

We leverage the universal benefits of glass beads for your special industry applications in energy-efficient ways.

OUR VISION

Industrial glass beads by SWARCO Indusferica – the world's preferred choice in all niches

OUR VALUES Efficiency Diversity Intelligence

OUR MOTTO Universal Efficiency



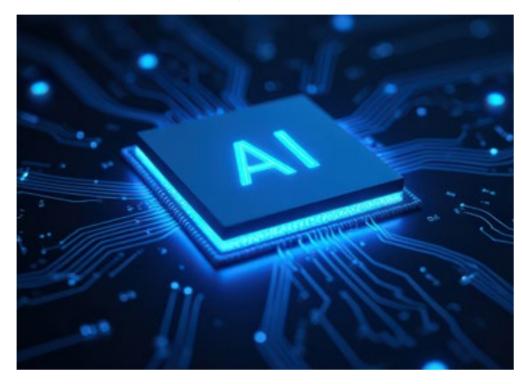
SWARCO Indusferica indusferica@swarco.com www.swarco-indusferica.com

Responsible for content: SWARCO Indusferica, Wipark, 14. Straße 11, 3363 Neufurth, Austria, www.swarco-indusferica.com Idea, design and artwork: studio0816.at English translation: Irina Pálffy-Daun-Seiler Printed by druck.at. Subject to change without notice. No liability for errors or misprints. For the sake of brevity, only one gender may be used on occasion. However, this does not imply any discrimation against the other gender.

> If you no longer wish to receive our newsletter. please send an email to indusferica@swarco.com.

AI-OPPOR-TUNITIES FOR THE INDUSTRY

New Methods, Better Processes



Artificial intelligence as a driving force for industrial process optimization and innovation

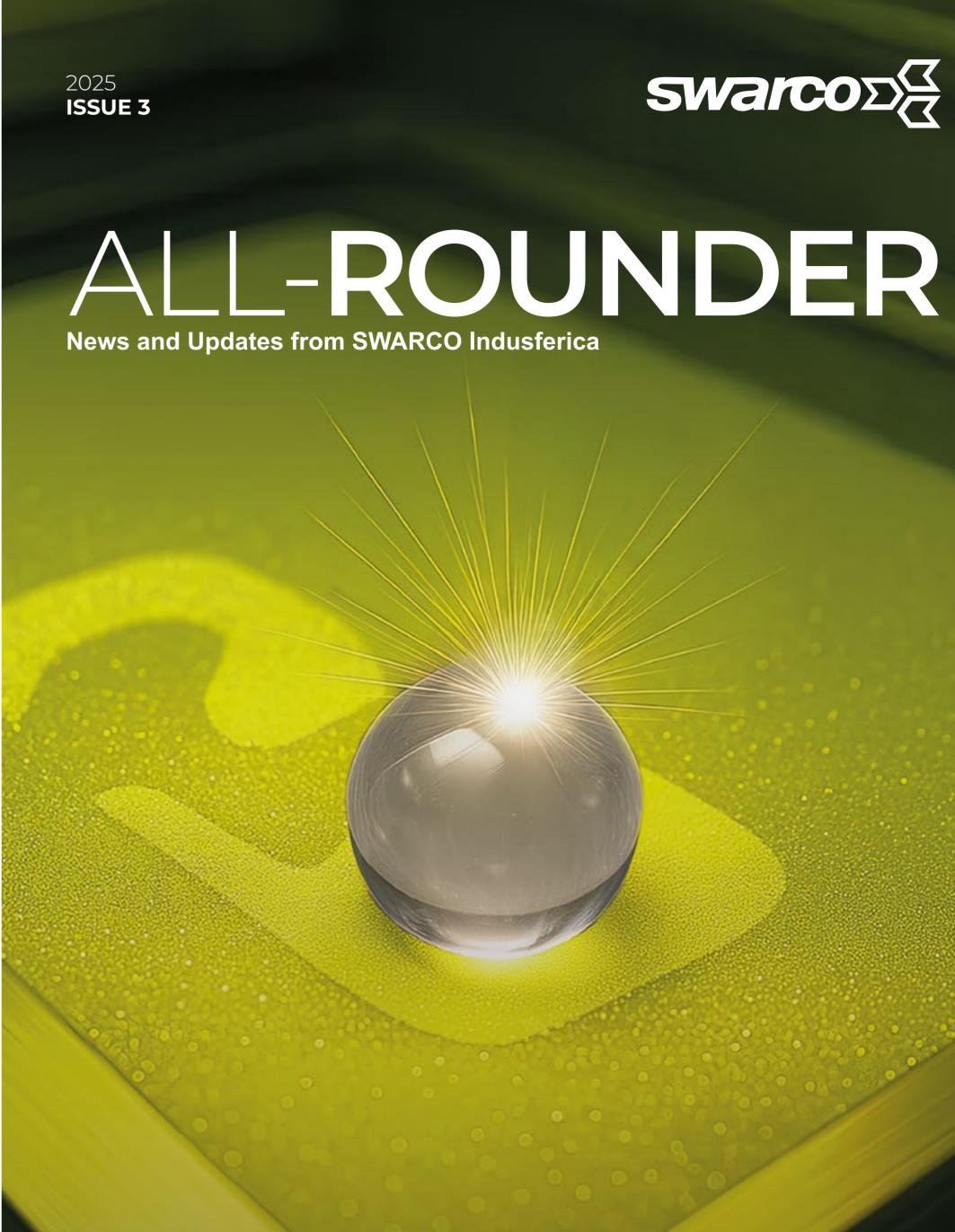
Every era has its people who resist change, like the small companies who once ignored the internet and trusted that all they needed were the Yellow Pages. Now, we are seeing a similar reluctance to embrace artificial intelligence (AI). For some, it is a temporary trend. For others, it is a force that is fundamentally changing the core of how we work.

While Al's influence on digital services is obvious – as we have seen with chatbots, personalization and predictive analytics - its role in traditional industries such as manufacturing, materials management and logistics may seem less apparent. In fact, Al plays a direct role in these industries. In these areas, Al's true strength doesn't lie in the interaction with customers, but in the optimization of internal processes: product development, process control, inventory management and supply chain resilience.

Our experience confirms this. By integrating AI into our workflows, from marketing analysis to R&D modelling all the way to logistics planning, we are achieving a level of efficiency that once required enormous resources and time. Al-assisted tools help us interpret complex data sets, carry out simulations and gain insights faster and more accurately than we would

However, Al isn't replacing us – it complements us. By taking over repetitive analyses and accelerating decision cycles, it frees human talent for what really counts: creativity, empathy and strategic thinking. This results in better products, smarter processes and, above all, stronger relationships with our customers.

After all, no machine can replace the human ability to listen, understand and care. And that is where the true value lies.



AI - OPPORTUNITIES **FOR THE INDUSTRY**

3D PRINTING MEETS **RECYCLED GLASS**

INNOVATION **AWARD**

SWARCO INDUSFERICA AT K 2025

#needforbeads

www.swarco-indusferica.com









Dear readers,

Innovation often begins where different strengths come together. In this issue of the All-Rounder, we show how new technologies, sustainable materials and creative minds work together to make real progress possible.

Whether in the resource-efficient use of glass filler beads in 3D printing or the integration of Al in industrial processes, these are precisely the interfaces where we at SWARCO Indusferica want to set new standards. Here, we focus not only on technical performance but also on how we can create smarter, more efficient and more responsible solutions.

A special highlight of this issue is our look back at the first SWARCO Indusferica Talent Award, which was a strong indicator of the innovative strength of the next generation. We are also looking ahead to K 2025, where we will be presenting our latest developments live.

In this All-Rounder, I invite you to discover exciting perspectives and join us in taking our ideas on the future of industrial glass beads to the next level.

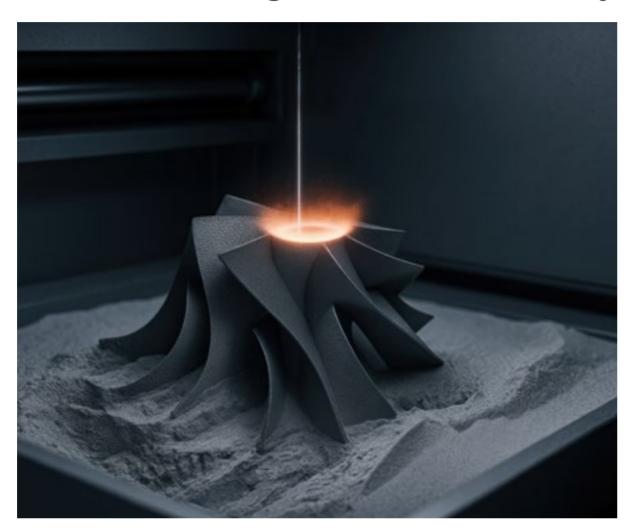
Best regards,



Andreas Krenmayr Key Account Manager SWARCO Indusferica

3D PRINTING MEETS RECYCLED GLASS

Additive Printing, Resource Efficiency



Achieving homogeneous material distribution in selective laser sintering with SWARCOFORCE glass filler beads Photo credit: Studio0816, ChatGPT

Additive manufacturing has become indispensable in exacting industries. Whether in the automotive industry, aviation or medical technology, additive printing has established itself wherever quality, precision and complex geometries are required. These are precisely the areas where SWARCOFORCE glass filler beads create new opportunities for innovation.

The targeted use of glass filler beads significantly improves the mechanical properties of printed components. The homogeneous distribution of the beads in the printing material increases stability and enhances surface quality. The glass beads also optimize the material's flowability in the printing process and have a positive rheological impact. The result is improved process control, more precise component geometries and less production waste.

In addition to these mechanical and rheological advantages, glass filler beads also have a positive effect on the thermic behaviour of printed components. They reduce heat warpage and improve temperature distribution, thereby promoting precise dimensional accuracy. Not only do these properties enhance quality, they also increase process stability and cost efficiency in 3D printing.

SWARCOFORCE glass filler beads consist of high-grade recycled glass, making their sourcing another added value. Recycled glass typically has a lower carbon footprint than primary raw materials, which can reduce the environmental impact of the finished components. Optimized material properties make it possible to produce leaner, more complex components, which, in turn, creates potential to reduce material use.

Integrating SWARCOFORCE glass filler beads achieves technologically convincing, rheologically optimised and resource-conscious solutions in 3D printing.

INNOVATION AWARD

Glass Beads for More Efficient Solar Modules

The possibilities for glass beads are seemingly endless – especially when young talents develop creative concepts, like those recognized with the first-ever SWARCO Indusferica Talent Award (SITA) presented in March 2025.

Award winner Cornelia Marchfelder made a compelling case with a concept that could significantly increase the efficiency of bifacial photovoltaic systems. In addition to direct sunlight, these PV systems also utilize light that is reflected onto the rear side of the modules. This reflection potential can be optimized through the targeted use of reflective glass beads in the coating applied to the surface underneath or behind the PV modules.

Up to 95% of the incident light could be reflected, increasing the efficiency of the modules by up to 30%. The glass beads also improve resistance to mechanical wear and UV radiation, making for a more durable coating.

For Thomas Auinger, Head of Indusferica, this use is an example of the practical innovative strength of the glass beads in industrial applications: "This solution combines technical requirements with clear benefits for customers."

SWARCO Indusferica's goal with SITA is to recognize young talents who think about existing materials in a new way and develop future-proof applications.



First SITA: innovative concepts for more efficient photovoltaics thanks to reflective glass beads Photo credit: SWARCO Indusferica

SWARCO INDUSFERICA AT K 2025

Experiencing Glass Filler Bead Innovations Live

We will be presenting innovative use cases for our SWARCOFORCE glass filler beads at the international K 2025 plastics fair in Düsseldorf, Germany, from 8 to 15 October.

Discover how our solutions achieve targeted improvement in the properties of plastic and composite materials – whether stability, surface quality or weight.

We look forward to interesting discussions with you!



OUR NEW WEBSITE IS NOW ONLINE



SCAN THE QR CODE TO FIND OUT MORE