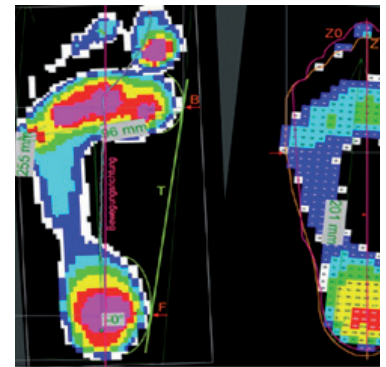


## Smart Shoes

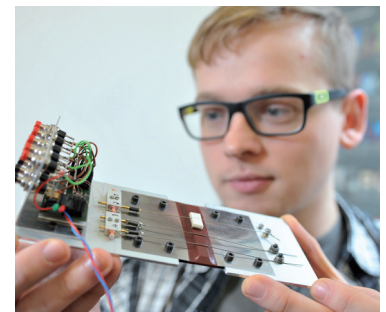
Research on possible mechanisms according to requirements of shoe comfort and physiological effects.

Damping and stiffness of shoes influence comfort on the one hand and efficiency of movement on the other hand. Shoes with remote control of damping and stiffness will be developed to widen the suitable range of application - e.g. from a comfortable standing to a fast walking situation.

MEMS sensors and miniaturized actuators are required due to limited space. Wireless charging and Bluetooth LE will allow to achieve a robust waterproof package as it is needed for wearables within the harsh shoe environment.



Measurement of plantar pressure distribution (ISC)



Functional testing of micro actuators to adjust damping

**Project duration:**

12/2014 – 11/2017

**Project management:**

Prof. Dr. Antoni Picard  
Hochschule Kaiserslautern  
Amerikastraße 1  
66482 Zweibrücken  
Germany

phone: +49 (0)631/3724-5414

fax: +49 (0)631/3724-5305

e-mail: antoni.picard@hs-kl.de

**Project partners:**

International Shoe Competence Center  
gGmbH;  
Prüf- und Forschungsinstitut Pirmasens e.V.

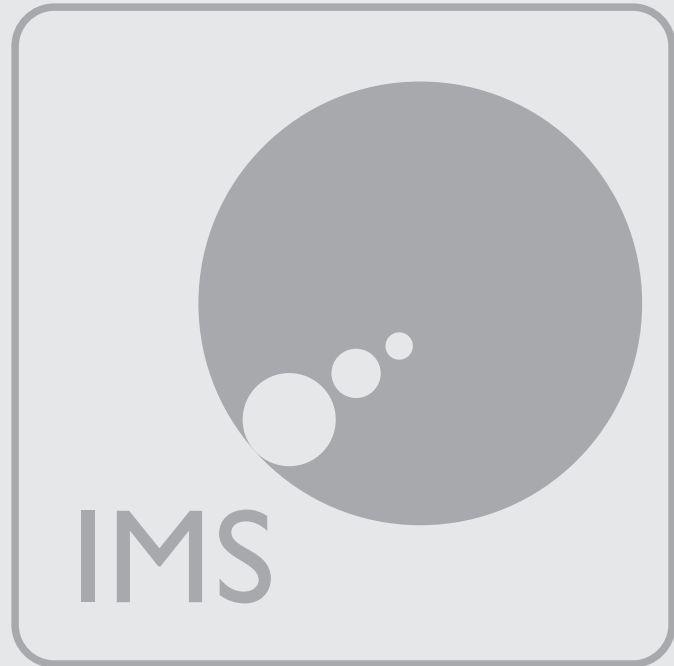
**Funding:**

Industrielle Gemeinschaftsforschung  
IGF-Vorhaben 18466 N der Forschungs-  
vereinigung Prüf- und Forschungsinstitut  
Pirmasens e.V. gefördert durch das  
Bundesminis- terium für Wirtschaft und  
Energie

Gefördert durch:



aufgrund eines Beschlusses  
des Deutschen Bundestages



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