



**PRESS RELEASE**

## **Major Capital Investment Completes Vittoria's Center of Excellence for Rubber Compounds**

**Rayong, Thailand – 1 March 2017** – Vittoria's manufacturing company Lion Tyres Thailand has opened their recently completed state-of-the-art bicycle tire/wheel test center at the rubber compound factory and R&D complex, at Rayong Industrial Estate in Thailand. After the revolutionary innovation with Graphene and the unique extruder, capable of producing 4 different compounds (4C) for bicycle tires treads, Vittoria is now able to test its innovative products with scientific precision to ensure perfection under any circumstances.



Image: Vittoria's Center of Excellence, Lion Tyres Thailand

The significantly upgraded and expanded test facility allows Vittoria to simulate precise conditions related to all climate and weather conditions, to test the soundness of the construction and durability, wet and dry grip, as well as extreme forced failure scenarios. In addition, the added test abilities allow detailed wheel analysis and will further the development of Vittoria's Perfect Match (wheel and tire bead optimization). The commissioning of the uniquely extensive test equipment is the final step for Vittoria to take innovation and product development to the absolute top of developing the abilities and insight required, to offer the best-performing tires in the world.



## Official Opening

Shareholder Jan van Waas and Vittoria chairman Rudie Campagne visited Rayong on February 15, 2017 to officially open the extensive new test facilities. After 2,5 years of preparations and work, the major capital investment creates a one-of-a-kind scientific test laboratory for bicycle tires as well as wheels and has started its operations. Traditionally, test riders play a big part in product development and testing. Although these contributions are valuable, the results are hard to quantify with required precision and are not always consistent. The Vittoria bicycle tire/wheel test center offers 100% precise and comparable tests from perfectly calibrated computer-controlled equipment, which will significantly increase the product development speed as well as its accuracy.



Image: Ribbon-cutting ceremony with Vittoria chairman Rudie Campagne, shareholder Jan van Waas, managing director of LTT K. Penpam and Group Industrial Director K. Krisda.



## The Benefits for Tires

With its heritage in road racing, Vittoria has always valued rolling resistance tests. With the updated custom test equipment however, it is now possible to understand the relationship between rolling resistance and temperatures. Furthermore, Vittoria can now fine-tune the compounds to reach optimal rolling resistance at the desired speed in the climate of a targeted region. The new facility enables climate-related development of rubber compounds, by simulation of different temperatures, ambient air humidity, UV and Ozone exposure. This is yet another area for compound development allowing for more measurable and predictable performance.

The equipment for grip testing can also combine different variables. By altering the level of wetness at the surface, the lean angle and the loading many new insights will be gained in terms of compound placement as well as grip levels relevant for each area. A huge improvement has been made to test the durability of the tire tread as well as side walls.

Finally, scientific precision is also added to Vittoria's unique cotton tubeless tire development by monitoring precise air retention per hour with variable air pressures. In short, the ability to develop compounds and products with such measurable precision has not been seen before in the cycling industry.

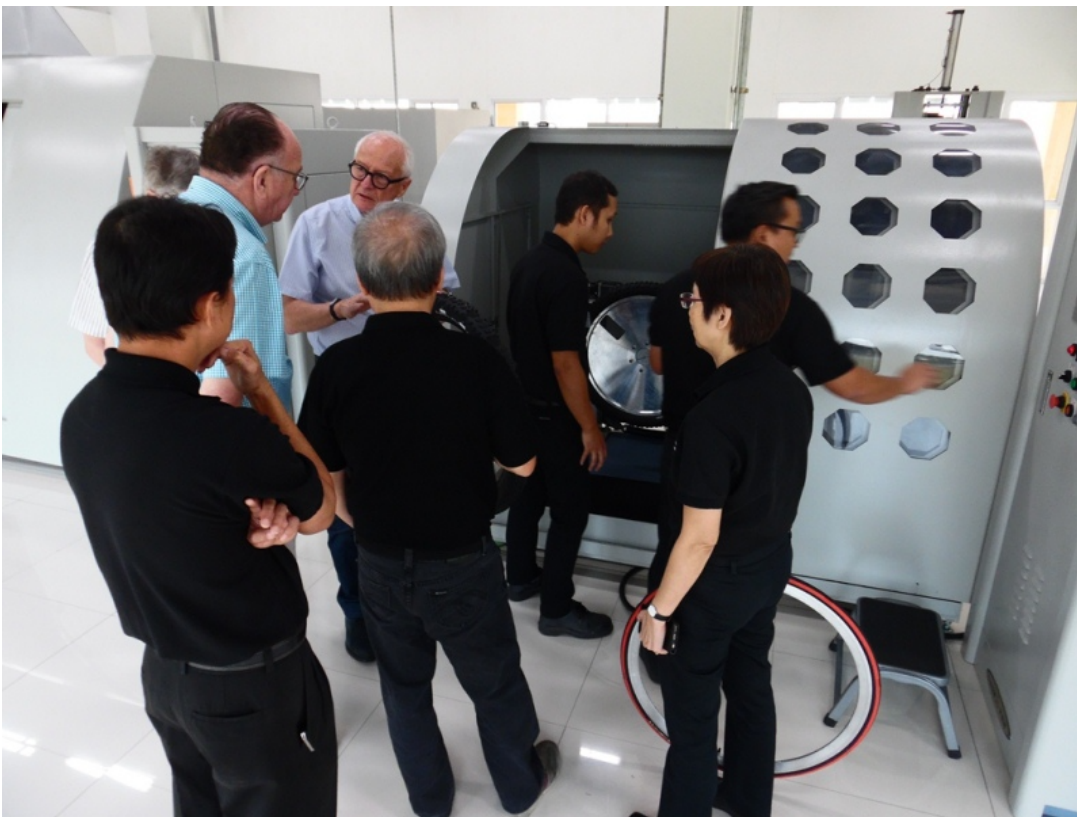


Image: Compound separation test in action



## **The Specific Benefits for MTB Tires**

The usage of the 4C technology (4 compounds) has truly been a huge leap forward in MTB tire development, especially in combination with Graphene. 4C allows Vittoria to combine purpose-developed compounds for very specific and precise functional areas in the tires. The new test facilities include multiple compounds-tread separation testing, both in the knobs and in between. This ensures that the multiple compounds are perfectly bonded together in all usage scenarios. The supplementing wear resistance tests offer another dimension of durability insights, which proves the great quality of Vittoria's Off-road range and will allow for further improvements in the future.

Sidewall durability is particularly critical for the TNT tubeless option of MTB tires and tests help to optimize the performance to perfection. Another unique setup tests the brake performance in winter circumstances, allowing to test at variable speed and temperatures from -10 to over +60 degrees. Whether it's at the highest level of competition or fun in the mountains with friends, Vittoria's MTB tires are extensively proven as the most reliable high-tech companion.

## **The Benefits for Wheels**

The application of Graphene makes Vittoria wheels uniquely strong and their performance exceeds the average performance parameters. With the new unique test equipment, Vittoria will gain significant further insights. Torque testing for the hub and the wheel explores all kinds of forces and tensions; the results help to further improve the wheel performance and durability as well as the rider safety across a wide range of circumstances.

As mentioned, the burst pressure test helps to test and optimize Vittoria's Perfect Match. Both high pressure and low pressure testing options are available, so test results can drive the future development of this important safety feature. Vittoria wheels are also exposed to the various climate tests (temperature etc.), enabling optimization for worldwide user scenarios.





Image: Ozone test demonstration

## About Vittoria:

Vittoria Industries Ltd. is an international group that acquired the famous premium cotton tubular tires producer Vittoria SpA in 1990. Vittoria has built highly reputable partnerships within in the cycling industry and created a distinct brand image. Today, Vittoria Industries is one of the world's leading manufacturers of bicycle tires with an annual production of approximately 7 million tires and 900,000 high performance tubulars and cotton tires. Its research & development center develops the best racing tires at all levels. Vittoria also entered the premium wheels' market in 2014. Vittoria's worldwide commercial operations are shared among three distinct regions: Vittoria SpA is responsible for Europe, Middle East, Africa and Latin America (EMEA & LATAM). Vittoria Industries North America, Inc., is responsible for North America. Vittoria Asia Pacific is responsible for Asia-Pacific region. The group holding company, Vittoria Industries Ltd, carries out manufacturing and R&D at its Lion Tyres Thailand Ltd factory in Bangkok.