

Huawei Opens New Health Lab to Advance its Global Efforts in Health & Fitness Research

Published on November 23, 2023

Document Date: Sun, Nov 30 2025 04:34:16 am

Category: ,Articles,English,International -

,Snippets

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Doha, 21 November 2023 — Huawei today announced the opening of a new HUAWEI Health Lab in Helsinki, Finland. Equipped with state-of-the-art testing equipment, the new lab will serve as the research platform for Huawei's health & fitness category.

Spread across almost 1000 square metres, the lab features diverse, world class sports equipment covering over 20 sports types. Each area will showcase Huawei's wearable sports and fitness algorithms in real-life applications. At the same time, these will serve as open research platforms that contribute to technological research, detection and verification, standards R&D and industry incubation.

Acknowledging the growing need in the health and fitness market, Huawei has pledged to deepen its research in health monitoring algorithms through its wearable technologies. This led to the establishment of three Health Lab across the globe since 2016: Xi'an and Songshan Lakes in China, and now one in Helsinki, Finland.

This year, Huawei in cooperation with IPSOS conducted a health survey of over 8,000 participants in 8 European countrieas. This survey revealed that 92% of the respondents want to improve at least one aspect of their health-related lifestyle and only 50% of them are satisfied with their physical fitness levels. Huawei continues to invest in sports and health R&D to meet this growing consumer demand. The HUAWEI Health lab in Finland is staffed with a multidisciplinary scientific research team comprising 6 PhDs and 20 experts from 5 major fields – physiology, AI, machine learning, software testing, and software engineering – across 7 EU countries. This assures that every area of research meets the world's advanced standards.

The laboratory has built true-to-life sports environments and scenarios in 5 major testing areas covering more than 20 sports and tracking over 200 physiological and biomechanical indicators. Participants will be monitored while using Huawei's latest wearable devices, such as the HUAWEI WATCH GT 4. The main five testing areas are a counter-current pool, a ski simulator, a multifunctional treadmill, an instrumented treadmill, and an open gym area with various

cardiovascular workouts.

Huawei has even created a counter-current pool based on professional standards to accurately assess swimming performance. The pool is equipped with dynamic water jets that can produce a controllable current flow rate of up to 350 m3/hour and allow the modification of water temperature and quality.

The lab has introduced a ski simulator with adjustable speed, incline, and interactive routes and poles. The simulator has sensors that detect the user's speed, position, carving angles, forces, and performance data.

The multi-functional treadmill can test running, cycling, wheelchair racing and more, with speeds adjustable up to 50km/h. The treadmill can even import GPX data from GPS devices to simulate real-world terrains and routes, giving participants realistic scenarios that will more accurately test their skills.

The lab will be conducting its tests using Huawei's latest HUAWEI WATCH GT 4. With the smartwatch, Huawei's leading health and fitness monitoring technologies will be utilised to accurately measure the user's physiological data. For instance, the smartwatch's TruSportsTM scientific training model can quantify users' running ability, record and analyse training data,

provide personalised training suggestions and plans, and help users maintain a healthy lifestyle.

The HUAWEI WATCH GT 4 will also be used to evaluate human cardiopulmonary capacity (maximum O2 volume), which allows researchers to assess sports performance more scientifically, and even score human sports ability more accurately to improve exercise safety.

Additionally, the new Stay Fit app and Activity Rings can give users an assessment of their overall movement and performance during the workout sessions, giving them a full understanding of their own energy expenditure and heart health. Powered by the latest HUAWEI TruSeenTM 5.5+ technology, the watch provides a higher accuracy in determining caloric expenditure and intake requirements compared with other mainstream algorithms.

One of the projects that Huawei is involved in is iCARE4CVD, which is part of the IHI (Innovative Health Initiative) program. This program brings together medical and technology industries and the European Union and is one of the most ambitious research initiatives in the area of artificial intelligence and cardiovascular disease. Huawei is currently the only wearable device manufacturer to participate in iCARE4CVD, and will co-lead the work package that will develop methods to improve patient motivation.

Huawei has also co-founded the Interlive consortium with 6 top European universities. With one of the most scientific and rigorous testing standards for wearable devices, the consortium strives to develop best-practice recommendations for consumer wearables to measure direct and derived metrics. The partnership has further cemented the reliability of Huawei's wearables, ensuring their scientific validity based on four standards: heart rate, step counts, caloric expenditure and VO2 Max.

Huawei also has plans to work with European universities and disability health centres to better understand the needs of users with disabilities. Understanding the fitness challenges of these users will lead to better sports and fitness management solutions for them. In short, users can look forward to a more dynamic sports health and performance monitoring technology in Huawei's future smart wearables.

Huawei has laid out strict privacy and security principles for its wearables. While the company maintains open collaboration with partners in the Healthcare and Sports ecosystem, it ensures that these partnerships are in full compliance with data privacy laws. This means that every step of the research process – including data collection, authorisation, transmission, and storage – adheres strictly with privacy and security principles.