



Product development from concept

to customer



1 Introduction

Nike's 'swoosh' is one of the world's most identifiable logos and, in just 32 years, Nike has grown to be the industry's largest sports and fitness company. Revenue for Nike in financial year 2005 was \$US 13.7 billion.

Nike directly employs approximately 24,300 people and Nike's suppliers, shippers, retailers and service providers employ close to one million people on six continents.

Nike's mission is
'To bring inspiration and innovation
to every athlete in the world.'
According to Bill Bowerman,
one of Nike's founders,
"If you have a body,
you are an athlete."



In addition, Nike's corporate responsibility mission is to help the company achieve profitable and sustainable growth and to protect and enhance the brand and company.

Nike believes that corporate responsibility work should not be separate from the business, but should instead be fully integrated into it.

The company's sustainable growth suggests that Nike will be around for generations to come. The principles of sustainability also require Nike to find ways of generating profit while minimising any potentially negative impact on communities or nature.

Nike's mission statement is intentionally broad and outward looking, focussing on the needs of athletes, and, through its corporate responsibility work, consideration is given to the needs of communities around the world.

Nike's focus is to continually seek to innovate, design and develop products to improve athletic performance. Its overriding desire is to design products with true performance innovation and technology benefits which help the athlete perform better. With its latest innovation, Nike scientists and designers have developed Nike Free, a sports shoe described as a foot-strengthening training tool. Tagged 'natural technology', Nike Free has been designed to copy barefoot running. By running barefoot, the foot is strengthened, gaining greater flexibility and range of motion which leads to better performance because you are less prone to injuries.

2 Anticipating the needs of consumers

Innovation is what sets Nike apart in the industry. It started in 1971 when Bill Bowerman, then a University of Oregon track coach, poured rubber into his wife's waffle iron hoping to create a new and better sole for running shoes for his track athletes. The result – a light waffle sole that transformed the running world. When thinking about what consumers might need in their footwear, the next innovation came in the form of Nike Air, a durable and lightweight cushioning system for athletic shoes. Nike had anticipated the need for a shoe which had a cushioning system which lasted longer than foam, reduced shock and distributed pressure.



3 Research and development

How does Nike develop its products and decide what does and doesn't make the cut when it comes to innovation? The Nike Sports Research Laboratory (NSRL) is located on the Nike campus in Portland, Oregon in the United States of America. The research and development (R&D) centre's role is to identify the physiological needs of athletes. The NSRL works directly with Nike's design teams and has established partnerships with major universities throughout Asia, Europe and North America.

To research and develop products, the scientists have an incredible array of measurement and analysis tools. Their data collection includes virtually every variety of muscle sensor, pressure platform, breath analyser, foot scanner and thermal imaging device. There are high-speed video cameras that capture soccer kick data at 1,000 frames per second and a scanner that produces, in just seconds, a perfect 3D digital image of your foot.

But it does not stop there! There are testing surfaces, such as a huge section of regulation basketball hardwood, artificial soccer turf, a 70-meter sprinters' track runway and endless field testing that takes place outdoors in various terrains.

The NSRL takes an idea, and researches and prepares a design brief. The brief is then passed over to the company's Innovation Kitchen – an incubator for new projects.

In the first phase of developing what was to become Nike Free, the 'cooks' in the Kitchen took the NSRL description of 'natural technology' and started asking what sort of shoe people might be looking for next. In the process of talking to athletes and coaches, the designers spoke to Vin Lananna, then the track coach at Stanford University, who told them about his unusual training method – having athletes run on grass without shoes. According to Lananna, the athletes were stronger, healthier and less injury-prone. This was a great idea but contrary to Nike's business – making and selling sports shoes.

However, the idea led to an extensive biomechanical research project to see exactly what happens when we run barefoot. Sports shoes provide a certain amount of control or cushioning based on the notion that they are needed to complement the natural action of the foot. Nike researchers wanted to know why Lananna's athletes, who ran barefoot in training, raced faster.

The researchers brought in 10 men and 10 women to run barefoot on grass to see exactly how the body reacts without shoes on. They were videotaped with high-speed cameras to capture their movements; they had reflective markers attached to their joints to allow easy calculation of joint angles during their stride, and wafer-thin pressure sensors attached to the bottoms of their feet to measure their impact with the ground.



Soccerro, Marco Bresciano, training in Nike Free 5.0

At the end of the experiment, Nike had the most comprehensive picture of the biomechanics of barefoot running ever developed.

The challenge was to translate that barefoot experience, which promotes good biomechanics for runners, into a shoe.

Researchers developed prototypes, using any materials which could closely copy the barefoot. Next came the challenge to build the shoe. A shoe is built on a model of the foot, called a last, allowing the upper and outsole to be built around it. Researchers had to develop a brand new version of the last in order to copy the way a bare foot operates. This resulted in the shoe's upper being designed in a mesh that has small holes in it, allowing the foot to be encased but feel free. There is no heel counter; instead the heel fits snugly in the shoe as the inner sole allows the foot to sit naturally in a neutral position. The key is the outsole which can move and flex independently with each section being sliced so that the foot is allowed to move as naturally as possible in the shoe.

The shoes are meant to be used in tandem with other training and racing shoes. The goal is to use Nike Free to help strengthen the feet in addition to using more traditional, supportive running and training shoes.

Testing the prototypes

Independent testing

Before Nike Free was known to the athletic world or commercially released, Nike undertook extensive independent testing. The company used elite athletes as well as everyday runners and a few sports journalists, i.e. people who exercise and run regularly, to undertake product testing.

In a six-month trial, 110 every-day runners used the shoe. One group, consisting of 30 men and 27 women, wore the Nike Free shoes for four 30-minute runs, four times a week. The control group – 30 men and 23 women – used their regular personal training shoes. Outside the four 30-minute runs a week, both groups continued their usual workout schedules. All participants were tested at the start of the six-month period on their abilities in a number of physical areas – shuttle runs, lateral running short sprints, and leg strength – and were tested again at the end of the six months. These tests measured qualities such as speed, development, coordination and optimal speed.

Researchers found some slight improvement in the control group, registering a little more speed and a little more coordination – but not enough to be statistically relevant. However, the test results from the group wearing the Nike Free shoes showed improvement in all the parameters measured, and improvements in speed, lateral movement, and coordination were significant – in the 10 to 20 percent range. That is a significant improvement considering the shoes were worn only two hours a week over a six-month period. An improvement of one percent in speed could mean a metre's difference in a 100-metre sprint – often the difference between first and fourth place.



In simple terms, Nike Free was acting not only as a running shoe, but as a training technique! Athletes in the test group using Nike Free were found to be stronger and more flexible. One of the researchers put it this way: “Nike Free is a gym for your feet.”

Source: Review of Nike Technology by Larry Eder Summer 2004 ATF Resource Guide, Vol. 11.

Nike’s challenge:
“Nike had developed a product that measurably improved athletic performance but flew in the face of all conventional thinking.”

4 Ensuring correct product positioning

Nike was conscious that Nike Free needed to be positioned as an additional training shoe in your kit bag, not necessarily as a replacement to your traditional running shoes. Unlike typical athletic shoes, Nike Free shoes allows the foot to move, flex and grip just as it would if running barefoot. The advertising and marketing campaigns were carefully crafted to ensure that consumers recognised Nike Free as a training shoe which could help build additional strength and therefore the ability to train longer – not as a replacement to its other sports shoes. This product **positioning** was a balancing act, requiring careful communication and application.

Education was the key to positioning the shoe in the market. Nike Free was launched under limited and very tight distribution in the lead up to the major advertising campaign. The shoe was distributed initially only through running speciality stores before being broadened to general sporting goods stores. Nike Free was also placed with key people such as running coaches, podiatrists and physiotherapists with the aim of introducing Nike Free as a new product and training concept before taking it to the broader market.

Part of the **strategy** was to take this ‘barefoot’ shoe directly to runners. To do this, Nike used the tried and true, labour intensive method of driving mobile vans to areas in the USA, Europe, as well as Australia, which attracted large amounts of runners. (In the early days of the



Marco Bresciano (Socceroo) warming up for his training session wearing his Nike Free 5.0

5 Reaching the consumer

Using television and cinema

Advertising is synonymous with Nike. In partnership with its advertising agency, Nike has created some of the world’s most attention-grabbing advertising.

The Nike Free advertising campaign was derived from a truth about the product. As the only shoe on the market that works with the natural motion of your foot to make it stronger, it gives people the ability to become stronger, better athletes than they have ever been before. The campaign, *Reincarnate*, was about athletes ‘leaving their old selves behind’ and discovering their potential. The tennis player Maria Sharapova, the footballer Cristiano Ronaldo and Wimbledon champion Roger Federer were among the athletes used in a TV commercial to advertise Nike Free, called *Power to your feet*.

The advertisement which ran in Australia was different from Nike’s ‘blockbuster’ ads; there were no spectacular crowd scenes or camera tricks. The scripts took months to write and the advertisement was heavily dependent upon dialogue. The advertisement featured Arsenal’s Thierry Henry. He is shown wrestling with his own inner demons and even doubting himself. His new, ‘reincarnated’ self wins the battle in order for him to go on to be a better athlete and he leaves his ‘old self’ in the past.

Nike Australia reintroduced the *Reincarnation* campaign via local Socceroo star, Marco Bresciano, and track athlete Craig Mottram. They brought to life how they were ‘leaving their old selves behind’ and reincarnating into different and better athletes. Advertising mediums included outdoor (billboards, sides of trams and buses), a DVD

documentary on Craig Mottram attached to the front cover of *Alpha* magazine and print advertising.

Websites

Nike does not rely solely on television, cinema and outdoor advertising. Nike understands that its consumers seek information online and as such it targets different online audiences around the world. The Internet has become an essential component in Nike’s marketing campaign.

Nike produces a range of products which are unique to a particular sport or athletic endeavour. Nike’s marketing takes into account the different needs of athletes and consumers and uses its website to communicate with these groups via in depth content, product information and athlete insights.

The Nike Free website is used to explain how the shoe was developed and the benefits of the training shoe. This interactive micro-site has three sections:

- Leave your old self behind
- Go barefoot running in a shoe
- Reincarnate in this life.

The site is lively and colourful, featuring information on the development of Nike Free, the models and technical specifications. The site challenges visitors to learn, providing them with the tools and information to decide and act for themselves. Offered in a range of languages, the site utilises a number of sportsmen and women to showcase how each person left their old self behind and worked to change themselves into a better and stronger athlete. Examples include Lance Armstrong, world-renowned cyclist who fought to return to the peak of his sport after his battle with cancer.



It is vital that Nike communicates to consumers how essential the input of its elite athletes is during product development. Nike relies on their expertise and feedback to develop the best product for athletes and, hence, the best product for consumers. These high profile coaches and athletes are then used in Nike’s advertising and communications campaign because they are known by the consumer and they can help tell the product story.

Staff product awareness

Having a new and innovative product is one thing, but a company must ensure staff working in sports stores understand the product, its benefits and how it should be used. To do this, Nike created a flash-animated multimedia learning environment. Called *Nike Sports Knowledge Underground* (Nike SKU), it mirrors a subway rail system with each ‘stop’ representing a training activity where new shoes such as Nike Free are displayed.

Participants are taken on a three-minute course explaining design, benefits, features and top selling points of the shoe. At the end, they take a brief quiz to ensure they know about the product and can immediately use the information in customer dealings on the shop floor. A technical specification sheet can be printed to help with customer queries. Appreciating that many

sales people are young, Nike’s SKU is like a video game, with information packaged in short sound bites.

6 Conclusion

Nike aims to bring inspiration and innovation to every athlete in the world – and it considers everybody to be an athlete! As a high profile, industry-leading sports company, Nike continually strives to keep itself at the forefront of product innovation and design. Through extensive research and development, the Nike Free shoe was created in response to the recognition that barefoot running can strengthen athletes’ feet and legs naturally.

Nike Free was developed after extensive research and product testing. With a strategic promotion campaign, Nike hopes to deliver the message that Nike Free is not designed to replace athletic performance footwear but to be an important part of training, thus improving performance.

GLOSSARY

Control group In a test or trial, the group that does not receive the new product or process being studied and which is compared to the group that does receive the product or process.

Corporate responsibility The obligations or responsibility an organisation has to a specified group such as the local community, employees and the like and/or to a wider cause or issue such as the environment. Often referred to as corporate citizenship.

Design brief A written explanation given to a designer, outlining the aims, objectives and milestones of a design project. A thorough and articulate design brief is a critical part of the design process. It helps to develop trust and understanding between the client and the designer and serves as an essential point of reference for both parties.

Innovation A new and creative idea, product or service. The process of converting knowledge and ideas into better ways of doing business or into new or improved products and services that are valued by the community. The innovation process incorporates research and development, commercialisation and technology diffusion.

Mission statement The statement of an organisation’s current and future business goals.

Positioning A strategic statement of what differentiates a product or brand competitively in the market and in the mind of a target consumer.

Profit The excess of income earned by a business over its expenses.

Prototype A working model developed in the design stage of a product – used as test prior to developing the final product.

Research and development (R&D) Future-oriented, longer term activities that result in technological advances based around three stages: research, invention and innovation.

Strategy The major forward plan by which an organisation sets out to achieve its objectives.

Sustainable growth Development that does not exhaust in the short term those resources that will enable the development to continue in the long term.

Questions & Extension Activities for Nike are on www.afrbiz.com.au & www.bizcs.co.nz

You will also find links to the Nike website