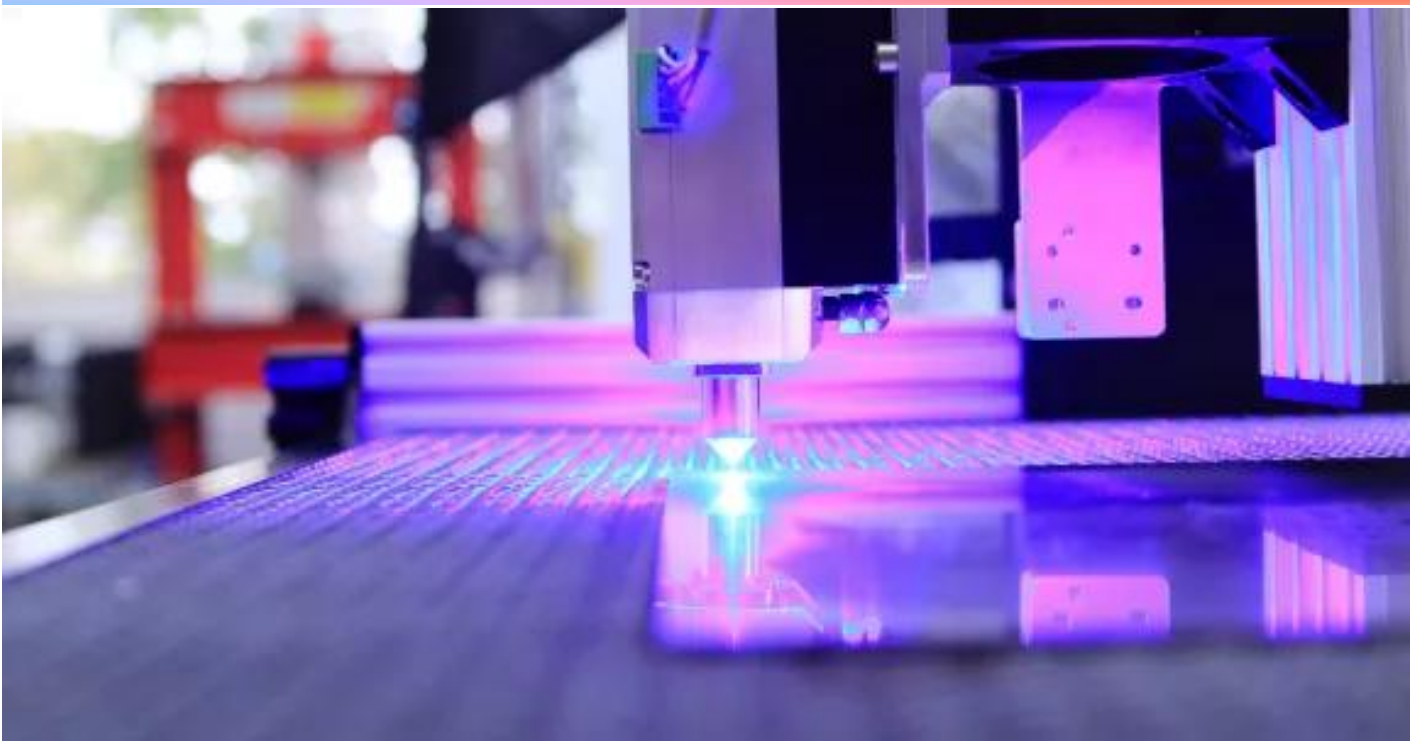




From water-repellent to ultra-black: new Laser Innovation Lab gives materials superpowers

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Sirris and Thor Park open unique Laser Innovation Lab in Genk for both research and industrial production

Sirris and Thor Park officially open the new [Laser Innovation Lab](#) in Genk. With an investment of €5.5 million, both partners are building a unique expertise centre where companies can develop innovative surface technologies and immediately scale them up towards initial industrial production.

The lab focuses on laser texturing: a technology that uses highly precise lasers to create microscopic structures on surfaces. This enables materials to acquire new properties such as water repellence, reduced friction, antibacterial effects or an ultra-black finish. According to Sirris and Thor Park, demand for such technologies is rapidly increasing, particularly in manufacturing, aerospace, defence and sustainable coatings.

“Today, companies are looking for innovative and sustainable ways to make products smarter, more efficient and more competitive,” says Herman Derache, Managing Director of Sirris. “With this

new lab, we can support them not only in research and development, but also in taking the step towards industrial production.”



From research to real production

What makes the [Laser Innovation Lab](#) unique is the combination of expertise, research and production capacity under one roof. While many research centres are limited to testing and prototyping, companies in Genk will now also be able to produce small production series at competitive prices.

Over the past ten years, Sirris has built extensive expertise in surface engineering and laser texturing. This knowledge is now strengthened by a high-tech machine park suitable for both research and industrial applications.

The lab features:

- industrial laser texturing machines for series production
- installations for research and prototyping
- extensive testing and analysis infrastructure

This allows companies to develop and validate new applications more quickly.

What is laser texturing?

Laser texturing is a technology in which a laser creates extremely small patterns or structures on a surface. These microscopic modifications can have a major impact on how a material behaves.

Surfaces can therefore:

- repel water
- become less prone to dirt accumulation
- have antibacterial properties
- reduce friction
- absorb light
- prevent ice formation
- create colour variations without using paints or coatings

One of the major advantages is that these properties can often be achieved without additional chemical coatings. In certain applications, laser texturing can therefore provide a more sustainable alternative to PFAS-containing coatings.

Applications from kitchens to aerospace

Today, the technology already has applications across a wide range of sectors. Sirris recently developed [Metablack](#), a patented ultra-black surface structure for aerospace applications. This technology helps eliminate unwanted light reflections in space instruments.

In addition, Sirris and its partners are investigating new low-radar-signature surfaces for applications in the defence industry. But the technology can also be highly relevant for more everyday applications, such as:

- wear-resistant components
- easy-to-clean surfaces

- anti-icing applications
- sustainable coatings for consumer products



Strengthening innovation in Limburg

“This project demonstrates how collaboration between research, industry and investors can generate tangible economic impact,” says Wim Dries, Mayor of Genk and Board Member of Thor Park.

“The lab is a valuable addition to the infrastructure already available at Thor Park. It will further strengthen the campus’s position as an innovation hub for the manufacturing industry,” adds Filip Vercauteren, Managing Director of Thor Park. He is convinced that this unique offering of laser texturing machines, which can be deployed across a wide range of industrial sectors, will reinforce Thor Park’s role as a European hotspot for manufacturing innovation.

“With the Laser Innovation Lab, we are strengthening the Flemish manufacturing industry through a unique technological infrastructure that brings together research, innovation and industrial applications. Investments like these are essential to keep our companies internationally competitive and to effectively bring technological innovation to the market. As a result, Thor Park is further

consolidating its position as an innovation campus for the manufacturing industry,” says Flemish Minister Jo Brouns.

About Sirris

Sirris is the collective centre for the Belgian technology industry and helps companies strengthen their competitiveness through innovation. The centre supports businesses in product development, production and digital transformation, translating technological innovations into concrete industrial applications. Sirris was founded by Agoria and is driven by the industry itself. Through research and development combined with hands-on collaboration, Sirris aims to stimulate technological progress within Belgian industry. More information: www.sirris.be

About Thor Park

Thor Park is a former mining site in Genk that has been fully redeveloped into a green innovation campus focused on smart manufacturing and companies active in the energy transition sector. Thor Park offers offices, labs, production facilities and industrial land for companies in both sectors and continuously invests in developing a dynamic ecosystem.

About LRM

LRM is a return-driven investment company that develops and stimulates sustainable economic growth in and from Limburg. LRM acts as the driving force behind a unique regional ecosystem and provides risk financing and expertise to companies and projects that contribute to prosperity and wellbeing in Limburg and Flanders.

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