#### Who we are

Apollo Tyres is a tyre manufacturer with Indian roots. It is an ambitious and growing company, with factories in India and Europe (Netherlands and Hungary) and sales offices all over the world. In our Global R&D Center in Enschede around 130 employees work on the development of new passenger car tyres and agricultural tyres for the brands Apollo and Vredestein. Furthermore, we have a subsidiary office in Frankfurt with around 25 employees.

Apollo Tyre Global R&D's Product Line Management (PLM) team is part of Product Development and is responsible for the development of new tyre sizes, product improvement programs and for change management in released products for European and American markets (if you look to the cars parked on the streets around you and if those cars have tyres branded as Apollo or Vredestein then most probably they have been brought to the market by your future colleagues working at the PLM department).

## **Problem description**

- The fuel economy of cars and car components, such as tyres, is becoming more and more important.
- The rolling resistance a measure for the energy dissipation during normal usage is typically measured indoors using a rotating drum, but this can be estimated using analytical and numerical tools, as well.
- Improving the predictions of the Rolling Resistance test will have a positive effect on the tyre development process

## Objective

• Apply Advanced Data Analytics to increase the accuracy of the Rolling Resistance predictions

### Assignment Proposal

- Data collection, cleaning, and preparation
- Apply different Artificial Intelligence algorithms to correlate input parameters with the Rolling Resistance
- Sensitivity analysis of the input parameters
- Documentation and sharing of the internship results.

### Your profile:

- You are an enrolled Bachelor or Master of Engineering discipline
- You are available for 5-6 months.
- You have a background in Data Analytics.
- Prior experience with Python is a plus.

### What we offer

- Dynamic & innovative work environment
- Flat hierarchy
- Inspiring colleagues from all over the world
- Internship allowance up to EUR 400

### Start date: To be decided.





# **ULTRAC VORTI**



- 1. Inner liner
- 2. Rim cushion
- 3. Sidewall
- 4. Carcass layers
- 5. Bead
- 6. Apex
- 7. Belt layers
- 8. Gumedge
- 9. Nylon overhead / Cap ply
- 10. Tread
- 11. Undertread



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- 2. Rim cushion
- 3. Sidewall
- 4. Carcass layers
- 5. Bead
- 6. Apex
- 7. Belt layers
- 8. Nylon overhead / Cap ply
- 9. Tread
- 10. Undertread
- 11. Wingtip