

*Press release*

## **Optimize intensive cardio training with PulseOn**

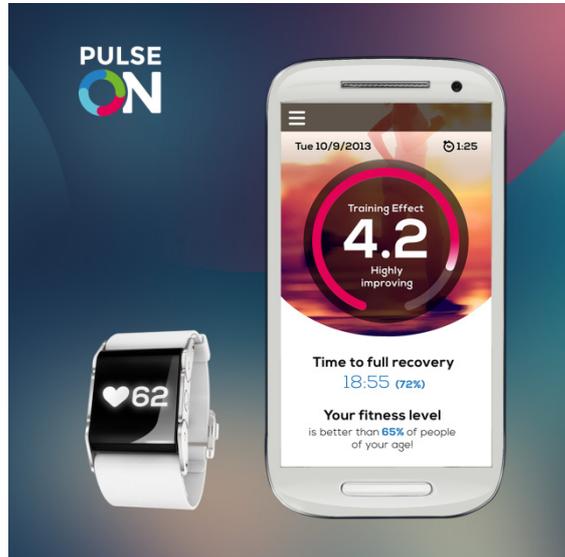
### **Making heart rate monitoring easier than ever**

**Finland / Switzerland, 2 June 2014 — Imagine tracking your heart rate continuously without the need for a classical chest belt. PulseOn, a start-up spun out from Nokia in 2012, has collaborated with CSEM to develop a small and stylish wrist device that allows users to monitor their heart rate accurately and reliably during training and beyond. With wireless connectivity to iOS and Android mobile applications, the heart rate data is transformed into meaningful feedback on training: feedback that is personalized for each individual.**

The smart wrist device is the ultimate in comfort and usability, and — instead of providing mere graphs and curves — gives users the tools they need to understand their heart rate better. PulseOn goes beyond continuously tracking a user's heart rate — it provides highly meaningful insights into training sessions including the effect of training and coaching, ensuring the optimal balance between training and recovery. In addition to the accurate heart rate measurements from the smallest wrist-based heart rate monitoring device available, the device is also incredibly simple and intuitive to use. PulseOn is designed for people who exercise in cardio-intensive sports and want to understand better the effect that their training has on their bodies.

The new product is based on CSEM's patented vital sign monitoring technology, which uses a multi-parameter opto-inertial measurement technique. Though the basic approach is straightforward, engineers had to improve measurement quality significantly to make it competitive with data generated by standard ECG-based monitors. This meant increasing signal quality and precision by improving both opto-mechanical aspects and the design of optical sensors as well as refining electronic and multi-channel processing aspects linked to power consumption and the size of the wrist device. "With the launch of this smart watch based on CSEM background technology and IP, we confirm that Switzerland has all the cards in hand to play an important role in this emerging market." says Jens Krauss, VP Systems at CSEM. The work also resulted in an ultra-low-power application-specific integrated circuit (ASIC) dedicated to wearable biomedical sensing devices, enabling a further miniaturization of the product. "The main advantages of working with CSEM are technology, competence, and reliability. Once you agree on technical specifications and timelines then it really gets done accordingly. That's important." stated Tero Mennander, PulseOn's CEO.

The PulseOn heart rate monitoring device can be preordered from Indiegogo ([igg.me/at/pulseonhr](http://igg.me/at/pulseonhr)) from today. It will be delivered in September 2014.



*PulseOn wrist device, available in several colors. © PulseOn*

**Additional information**

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**About CSEM**

**CSEM — technologies that make the difference**

CSEM, founded in 1984, is a private research and development center specializing in microtechnology, nanotechnology, microelectronics, systems engineering, photovoltaics, and communications technologies. Over 400 highly qualified and specialized employees from various scientific and technical disciplines work for CSEM in Neuchâtel, Zurich, Muttenz, Alpnach, and Landquart.

Further information is available at [www.csem.ch](http://www.csem.ch)

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**About PulseOn**

PulseOn tracks your heart rate continuously. But it goes beyond tracking. PulseOn tells you what your heart rate means. We make heart rate monitoring easier than ever, so you can reach your full potential.

For more information on PulseOn, please visit [www.pulseon.com](http://www.pulseon.com). You can also follow PulseOn on social channels — “Facebook: /PulseOnHR, Twitter—@PulseOnHR, Instagram—#PulseOnHR, and [YouTube](https://www.youtube.com/channel/UC...).

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