**World-class research starting block**

IN 1984 the first biomechanical analysis of a sprinter's start made national and international headlines. Some 31 years on, history is about to be repeated with research captured via the world's first double force plate research starting block at the same university in Port Elizabeth.

Back then Evette de Klerk was the star athlete who showcased the benefits of such high-tech analysis. Today, the reaction times, gait, V02 readings, balance, ground forces, auditory and visual awareness, economy of movement and the like of South African sprinters Akani Simbine and Roscoe Engel will come under the spotlight, thanks to new state-of-the-art equipment at Nelson Mandela Metropolitan University's new High Performance Complex.

Dr Ettienne du Toit was behind the ground-breaking research as a master’s student in the mid-1980s and he’s a leading figure again in ensuring the world’s first Kistler multicomponent piezoelectric double force plate research starting block is given the news coverage it deserves. Or better still, is able to provide the insights needed to help the country’s sprinting talent reach their full potential.

“Talent is one thing, but technique is what can make the difference,” says the man, who has returned to his alma mater to see the university again take its place as a world-leader in sprint analysis and become a destination of choice for top sprinters.

The Swiss-manufactured research starting block is unique because – for the first time – the ground reaction forces of each leg can be analysed independently and collectively. The starting block and subsequent force plates embedded in the indoor track along with high speed cinematography allows us to focus on sprinting performance.

“In sport, millimetres and milliseconds can be the difference between winning or losing or a new world record.”

Dr Du Toit was happy to leave his Cradock farm to join his former colleagues, including head of the School of Lifestyle Sciences Prof Rosa du Randt, to realise a long-held dream of establishing a High Performance Complex to support sportsmen and women.

Although the likes of Simbine, Engel and Eastern Cape star Anaso Jobodwana will benefit as sprinters, the world-class equipment within Africa’s only indoor sprint research track will add value to a far larger community. The High Performance Complex offers support for most sporting activities and for patients needing rehabilitation support.

“Whether you’re a golfer who wants to improve your swing, an accident victim who needs a rehabilitation programme or an older person who is struggling with their balance, the facilities, equipment and expertise of the sport scientist will help you to improve your game or your standard of living.

“This is a world-class facility.”

Back in the pre-digital age, such analysis was painstakingly slow. Today, the software makes analysis almost as fast as the sprinters out of the blocks.

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