

THIS IS WHAT INTENSE SOUNDS FEEL LIKE



ERDF. Sounds that get under your skin

With its high-tech belt of the same name, Potsdam-based start-up Feelbelt uses vibration to make sounds tangible for the whole body through vibration impulses. In games, films, music or virtual reality, haptic feedback creates an entirely new dimension for the perception of sounds and content.

The signal sounds at the starting line of the Formula One race track. GO. Everything vibrates as the car engine revs up to top speed with the accelerator pressed firmly down. When the car accelerates, the whole body shakes and the pressure of the G-forces in the tight curves can be felt in the flank. A competitor speeds past, whirring. Distracted, the driver suddenly loses control of the car, goes off track and skids over the curbs. The dull thudding of the wheels on the curbs and the squealing of the brakes goes straight to the marrow. Crashing into the barrier feels like a punch in the pit of the stomach. GAME OVER.

The Feelbelt makes gaming as realistic as if you were behind the wheel of a racing car. This is achieved through vibrations that are delivered via the belt and literally get under your skin.

Project details



Beneficiary:
Feelbelt GmbH
Dianastr. 21
14482 Potsdam
feelbelt.de



Priority:
Raising the competitiveness of small and medium-sized enterprises



Investment amount:
EUR 1,592,000, of which EUR 996,000 is ERDF-funding



Project term:
April 2020 to June 2022





Sound playback can be easily controlled using a smartphone © Feelbelt GmbH

WHY IT MAKES SENSE

- ✓ **Strengthening the local economy and SMEs** through regional production
- ✓ **Networking through cooperation** between local companies and innovative start-ups
- ✓ **Creation of six new jobs**
- ✓ **Bringing audio content to life in the entertainment sector** for gaming, music, films and VR content
- ✓ **Making sound perceptible** also for people with impaired hearing

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The next level in sound experience

In gaming, auditory signals are often essential to both the gaming experience and responsiveness. The Feelbelt makes it possible not only to hear but also to feel even the smallest changes in the game world realistically by adding the sense of touch. The ten impulse generators on the belt convert sounds into haptic impulses and reproduce low and high tones, even outside the frequency range perceived by humans, with varying intensity in the back and abdominal area. The brain perceives these vibrations synchronously with hearing and links them. This creates the feeling of being right in the middle of things. Using an app, the belt can be used to easily play back other audio content. It can be used to recreate the atmosphere of standing in front of a stage in a club or at a concert. But also for people with impaired hearing, there are completely new ways to feel sound in all of its facets.

Made in Brandenburg

Instead of mass production abroad, the start-up deliberately chose to remain loyal to the Potsdam Babelsberg location. In order to be able to produce the internationally patented Feelbelt in series, funding was provided by the European Regional Development Fund (ERDF), for instance, to purchase special injection moulds. Keeping production local in Brandenburg and working in a network of regional companies helps to strengthen Brandenburg as a centre for business and innovation as well as resident SMEs. Innovative technology, persistent quality assurance as well as a focus on sustainability and short transport routes make the Feelbelt – Made in Brandenburg – a success.



The intensity of the vibrations can be individually adjusted via the app © Feelbelt GmbH

DID YOU KNOW?

We humans do not hear all the sounds in our environment. That is because the human ear can only perceive sound waves with a sound frequency of between 20 and 20,000 Hertz. For example, some animals, such as dolphins, can produce and hear sounds outside our audible range