



TiHive awarded €8.6M in EU funding for transformational AI-terahertz defect detection technology

EU backs innovation enabling quality checks in real-time to ensure product compliance and reduce raw material waste; benefiting consumers and the environment

Grenoble, France, September 3, 2020 – TiHive, a vision systems provider for industrial IoT, today announces an award of €8.6 million (close to \$10M) from the EIC Accelerator program, a [European Innovation Council](#) scheme within the framework of Horizon 2020. TiHive secured the funding for its compact imaging system based on terahertz light, combined with AI algorithms, for deployment in real-time quality control inspections.

TiHive's [terahertz AI-aided imaging system](#) allows for smarter, non-invasive, detection of product defects during in-line production, when flaws can be fixed more inexpensively than if they are spotted after production is complete. Correcting flaws during production brings manufacturers significant cost advantages, among them minimizing unnecessary waste of raw materials.

TiHive will use the funds - €6.3M (approx. \$7.4M) in equity and €2.3M (approx. \$2.7M) in grants - to bring its terahertz AI-aided imaging system to an industrial scale and help accelerate expansion in European and US markets. An EU representative will join TiHive's board of directors.

"TiHive is transforming the way in which manufacturers qualify their products and manage raw material resources, saving them billions of euros. Households and families throughout the world will benefit from higher quality personal hygiene products and, by using these products, reduce their impact on the environment," said Hani Sherry, CEO and co-founder of TiHive. "The European Commission's strong backing will boost our commercial roll-out and scale-up. This will be the very first deployment of terahertz imaging inspection technology at an industrial scale, opening the doors to numerous new market applications that will pave the way towards global leadership in this deep-tech innovation."

TiHive, now in its third year, initially struggled to pick a market focus as its breakthrough presented such a broad array of opportunities across different industries, from luxury goods and pharmaceuticals to performance materials. Although the company continues to explore opportunities with partners in these fields, it has adopted a strategic focus on the hygiene and personal care markets. TiHive estimates a €10 billion opportunity in potential material savings and quality improvements for manufacturers of personal care products, which it claims generate a combined €150 billion in sales each year.

TiHive has already won over customers with its detection capabilities. One specific use case is in monitoring the application of super-absorbent polymer (SAP) materials in diapers. SAP is the key ingredient in diapers; it enables them to absorb large amounts of liquid

effectively. Manufacturers are eager to close the knowledge gap between how much SAP is deposited on each diaper and how it is distributed. With the most advanced production lines manufacturing up to 1,200 diapers a minute, if SAP is being overdosed, costs can add up quickly. If it is underdosed, then the product risks failing, resulting in lost consumer trust and lower profits. Other anomalies, such as high humidity and the presence of contaminants, like oil, small pieces of metal and insects, can also be detected.

TiHive's terahertz imaging system 'sees-through' products, similar to an x-ray machine, but outperforms x-rays in many ways. Its system provides fast imaging data, safely; whereas x-ray measurements pose dangers to operators and use a complex process that isn't as effective. X-rays are not sensitive enough to be useful in many industries. In fabrics, plastics and other materials softer than metal, their wavelength penetrates too intensely to detect subtler contrasts. Unlike x-rays, TiHive's system is modular; users have the flexibility to combine any number of terahertz-vision cameras to cover larger surface areas.

"TiHive's plug and play solution consists of integrated circuit-based technology and artificial intelligence algorithms. It includes a transmitter and receiver, which, when positioned either side of an object, reveal physical characteristics or quality indicators that have previously been impossible to measure," explains Clement Jany, CTO of TiHive.

According to TiHive, scientists consider terahertz waves as the final frontier in the electromagnetic spectrum. Researchers are now decoding their behavior and discovering new ways to harness their potential. TiHive believes that the coming years will see a number of terahertz breakthroughs hit the market, ranging from contactless glucose monitors in blood to ultra high speed 6G data transmission.

"Thanks to the support of the EIC, we can accelerate the industrialization and pre-commercialization of our breakthrough inspection solutions to bring tangible benefits to customers," said Carlos Prada, CFO & co-founder of TiHive. "In addition, we anticipate that this financial boost will also help us attract private investors for our next funding rounds, as we scale-up sales.

Based in Grenoble, France, a center for innovation in imaging, TiHive expects to finalize construction of its industry-grade testing facilities and laboratory infrastructure (which began a few months ago) by 2021 and hire ten additional staff, bringing the headcount to 25.

About TiHive

TiHive, a vision systems provider for industrial IoT, uses its patented Terahertz technologies combined with deep learning to enable manufacturers to identify product features that other wavelengths cannot reveal. Its transformational single plug-and-play quality control system offers manufacturers unrivaled precision to deliver perfect products to customers every time, while minimizing production inefficiencies and waste. Since its founding in August 2017, TiHive has attracted multinational consumer goods clients in the hygiene and personal care market; it is actively engaged with a growing number of manufacturers in other key industries. TiHive is the winner of several tech innovation awards, including €8.6M (approx. \$10M) in financial backing from the European Commission. Based in Grenoble, France, the company is led by a talented team and recruitment is underway that will bring the headcount to 25.

Find out more at [[TiHive.com](https://www.tihive.com)], [[LinkedIn](#)], and [[Twitter](#)]

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