

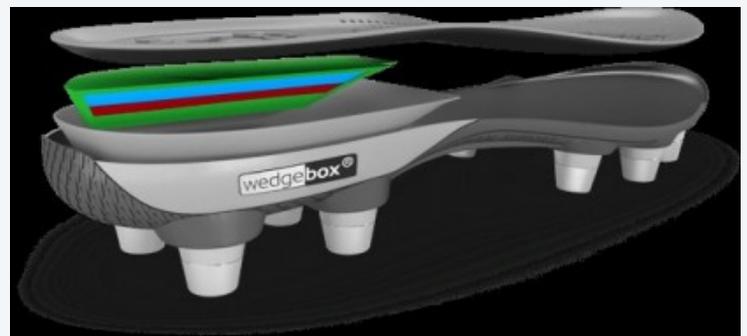
Through the STAR Carnot Institute, science meets amateur and pro football players

With the support of The Carnot Institute of Sport Science a passionate entrepreneur gives players a fair advantage with its newly launched customisable and high-performance shoe while keeping them safe from injury.

Supporting Innovation

Shoes with a customisable design aimed at improving specific sporting activities are current trend. The technique often involves moulding a sole as a carbon copy of the player's own footprint for better postural balance and ideal comfort. The Wizwedge shoe concept offers an innovative technology mixing ergonomics with customisable options, where a partly removable Wedge, a component of the outer sole, a so-called technological space, adapts to each individual.

The instant hit with professional male and female football players laid out a concrete basis for the brand to open its first online store. Amateur football players can now benefit from biomechanical features for cushion, medium or dynamic exercises.



The client needs

Wizwedge has stemmed from the talent and interest of Jean-Luc Guer, an experienced football player. As far as he is concerned, the shoe is one of the major elements holding the key to the player's footballing skills. Turned podiatrist, Jean-Luc Guer keeps contact with top athletes, while trying to develop and upgrade such outdated gear. He regularly tests and strives to improve his concept that would result in a shoe featuring the WedgeBox®, holding the removable Wedge. Once clarified, Jean-Luc Guer had to determine the ideal shape of the sole for perfect posture, improved balance and stability, to prevent injuries, at the same time, enable better performance. Located in Marseilles, the SME can make use of the Laboratory of Applied Biomechanics' resources for his incisive analysis. Such co-operation has been awarded the First Prize for Sport & Health Innovation 2016.

Le partenariat

The STAR Carnot Institute places 8 Research units in the same organisational grouping revolving around sport, health and wellness. Among these, the Laboratory of Applied Biomechanics (LAB) provides researchers with a cross-cutting and multidisciplinary approach between Engineering Science and Medicine. Beside the usual aspects of the human body, the LAB investigates prevention and rehabilitation of traumatic injuries. It made therefore absolute sense for the LAB teams to get involved by endorsing the Wizwedge concept. All relevant platforms were made available to the SME to conduct studies, i.e. bone vibration frequencies during typical exercise regimens, human motion captures and numerical simulations. The LAB has carried out static and dynamic postural behaviors of all types of football players. Through his business expertise, the LAB has managed to determine the characteristics of one of the biomechanical elements able to respond to the various types of practices. The OEM (Original Equipment Manufacturer), for its part, can build upon such positive results by expanding innovative products from a fairly restricted distribution network into more appropriately priced lines fully accessible to amateurs.