



PRESS RELEASE

Future startup 2023: SurFunction achieves second place in the Startup Award of the German Mechanical Engineering Summit in Berlin

As part of an exclusive pitch competition of the German mechanical engineering industry, future startups with leading ideas for biological transformation were sought. SurFunction was nominated as a finalist and came in second place.

Berlin, November 8th, 2023 - SurFunction, a leader in sustainable surface technology, is pleased to announce that it has achieved second place in the Startup Award for Biological Transformation in Mechanical Engineering at the 14th German Mechanical Engineering Summit in Berlin.

The competition, sponsored by VDMA "Startup-Machine" and the trade newspaper "Produktion", honors pioneering young companies that make a significant contribution to innovation in mechanical engineering through their ideas on biological transformation. The focus here is on the areas of biointelligence, bioinformatics, biotechnology, bioeconomy and bionics.

The Startup Awards finalists were carefully selected and SurFunction was proud to be among the top 5 nominees. The efficient use of limited resources, the promotion of a sustainable circular economy and the integration of new materials in mechanical engineering - SurFunction was also able to convince the expert jury in advance with these inspiring approaches. The nominated startups had the opportunity to take part in an exclusive pitch competition in front of around 800 decision-makers from the German mechanical engineering industry. SurFunction presented its innovative new technology platform ELIPSYS® and how it contributes to biological transformation in mechanical engineering.



During the competition, SurFunction demonstrated how DLIP (Direct Laser Interference Patterning) technology plays a key role in implementing biomimetic approaches to surface functionalization. This technology makes it possible to implement natural principles in industrial applications and improve surface functionalities.

Although SurFunction narrowly missed out on first place, the company is proud to be recognized among the leading innovators in the field of biological transformation in engineering. Recognition from this prestigious competition is a validation of SurFunction's commitment to innovative technologies and promoting sustainable solutions in the industry.

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Background of the German Mechanical Engineering Summit

The German Mechanical Engineering Summit is an annual conference that brings together leading minds from the mechanical engineering industry in Germany. This year, the 14th edition of the summit took place in Berlin on November 7th and 8th. It is a key event for the industry, providing an opportunity to exchange ideas about innovation, transformation and networking.

The conference serves as a forum to reflect on Germany's long-standing position as a leading export nation, which is increasingly being challenged by international competitors and geopolitical events such as the corona pandemic and the war in Ukraine. These challenges underscore the importance of stable supply chains and a robust energy supply.

In addition, topics such as the shortage of skilled workers, demographic change and the demands of younger generations on the world of work are discussed. Digitalization and the opportunities arising from the application of artificial intelligence are also central points of discussion.

The summit not only offers the opportunity for industry experts to exchange ideas and network, but also to interact with politicians and scientists to develop common solutions for the future. This year the Federal Minister for Economic Affairs and Climate Protection, Dr. Robert Habeck and the Federal Minister of Finance, Christian Lindner, took part as guests of honor.

In addition to the discussions and networking opportunities, there are also celebratory moments, such as the presentation of the "German Mechanical Engineering" prize, which is awarded by the trade magazine "Produktion" for many years of entrepreneurial success. Another highlight is the award for startups, which this year places particular focus on the biorevolution and pioneering technologies.



Background of DLIP and ELIPSYS®:

Surface structures play a crucial role in the performance of almost all technical components, as decades of research undoubtedly show. Nature itself offers fascinating examples of the efficiency of surface structures: the non-stick properties of the lotus plant or the iridescent color effects on butterfly wings are only possible through complex micro- and nanostructures. However, reproducing these natural phenomena on an industrial scale has so far been a challenge due to a lack of technology that enables economical production on an industrial scale.

The solution to this challenge has been achieved through groundbreaking research work in recent decades and the invention of "Direct Laser Interference Patterning" (DLIP) by Prof. Dr. Frank Mücklich and Prof. Dr. Andrés Lasagni. This technology has laid the foundation to revolutionize the way we manipulate surfaces on a microscopic level. The principle of interference is used here, comparable to the interaction of colliding water waves. This analogy can be applied to light rays that are split and then superimposed so that they interfere with the surface of the material. The result is precise, fine structures that were previously only found in nature.

The consistent further development of DLIP technology by SurFunction GmbH has now opened a door for industrial application. ELIPSYS® (Extended Laser Interference Patterning System), the latest generation of DLIP technology, enables particularly quick and economical creation of complex surface structures that improve the properties of a variety of products (e.g. non-stick, antibacterial, energy efficient, low-friction, highly electrically conductive or anti-counterfeit). DLIP and ELIPSYS® mark a turning point in the production and functionalization of material surfaces for a wide range of industries.

SurFunction GmbH (www.surfunction.com):

SurFunction is a leading system provider for contactless surface modification. The company, based in Saarbrücken, uses a wide variety of laser-based processes based on award-winning and patented interference technologies. This makes cost-effective, cross-scale surface structures possible in record times, which are modeled on living nature. Surfaces can thus be given new properties. True to the



claim "nature knows best", SurFunction opens up new innovation potential and offers companies from numerous industries significant competitive advantages. SurFunction provides customers with complete systems and highly functional surfaces. In this way, SurFunction improves its customers' products and processes and makes an active contribution to resource conservation.