

VDE and consortium partners develop methods for the identification of counterfeit products

- **Mark products fraud resistant and cross-industry – with globally applicable standardization**
- **Check identity via smartphone**
- **Data sovereignty remains with the manufacturer**
- **BMWK selects VDE, AIM, University of Würzburg, Mannheim University of Applied Sciences, KOBIL and PAV Card for the implementation of the SPOQ project (“Standardisierte sichere Produktverifizierung zum Schutz von Originalität und Qualität”)**

(Frankfurt a. M., 24.01.2023) The German economy suffers over 50 billion euros in damage from product and brand piracy each year. 97 percent of the counterfeits recorded were classified by the EU market surveillance authorities as goods posing serious risks. Production and logistics companies are powerless against plagiarism: Globally, there is no cross-industry, cross-border approach to product identity verification. "Similarly, there is no globally recognized process that allows companies to detect counterfeit products without having to disclose supply chain and volume information. The SPOQ project is now closing this gap," explains Stefanie Hildebrandt, Project Manager Technology and Innovation at VDE.

On behalf of the Federal Ministry for Economic Affairs and Climate Action (BMWK), the technology organization is now working with partners from industry and science to develop a methodology for counterfeit-proof product labeling on original products to verify their unique identity, which will then be put into practice as a prototype on the manufacturer and end-user side. This could help to fight plagiarism.

Methodology for counterfeit-proof product identity

As part of the BMWK-funded project "Standardisierte sichere Produktverifizierung zum Schutz von Originalität und Qualität " (SPOQ), project partners AIM, KOBIL, PAV Card, the University of Würzburg, and Mannheim University of Applied Sciences, under the leadership of VDE, are developing a standardized and thus globally applicable method that not only enables counterfeit-proof product identity, but also allows manufacturers to retain their data sovereignty. "Our goal is for them to manage the identification of their products themselves in decentralized databases, for example as part of a blockchain infrastructure," Hildebrandt continues. For this purpose, manufacturers store the identity of their product with characteristic physical features that are difficult to forge in a database. Within a fixed period of time, the distributor or end customer can then retrieve the identity of the product and determine its authenticity by comparing it with the characteristics.

Checking identity via smartphone

In parallel, the project partners are testing suitable technologies for linking a physical product with its digital identity and are developing concepts for the secure handling of product and tracking data. To be prepared for complicated counterfeiting scenarios, they are combining several methods and indicators to verify the authenticity of a product. As part of a proof-of-concept of the standardized approach, prototype development and provision of toolkits for manufacturers, intermediaries and end customers linked to decentralized databases is then carried out. Here, the experts rely on hardware that is already in widespread use, for example common smartphones as a platform, which are also equipped with hardware add-ons for specific use cases or mobile readers for barcodes that are common in retail and logistics.

About the SPOQ project and the project partners

The SPOQ project of the BMWK aims at the collection and processing as well as the standardization and implementation of safe product verification and is lead-managed by the VDE in in cooperation with the following partners:

- AIM-D e.V.
- University of Würzburg, LS Informatik II, Secure Software Systems
- Mannheim University of Applied Sciences, ESM Institute
- KOBIL GmbH
- PAV Card GmbH

The project is part of the technology support program "WIPANO - Wissens- und Technologietransfer durch Patente und Normen" of the Federal Ministry for Economic Affairs and Climate Action (BMWK). Within the framework of the SPOQ project, the VDE has also been given the task of VDE SPEC, which will then be developed into an international standard or family of standards.

About VDE:

VDE, one of the largest technology organizations in Europe, has been regarded as a synonym for innovation and technological progress for more than 130 years. VDE is the only organization in the world that combines science, standardization, testing, certification, and application consulting under one umbrella. The VDE mark has been synonymous with the highest safety standards and consumer protection for more than 100 years.

Our passion is the advancement of technology, the next generation of engineers and technologists, and lifelong learning and career development "on the job". Within the VDE network more than 2,000 employees at over 60 locations worldwide, more than 100,000 honorary experts, and around 1,500 companies are dedicated to ensuring a future worth living: networked, digital, electrical. Shaping the e-dialistic future.

The VDE (VDE Association for Electrical, Electronic & Information Technologies) is headquartered in Frankfurt am Main. For more information, visit www.vde.com

Press contact: Vanessa Rothe, Phone +49 170 7645316, presse@vde.com