGESTONE'S EUROPEAN PROVING GROUND (EUPG) FACT SHEET

## ABOUT INNOVATION AT BRIDGESTONE EMIA

Bridgestone in Europe, Russia, Middle East, India, and Africa (Bridgestone EMIA) is the regional Strategic Business Unit of Bridgestone Corporation, a global leader in tyres and sustainable mobility solutions.

Bridgestone is one of the leading investors in Research & Development in the industry, investing approximately **780 million** Euros globally each year.

## ABOUT OUR RESEARCH AND DEVELOPMENT CENTRE IN EUROPE

Our R&D centre in Europe has been at the heart of our innovation since its founding in 1968. It plays a leading role in tyre material research, tyre design and development, fast-prototyping, and all forms of testing, and is home to some of the brightest minds in mobility, including engineers, chemists, data analysts, test drivers, technicians and support staff.

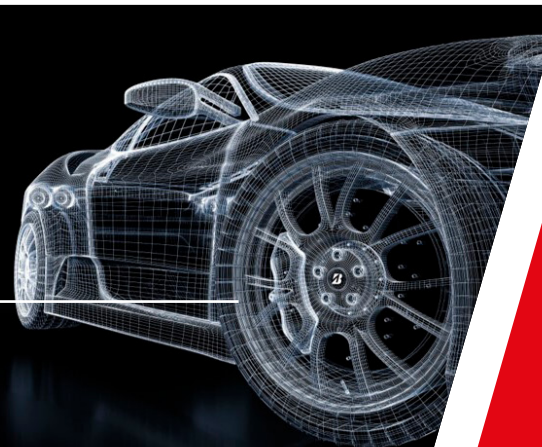


## VIRTUAL TYRE DEVELOPMENT

Our ground-breaking virtual tyre modelling and simulation technologies, developed at our R&D centre in Rome, help make the tyre development process more efficient and sustainable.

VTD technology creates a '**digital twin**' of a tyre, allowing us to accurately predict a tyre's performance and virtually test and fine-tune before prototypes are manufactured and tested in the real life. This means that physical testing at the final stage of development provides aligned results.

With Virtual Tyre Development, around 200 tyres are saved in every project we apply the technology to, which results in a saving of around **60 per cent** on raw materials and CO2 emissions during the tyre development phase.





## ABOUT BRIDGESTONE'S EUROPEAN PROVING GROUND (EUPG)

Bridgestone's EUPG was established in 2004 and is part of the Tyre Testing Department, belonging to Bridgestone EMIA's R&D organisation. EUPG boasts 50+ employees, with main roles including engineering, test drivers, planning and logistics.

**At our EUPG, we validate product and solution design, define our tyre labelling and homologation and develop innovative testing methods. Our testing categories include digital test, subjective evaluation and instrumented tests.**

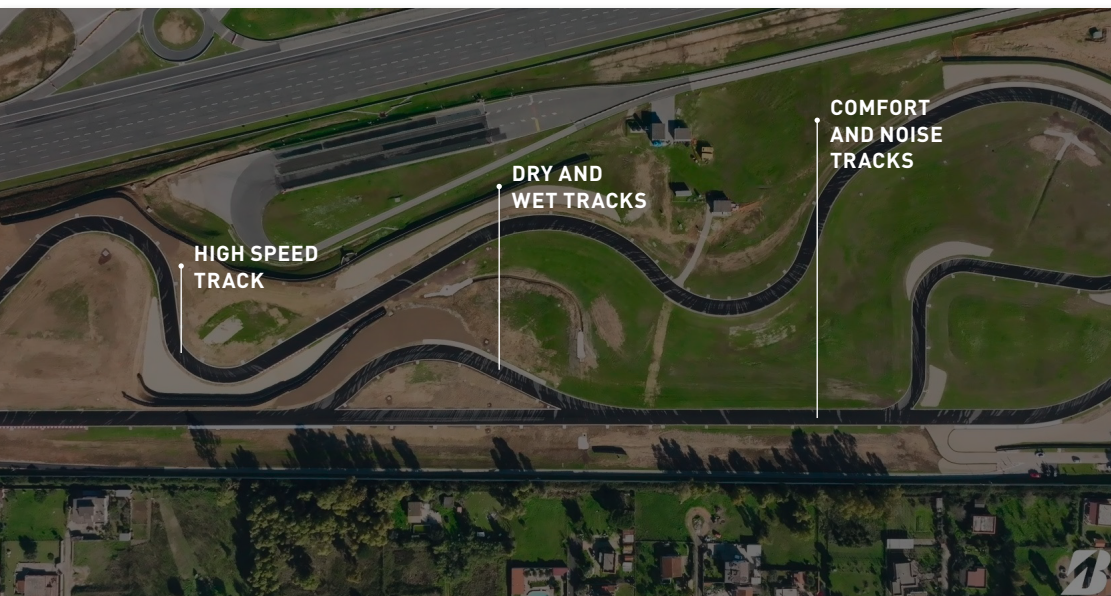
### TESTING

The products we test include passenger, commercial van, truck & bus, agricultural and motor cycle tyres.

### OUTDOOR TEST CENTER AND FACILITIES



Located near Rome, our outdoor test centre covers 144 hectares with over 70 km of testing tracks, including a high speed track, dry and wet tracks and comfort and noise tracks.

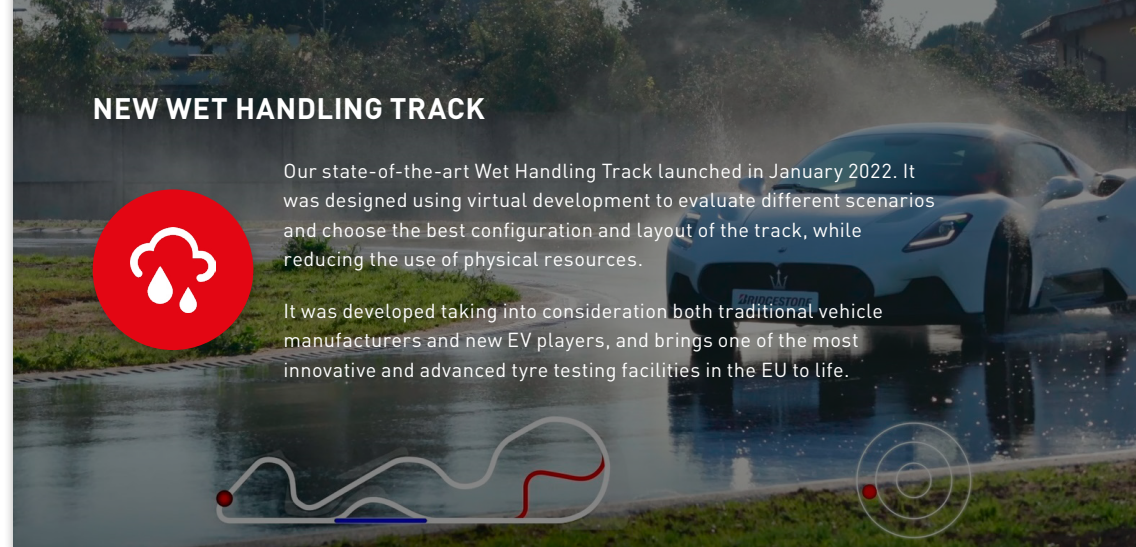


### NEW WET HANDLING TRACK



Our state-of-the-art Wet Handling Track launched in January 2022. It was designed using virtual development to evaluate different scenarios and choose the best configuration and layout of the track, while reducing the use of physical resources.

It was developed taking into consideration both traditional vehicle manufacturers and new EV players, and brings one of the most innovative and advanced tyre testing facilities in the EU to life.



### SAFETY MANAGEMENT AT THE FOREFRONT

- Raid systems custom developed for Bridgestone
- Real time track engagement
- Differential GPS
- Digital communication platform
- Automatic emergency situation warning system
- Digital bar gates management
- Digital access by registered permissions
- Virtual gates to manage specific areas



### TRACK ATTRIBUTES

- **Enhanced layout:** More transient and combined latitudinal and longitudinal forces to verify load transfer effect, which is critical for EVs
- **Enhanced surface:** selected to be more resilient to wear in order to keep constant friction vs time
- **Enhanced safety:** Application of Argex in run-off areas to reduce stopping distance in case of run off
- **Wetting system:** up to 6km of piping to recycle water (up to 90%) and convey into a 4 million liters reservoir reducing environmental impact and usage of natural resources



### CERTIFICATIONS AND ACCREDITATIONS

IATF 16949 / ISO 14001 / ISO 45001 / ISO 50001 / ISO/IEC 17025