

# impulse

**Issue 1/2023**

Ensinger GmbH Magazine  
ensingerplastics.com



## *Sadness at the death of Wilfried Ensinger*

*The founder of the family-run company has died at the age of 87*

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# Sadness at the death of Wilfried Ensinger

Wilfried Ensinger passed away on 23 May at the age of 87. The employees mourn together with his family members.

With the loss of its founder, the Ensinger Group says farewell to a passionate engineer, creative inventor and dedicated entrepreneur who – even in the decades following his retirement from the Management Board – was fully committed to the welfare of the company and its employees. Originating in a garage in Ehningen, the small company founded by Wilfried Ensinger in 1966 has grown into an international corporate group that is one of the global leaders in the processing of high-performance plastics.

At the beginning of his career, Wilfried Ensinger completed an apprenticeship to become a toolmaker and took his master craftsman's examination. Subsequently he worked as an operations and factory manager in different companies that specialised in mechanical engineering, precision mechanics and the plastics processing industry. He completed a part-time course of study with a degree Industrial Engineering and a diploma in Engineering.

With the aim of producing quality stock shapes and machine components from the engineering plastics that were emerging in the sixties, Wilfried Ensinger launched his own company in Ehningen. Transferring the company headquarters to Nufringen allowed the company to expand its production capacities. A short time later, the production of components through the machining of stock shapes began. At the end of 1977, Ensinger was able to supply aluminium window manufacturers with the first series-produced insulating bars made from glass fibre-reinforced polyamide 6.6. A second production plant built in Cham in 1980 enabled the series manufacture of profiles and



Wilfried Ensinger (1936-2023).

other product lines. What today is the corporate group's biggest subsidiary was established in the USA in 1986. In the years that followed, numerous additional overseas branches were set up in Europe, South America and Asia. Wilfried Ensinger never rested on his laurels. Constant development of products and production processes and the cultivation of employee potential were his guiding principles right from the start. In 1997 he handed over the operational management to the second generation and increased his involvement in community and social projects. The Wilfried and Martha Ensinger Foundation, which he and his wife created, sponsors social, cultural and scientific institutions at home and abroad. In his capacity as president, and later honorary president of the Böblingen District Chamber of Commerce and Industry, he provided key impetus for committee reform and for improving in-company training. The University of Stuttgart conferred the title of honorary senator on the father of four. In 2005, Wilfried Ensinger was awarded Germany's Federal Cross of Merit and two years ago, the town of Rottenburg am Neckar made him an honorary citizen. ■

## Passing on what we have received

Dear Reader,

Our "boss", senior, father, grandfather, has died, and leaves us mourning his parting. All of us, family and staff alike, mourn the loss of a great man, who was an inspiration to us and to whom we owe much. Time and again, our sadness and emotions are mixed with fresh thoughts. Memories of special encounters and events come to the fore.

We all have our own memories.

Like many sons, I had a complex relationship with my father, with closeness and understanding but also conflict and distance. The beginning featured a lovely childhood. My Dad was the best in the world. How great it was when he would finally get home and play with me, even though I should have long since been asleep – and all the things he showed and explained to me!

Eventually we both had to leave this paradise, at the very latest as I was gradually growing up. Arguments and misunderstandings occurred, expectations were dashed. He responded as patiently as possible to my rebellious arguing – against social injustices, against increasing environmental pollution, against his all-pervading manner. Then, with the mediation of my mother, we made our peace – the businessman and I, his son and "Green One", as he called me partly out of annoyance and partly out of amusement: ambivalent praise at that time.

It became increasingly clear that there was an elephant in the room, namely the idea that I could (or must?) one day follow in his great footsteps. At the same time, I was fundamentally different from him, and that soon became clear to me. He understood technical matters much quicker than I, and he had a particular charisma. Compared to him, I sometimes felt quite average. However, in other respects, I followed in his footsteps. It was an affirmation for me when he took me with him to see customers and suppliers, even as a teenager. He was happy to leave it to me to ask critical questions in discussions and was glad when I was able to add to his ideas or introduce a completely new option. And when I managed to resolve conflicts by making clear to him what was going on in other people's heads and the fact that a compromise had to emerge, my confidence grew – to the extent that I dared to go my own way beside this father figure, even within the business. The things that distinguished him as the founder of the company were his creativity and power of persuasion, his charisma, his seemingly boundless energy, his zest for life, love of competition and human interaction, of celebration, his sense of humour and his cheerfulness. But – and I saw this too – in his way, he himself also suffered. All at the same time, he could seem driven, uncertain, even despondent and disheartened. And when he reached a low point, it took a long time for him to recover. Indeed, the fireworks of his inspiration came at a price. With my moderate and more introverted nature, I have been unable to follow him to his highs, but I have also experienced fewer dark depths to traverse.

This is not a story about my father or me: it is a story about our relationship. His personality cannot be represented objectively; it is reflected in relationship with every individual. Dear Reader, you also had a relationship with my father. Some of my depiction will seem familiar to you, some of it less so, and some things will be missing. Nonetheless, we all agree – and your many letters and our conversations bear witness to the fact – that Wilfried Ensinger had a hand in shaping and developing our life, ensuring it took a constructive and human direction. What now remains for us is to show our respect for him by passing on what he imparted to us.

Warm regards

A handwritten signature in black ink that reads 'K. Ensinger'.

Klaus Ensinger

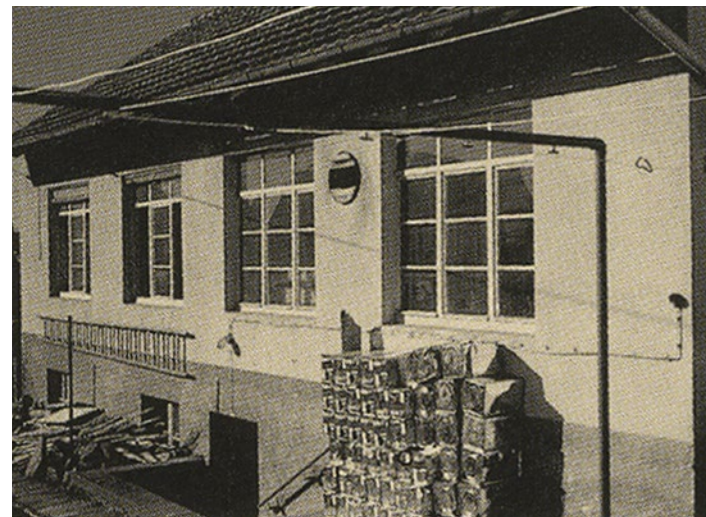
# Engineer, entrepreneur, founder and family man

## Wilfried Ensinger (1936-2023)

Wilfried Ensinger was a classic entrepreneur from the German 'Mittelstand'. With technical know-how, entrepreneurial vision and a healthy willingness to take risks, Wilfried Ensinger quickly set the company founded in 1966 under the name Technische Kunststoff Gesellschaft oHG on course for expansion at an early stage. Personal credibility, dedication and enthusiasm were the basis for many long-lasting relationships with customers, suppliers and employees at home and abroad. His family were a source of great joy. Conversations with his wife and children, hiking and listening to music were ways in which Wilfried Ensinger recharged his batteries.



Multitasking in the 1960s. Wilfried Ensinger with his eldest daughter Eva on the job.



The garage in Ehningen in which it all began. During tube production, extrusion had to take place through the open door into the yard.



Wilfried Ensinger doing design work at his desk (approx. 1970).



When the company headquarters moved from Ehningen to nearby Nufringen, the decade of rapid growth began. In 1971, with its 24 employees, Ensinger managed sales of 3.5 million DM.



Wilfried Ensinger (2nd from left) and his older brother Werner (left) with Richard Pflüger (2nd from right) and Wolfgang Balbach (right) on the extruder.



First overseas branch in the USA. "Be faster and better than the competition. One ought to achieve one of these two things", was a creed followed by Wilfried Ensinger.



Martha and Wilfried Ensinger in the 1990s. The wife of the company's founder was always prepared to do her bit for the company, ferrying the first stock shapes to the station in a pushchair and doing office work.



1997 with John Speirs, Ensinger Ltd.



The boss defends a ball (1993).



The new generation of technical employees was very important to him. Presentation of the Wilfried Ensinger Award at the K2010 trade fair.



Anniversary 2016. In the marquee, employees from Germany and abroad celebrated the achievements of the founding couple Wilfried and Martha Ensinger. During the festivities Klaus Ensinger took the opportunity to thank his parents: "If you had not had the courage to set up this company 50 years ago, none of us would be standing here this evening."

# The innovation driver

## The future comes from the New Business Factory

In the 1960s, Wilfried Ensinger developed some of the plants and processes for the extrusion of engineering plastics himself. His company already having grown significantly, he set himself and his cooperation partners from industry and academia the challenge of producing insulating profiles from glass fibre reinforced polyamide 6.6. 1977 was the year of their technical breakthrough – Ensinger was able to supply the first insulating bars to aluminium window manufacturers. Innovations are part of the company's DNA and are the basis for its success. To date, Ensinger has filed numerous patent applications on different continents. How can the culture of innovation be boosted further and sustainable growth be generated with the aid of new business models? This was the question which, three years ago, a Nufringen-based project team consisting of managing directors, divisional heads and technical specialists was trying to answer. Once the innovation project had been completed, the decision was made to structurally embed the development of new business models within the company. For this purpose, the division "Industrial profiles and Tubes" (IP) was converted into a new division: **the New Business Factory (NB)**.

"We are the innovation driver in the company", says Matthias Wochele, who has been in charge of the New Business Factory since it was set up. "With our start-up culture, we allow the ideas generated by our employees plenty of scope, thereby easing the path for new markets, products and processes so as to create technical solutions for our customers."

Topics with innovation potential are driven forward by teams with different remits:

- The Incubator Team is concerned with finding, developing and evaluating new ideas and business models. The internal body of experts communicates with the customers and with Ensinger's network.
- The Start-up Team ensures the financially successful implementation of the new business models.
- The Support Team supports the start-ups on their journey from development through to production. To provide strategic support for the market launch, the New Business Factory has built up its own resources for the fields of Marketing and Business Development.

### Business models for growth markets

Alongside the established business area – the extrusion of profiles and tubes from thermoplastics – the New Business Factory has defined four further start-ups designed to push forward their products in growth markets:

- Additive manufacturing (3D printed prefabricated components)
- Filaments made from engineering and high-performance plastics
- Microsystems (e.g. LDS wafers, sensor systems, transformers)
- Bipolar plates for fuel cells



Matthias Wochele, Head of the New Business Factory.

"All our start-ups have a link to Ensinger's core competencies. This means that the New Business Factory benefits from more than 50 years of experience in the manufacture and processing of high-performance plastics", explains Matthias Wochele. "Nevertheless, we are a flexible organisation which analyses promising trends, regulates the innovative process in a customer-focused way, and produces high-quality products efficiently."

The platform is growing dynamically. Several start-ups within the New Business Factory are among the technological leaders in their fields, with key factors being market knowledge and material and process know-how. Further competitive advantages are

generated from the value added chains in the company and from the cross-linking with other business areas and external partners. It is already becoming apparent that the culture of innovation of the youngest division is boosting the spirit of development and entrepreneurship across the entire Ensinger Group.

We introduce you to two of these start-ups in this newsletter. In the next edition of the impulse magazine you will find information on additional business models of the New Business Factory.

### More information



### Employees can submit ideas to the New Business Factory

The Ensinger employees also have the chance to submit their start-up ideas to the New Business Factory. But it is important to note that, unlike with the EVI programme or conventional suggested improvements, this is not about the product, process or service quality of an established division, but about new products or innovative processes.

The Incubator Team led by Christian Henne examines the technical feasibility against the backdrop of the market conditions, and decides whether the idea can be converted into a promising business model by the NB. After this, the team launches a preliminary project which includes a

market analysis and preliminary trials. If the outlook is positive, then a business plan is developed.

The idea generators can, by agreement with the managerial staff, contribute to the further development of their project during working hours and learn from their colleagues in the process.

Anyone who wishes to suggest a topic to the Incubator Team can send a brief description of their idea and its advantages directly to Christian Henne.

### E-Mail:

innovation@ensingerplastics.com

## Additive Manufacturing: From idea through to market-ready product



Additive manufacturing enables the rapid, precise manufacture of customised plastic parts. The components are built up layer by layer in a 3D printer. Since additive manufacturing does without complex moulds or tools, the process can also compete with most plastic processing methods from a cost perspective. The manufacture of prototypes, replacement parts and the 3D printing of components in short production runs is particularly cost-effective.

### Everything from a single source

"In this growth market, the New Business Factory sees itself as a one-stop shop. Our experts support the customer projects from the selection of the right material or design with advanced CAD software through to the finished end product", says Holger Schönhuth, Head of Sales and Product Management. At the Nufringen site, Ensinger covers the whole value added chain. The starting point is the compounding of the thermoplastic engineering and high-temperature plastics. An in-house start-up extrudes the granular material into filaments (TECAFIL, see below). Additive manufacturing allows geometries that cannot be pro-

duced with any other processing technology to be achieved with high precision in a single work step, for example stable honeycomb and lattice structures for particularly lightweight components. For high-performance plastics, 3D printing opens up areas of application which were previously unthinkable.

### Aeroplane parts and medical instruments

In the field of medical technology, 3D printing enables the production of precision parts exactly tailored to the needs of the individual patient. For example, precisely fitting medical instruments or trial bone plates that conform to regulations can be produced cost-effectively and safely.

In the aerospace industry, metals are increasingly being replaced by high-performance plastics. 3D printed aeroplane parts help to reduce fuel consumption and CO<sub>2</sub> emissions through material and weight savings.

"Our production for the rail industry, aerospace and medical technology segments enables the manufacture of customer-specific parts and short runs that meet the highest safety and quality standards. The 3D printers and materials have been appropriately tested



Additive manufacturing in Nufringen – top-quality 3D printed parts.

and inspected to meet the requirements of the relevant industry”, emphasises Marius Graf, who, as a start-up lead and development engineer, contributes his know-how to the Additive Manufacturing start-up.

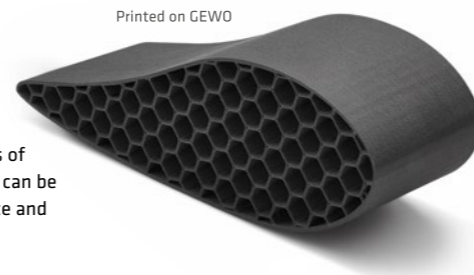
**Isotropic strength**

Ensinger has already succeeded in creating an isotropic strength distribution in the component for important MT materials such as PEEK and PPSU. As a result, the components can be exposed to stress in different pressure directions, i.e. also at right angles to the boundary layers. In this way, complex applications are also enabled without any losses in terms of mechanical properties or requiring compromises in terms of construction and design.

**Surface finishing**

Since smooth surfaces play an important part in the sterilisation and reprocessing of medical technology products, the Additive Manufacturing start-up offers a variety of finishing techniques for this. For example, through mechanical and chemical post-processing steps, the surfaces of 3D printed trial implants or bone plates can be prepared.

Where the components have similar strength and rigidity, big savings in terms of weight, materials and costs can be made by means of the lattice and honeycomb structures.



**Filaments: materials for all tasks**



The New Business Factory offers a wide range of filaments made from high-performance polymers for additive manufacturing. These go by the brand name TECAFIL. Production of the filaments is based on the decades of experience acquired by Ensinger in extrusion technology. The start-up’s focal areas of industry are medical technology, aerospace and the rail industry.



Ensinger offers a wide range of filaments made from high performance polymers under the name TECAFIL.

**Medical technology** places high demands on the starting materials and components. Complex geometries are often required. With its Medical Grade (MT) Filament Portfolio, Ensinger offers filaments which are produced in line with ISO 13485 and tested and assessed for biocompatibility in accordance with Standard ISO 10993-1, -4, -5, -18. These products meet the specified requirements for contact with skin and tissue for up to 24 hours and as the case may be, indirect blood contact.

The high-performance plastics used in the **aerospace** sector are also subject to strict guidelines. Using filaments specially developed for this industry, Ensinger offers 3D printing materials for the production of components which are inherently flame resistant and tested and qualified in line with FAR 25.853 and UL94 V-0. Over and above this, the New Business Factory produces a flame-retardant filament explicitly developed for the interior fittings of aircraft.

For the **rail industry**, Ensinger produces filaments with specific properties in accordance with the relevant material standards and EN 45545-2.

Alongside its stock programme, the New Business Factory also offers the contract manufacture of filaments to customer order. “Thanks to our in-house compounding and filament extrusion, we are able to produce qualified materials which are precisely tailored to our customers’ requirements”, explains Holger Schönhuth.

**Online shop for filaments**

At filaments.ensingerplastics.com potential customers can find Ensinger’s wide range of materials: High-temperature plastics ranging from PEEK to PVDF, engineering plastics ranging from PC to PA6. In addition, there are glass and carbon fibre reinforced filaments and numerous other modifications. Data sheets, parameters for 3D printers and comprehensive advice complete the on-line shop’s range.

**A warm welcome ...**

**Employees who have joined Ensinger GmbH from January to June 2023**

**Nufringen**

**HR**

Isabel de Monte  
Nadine Zipperer

**Industry Segment Management**

Florian Pfeiffer

**IT**

Serhat Akinci  
Ashwini Somnath Kadam  
Rhea Schäfer

**New Business Factory**

Adrian Plamada

**Shapes**

Samuel Espinal Figaro  
Fabian Fenchel \*

Besart Gjyliqi  
Dimitrij Gross

Jenny Hajdarovic  
Jeron Kuner \*

Janaina Melo Saile  
Tim Neuffer

Enes Öcal \*

Julia Schnell

Marcel Patrick Selz

Ferenc Vezekenyi

Schadi Yassine

**Special Products**

Artur Protasenko

**Technical Management**

Stefan Maier  
Bakary Marong

**Tooling**

Pascal Nüßle \*

**Ergenzingen**

**Injection Moulding**

Ali Arslan

Jens Beilharz

Daniel Hornung

Frank Marquardt

Dominik Pitzen

Marco Seeger

Konstantinos Stotoglou

**Apprenticeship:**

**Process Mechanics**

Faris Balic \*\*

**Cham**

**insulbar**

Alexander Barak

Daniel Krottenthaler

Matthias Mauerer

**Machined Parts**

Daniel Hirmer \*

Dominik Kolbeck

**Quality Management**

Markus Schneider

**Shapes**

Sebastian Fischer

Robert Peter

\* Taken over after the apprenticeship  
\*\* Start of training as early as September 2022

**With the best thanks ...**

**This year the following employees celebrate their company anniversaries at Ensinger GmbH:**

**25**

**Nufringen**

Martin Baras  
Renate Breitling

Petra Gaida

Alexander Gall

Frank Gross

Anton Horvat

Zdenko Korbel

Bernd Machmueller

Jochen Pany

Maik Schaarschmidt

Markus Wanner  
Michael Widmann  
Michael Wieland  
Kevin Winzetitsch

**Ergenzingen**

Ulrike Reichardt

**Cham**

Andreas Alsfasser

Thomas Aumer  
Thomas Bauer  
Alexander Brahmer  
Alexander Christl  
Alexander Daschner  
Thomas Froehlich  
Guenther Goettlinger  
Herbert Gruber  
Stefan Heigl

Horst Karen  
Uwe Kolbeck  
Gerhard Lankes  
Thomas Lankes  
Rainhard Lommer

Klaus Mueckl  
Franz Muehlbauer  
Martin Pinkl  
Stephan Raab  
Manuel Schuster  
Bettina Steinbauer  
Werner Wache

**40**

**Nufringen**

Wolfgang Luzens

## Global transformation programme “Next”: Focus on customers, skills and regions

**NEXT** For many years, the organisational structure of Ensinger has been arranged by divisions, technologies and products. With the “Next” programme, of which the global launch took place on 14th July in the context of internal information event (Ensinger Compact), the management board initiated a transformation from the current divisional structure to an organisation with a functional and regional focus. In the future, the group of companies will be managed by three equal Directors. However, to improve competitiveness further and to achieve global objectives such as digitalisation and sustainability, the management board will define stand-

ards and guidelines that should facilitate regional developments more widely than before. After the reorganisation, Ralph Pernizsak will be the Director responsible for the area of Market & Innovation and for the region of Asia. Dr Roland Reber, who has been a member of the Ensinger management board since he joined the company in 2002, will look after the markets in North and South America as well as the service areas. The EMEA region and the Operations & Technology functions form part of the area of responsibility of the third Director position, which should be filled within the coming year, at the latest. Dr Oliver Frey left the management board

and the company at end of January. At management level, Ralph Pernizsak and Dr Roland Reber have taken over the functions and responsibilities previously undertaken by Dr Oliver Frey.



Ralph Pernizsak and Dr Roland Reber.

## Leaving certificates and award ceremonies

This spring, the Nufringen and Cham sites once again saw several up-and-coming specialist staff complete their apprenticeships. Two male graduates and one female graduate stood out for their



Enes Öcal (3rd from left, process mechanic) and Pascal Nüßle (3rd from right, tool mechanic) were honoured with the Wilfried Ensinger Award for their excellent apprenticeship results. At the awards ceremony in Nufringen, congratulations came from Edith Holzberger (left, Chair of the Wilfried and Martha Ensinger Foundation), Andreas Schweikert (2nd from left, Apprentice Trainer), Miriam Fiedler (2nd from left, Head of Staff Development and Training) and Marcel Kurz (right, Apprentice Trainer). Now a trained specialist, Enes Öcal is working in the Production department of the Shapes division. Pascal Nüßle has joined the team in the Tooling department at the Nufringen site.

particularly good results and were recognised for their achievements with a Wilfried Ensinger Award.



In Cham, Daniel Hirmer (3rd from left), Marie Weindl (3rd from right) and Jenny Wittmann (2nd from right) have completed their apprenticeships. All three have trained to be machinists. At the site's training workshop they were trained by Markus Heigl (left) and Heiner Hackl (2nd from left). “Today we are proud and delighted to present you with your leaving certificates and wish you a successful start to your career”, said Marcella Schießl (right, Team leader for training and staff development). Jenny Wittmann was additionally honoured for her excellent achievements with the Wilfried Ensinger Award.

## First IT EduWeek

IT lessons are exciting if theory and practice are brought together successfully in exercises and experiments. In February, for the first time, the trainers at the Nufringen site organised an IT EduWeek for the Service Center's apprentices and dual degree students.

In the first few days, the focus was on the interlinking of computer systems. Other topics were the virtualisation of servers and the operation of data centres. In addition, participants worked through all layers of the most important network protocols. In a practically oriented test environment, the participants were able to learn how complex systems consisting of servers and end devices are connected by cable.

The second part of the week looked at IT security issues. Using practical exercises it was demonstrated how criminals operate in the digital world and how they think. Thanks to the laboratory conditions during EduWeek, the new IT recruits were also able to do something wrong for once without creating risks for the Ensinger network.

Following its successful debut, the IT department would like to

integrate the EduWeek as a fixed component of apprenticeships at Ensinger in the future.



Michael Wende (IT Administrator and Trainer), Gero Strotbek (Apprentice, IT Specialist), Endrit Mustafa (Bachelor programme, Information Systems), Thomas Fleck (Bachelor programme, Business Informatics), Jens Dettinger (IT Security officer) and Felix Braun (Apprentice, IT Specialist).

## Outstanding academic papers at the Institut für Kunststofftechnik

For many years now, the Wilfried and Martha Ensinger Foundation has been recognising outstanding doctoral and Master's theses written at the University of Stuttgart's Institut für Kunststofftechnik (IKT). In March, Dr Jochen Kettemann received a Wilfried Ensinger Award for his dissertation on “Simulation of plastic melt flows in extrusion processes with an immersed boundary method”. An award also went to Stefan Sedlatschek for his Master's thesis entitled “Investigation and optimisation of shrinkage prediction of amorphous thermoplastics under process-oriented solidification conditions”. The awards were presented by Klaus Ensinger as part of the 28th IKT plastics colloquium at the University of Stuttgart.



Presentation of awards at the University of Stuttgart (from left to right): Klaus Ensinger, Stefan Sedlatschek, Dr Jochen Kettemann and Prof Christian Bonten.

Photo: Schröder / Plastics, Hanser-Verlage

# “In semiconductor production, the devil is in the detail”

Interview with Nami Lohbeck

■ **5G networks, artificial intelligence, driverless cars – practically all modern technologies are based on microprocessors. Nami Lohbeck, Industry Segment Manager for Semiconductors, EMEA & Asia, describes the demands the chip manufacturers are placing on suppliers like Ensinger. He also explains how the Ensinger Group's international sites and divisions are positioning themselves strategically on the semiconductor market, and exactly what is meant by the term “Copy exactly”.**

*In the past few years, the increasing demand for electronics and digital devices has resulted in prolonged microchip shortages. Why does the semiconductor industry need so much time to adjust its capacities?*

With each new generation of processors, it is not just efficiency that increases, but also the costs involved in producing the semiconductors. Production requires highly complex facilities and technologies which keep having to adapt to new requirements. Semiconductor factories and plant manufacturers face the conflicting priorities of process control and cost-effectiveness. What is more, the semiconductor industry is extremely cyclical, meaning that periods of high demand and growth are often followed by periods of surplus and low demand. To avoid shortages, the entire semiconductor supply chain needs to be able to adapt flexibly to these cycles.

*The complex manufacturing processes for semiconductors require special facilities. What demands is the industry placing on suppliers such as Ensinger?*

In order to guarantee consistent quality, the semiconductor industry uses a production

method known as “Copy exactly”. With this method, each process step is monitored to ensure that each product is identical to every other, right down to the smallest detail. Both the equipment manufacturers and the material and component suppliers must ensure that their in-house production and logistics are reproducible from all perspectives.

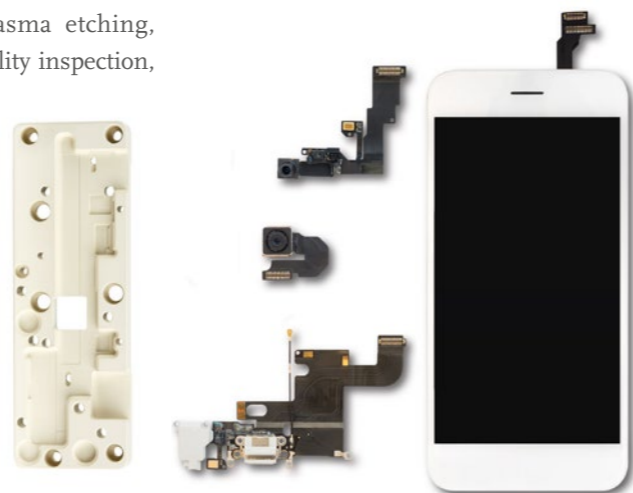
Since components keep getting smaller and more complex, even minor contaminants and defects can also have serious consequences. To achieve optimum wafer output, plant manufacturers and material suppliers must minimise potential sources of contamination. At the same time, cost-efficiency must not be overlooked.

*Which areas of the semiconductor industry are covered by Ensinger's range of services?*

Our stock shapes and prefabricated components made from thermoplastics have proven their worth in a variety of tools throughout the manufacturing process. These include wet processes, chemical mechanical planarisation, plasma etching, deposition, lithography, quality inspection, assembly, packaging and lots more. We work closely with leading equipment and system manufacturers to be able to provide special materials and prefabricated components that withstand the rough processing conditions, minimise the risk of contaminants, improve the performance of the end products, and lower operating costs.

*What benefits are there for customers who opt for our stock shapes portfolio?*

Our high-quality material solutions are ideally suited to the industry's “Copy exactly” regulations. For our semiconductor-quality stock shapes, we use special measures during production that are significantly superior to the industry standard, in order to avoid stresses within the plates and rods. We manufacture the semiconductor products under special conditions in order to reduce the risk of contamination and visual defects. Ensinger has a worldwide network of warehouses. For plates and rods, the portfolio comprises hundreds of different dimensions which means that large quantities can also be supplied just in time. And for exclusive formulations we can use our own compounding facility.



Testing equipment on which plug connectors for camera modules, aerials and other smartphone components are tested.

*How does Ensinger stand out from the competition?*

For the manufacture of prefabricated components and assemblies, Ensinger has at its disposal a global network of machine shops and injection moulding plants in Europe, Asia and North and South America. On our state-of-the-art facilities we manufacture precision components with extremely narrow tolerances which meet the most stringent of requirements. Over and above this, special technologies are used for our prefabricated components, for example the high-precision welding of high-temperature plastics such as PEEK in our processing centre in China.

Whether compounding, extrusion, compression moulding or further processing, we have all processes in the value added chain in house, making us a one-stop shop that offers our customers full transparency.



Dust-free packaging of machined parts in the machine workshop in China.

*What is the outlook for the semiconductor business?*

The demand for high-end microchips will continue to increase in the next few years. New chip factory plans must be drawn up for every technological advance. The finer the transistor structures, the more process steps and the more complex the plants for their production. We are making every effort to meet these demands by investing in advance production capacities and participating in extensive research and development projects.

More information



Short vita



Nami Lohbeck is an Industry Segment Manager at Ensinger and in charge of the international sale of stock shapes and prefabricated components for the semiconductor industry. Even as a child, he was able to immerse himself in a variety of cultures and languages: he grew up near Tokyo, then later moved to Germany with his family. He spent a year at a high school in the United States. Following his studies in mechanical engineering at universities in Germany and Japan, Nami Lohbeck joined Ensinger and completed a part-time MBA. Now he is responsible for managing the global sales strategy and for the product portfolio and marketing for the semiconductor industry. He is in charge of a team of sales engineers and key account managers and together with them supports, among others, semiconductor customers in China, Taiwan, South Korea and South East Asia.

“I greatly value and am passionate about cultural exchange”, says Nami Lohbeck. “This is why I often travel in my free time as well. I also like spending time with my family and enjoy discovering local culinary specialities.”

# Pioneer in energy efficiency and the circular economy

BAU 2023 – insulbar gives insights into the future of construction



Ensinger once again had a trade fair stand in Munich at leading international trade fair BAU, for the first time since the coronavirus pandemic. The insulbar business division presented its latest range of insulating profiles for windows, doors and façades. The new claim – “The green profile pioneer” – is a reference to Wilfried Ensinger’s invention of the world’s first mass-produced insulating profile for aluminium windows in the 1970s. Today more than ever, there is a focus on the product benefit of the thermally insulated profiles – the conservation of energy and resources. The market launch of insulbar RE 10 years ago laid the foundation for “green construction”. There is an ever-growing demand for the use of recycled materials, which save resources in production. As such, most discussions with customers were about how buildings can be made more energy-efficient.

insulbar RE-LI will result in substantially lower CO<sub>2</sub> emissions, both during production and use. This makes foamed insulating profiles ideal for environmentally friendly, green construction and building certifications.



insulbar team at the trade fair stand.

## Insulating effect with top ecological footprint

When producing its insulating profiles, Ensinger covers the whole value added chain – from engineering through to compounding and extrusion and ultimately finishing. insulbar RE has developed from a niche product into a solution which is very much in demand. At Ensinger, the future is also going to be all about the green, resource-conserving insulating profiles from recycled materials. The insulbar RE-LI product line combines the outstanding ecological footprint of unmixed, recycled polyamide with the superior insulating effect of foamed material. The decision in favour of

## Supplier award from Reynaers Aluminium

Ensinger has won the “Annual Supplier Award” from Reynaers Aluminium in the category ‘Sustainability’ for the second year running. The reason for the award is the reduced CO<sub>2</sub> emissions achieved through the use of the green insulbar insulating profiles insulbar RE in the Reynaers MasterLine8 system. The award was presented to the insulbar team by management staff from Reynaers at the BAU trade fair.



Ecological, precise, insulating – it was with this trio of characteristics that Ensinger presented the portfolio of the insulbar brand at BAU in Munich. The new key visual symbolises the product properties of the insulating profiles. insulbar combines energy efficiency and sustainability and hence also embodies the corporate climate strategy.

# Aid for earthquake victims in Turkey and Syria

Company and Foundation donate a total of 10,000 euros

The earthquake disaster in Turkey and Syria has cost tens of thousands of people their lives. The Ensinger Group and the Wilfried and Martha Ensinger Foundation have provided financial aid to those affected.

Subsidiary Ensinger Turkey Plastik, based in Dilovası-Kocaeli near Istanbul, has provided 2,500 euros for earthquake victims. The donations are being used for people made homeless by the natural disaster.

The Ensinger Foundation has donated 7,500 euros to the charity “Franziskaner Helfen”. This international aid organisation has supported children and their families in north-west Syria for many years. In the region in which numerous refugees of civil war sought refuge, houses, schools and hospitals have been destroyed by the earthquake. Those working with the Franciscan order coordinate the aid measures, provide the survivors with temporary accommodation, distribute meals and organise medical care.

## More information

[ensinger-stiftung.de/en](http://ensinger-stiftung.de/en)  
[franziskaner-helfen.de](http://franziskaner-helfen.de)



In Turkey and Syria, tens of thousands of houses were destroyed by the earthquake. Ensinger and the Wilfried and Martha Ensinger Foundation have provided financial aid to those affected.

Photo: Franziskaner Helfen

# Sadness at the death of Johann Spießl

On 27 May our colleague of many years, Johann Spießl, passed away. He joined the company in 1989 and was one of the first extruder operators in the insulbar division. After many years as shift supervisor in profile extrusion, he most recently worked as a porter at the Cham site. Ensinger is very sad to lose a likeable, funny

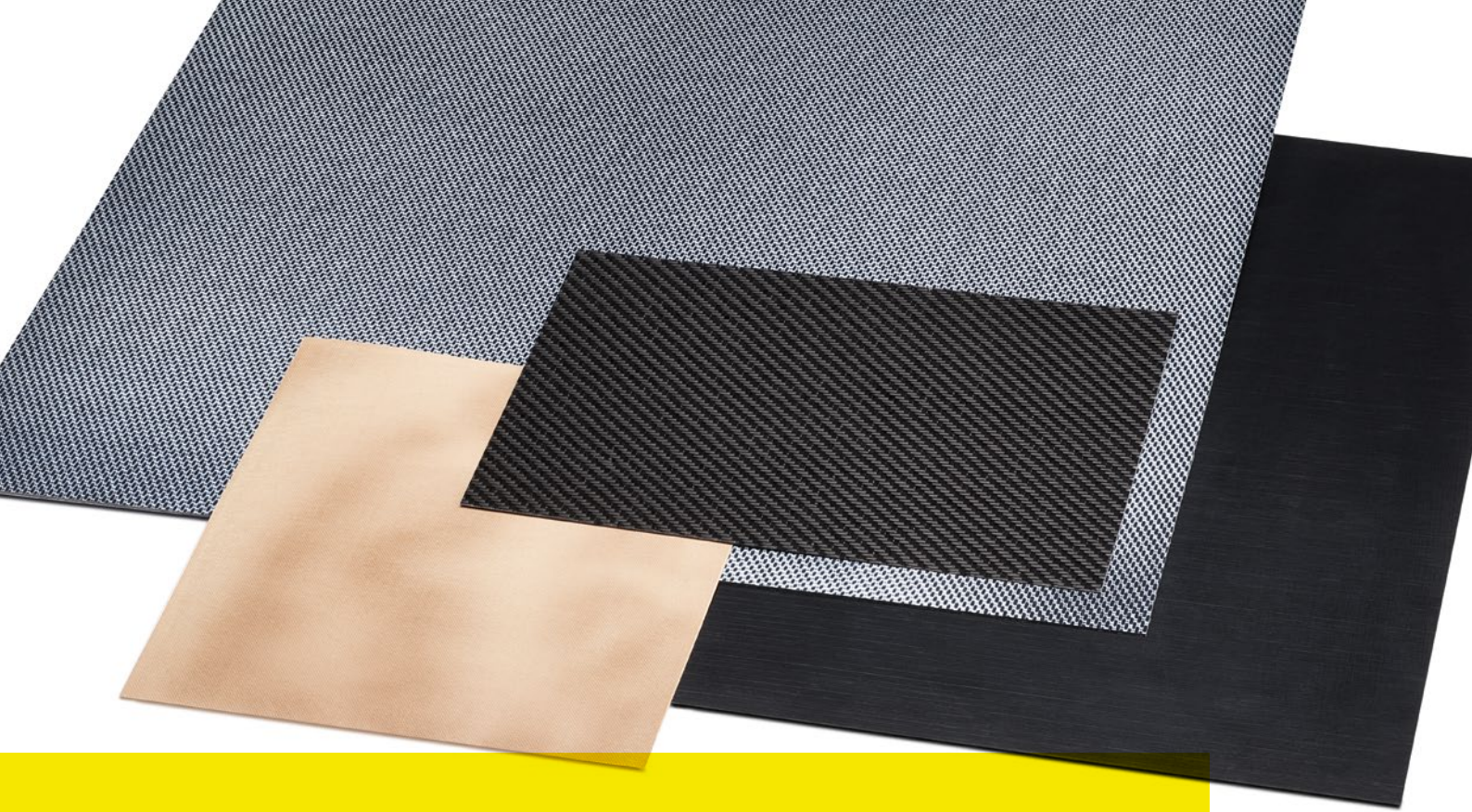
and conscientious member of the team and will remember him with great respect and affection. His colleagues extend their deepest sympathies, particularly to the deceased’s family and loved ones.

Questions, suggestions, different opinions? Write to us at [impulse@ensingerplastics.com](mailto:impulse@ensingerplastics.com)

## Imprint

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| Ensinger GmbH<br>Rudolf-Diesel-Straße 8<br>71154 Nufringen<br>Phone +49 7032 819 0<br>ensingerplastics.com<br>Ensinger GmbH<br>Magazine | Publisher:<br>Ralph Pernizsak<br>Dr Roland Reber | Editors:<br>Jörg Franke<br>Karin Skrodzki<br>Layout / Production:<br>Corinna Kohler | Cover photo:<br>Christian Schlüter<br>Printing:<br>Druckerei Maier,<br>Rottenburg |
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## Quite different from sheet metal



Lightweight, high-strength and versatile: TECATEC organosheets from Ensinger are proving their worth in automotive and aircraft construction. The continuous fibre-reinforced composites consist of carbon or glass fibre fabrics embedded in a thermoplastic matrix. Compared with metals components, they permit a weight-saving of up to 60 %.

Ensinger produces these multi-layered composite materials in Rottenburg-Ergenzingen on a double-belt press. The prepreg or semipreg material used here is also manufactured on site. The name organosheet indicates that they can be processed in a similar way to sheet metals.

Thanks to faster production processes, such as thermoforming and overmoulding, which can also be automated, cost-effective components can be produced in large quantities: during thermoforming, the organosheet is heated and reshaped into the part using special tools; during overmoulding, the TECATEC composite laminate is

first thermoformed and subsequently overmoulded in an injection moulding process. The overmoulding technique is chiefly suitable for manufacturing parts with complex structures.

Since both the fibre composite insert and the injection-moulded material come from the same polymer family, the part can be fully recycled at the end of its useful life and reprocessed in keeping with the aims of the circular economy.



More information

