## FRAUNHOFER INSTITUTE FOR RELIABILITY AND MICROINTEGRATION IZM

## Sporty Supaheroe Jacket



Sporty Supaheroe jacket

## Fraunhofer Institute for Reliability and Microintegration IZM

Gustav-Meyer-Allee 25 13355 Berlin

## **Contact information**

Dipl.-Ing. Christian Dils Phone +49 (0)30 / 464 03-208 Fax +49 (0)30 / 464 03-161 christian.dils@izm.fraunhofer.de

www.izm.fraunhofer.de

Technische Universität Berlin



Sporty Supaheroe is an intelligent citycycling jacket for the urban nomad. It is focused on visibility and security in the dark. Sporty Supaheroe is equipped with a wearable electronic system, which is based on a stretchable circuit board developed by Fraunhofer IZM in Berlin.

It includes a novel flexible display with 64 RGB-LEDs on its surface and different kinds of sensors. The display enables light signals and simple images to be shown on the outside of the jacket. Sensors establish an interface/link between body and electronics. An acceleration sensor and a 3D-gyroscope measure body movements to show them on the outside of the jacket. Sporty Supaheroe is also linked to a smart phone (put within a pocket on the inside of the jacket) via a light sensor to indicate incoming calls on the display. The jacket assembles further intelligent materials like a water resistant and breathable organic cotton produced by Stotz or a stretchable and water repellent "display-skin" made by Schoeller.

Sporty Supaheroe is a new kind of wearable intelligence and a second digital skin, which is giving shelter to our everyday life and reasonable support to our devices we use daily. UTOPE is based on a cooperation between Wolfgang Langeder (CEO and Designer of Utope) and Stretchable Circuits/ Fraunhofer IZM in Berlin. Both Partners have joined forces since January 2010 to develop this innovative smart clothing system.

In 2012 UTOPE will launch a menswear collection of cutting edge design pieces, which merges our time's most innovative technologies with elements from sportswear and traditional menswear clothing.



Sporty Supaheroe jacket in bicycle mode

