# Printed electronics for smart plasters and smart watches

VARTA Microbattery at the LOPEC 2019

New developments in different research projects in the field printed electronics will be presented by VARTA Microbattery at this year's LOPEC trade fair in Munich on 20 and 21 March 2019. At stand B0.308 of the leading international event for printed electronics, the company will provide information about the content, goals and current status of its research projects, including the BEWELL project. VARTA Microbattery has been involved in the project since January 2019. The project focuses on the integration and production technologies needed for portable electronics with intelligent skin plasters and wrist devices, such as fitness watches. The experts at VARTA will also present a rechargeable microbattery, the CoinPower series, and its use in wearables. VARTA Microbattery will also participate in the LOPEC 2019 Demo Line in Hall B0 405. Here, visitors can take part in guided tours offered three times daily on every day of the trade fair, and watch organic and printed electronics and devices being produced.

**Wearable sensors and actors**

VARTA Microbattery is involved in numerous research projects in collaboration with the Federal Ministry of Education and Research (BMBF) and the European Commission in all areas related to printed electronics and their future areas of application. The battery group is researching printed batteries with different electrochemical systems, and regards itself as a partner for universities and scientists when it comes to battery competence. The latest projects, which will also be presented at the LOPEC, is BEWELL. The purpose of this project, which was initiated in January, is to develop integration and production technologies that are required for wearing intelligent skin plasters and wrist devices, such as smart watches and armbands. The BEWELL project aims to use modern, integrated technology components from Europe in order to release the potential that flexible, portable electronics offer for physical and emotional wellbeing. According to project manager Dr. Martin Krebs, VARTA Microbattery GmbH, this is "An exciting area for the future with a great deal of potential for future applications".

**CoinPower in wearables**

As well as international research projects, VARTA Microbattery will also provide information about its high-power CoinPower series at the trade fair. Their compact, stable cylindrical construction, coupled with their high energy density and extremely high performance make the CoinPower cells an ideal energy source for all wearables and hearables. "Fast charging, high durability and a robust construction round off the CoinPower series profile," explains Matthias Dorsch, Product Manager at VARTA

Microbattery.
This microbattery with its high capacity also offers other advantages: simple mounting in end devices, thanks to its 0.1 millimetre-thin, yet strong and robust stainless steel housing, and maximum precision when it comes to the mechanical construction of the battery arrangement. The strong steel housing of the cells also ensures high tolerance against impact and vibration.
In the growth sector of bluetooth headphones, this small energy provider can be used in a wide variety of different ways, as is also the case with fitness trackers and other wearables. The CoinPower series has produced several patents, including the i-Lock system, which together with the circular form enables up to 30 percent higher energy density than comparable microbatteries on the market.