



TECHNIKON NEWS RELEASE

Using Technology to Build a Safer Tomorrow

The M3TERA project is now in completion—future use and large-scale production of terahertz solutions is emerging in Europe

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VILLACH, AUSTRIA—Consortium scientists and industrial researchers coordinated by Technikon have recently completed a European Commission funded research project entitled M3TERA. This project developed ways of commercializing the production of the much sought-after Terahertz frequency solutions useful in super-fast data transfer as well as for sensing technologies. Project results open the doors to consumer innovations such as touchless medical checks, simplified airport scanning and perhaps even closer to home, ubiquitous automotive radars that increases safety inside and outside your vehicle.

To fulfill the primary project objective, scientists from Austria, Switzerland, Sweden and Spain collaborated to design a prototype of a communication platform using a terahertz transmitting chip which is less expensive and significantly smaller than current technologies allow. In essence, project partners built and demonstrated a proof-of-concept wireless network to transmit digital data at very high speeds.

With this reduction in chip size, it can more easily find its way into the mobile devices of tomorrow. With help from Infineon in Austria and Ericsson in Sweden, the prototype was developed using a micromachined heterogenous method.

Secondary objectives include using the technology for sensing purposes. Dr. Franz Dielacher, the M3TERA project technical lead says there are many applications of this kind of terahertz frequency. For example, weather prediction, road surface sensors and food scanning. He is quick to point out that new technology oftentimes takes many years to reach the consumer market but projects like this help keep the development process moving forward in an effective way.

The M3TERA project wrapped up with a final review meeting at the Ericsson offices in Gothenburg, Sweden on November 29 where participants were able to demonstrate their prototypes and share knowledge and results.

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