

Gefördert durch:



aufgrund eines Beschlusses  
des Deutschen Bundestages



# S<sup>2</sup>TecKEr

## Safety of footwear with electronic components within the scope of the Electronic Equipment Act (ElektroG)

### Project Information:

AIF Project

Duration: 01.03.22 -31.08.24

Partner: HSKL, Fachbereich Informatik und Mikrosystemtechnik

### Motivation:

The ElektroG Act places high demands and obligations on SMEs and makes "market entry" more difficult

### Goals:

- Reversible integration of electronics in shoes
- Safeguarding of the wearer's safety and functional reliability (standardization)
- Active implementation of the ElektroG through modular approaches with subsequent recyclability

## Project description:

The aim of the project is to develop, manufacture and test new innovative concepts for the reversible integration of electronics in shoes. A modular approach is to be used to provide SMEs with a means of integrating electronics into shoes in compliance with the Electrical and Electronic Equipment Act (ElektroG) and implementing them efficiently, thus efficiently linking the electronics and shoe manufacturing industries. It will be simplified for shoe manufacturers (mainly SMEs) to add electronics to the shoe in the form of an additive component without necessarily having to deal with the hurdles and risks that the ElektroG poses to SMEs. This could represent a massive facilitation of the trade of "wearables" in the European area and lead to a product improvement and a competitive advantage for German manufacturers (SMEs). The "wearables products" manufactured in the project will be subjected to tests regarding their safety and functional reliability for the wearer and will be investigated and researched regarding a corresponding standardization in the area of integration methods and safety. Utilizing the research findings, design guidelines will be formulated to establish criteria for developing electronics that can be seamlessly integrated and modularized, while possessing the required attributes. These will make it possible to improve the product of a "wearable" in terms of safety and to adapt it to individual requirements. The adaptation of products to individual customer requirements and wearables products are currently addressing a growing market. The modular approach also aims to improve the recyclability of individual electronic components and thus fulfill sustainability aspects for valuable raw materials.

If you are interested in the project and would like to be invited to the Project Monitoring Committee meetings, please contact:

### Sebastian Schlüter

ISC Schulung und Forschung | Training and Research  
Prüf- und Forschungsinstitut Pirmasens e.V.

Marie-Curie-Str. 19, 66953 Pirmasens | Germany

Tel.: +49 6331 2490 973

Fax: +49 6331 2490 995

E-Mail: [sebastian.schlueter@isc-germany.com](mailto:sebastian.schlueter@isc-germany.com)

Gefördert durch:



Bundesministerium  
für Wirtschaft  
und Klimaschutz

aufgrund eines Beschlusses  
des Deutschen Bundestages



Forschungsnetzwerk  
Mittelstand