

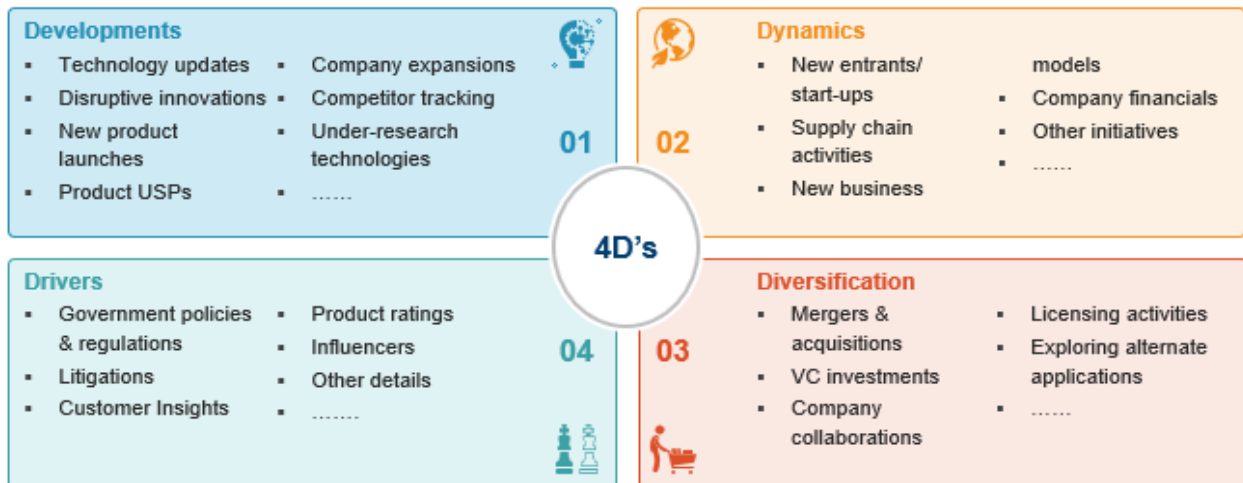
INTELLOTRACKER

Wearable Devices for Monitoring Vitals

April 2023



ARANCA'S QUARTERLY SECTORIAL UPDATE ACROSS FOUR DIMENSIONS....





DEVELOPMENTS

Technology/ Innovations	Hamilton Health Sciences	Researchers at the Population Health Research Institute (PHRI) of Hamilton Health Sciences and McMaster University plan to evaluate the accuracy of Vitaliti™ device developed by Cloud DX. Vitaliti™ is a continuous vital sign monitoring device that tracks the patient's ECG, heart rate, pulse rate, respiration rate, temperature, blood pressure and oxygen saturation. <i>Source: University News</i>
Technology/ Innovations	biobeat	Israel-based Biobeat has developed a disposable wireless device to monitor patients' vital signs and wirelessly send updates to the cloud every five minutes. It uses its own real-time warning score that measures 13 vital signs. <i>Source: No Camels- Israeli Innovation News</i>
Technology/ Innovations	WASHINGTON STATE UNIVERSITY	A new study conducted by Washington State University has demonstrated that health-monitoring wearable electronics can be made using a less expensive screen-printing method, creating a stretchable, durable circuit pattern that can be transferred to the fabric and worn directly on human skin. <i>Source: Science Daily</i>
Technology/ Innovations	UNIVERSITY OF OXFORD NHS Milton Keynes University Hospital	A study was conducted to evaluate the clinical validity of a semiautomated wearable wrist device (ChroniSense Polso) that measures vital signs and provides National Early Warning Scores (NEWSs). The study showed its promising use to measure vital signs in a hospital setting but its accuracy needs to be improved for measuring respiration rate, temperature, and oxygen saturation. <i>Source: National Library of Medicine</i>
Technology/ Innovations	Mizzou University of Missouri	Researchers from the University of Missouri have created an ultrasoft "skin-like" material for developing an on-skin, wearable bioelectronic device capable of simultaneously tracking multiple vital signs such as blood pressure, electrical heart activity and skin hydration. <i>Source: University News</i>
Technology/ Innovations	BLOOMER TECH	Bloomer Tech has developed a smart bra with flexible sensors embedded in the fabric to track the user's vital signs (for example, ECG, pulse rates, and heart rhythms). The collected data is then sent to a phone app, which either provides tools to improve heart health or alerts doctors, if necessary. <i>Source: Fast Company</i>
Technology/ Innovations	UNIVERSITY OF SUSSEX	Researchers from the University of Sussex have developed a seaweed-based alternative for polymer wearable sensors. The sustainable sensor made from seaweed, rock salt, water, and graphene, proved more sensitive and accurate than its plastic or rubber counterparts. <i>Source: All About Circuits</i>
Technology/ Innovations	University of Massachusetts Amherst	Researchers from the University of Massachusetts, Amherst announced the synthesis of a new material for developing a wearable, unobtrusive sensitive fabric-based sensor that can work under pressure. The sensor keeps working even when hugged, sat upon, leaned on, or otherwise squished by everyday interactions. <i>Source: Today's Medical Developments</i>
Product Launch	MOVANO	Movano Health plans to launch their health monitoring wearable Evie ring that tracks heart rate, blood oxygen saturation, menstrual symptoms, sleep patterns and more. The company is working towards filing FDA submissions for the ring's heart rate and oxygen data and is also developing a radio frequency-enabled sensor for blood pressure and glucose monitoring. <i>Source: MedTech Dive</i>
Product Launch	Senbiosys	Senbiosys, an EPFL spin-off, has unveiled a jewellery-like smart ring incorporating all the health-monitoring features currently available in smartwatches. EPFL's Integrated Circuits Laboratory in Neuchâtel has produced tiny photodetectors that can pick up signals just as clearly as existing ones – from a light source that's much less intense. <i>Source: Company Website</i>



DIVERSIFICATION

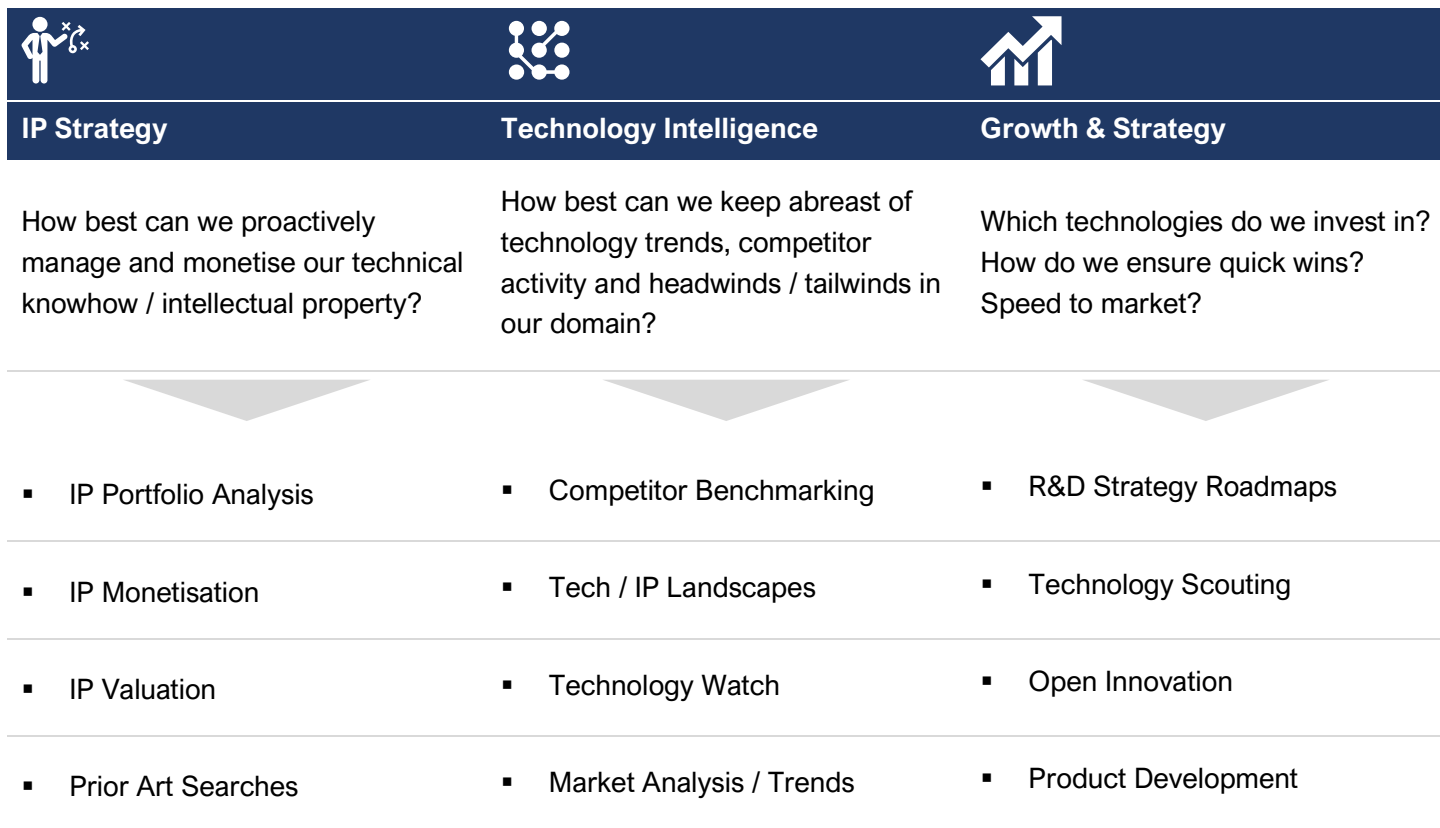
Company Collaboration	Precision Digital Health ActiGraph	ActiGraph, a leading provider of wearable technology and scientific services has partnered with Precision Digital Health (PDH). PDH has joined ActiGraph's Accelerant™ partnership program to advance the use of digital health technologies in clinical development. <i>Source: Company News</i>
Company Collaboration	BioIntelliSense care.ai	BioIntelliSense has partnered with Care.ai to integrate BioIntelliSense's high-frequency vital sign trending data and algorithmic-based alerting into Care.ai's ambient monitoring workflows. BioIntelliSense's BioButton® wearable devices and advanced data analytics will integrate with Care.ai's AI-powered Smart Care Facility Platform™ to streamline clinical workflows. <i>Source: Company News</i>
Company Collaboration	Atrium Health BEST BUY Health	Atrium Health has partnered with Best Buy Health to enhance the patient's experience, and provide and set up in-home, wearable technology that allows a patient's vital signs to be monitored remotely by an Atrium Health care team around the clock. <i>Source: Atrium Health</i>
Company Collaboration	Masimo PHILIPS	Masimo MASI has signed an agreement to expand its partnership with Royal Philips to augment patient monitoring capabilities in home telehealth applications. The pulse oximetry technology of the Masimo W1 watch will send insightful health data to Royal Philips' patient monitoring ecosystem through Masimo's secure health data cloud. This data will help in remote clinician surveillance. <i>Source: Nasdaq</i>

Company-University Collaboration	 	<p>UWE Bristol academics has partnered with Kymira to develop a wearable and washable electronic textile for personalized health monitoring. The technology within the fabric will be unnoticeable to the wearer, sends the results to their smartphone, rings an alarm if their vital signs fall outside a normal range, and then notifies their doctor or a medical monitoring service.</p> <p>Source: University News</p>
VC Investment		<p>Caretaker Medical, a health-tech company, has raised \$7.35 million in equity financing from 23 investors. It has developed wearable vital signs monitor and early-warning device.</p> <p>Source: The Business Journals</p>
Crowd Funding		<p>Senbiosys has experienced remarkable success in its crowdfunding campaign on Kickstarter for the Iris smart ring, a wearable device that offers users a complete picture of their health and wellness. The campaign began in mid-February with an initial goal of CHF 100'000, has already attracted over 3,400 backers and surpassed the CHF 600'000 threshold.</p> <p>Source: GGBa Invest Western Switzerland</p>

DRIVERS

Government Approval	 	<p>Health Sciences Authority of Singapore (HSA) has approved the AeviceMD monitoring system of Aevice Health. The AeviceMD monitoring System's wearable stethoscope is one of the smallest devices globally that can detect abnormal breath sounds and monitor vital signs including heart rate and respiratory rate.</p> <p>Source: BioPharma APAC</p>
Government Approval	 	<p>US FDA has cleared the CSF-3 watch developed by CardiacSense. It is a wearable device for monitoring vital signs, such as electrocardiogram, beat-by-beat heart rate, and oxygen saturation of arterial hemoglobin (SpO2). The CSF-3 watch has already received CE approval from the Europe Medical Device Regulation (MDR).</p> <p>Source: Company Website</p>

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