

The VTT logo consists of the letters 'VTT' in a bold, white, sans-serif font, centered within a solid orange square.

VTT

VTT drives health innovation through technology
excellence

VTT - Your R&D Partner for Lab-on-chip Diagnostics & Wearable Devices

beyond the obvious

An abstract graphic at the bottom of the page features several overlapping geometric shapes. On the left is a large orange trapezoidal shape. To its right is a light gray triangular shape pointing downwards. Below these is a dark blue curved shape that overlaps the orange one. On the far right is another light gray curved shape pointing downwards, overlapping the dark blue one. The background of this section is a solid dark blue color.

VTT is your **One-Stop-Shop R&D partner** for lab-on-chip diagnostics and wearable technology applications, from early concept development to mass-manufacturing upscaling. With our unique pilot manufacturing infrastructure and long history in printed electronics, biosensors, wireless communication and material science, we develop tailored solutions for your technology needs.

Lab-on-Chip Diagnostics

Our R&D activities focus on developing and optimizing processes for highly integrated and scalable manufacturing of lab-on-chip devices. We offer solutions in:

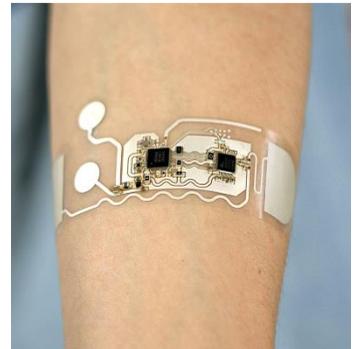
- Tailored recombinant antibodies for diagnostics and analytics.
- Assay development for microfluidics and LFA.
- Printed electronics enabled next generation diagnostic devices.
- Upscaling and roll-to-roll (R2R) pilot manufacturing of microfluidic devices on several substrates (foil, paper, PDMS).
- Printed sensors and indicators.

- Custom instrumentation and reader development.

Wearable Technology

Our combined expertise in materials technology, printed & hybrid electronics, wireless communication, biosensors and upscaling process development enable next generation wearable devices and smart patches. We offer our expertise in the following R&D topics:

- Concept design, prototyping and pilot manufacturing of wearable devices and smart patches.
- Strong R&D background in materials (substrates, adhesives, sensors, interconnects, power) and processes (printing, flexible electronics, assembly, encapsulation, biomolecule printing, sample handling).
- Sensing technologies, readout electronics and wireless communication.
- Hybrid integration of silicon IC and printed parts on stretchable and flexible substrates.
- Manufacturing on sustainable materials (biodegradable and/or bio-based substrate materials) and use of sustainable manufacturing processes.



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VTT is a visionary research, development and innovation partner. We drive sustainable growth and tackle the biggest global challenges of our time and turn them into growth opportunities. We go beyond the obvious to help the society and companies to grow through technological innovations. VTT is at the sweet spot where innovation and business come together.

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