



## FOOTWEAR TECHNOLOGY: FOOTBALL BOOTS

July 2014's World Cup in Brazil will be a lucrative opportunity for all sports brands, and Nike and adidas have thrown down the gauntlet with their latest football boots.

# The battle for the beautiful game

**E**very sportswear company in the world is firmly focused on South America, whether the Olympics starting in December 2016 or the soccer World Cup in June 2014 – Brazil will be lucrative business. Research and development has already cranked up several notches, with the promise of innovations in every category that will drive revenues through their purchase or boost the companies by creating column inches and brand visibility.

Nike and adidas launched their latest football boots within two weeks – not unlike the unveiling of their knitted running shoes, the Flyknit and Primeknit, last summer. The pair dominate the market for soccer kit – replica shirts, balls and boots are estimated to be worth about €5 billion annually.

"It is a battle between us and Nike, not only in Brazil but the whole football world," Adidas CEO Herbert Hainer said recently.

For Nike's Hypervenom, the team incorporated feedback from professional footballers including Brazilian Neymar, England's Wayne Rooney and Sweden's Zlatan Ibrahimovic, who had asked that the boot feel as close to barefoot as possible. This was so critical that teams in five countries worked simultaneously on the boot, according to Nike brand president Mark Parker. It has been adapted to take into account that the game is getting faster. The design team, led by design director Denis Dekovic, began by looking at the attacking forces.

"The game is changing. It used to be that speed was the focus of the attacking side of the game, but now everybody has pace," says Mr Dekovic. "Players want to be quicker, not just in a foot race, but quicker with the ball at their feet in small spaces. They want to create chances from nothing. These faster, more agile defenders need to be combatted."

"Traditionally a new boot will focus on an evolution of the fit, the upper material or the sole plate and stud configuration, but the

Hypervenom features new solutions for all of these areas," adds Phil McCarthy, vice-president of Nike Footwear. "When we talk to players, what we hear consistently is a need to deliver great fit, touch and traction."

The upper is created using the new 'Nikeskin' system, which features a supple mesh bound with a thin polyurethane film. It is finished with Nike All Conditions Control – a coating that is engineered into the upper during the production process which Nike says gives the boot the same level of control in both wet and dry conditions. "When the boot is wet, friction is reduced by about 50%, with the ACC technology this loss in grip is negated," it says.

The Hypervenom was also built around a new foot last – described by Nike as its most anatomical to date and one which places the foot closer to the ground. A Nike spokesperson comments: "With the design of the last we started from scratch, testing hundreds of athletes through a combination of step in trials and foot scans. The new last is anatomical, giving the right volume in the right places and with the Nikeskin technology, which has adaptive stretch, the Hypervenom provides a sock-like fit."

On the subject of whether the last would be used for other designs, she adds: "The Nike Premier is built on the same last but because of the use of natural leather in the upper it provides a completely different fit to the Hypervenom."

The team worked with podiatrists to create a decoupled outsole that increases the players' ability to make the first step away from the defender by adding a groove in the forefoot that reportedly helps to activate the first metatarsal, the bone that defines reaction time of the foot's first movement. The chassis of the outsole features compressed nylon which delivers strength while remaining light. The stud configuration and length is designed to allow for faster penetration of the surface.

"A clean strike is important for the attacking players because it enables them to have a clean surface that adapts to different positions,

*"Help me make space more often and more quickly," Brazilian striker Neymar said to Nike's designers.*

 Celso Pupo/Shutterstock





*The Nitrocharge is compatible with the adidas miCoach SPEED\_CELL- a digital training tool that monitors speed, distance and time.*

 adidas

moments, different opportunities; we solved that by moving the eye stay up on the side and keeping a consistent surface all over the boot," adds Mr Dekovic.

### Boosting energy

Adidas's offering, the Nitrocharge, has been "designed to become the next iconic football boot of our industry", according to Mr Hainer. It has been designed with the "engine" player in mind – "first on the team sheet; always running, tackling and powering his team". The German company worked on the concept for two years and collaborated with football statisticians Opta, which developed an algorithm to determine which suits 'the engine' role.

The boot features a protection mesh layer around the foot and protection pads around the most sensitive tackle zones such as the Achilles tendon. Michael Meinhold, Nitrocharge product manager, says of its new features, "The Energysling is a technology that supports and secures the foot when the player makes sharp turning movements such as sidecuts. This essentially helps to prevent the loss of energy normally experienced when making these movements."

The Energypulse, a feature on the sole plate, "is inspired by the geometry of a spring and helps the player by providing maximum energy in the toe-off phase when accelerating. This is one of a number of features on the boot which also provides protection to the foot as well as a soft touch to the ball," he adds.

Players signed up to wear the Nitrocharge include Spain's Javi Martinez and Xabi Alonso, Brazil's Dani Alves and Italy's Daniele De Rossi. "As with all technology it is not just about what we can do to improve technique," an adidas spokesman told us. "Adidas realises the competitive edge on the field can make the difference, getting there one second earlier or having that split second of extra pace really does make the difference."

### Group stages

Mr Hainer forecast his football division would earn a record €2 billion in 2014 due to the World Cup effect. Last year the unit posted earnings of €1.7 billion. As the official sponsor, adidas will supply the match balls, referees' kit and clothing for volunteers at venues. "In the second half of the year we will start to build up our football business when we introduce our new jerseys, official match ball, new football boots, etc," he says.

The new jerseys are expected in November – even the new ball has been described as a "completely new concept" – with other the kit being worn by World Cup holders Spain as well as Germany and Argentina, which will add to brand penetration. "We have new boots set to land in the build-up to the World Cup across spring 2014 that will truly demonstrate that we are at the cutting edge of football," adds the spokesman.

On the opposing side, Nike sponsors Brazil, five-times world champions, and has recently agreed contracts with France and England. Mr Denson counters: "The real story isn't what we did in FY'13. It's what's coming for World Cup. It's absolutely incredible and that's all I am going to say for now." 

*The Hypervenom has been built on Nike's "most anatomical last to date".*

 Nike

