**The finish line is in sight**

2015 is going to be a special year for Human Movement Science (HMS) at Nelson Mandela Metropolitan University (NMMU) – when many long-held dreams are realised.

Co-incidentally, NMMU is in celebratory mood itself as it marks its first successful decade as a new generation university.

The department’s new R34-m building will be officially opened; its high performance complex formally recognised and a world-first piece of research equipment to benefit top athletics will be unveiled. And then, but only then, will the department’s head, Prof Rosa du Randt, finally wear the smile of a satisfied distance athlete.

It’s been a long road for Prof du Randt starting in the 1980s as she was ending her own successful career as a top South African javelin athlete and had completed her PhD on perceptual-motor control and development.

“The Eastern Cape desperately needed facilities to promote high performance. The province had several top sprinters in the 1990s but we were unable to provide them with a service,” recalls Prof du Randt from her office in the swanky new building on the university’s South Campus.

And so began her quest to provide athletes with top-flight services and facilities. Though her focus remained with sprinters, she recognised that the need was for all top sportsmen, regardless of discipline.

No longer should researchers have to use antiquated equipment or battle against the elements as she had done. Her end point was clear: a centre to meet these needs.

Along the way, however, other dreams were realised – the department introduced biokinetics as a discipline as one of the first to do so; it established itself as a leading destination for biomechanics teaching, learning and research and it has made extensive inroads in promoting health and welfare in the community.

During this journey the department also moved house from its initial spot alongside the Indoor Sports Centre in the 1980s to facilities next to the Education Faculty on South Campus before finally finding its ideal location.

Today, the new double-storey HMS centre, with two gymnasium, laboraties, lecture halls, biokinetics consultation rooms, a dietetics wing and specialist research facility is situated alongside 12 tennis courts, three football fields, three cricket fields, two netball courts, a grass athletics track, a multi-purposed 10 000-seater stadium for rugby and football, and an Olympic standard athletics track. There’s also an indoor sports centre which hosts basketball and volleyball courts with seating for 4500 spectators and a recently-expanded fitness and aquatic centre, which houses gyms, two heated pools and six squash courts.

A new hockey astroturf, scheduled for completion at the end of 2015, will be located just 150m from the new centre.

But that’s the success story of today.

Back in the 1990s Prof du Randt managed to secure R3.5m from the National Lotto for the institution’s proposed research sprint track – just an 80-m four-lane track next to their building. But calculations made her dream impossible. There simply wasn’t enough land to accommodate athletes careering down a track at high speed. As good fortune would have it, the Education Faculty had outgrown its premises and desperately needed more space too.

The solution materialised in a new state-of-the-art building for HMS, one of several new iconic edifices to grace NMMU’s six campuses as part of the university’s award-winning Urban Design Framework.

And Rosa’s dream of an enclosed research sprint track followed, thanks in part to the Lotto funding.

Her marathon effort didn’t stop there however as she championed for NMMU as the natural hosts of the province’s high performance centre, as well securing equipment needed for biomechanical and other research in the new 80-metre four-lane track.

Funding for the lighting, 10 high-speed cameras, two video cameras and force plates needed for measurement and analysis was systematically and partially raised through fees from the centre’s biokinetics gym.

One of the greatest rewards came when long-time partners with NMMU, Kistler offered the centre the opportunity to become the first in Africa to use the world’s first piezoelectric double force plate research starting block. This sophistic starting block equipped with piezoelectric multicomponent force sensors is capable of measuring the forces produced by each leg separately during the sprint start. Up till now, sports science researchers have only been able to conduct biomechanical analyses on the combined forces produced by the legs – never individually at the same time.

“It’s been a marathon to get where we are today but the finish line is in sight.”