

ANNUAL REPORT 2024

# Competence leader in 360° Joining Technology

Böllhoff is a competence leader in 360° Joining Technology. As a family-run company, we have stood for long-term success through innovative capacity and local presence since 1877. We seek to understand the needs of our customers and deliver solutions to fit their requirements. We focus on innovative, sustainable and economical solutions along our customers' entire value chain.

Over 3,300 employees are shaping the future of joining technology – both at our headquarters in Bielefeld, Germany, and at our subsidiaries around the world.





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#### Dest Lookes and Gentlemen, dear Business Partners!

In these economically uncertain times, we are pleased to present our 2024 Annual Report.

Amidst a backdrop of volatility and rapid change, we inevitably ask ourselves whether it is still relevant to reflect on the past year. We believe it is – now more than ever, continuity and orientation are essential.

As a competence leader in 360° Joining Technology, we are committed to maintaining our global presence, even in times of trade conflict. Our strength lies in the network we have built over generations across four world regions: Europe, North America, South America, and Asia. Read the articles "Passion for successful joining – across generations", "Closer to customers worldwide", and the interview with the CEOs of our four world regions.

In addition to the global positioning of the Böllhoff Group, this annual report provides an overview of the news and innovations in 2024. As you will observe from our business development, operating conditions have been challenging in recent times.

As a result, we experienced a 6.8% decline in sales in 2024 compared to the previous year, with total revenue amounting to €754 million.

Looking ahead to 2025, we will continue the strategies we began in previous years: global investments in new locations, regional investments in efficient processes, and innovative products and services tailored to local standards. Through these efforts, we aim to return to the growth trajectory of recent years despite the volatile and unpredictable environment.

For our journey into the future, we rely on your trust in our commitment to delivering expertise as a competence leader in 360° Joining Technology – particularly in this challenging environment.

On behalf of the company management, we would like to express our gratitude for this. Here's to continued successful collaboration in 2025!



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Michael W. Böllhoff

Wilhelm A. Böllhoff

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#### **CERTIFICATIONS**

#### **DIN EN ISO 9001**

Certified quality management system

#### **DIN EN 9100**

Excellent quality management for the aerospace industry

#### IATF 16949

Quality standard for suppliers in the automotive industry

#### **DIN EN ISO 14001**

Certified environmental management system

#### **DIN EN ISO 45001**

Certified occupational health and safety management system

#### **DIN EN ISO 50001**

Certified energy management system

#### DIN ISO/TS 22163 (IRIS CERTIFICATION®)

International standard for the railway industry

#### **DIN EN ISO/IEC 17025\***

In-house testing laboratory accredited according to an international standard for testing and calibration laboratories

#### TISAX®

The standard for information security in the automotive industry

#### ISO 19443

Excellent quality management for the civil nuclear sector

\* The accreditation applies to the procedures listed in the annex to the accreditation certificate. Certificate registration number: D-PL-18304-01-00

#### **AWARDS 2024**

EXCELLENCE IN PRODUCTION

2024

Finalist

in the category Internal Tool & Die Making

below 50 Employees



#### SUPPLIER AWARD

Böllhoff Brazil was recognised by Donaldson Filtration Solutions for its outstanding performance as a premium supplier.



#### HUMAN RIGHTS-FRIENDLY COMPANY

Böllhoff Brazil has been recognised as a Human Rights-Friendly Company, further reinforcing our commitment to development and care for our community.



#### **MATERIALS TESTING CERTIFICATES**

Böllhoff China has been recognised for meeting the essential requirements for Audi-FAW materials testing.



### EXCELLENCE IN PRODUCTION

By securing second place in the "Tool-making of the Year 2024" awards (category: internal, under 50 employees), our toolmaking department is recognised as one of the best in Germany.



#### **LABORATORY AWARD**

Our accredited laboratory received an award from JAC Motors, a leading automobile manufacturer from China.



# FOX

#### FOX FINANCE AND FOX VISUALS

In 2024, the Böllhoff Annual Report received the FOX FINANCE Gold Award for outstanding reporting for the second time, as well as the special FOX VISUALS Gold Award for design (awarded: Annual Reports 2022 and 2023).







#### We create added value for our customers:

## 360° Joining Technology from Böllhoff

Whenever our customers need to join components, we are there to support them. As a competence leader in 360° Joining Technology, we understand their needs and identify the solutions that best meet their requirements.

With our expertise, we support our customers across the entire value chain – with an enduring focus on customer orientation, industry-specific solutions, and a global reach. We call this all-round service concept 360° Joining Technology.





We are here for our customers – in the following areas:

#### Innovation

We develop new product ideas and implement them together with you. We also constantly monitor industry trends – and impress with our systematic innovation management.

#### Development

Upon request, we can support you early on in your product development processes. Our aim is to understand your requirements and needs as well as possible and translate them into the right technical solutions.

#### Purchasing

With our expertise in joining technology and our global supplier network, we reduce your purchasing and storage costs for fasteners.

#### Service

We offer technical training, maintenance and repair worldwide – and if the worst comes to the worst, we are available 24/7 if you need our support.



#### Quality

We continuously fine-tune our products and processes according to your needs – all supported by our certified quality management system. Furthermore, our accredited testing laboratory offers independent testing of connections and fasteners.

#### Logistics

On request, we handle all aspects of your fastener supply chain for you – from scheduling to delivery at the assembly line.

#### **Assembly**

We not only supply fasteners, we also acquire the matching assembly systems – from manual to fully automated. All from a single source.



An interview with the CEOs of the four Böllhoff world regions:

# Maintaining a global presence amid uncertainty

NORTH EUROP ASIA

As a competence leader in 360° Joining Technology, we maintain a close relationship with our customers worldwide. In future, we will think even more strongly in terms of four world regions, around which we will align our organisation around the globe: Asia, Europe, North America and South America.

Because today's world demands that we navigate increasingly volatile conditions and rapid change across all regions. We call this new world order "The new global."

In this interview, the managing directors of our four world regions share what defines their respective regions, how they view global challenges – and how Böllhoff is positioned to meet them.





# At Böllhoff, we aim to support our customers as a competence leader in 360° Joining Technology. What does this approach mean to you?

Dr Wissem Ellouze: This approach reflects our passion for joining technology and our unwavering commitment to our customers. The key aspect of this approach is to consistently centre the customer, supporting them in every possible way.

Sven O. Ammer: That means we don't just provide high-quality fasteners but also support our customers with our engineering expertise, process optimisation, and customised solutions tailored to their specific needs – from design and development to installation and after-sales support. Plus, our global presence ensures that we can support our customers locally, wherever they are in the world, while maintaining the high standards of a family-owned

business that values long-term relationships and collaboration. Steven P. Paddock: We aim to deliver comprehensive solutions to our customers, beyond "just the fastener". This includes a high service level around all aspects of the customer relationship. including assembly systems. Equally important is our consistency with engineering support. product quality, and delivery performance. Our strength is delivering all three aspects consistently over decades. Our customers appreciate the stability and long-term thinking that you find in family businesses.

Flavio da Silva: With our 360° approach, we combine technical expertise in all aspects of joining and fastening, a partnership mindset and a global presence

with strong local support for our customers. This enables us to deliver not just products, but tailored, value-adding solutions that evolve together with our customers' challenges. This creates a clear competitive advantage. By understanding our customers' business and actively supporting their growth, we are a strategic partner for them – not just a supplier.

Marcel Rupprecht: In a nutshell, with our 360° Joining Technology, we provide our customers with unique added value. The combination of manufacturing and service expertise, along with our customer focus – both in terms of innovation and through our global network – creates a truly unique selling point in the market and our industry.





The economic environment is currently challenging, and protectionism is on the rise worldwide.

How do you assess these developments, and how is Böllhoff equipped to address them – particularly in your region?

Marcel Rupprecht: As a region, Europe must respond to changing global conditions with courage and determination. While we are naturally concerned about the tightening of regulations within Europe, we are consistently realigning ourselves wherever necessary. In addition to trade conflicts between China, the USA, and the EU – accompanied by new tariffs – we are also facing additional costs due to increased export and import controls, for example.

**Dr Wissem Ellouze:** Here in Europe, for example, all these developments are having a significant impact on the automotive industry, which accounts

for more than half of our sales volume at Böllhoff. The introduction of new vehicle platforms has been delayed, and production volumes have decreased overall. Higher tariffs in the US market are affecting export volumes, while regional specifications and requirements are becoming more prominent. The rise of a "local for local" approach, driven by these developments, will create a new landscape. Sustainability and a robust supply chain will increasingly take centre stage.

Marcel Rupprecht: One positive development for us is that our customers are increasingly turning to suppliers and partners with a global presence – like Böllhoff.

**Dr Wissem Ellouze:** This global presence, combined with our 31 locations across Europe, ensures that we are well prepared for the changing economic and political landscape. In 2024, for example, we invested in additional production facilities that will also support the European market in the future, such as those in Morocco\* and Turkey.

**Sven O. Ammer:** In Asia, too, increasing protectionism means that local production is becoming more important, and foreign businesses have to deal with higher import tariffs and stricter regulations. However, with a regional presence and by investing in local production, distribution and



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<sup>\*</sup> At Böllhoff, the Europe region also includes the North African site in Morocco, which is steered from Europe.

The new global

BOLLHOFF

development, we are able to overcome such challenges here as well. This strong regional strategy, our commitment to local partnerships and our innovative solutions ensure that we remain a trusted partner for our customers - even in a changing global market.

Steven P. Paddock: As US trade policy seeks to realign supply chains to increase US manufacturing investment and employment, we face some turbulence during an adjustment period. Nevertheless, we will accelerate our localisation effort, and we have the culture, know-how, and capacity to adapt much faster than our competition - especially in RIVKLE® blind rivet nuts and studs where we have a well-established manufacturing platform in Kendallville, Indiana, and where we'll continue to invest.

Flavio da Silva: In South America, we have also seen increasing pressure towards localisation. complex import regulations and a greater focus on domestic production. These changes force us to rethink supply chains and pricing.

However, we also see ourselves as being well positioned here, especially because of our existing regional structure and flexibility. We have already taken the necessarv steps to localise key products, diversify suppliers and adapt our go-to-market approach. This agility, supported by our global backbone as a group of companies, gives us a strong foundation to successfully navigate the shifting economic and political landscape.







#### What are the key features that set your region apart?

Flavio da Silva: For South America, I would say resilience, customer intimacy and a handson approach. More than 60 years of market presence in Brazil and numerous challenges have strengthened our resilience. We have built strong local relationships, adapted our solutions to the unique market demands and built a committed team. This enables us to react flexibly to market changes, have a high level of technical competence and a strong relationship with our customers.

**Steven P. Paddock:** An entrepreneurial spirit defines the mindset of our North American team. We are a relatively small and agile business unit, with quick decision making and responsiveness to customer needs.

**Sven O. Ammer:** The Asia region remains a key driver of global economic growth. Countries like China and India as well as the

region of South-East Asia are growing and expanding rapidly, which will bring us at Böllhoff many opportunities for our future development.

Our own Böllhoff organisation in Asia is characterised by the fact that it combines global expertise with deep regional knowledge. This allows us to quickly adapt to local market trends, regulations and customer needs. Our strengths are our agility, persistence, customer focus, passionate local presence and the unbeatable team spirit that we live by day in, day out.

Marcel Rupprecht: One of the key features of the Europe region is the diversity of our national organisations. Our teams represent our 360° Joining Technology expertise across various European countries. Thanks to our decentralised international structure, we are always in close proximity to our customers.

Dr Wissem Ellouze: Europe also stands out as an innovation hub for the Böllhoff Group, with the various product brands and services we develop locally. We provide customised solutions for the automotive, industrial, and aerospace sectors, all utilising our 360° Joining Technology. This gives the European region the flexibility and strength to navigate these volatile times.





#### How is your region set to develop in the future?

Sven O. Ammer: First, when I look back to the past 15 years at Böllhoff, I am very proud of my whole team in Asia and our significant growth contribution as one of the younger regions in the Böllhoff Group. Where we are today is a great milestone and I am optimistic that we will continue to grow in the coming years. To achieve this, we want to expand our regional footprint over the next five years, continuously invest in development and manufacturing, and expand into other countries in Southeast Asia besides Thailand and Vietnam. We will also focus on talent development, strengthen customer relationships and improve our operational excellence and efficiency. Companies in Asia have unique demands which we can't meet out of a German headquarter. This is one of the reasons why we are currently setting up development teams in China and India that align with these specific needs.

Steven P. Paddock: In North America, we will use our strengths to find future growth in new markets. In our core markets (Industry and Automotive), we seek increased market share with the same principles mentioned before (engineering support, product quality, and delivery performance) - and always seeking to do this better and faster than our competitors! We will also explore opportunities to acquire complementary businesses to further expand our presence in the region.

Marcel Rupprecht: Regardless of the overall economic situation in Europe, the market for fasteners remains vast – and nothing stands in the way of us capturing further market shares.

We are optimally positioning ourselves for this by uniting what belongs together: consistently organising into four world regions instead of two separate business divisions Eastener Service

Supply (FSS) and Fastening and Assembly Technology (FAT). This impacts our established structure, particularly in Europe, and presents numerous opportunities.

Dr Wissem Ellouze: Exactly, this change will create new growth and expansion opportunities for us in Europe by allowing us to better capitalise on trends in regional markets. Our new, more efficient structure brings us even closer to individual countries and customers, and we can tailor our solutions more precisely to their needs.

Regardless of this internal reorganisation, we also see promising opportunities for sustainable and profitable growth in certain sectors. For example, in the aerospace industry, which we will be able to serve from 2025 with an additional sales and production location in the aerospace hotspot of Casablanca. Morocco.

Flavio da Silva: In 2024, we proudly celebrated our 60th anniversary in Brazil - marking six decades of local presence, growth and contribution to the Böllhoff Group's global success. We want to further expand our growing relevance in the South American market: by being even closer to our customers, faster in our responses and stronger in our capabilities. This way we want to double our sales by 2030. However, we do this while always acting responsibly, because sustainability is very important to us at Böllhoff - for example, by

strengthening the community and promoting education. We continue to be involved in key initiatives such as 'Informática para o Futuro' (IT for the future), where underprivileged young people from Jundiaí receive a year of classes in IT and business fundamentals. Or our Instituto Böllhoff de Medula association designed to increase national awareness. and find more bone marrow donors for leukaemia patients. We are very pleased that this project has gained traction and visibility over the past five years.



#### **Product innovations from Böllhoff:**

# Innovative solutions for our customers

As a competence leader in 360° Joining Technology, our goal is to always provide our customers with the optimal solution for joining components. Product innovations are key to achieving this. Strategic innovation management and continuous fine-tuning of the joining technology of the future are therefore integral parts of our strategy.

Our ambition is clear: each of our product innovations must solve a specific problem for our customers – for example, by creating lasting connections between two or more components.

In 2024, we expanded our product portfolio with two new innovative fasteners: the RIVSET® HDZ self-pierce rivet and the QUICK FLOW® Plus screw.

# **RIVSET® HDZ**

## The rivet

Joining multiple components in a single work step – without pre-punching, emissions, or noise? Our RIVSET® self-pierce riveting technology is the ideal solution. This mechanical joining process creates high-strength joints between identical or dissimilar materials.

It is particularly popular in modern mixed car body construction, where lightweight materials like aluminium and high-strength steels are essential. Since 2024, the new RIVSET® HDZ rivet has expanded the RIVSET® product family from Böllhoff.









#### Small element, big impact

When we asked Dennis Henke, Head of Product Management Mechanical Joining Technology at Böllhoff, to describe the new RIVSET® HDZ rivet in a few words, he didn't have to think twice: "Small element, big impact." This self-pierce rivet innovation significantly expands the range of applications, thanks to its standard parameters, such as hardness and geometry. The RIVSET® HDZ rivet can join a wide variety of steel grades, including ultra-high-strength steels (tensile strength of 1,500 to 2,000 megapascals), with dissimilar materials like aluminium. It is a real all-rounder for production. Simply put: this is THE rivet.

Dennis Henke is the perfect person to explain where the RIVSET® HDZ rivet's exceptional features come from. As Head of Product Management for our mechanical joining processes. he not only recognised the strategic necessity of this solution but was also responsible for its development during the crucial phases.

Dennis, what makes the RIVSET® HDZ rivet innovative and special, particularly in its largest field of application, modern car body construction?

**Dennis Henke:** The RIVSET® HDZ rivet radically simplifies product complexity in self-pierce riveting. With this new rivet, we can address a wide range of applications for our customers using a

single element – a versatile solution for almost everything. This approach is, of course, highly beneficial to our customers. The majority of our customers for self-pierce riveting come from the automotive sector.

The rivet reduces product complexity. Does that mean that a much larger number of different self-pierce rivets were required before the HDZ rivet was invented?

Dennis Henke: Exactly. You could see this both in our Böllhoff portfolio and with our competitors in the self-pierce riveting sector. Due to the wide variety of materials used in modern lightweight construction, a large number of different self-pierce rivets were developed over

time to meet a broad range of requirements. Thanks to the HDZ rivet, we no longer need a large variety of rivet variants for joining solutions. Instead, we only need two: a standard rivet, the C-rivet, for metallic materials with low tensile strength, such as soft steel grades and aluminium allovs. And in addition to that, our new HDZ rivet is designed for handling more demanding applications with ease. It makes it possible to join a wide range of steel grades, including ultrahigh-strength steels, with dissimilar materials like aluminium. It covers steels with tensile strengths from 400 to 2,000 megapascals. For the first time, we are able to cover such a wide range of applications with just one rivet variant.

Another advantage is that, unlike its predecessor for ultra-high-strength steels, the HDX rivet, the HDZ rivet is roughly the same size as our standard C rivet. This means both the C-rivet and HDZ rivet can now be processed using the same feeding systems in our automation equipment.



**Dennis Henke** Head of Product Management Mechanical Joining Technology

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Innovation





How did you manage to make just one rivet variant capable of covering such a wide range of steel grades?

**Dennis Henke:** The secret lies in the unique geometry of the RIVSET® HDZ rivet. It features a bell-shaped or conical bore, which optimally distributes the forces during the riveting process, resulting in exceptional inherent stability. This stability is so high that we can use the standard hardness grade H4 for the HDZ rivet, only switching to H6 in exceptional cases.

Why is this beneficial? On one hand, it's beneficial because rivets with a higher hardness tend to break more easily. A softer rivet, therefore, offers better durability. On the other hand, this also contributes to the wide range of applications for the HDZ rivet, including its suitability for softer materials.



Are there already any initial applications where the new RIVSET® HDZ rivet can be found?

Dennis Henke: We'll soon be seeing the RIVSET® HDZ rivet in the first series production vehicles. Several projects are already underway in which the HDZ rivet will be used, including in a battery platform from a German car manufacturer. As things currently stand, these vehicle projects are expected to enter series production in 2025. However, there are already initial applications for the new rivet outside the automotive industry, such as in industrial cable ducts. We will start to see more and more applications in the field where our RIVSET® HDZ rivet is used. This is, of course, especially gratifying for the developers and for me as the product manager.

Thank you very much for the interview. Dennis, and best of luck with the new RIVSET® HDZ all-rounder rivet!



# QUICK FLOW® Plus

#### **Efficient screws for thin-walled sheets**

Joining thin sheets securely – without pre-drilling or nut elements? That is exactly what the new QUICK FLOW® Plus thin sheet metal screw from Böllhoff is designed for! In a world where lightweight construction plays a crucial role across various industries, joining ever-thinner components presents new challenges. The QUICK FLOW® Plus screw was specifically developed to address these challenges. It creates its own internal thread when screwed into thin sheet metal, without the need for a pilot hole – ensuring a stable, secure, and chip-free connection.



#### Born from a customer requirement

The QUICK FLOW® Plus screw was launched in its current form in July 2024 for a specific reason. At Böllhoff, we listen closely to our customers and find the right joining solutions for their needs. And when the perfect solution cannot be found in our extensive product portfolio, we explore new avenues – just like the team of product management and application technology specialists did in designing the QUICK FLOW® Plus screw.

One member of the design team was Judith Ivonne Menzel, Product Manager for Direct Screw Fastening at Böllhoff. In this interview, she provides an in-depth look into the development process of the new thin sheet metal screw and what makes it so unique.

Judith, how did the QUICK FLOW® Plus come about? What problem does it solve that other screws cannot?

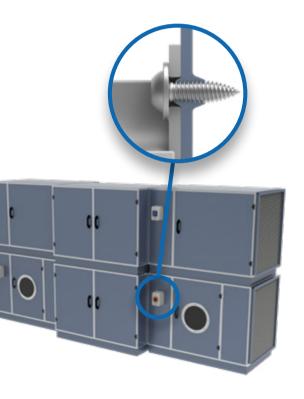
Judith Ivonne Menzel: The idea for the new screw came directly from a specific customer requirement. A ventilation systems manufacturer reached out to a Böllhoff technical advisor with a challenge: when assembling system components using standard sheet metal screws – such as



Product Manager
Direct Screw Fastening



DIN and other standardised parts – metal chips were generated during installation and remained inside the ventilation units. This was particularly problematic in this specific application, where leftover metal chips could lead to issues like corrosion or unwanted noise.



The customer was therefore looking for a screw that could be installed without generating any chips. Like the previously used sheet metal screw, the new solution also needed to work without a pilot hole. However, conventional thin sheet metal screws quickly reached their limits – they simply didn't provide the necessary drive-in performance to penetrate the material without pre-punching a pilot hole. Pre-punching the ventilation system components during production wasn't an option either, as they are not assembled individually until they reach their final destination – for example. on the roof of a building. This meant the screw points had to remain flexible. It was a case where several challenges came together at once.

In other words, the QUICK FLOW® Plus screw was developed because none of the existing screws in our portfolio could meet all of these requirements at once. Is that correct?

**Judith Ivonne Menzel:** Exactly. It quickly became clear that neither regular self-drilling screws nor thin sheet metal screws were able to meet all of these customer requirements simultaneously. Even the precursor to our new screw, the QUICK

FLOW® thin sheet metal screw, lacked the necessary power for this application.

We saw this challenge as an opportunity and developed the new QUICK FLOW® Plus thin sheet screw, with a strong focus on meeting customer needs. From the very beginning of the design process, we worked closely with our customer in the ventilation and air conditioning technology sector, providing them with prototypes for their own practical testing. The new screw was launched in July 2024. The customer is very happy with both the result and its performance. They are pleased to have played a role in shaping the development process and are now using the screw in even more applications than originally anticipated. Since we've integrated the QUICK FLOW® Plus into our regular product portfolio, all Böllhoff customers can now benefit from this innovative thin sheet metal screw.

So this innovation has already paid off. How would you sum up the unique selling points of the QUICK FLOW® Plus screw?

**Judith Ivonne Menzel:** The most innovative aspect is that it combines multiple features in a single screw. During the design

process, we carefully examined all the existing features of the predecessor screw and completely reimagined them. Our goal was to bring together everything that works well to create the optimal product.

Thanks to its optimised tip geometry and enhanced edge hardness, the QUICK FLOW® Plus can penetrate thicker sheet metal than its predecessor – without the need for a pilot hole. It produces no chips, as it forms its own internal thread directly in the material. Because it is fitted with a double thread, the screw can be driven in nearly twice as quickly as a standard single-threaded screw, helping to significantly reduce cycle and process times.

Thanks to the screw's specialised geometry, no additional nut elements are required to ensure stability, even when fastening into thin sheet metal with thicknesses of less than 1 mm. Instead, the screw creates a pull-through on the underside of the sheet,



effectively increasing the length of the mounting thread. Eliminating the need for extra nuts reduces costs, assembly time, and overall weight.

Naturally, the screw also offers all the typical advantages of direct fastening compared to conventional threaded screws: time-consuming process steps in the pre-machining of components, such as thread cutting and inspection, are completely eliminated.

The QUICK FLOW® Plus screw is simply screwed directly into the respective component. Special bits for screwing are also included in the scope of delivery. These bits are slightly oversized, which prevents the screw from wobbling during insertion.

In other words, an exceptionally versatile screw! Which industries stand to benefit most from the OUICK FLOW® Plus?

Judith Ivonne Menzel: Our marketing efforts initially focused on the ventilation and air conditioning technology sector, where the original customer request came from. The screw is already widely used in this sector. Even shortly after the product launch, its applications expanded significantly, ranging from white goods and packaging machines to spindle construction. Ultimately, the QUICK FLOW® Plus screw is relevant wherever thin sheets or components need to be fastened flexibly and securely - and where lightweight construction is a key consideration.

Thank you very much for sharing your expertise with us, Judith. We wish you many more exciting applications for the new QUICK FLOW® Plus screw!



#### The QUICK FLOW® Plus takes second place in the "Route to Fastener Innovation Competition"

The special features of the new screw also impressed visitors at the international Fastener Fair Global trade show. The QUICK FLOW® Plus screw secured second place in the 2025 "Route to Fastener Innovation Competition." This competition is exclusively for trade fair exhibitors and their products and was founded by Fastener + Fixing Magazine. It provides trade fair visitors with the opportunity to discover and evaluate the latest innovative developments in fastening technologies. The award was presented at the Fastener Fair Global 2025 on 26 March in Stuttgart. Delighted with this success: Daniel Tovar (left), Head of Products & Engineering, and Tonv Dutfield (right), General Manager Trade, Böllhoff UK.







### **Innovation**

For us at Böllhoff, this goes beyond simply developing new joining technology products that address our customers' challenges. We view innovation as the ongoing refinement of our internal processes: always with the goal of delivering even greater value to our customers. Digitalisation provides us with the perfect tools for this, whether the goal is to reduce the workload of our employees in routine tasks or to enhance the effectiveness of knowledge management.

Two key projects in 2024 have given us the opportunity to reimagine our processes: the launch of the myGPT platform, which provides Al support to our employees in their day-today tasks, and our collaboration with the Bielefeld-based start-up Credular, in which we have invested through our venture capital firm, **Archimedes New Ventures.** 

#### When a chathot delivers the correct article number:

our Böllhoff AI assistant, myGPT

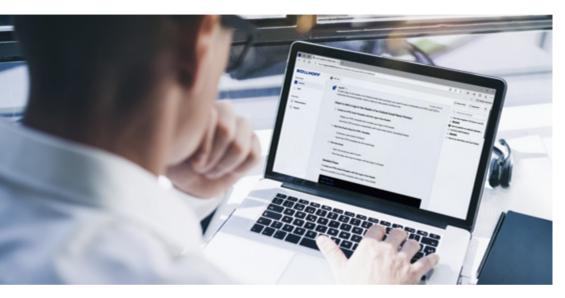
From generating text and performing automated web searches to translating documents or creating custom data pools, the number of potential use cases for AI in supporting routine tasks is vast. Since 2024, our employees have had access to the myGPT platform, which is designed to streamline these processes. The platform integrates the latest models of generative AI technologies, such as GPT-4o and Claude, into a single portal operating within a closed system to ensure data protection and information security. "With myGPT, we've

created an all-in-one platform for personalised Al support for our employees," says Kevin Jostmeyer-Zelles, Head of Digital Transformation & Innovation at Böllhoff. "It offers a single location to meet a wide range of functions and needs. Whether vou're translating documents, conducting searches, or looking up product data, there is no longer a need to switch between different applications. With myGPT, everything can now be accessed effectively and efficiently from a single platform." In addition, mvGPT can search a range of internal company



**Kevin Jostmeyer-Zelles** Head of Digital Transformation & Innovation

We see myGPT as an assistance system similar to a pocket calculator. We can use AI to take on some of the more mundane and tedious tasks that nobody likes to do anyway. Our overall aim is to make our work processes even more effective



data sources, such as product databases and the intranet. In day-to-day operations, the article number you need or urgent information about the company is always just a prompt away. The aim is to lighten the burden of routine tasks, thus giving employees more time for activities that add value. So they can spend more time looking after our customers.

The first GenAl application was launched at Böllhoff in August 2023 as part of a voluntary project in which employees could register to join the pilot phase and take part in testing. In May 2024, the company transitioned to the current Al platform,

myGPT. Around 750 users joined in the first eight months, and after a year, there are now over 1,000. myGPT will continue to be developed for them in the future: additional data sources will be integrated, new functionalities added, and usability further improved. "We always start with the problem we want to solve," says Kevin Jostmeyer-Zelles. "That's why we base new use cases and features on what our internal users actually need, and we stay in constant dialogue with them." The goal is to make the Al assistant myGPT even more useful every day.



Dr Cathrin Wesch-Potente
Chief Process Digital Officer,
Company Management

Familiarity with AI will continue to grow in the coming years, and its use will become even more commonplace than it is today. This makes it all the more important for us to empower ourselves to make informed decisions with the help of AI. To realize its full potential as a human assistance system, AI must be assessed and evaluated by users. This is only possible through personal experience and continuous learning in daily use. That's why we started making AI accessible to our employees at an early stage.



#### **Investment in Credular:**

A co-pilot for service and production, now at Böllhoff too

In September 2024, our venture capital firm,
Archimedes New Ventures, invested in the young
start-up Credular. It is an investment that delivers
twice over – we now use the software solution from
the Bielefeld-based start-up, founded in 2023,
at Böllhoff too.



But let's start from the beginning: Credular offers companies a software platform that supports them with knowledge management in production and customer support. Specifically, knowledge can be easily and intuitively documented in the software directly by the technician on-site using text, images, and video. This allows entire processes to be mapped and ultimately standardised. For many companies, the software solves a pressing problem, as Credular co-founder and Managing Director Pascal Volkery explains: "Employees working in production and customer support spend up to 10 hours per week searching for information. Without clear standards, everyone makes their own decisions - processes vary. errors accumulate, and knowledge remains unutilised." This is because the knowledge of technicians working on-site is often recorded in different places and without a consistent standard - or not documented at all. This is because technicians often lack both the time and the (digital) tools to document work processes in a simple, time-saving, and standardised manner alongside their core responsibilities. When long-standing

employees in a given area are absent or leave the company entirely, valuable expertise can be lost. Credular's software is designed to prevent this: it makes knowledge management simpler and more effective.

At Böllhoff, we use the software to service our automated assembly systems. Since these systems are developed and manufactured at our headquarters in Bielefeld, most of the related knowledge is generated in Germany. With Credular, this knowledge can be collected in a standardised format, clearly presented in a single location, and more easily shared

with our international service teams. This is because Credular enables documented workflows and processes to be translated into up to 33 languages using Al, which is an important advantage for knowledge management across borders. Further applications are already being planned: Credular will also be introduced and used as a knowledge database in production, and manual documentation processes will be increasingly automated using pre-defined templates. A co-pilot with a promising future!



Torsten Blomeier

Maintenance engineer for automated assembly systems

Credular allows us to share our expertise with our coworkers and customers around the world. Even complex work steps can be mapped quickly and easily.

## Come on in!

With Skidata and Böllhoff



Whether you are at the stadium, amusement park, ski slope entrance, or in the car park – just hold your card, pass, or smartphone up to the sensor, and go right in. It really can be that easy!
When it comes to creating seamless and welcoming access to public spaces, Skidata – based in the Salzburg region of Austria – is the go-to provider.

#### "We change the world of welcoming people" -

Skidata's slogan says it all. Today, the company is a global leader in access solutions and access management, Founded in 1977, when Günther Walcher developed the first personalised ski lift ticket with a Polaroid photo, Skidata has since grown into an international expert in access technology, employing 1,300 people across 24 countries. To this day, the company uses its systems to control access to countless ski slopes around the world, but it is also represented in many other sectors of public life through its two core segments: Parking & Mobility and Sports & Entertainment, Whether it's a stadium. an amusement park, or your local multi-storey car park, Skidata systems manage access efficiently and are designed to make every entry point feel like a warm welcome. Today, access systems in Skidata's sMove series rely on Böllhoff fasteners.



#### Access systems at high altitudes:

High demands on every fastener

With temperatures ranging from -40 °C to +40 °C. along with wet conditions, snow flurries, and strong winds, access systems on ski slopes - especially those high in the mountains – are exposed to extreme weather conditions. This places high demands on the durability of every single connection within the system. Adding to the challenge, the connections holding the casing together must not only be robust but also detachable. That is because modern access systems contain complex electronics that need to be accessed quickly and easily for maintenance or in the event of a system error. Previously, Skidata used multi-part sheet metal structures that were welded and screwed together to fasten the system casings an approach that often caused difficulties. Additional screw connections were necessary to secure the casing in place. During maintenance or in the event of a fault in the access system, a service technician had to manually remove all the screws to access

the electronics. After completing the work, the casing had to be reassembled and screwed back into position, making the process time-consuming. There was also a visual consideration: since the screw drives needed to be easily accessible for loosening and re-screwing, all the casing screws were visible from the outside at all

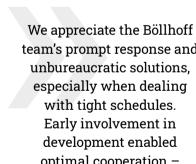
Thomas Schnöll

Senior Product Engineer

Hardware R&D at Skidata

times, which detracted from the design of the access systems.

This is where Skidata saw an opportunity for improvement in its latest sMove system. Just before development began in November 2023, the company engaged in discussions with Böllhoff as a competence leader in joining technology.



team's prompt response and unbureaucratic solutions. especially when dealing with tight schedules. Early involvement in development enabled optimal cooperation and the approach of literally reinventing the screw. combined with the innovative product portfolio delivered first-class results.



#### **Our solution:**

SNAPLOC® plug-in connections

A two-piece design, easy to install, and yet robust enough to withstand the mountain climate

We quickly identified the perfect ioining solution from our extensive product portfolio: the SNAPLOC® plua-in connections. These connectors possess all the key properties essential for Skidata's application in the casing of the sMove access system. They are easy to detach and reattach by simply pulling them off and plugging them back on, resistant to temperature fluctuations, and they are not visible from the outside. This innovation has not only made the installation and removal of the system casing faster and easier, but it has also enhanced the design, creating a more attractive aesthetic.

"The greatest challenge for us was selecting the exact hardness for the SNAPLOC® plug-in connections, as they need to function reliably in ski resorts across a wide temperature range from -40 °C to +40 °C. They must also be strong enough to compress the seal adequately; ideally, the SNAPLOC® structure itself should be leak-proof," explains René Aichberger. Head of Business Development Austria at Böllhoff.

"Connectors that were too soft wouldn't have been able to hold the casing of the access system in place. On the other hand, if the elements were too hard, the aluminium and plastic casing could have broken during removal, depending on the outside temperature. We worked closely with the customer and conducted various tests to find the perfect solution."

Series production of the sMove access system began in September 2024 - with SNAPLOC® as an integral part of the system. Today, up to 80,000 of these plug-in connections are installed in access systems every year. The joint success story of Skidata and Böllhoff is just getting started: additional applications for our SNAPLOC® plug-in connections, along with FLEXITOL® elements for tolerance compensation in add-on parts. have already been identified. We look forward to continuing our partnership with Skidata and ensuring a warm welcome for people in the future.



René Aichberger Head of Business Development Austria





Behind every successful connection there is always a human connection:

#### Böllhoff at international trade fairs in 2024

For us, being a competence leader in 360° Joining Technology means staying close to our customers. Last year, the numerous industry trade fairs around the world provided the perfect opportunity to do just that.

These events bring together the key players and expertise of an industry, offering a unique platform to engage with customers in the informal environment that trade fairs are known for. Here we can improve our understanding of their current needs, discuss their requirements, and showcase our latest product innovations in person.

This double-page spread offers an overview of some of the international trade fairs we attended in 2024.

Will we see you at a trade fair or industry event in 2025?

You can find all the current dates on our website:

www.boellhoff.com/trade-fairs





#### **LogiMAT** | 19 to 21 March 2024 | Stuttgart

As the world's leading industry trade fair in intralogistics, LogiMAT 2024 in Stuttgart once again offered the perfect platform to showcase our logistics solutions. Firstly, we presented innovative Kanban solutions centred around ECOSIT®, our procurement and supply system for effective C-Parts management. Secondly, visitors to our stand had the opportunity to take a closer look at ECOPACK, our new sustainable paper bag designed for packaging fasteners.

Trade fairs and events

#### **BOLLHOFF**



The Shanghai International Automotive Manufacturing Technology & Material Show (AMTS) is recognised as the world's largest industry trade fair for automotive technology, attracting over 70,000 visitors, covering 80,000 m² of exhibition space, and hosting more than 1,000 exhibitors.

This event brings together the latest trends and products in automotive design, research, development, assembly, and production technology. Of course, Böllhoff China was present as well: at a 108 m² stand, our Chinese team showcased automation systems and assembly solutions for the HELICOIL® Smart thread insert, RIVSET® self-pierce riveting, and RIVTAC® high-speed joining to industry professionals.



A busy trade fair autumn, featuring 15 intense days across four industry events throughout Germany, reached its peak at EuroBLECH 2024 in Hanover. At the world's largest technology trade fair for sheet metal working, Böllhoff showcased our proven RIVSET®, RIVCLINCH®, and WELTAC® processing solutions to nearly 39,000 trade visitors from 114 countries. In addition, we introduced two exciting new product highlights for processing our RIVKLE® blind rivet nuts and studs: the RIVKLE® Automation E and the RIVKLE® NEO B109 manual setting tool.





## Inspiration and smart ideas under the sunny skies of Gran Canaria:

Böllhoff at the Smart Green Island Makeathon

Sun, students, and smart ideas - the perfect ingredients for the Smart Green Island Makeathon on Gran Canaria. Organised by the engineering and consulting company ITQ GmbH from Munich, the competition took place for the seventh time from 28 February to 2 March 2024.

Each year, the Makeathon brings together students from around the globe on the third-largest Canary Island to collaborate on innovative solutions for a better

tomorrow.

The company sponsors develop the challenges that the budding programmers, mechatronics engineers, and engineers are invited to tackle. The primary focus is on trending topics such as smart production, smart green energy, and smart building. As a long-standing sponsor of the competition, we were proud to present our own Böllhoff Challenge for the first time at the Smart Green Island Makeathon in 2024.

The Smart Green Island Makeathon 2024 in figures:

participants countries, of which 379 are young talents universities and schools, companies



"Develop an app that can identify parts of an element feeder for our Böllhoff assembly systems – and thereby support maintenance of our systems at a customer's site."

This was the challenge we set for students at the Smart Green Island Makeathon 2024. Over the course of four days, eight talented young participants worked on our task. Supporting them as challenge sponsor and expert from Böllhoff was Jörg Münstermann, Head of Software and Automation in our Böllhoff Setting Technology division. This is where the automated assembly systems used to install our fasteners at customer sites are developed – and where Jörg Münstermann and his team create the software that drives them.



"We pursued two goals with our participation in the Makeathon," explains Jörg Münstermann, "On the one hand, we wanted to carry out a kind of feasibility study with the students. We hoped to determine whether the idea we had in mind was practically viable. On the other hand, we of course wanted to present ourselves to the students as an attractive company and potential employer." Jörg Münstermann was also keen to ensure that challenges in smart production were grounded in real-world practice. After all, in the future. augmented reality support via smartphones or tablets - acting as an easily accessible knowledge base - could actually assist our support technicians in maintaining assembly systems at customer sites. Solutions like this are increasingly important today, as companies continue to feel the effects of the skilled labour shortage in technical fields. Jörg Münstermann was highly impressed with what the students accomplished during the four days of the Makeathon: "The team achieved a great deal and – within the time available – developed an app interface that allowed us to point a camera at a feeder using a Surface PC. Three components of the device were already recognised and identified." The first components of a system prototype have thus been available since the Smart Green

Island Makeathon 2024. The use of AR for assembly system maintenance will move forward as an internal project.

And during those four days in Gran Canaria, the idea for a future Böllhoff event began to take shape. "The idea was to organise a kind of Makeathon here at Böllhoff," explains Jörg Münstermann. "We would collaborate with students from the region, present them with hands-on challenges, and some day they could develop their ideas further in master's theses. This could pave the way for long-term partnerships after the Makeathon." We are eager to see when the first Böllhoff Makeathon will become reality.





Jörg Münstermann Head of Software and Automation, Böllhoff Setting Technology

In previous editions of the Smart Green
Island Makeathon, before 2024, we typically
participated as a sponsor by sending a
few employees to take part and explore the
event firsthand, especially our work-study
students and young team members.
But in 2024, we took it a step further. For
the first time, we organised a challenge for
the students ourselves. It was an incredible
experience: the energy, enthusiasm, and
dedication on site were truly inspiring!

# Passion for successful joining

#### across generations

We are a family business through and through. We have had a passion for helping our customers establish successful connections for four generations. Over this time, we have evolved from a nationwide hardware wholesaler into a global group of companies specialising in joining technology. It all began on 6 January 1877, when our founder Wilhelm Böllhoff established the company as a hardware wholesaler in Herdecke, choosing 6 January (the Christian holiday of Epiphany) for its promise of good fortune.

Josef Böllhoff, the second generation of the family, took the helm in 1923. In 1954, he made what was to be a pivotal decision for our company: alongside the existing trading business, he expanded Böllhoff into manufacturing fasteners by acquiring the licence for HELICOIL® thread inserts.



In 1962, 85 years after the company's founding, the third generation, Dr Wolfgang W. Böllhoff, assumed leadership. He was the driving force behind Böllhoff's international expansion, starting with Austria as our first location outside Germany and the cornerstone for the global group of companies we are today.



In 2004, Dr Wolfgang W. Böllhoff passed the torch to his sons, Michael W. and Wilhelm A. Böllhoff. Now in the fourth generation, they have consistently continued, and still continue the course set by their predecessors by seeking new locations and forward-looking investments in Germany, Europe, and worldwide.



As a result, we are always in close proximity to our customers: with our own locations in 26 countries across 5 continents.

90th birthday of Dr Wolfgang W. Böllhoff in September 2024

For more than 40 years, from 1962 to 2004, Dr Wolfgang W. Böllhoff guided the company's direction as Managing Partner. On 30 September 2024, our third-generation company leader and current Honorary Chairman of the Advisory Council celebrated his 90th birthday.

Several international Böllhoff locations, which Dr Wolfgang W. Böllhoff was instrumental in establishing, also marked special anniversaries in 2024.

In the early 1960s, before I took over my position in the company management, I completed my doctorate at the University of World Trade in Vienna. That experience changed my perspective entirely. I realised: Böllhoff cannot just remain a German company.

Dr Wolfgang W. Böllhoff



#### 60 years of Böllhoff in Brazil:

## Our first location on the other side of the Atlantic

On 4 October 2024, the Böllhoff site in Jundiaí near São Paulo celebrated a major milestone: 60 years of operations in the Brazilian market. To mark the occasion, Flavio da Silva, Managing Director for the South America region, hosted an event with around 300 participants - including former partners and current employees - joined by Wilhelm A. Böllhoff and Thomas Pixa as representatives of the company management.

















Muito obrigado e parabéns pelos 60°. Aniversário!

The story of Böllhoff in Brazil began in 1964 with the establishment of a small import company. What prompted this move to Latin America? Germany's largest car manufacturer had recently opened its own plants there – and as an established supplier, Böllhoff followed them across the Atlantic. In no time, we became a recognised supplier for Brazil's automotive industry. Rapid growth followed, along with the development of our own local production capacities.

Today, our main Brazilian location in Jundiaí ranks among the Böllhoff Group's largest production sites worldwide. We also operate a second facility in the south of the country: a smaller branch in Cachoeirinha. All company activities in South America are managed under the umbrella of our Brazilian holding company, which now also covers a relatively new subsidiary in Argentina. In Brazil alone, we generated sales of approximately 33 million euros in 2024. A key driver behind this success: the dedication of our roughly 275 local employees.



**Isabela Barcellos** Quality Manager, Brazil

Our corporate culture makes everyone feel like an important part of the company. In my 13 years at Böllhoff in Brazil, I have witnessed and participated in many changes, all of them for the better. Throughout this period, Böllhoff has continually invested in modern machinery and processes, while also prioritising people – for example, by retaining top talent through training and motivation programmes. Sustainability has also become a key pillar of our strategy. That's why I'm very proud to be part of the Böllhoff family.



#### 40 years of Böllhoff in the United Kingdom:

# 360° Joining Technology for the British Isles



Tea time, Big Ben, the iconic London taxis – and Böllhoff. These four things are closely associated with England in the heart of the United Kingdom. In Böllhoff's case, it has been that way for 40 years. This milestone anniversary was celebrated on 30 October 2024. Numerous employees from our British sites in Hull and Willenhall attended the event, along with several guests from Germany – including Michael W. Böllhoff, representing company management.

Böllhoff's operations in the British Isles commenced in 1984 with the establishment of a sales office in Willenhall. In 2010, in-house production capacities were added with the acquisition of a thread insert manufacturing facility in Hull. Today, a team of 60 employees supports our customers from these two locations, providing expert advice on all matters relating to joining technology. In 2024, they achieved a total turnover of 15 million euros in the British Isles.



■ Worldwide BÖLLHOFF







Clare Atkins Human Resources Lead, UK

I have worked at Böllhoff in the UK for 13 years. Over this time, we have seen many changes and dealt with many challenges, whether they involve changing the way we work together, modernising our Willenhall site, or strengthening our connections with other Böllhoff sites across Europe. The fact that I now cover the HR function over both UK sites has opened up many opportunities and personal experiences for myself. I have enjoyed seeing both the manufacturing and administration aspects, and working with colleagues across both sites in Willenhall and Hull.

Thank you very much – and congratulations on your 40th anniversary!

#### 40 years of Böllhoff in Italy:

# A key location in southern Europe





Böllhoff also marked 40 years of operations in Italy in 2024, with an anniversary celebration planned for later in 2025.

It all began in February 1984 with a small branch and warehouse staffed by just 10 employees. Our Italian sales office has been based at its current location in Corsico (Milan) since 2000. In 2005, we expanded

our footprint with the acquisition of a manufacturer of stainless steel blind rivet nuts in Rozzano (Milan), just 15 kilometres from the sales office. Since then, we have steadily grown our business in Italy. Today, nearly 70 employees work for Böllhoff in the country, generating a turnover of approximately 37 million euros in 2024.

#### 25 years of Böllhoff in China:

# A quarter of a century in Asia

On 5 June 2024, over 300 invited guests gathered in Wuxi, near Shanghai, to celebrate 25 years of Böllhoff in China. The event was attended by the Böllhoff family, the owners of the company, as well as international management and, of course, employees from China.

There were two key milestones to celebrate: For one, Böllhoff has been active on the Chinese market for a quarter of a century, since 1999. Plus, 20 years ago, in 2004, the company also made the strategic decision to establish its current headquarters in Wuxi, complete with its own production facilities.

Since then, we have been producing fasteners tailored specifically for the Asian market at our Wuxi site. including RIVKLE® blind rivet nuts and studs, a variety of threaded inserts, and plastic fasteners. Today, around 330 employees work for Böllhoff in China, generating a turnover of 96 million euros in 2024. Our Wuxi site also serves as the heart of our corporate activities throughout Asia, with additional locations in India, Japan, South Korea, Thailand, and Vietnam.





**Leah Yu**Production Planning Plastics
Technology, China

15 years ago, I joined Böllhoff China as just another employee.

Today I am part of one big family. Through every challenge
and success, this company has given me not just a career,
but a place where I belong.

The trust, respect, and growth I have experienced here make every year feel meaningful. I am proud to be part of a team that values dedication, innovation, and each person's contribution. I don't just work here – I thrive.







**Eike Krull**Head of Corporate Human
Resources

We are a global group of companies
with locations in 26 countries
across 5 continents.
While the cultures and people we
work with may be diverse, we are
united by our values, corporate culture,
and goals – all of which guide
us on our shared journey.
This is The Böllhoff Way.











Further anniversaries in our global company network

are also set to take place in 2025: we will celebrate

25 years of Böllhoff in the USA and 60 years in Mexico!



#### Two new Böllhoff production facilities:

### Closer to customers worldwide

#### Think globally, act locally.

This principle guides us as a global group of companies whenever we invest in our infrastructure worldwide. Our goal is to maintain close proximity to our customers and meet their needs, providing the best possible on-site support wherever they seek to create connections. This is another important facet of 360° Joining Technology for us.

In 2024, we kicked off two major expansion projects by investing in new Böllhoff production facilities in Morocco and Turkey. By mid-2025, these new sites will bring the total number of our production locations worldwide to 15, all dedicated to supporting our customers.





#### Africa joins the Böllhoff world as continent #5:

# Morocco calls as an aerospace hub



In 2024, we opened our first location in North Africa, situated in the Midparc industrial centre near Casablanca, Morocco. The relevant partnership agreement between Midparc and Böllhoff was officially signed on 13 March 2024, with Moroccan Minister of Industry and Trade Ryad Mezzour in attendance.

We moved into our new building in summer 2024, and by the end of the year, we began producing fasteners for initial sample approval. The site now manufactures specialised fasteners for the local aerospace industry and is certified to the DIN EN 9100 standard, the

quality management system for aerospace. With over 1,300 m<sup>2</sup>, the Casablanca facility includes production, logistics, and office spaces. Initially, 8 people are employed, with plans to grow the workforce to 15 in the medium term.



Wilhelm A. Böllhoff Managing Partner

As an economically emerging country,
Morocco is especially exciting for industries
such as aerospace. After taking our first steps
locally with a small sales office, we now
aim to expand as a company with our own
site near our local customers – including
production and logistics.







Driss Oubella Managing Director Böllhoff Morocco

In addition to its strong local aerospace industry, Morocco's geographical location – at the crossroads of Europe, Africa, and the Middle East – makes it an ideal hub for accessing various international markets.

### A strong focus on the local aerospace sector

"Morocco is particularly interesting for us because of its proximity to our customers in the aerospace industry," says Driss Oubella, Managing Director of Böllhoff Morocco. "The Midparc industrial centre is the ultimate free trade zone for the construction of aircraft parts throughout Morocco." Almost all prominent companies in the aerospace industry – along with many of their suppliers – have established branches near the new Böllhoff site. The site in Casablanca thus ensures short delivery routes and rapid availability of our products for all local aerospace customers, even for customised elements. Other sectors, such as automotive and manufacturing, are also supplied from there in smaller quantities.

The site is expected to grow steadily in the coming years and will also support emerging industries such as renewable energy and solar. Driss Oubella explains: "Our goal is to gradually increase production capacity in Morocco by 2030, with a target of 37,000 production hours per year." The plan for the next few years is in place. But before that, another significant milestone awaits the team: the official opening of the new site on continent #5 in the global Böllhoff network will take place in spring 2025.

#### **Production in Turkey to start in 2025**:

# Close to Europe – for Europe

The official ground-breaking ceremony on 2 February 2024 marked the beginning of construction for a new Böllhoff production facility in Izmir, Turkey. In line with our "local for local" approach, the new facility is being built to serve the European sales market, taking advantage of its proximity to Europe. "The aim of this expansion is to increase our production capacity for the 'old continent,'" says Thierry Morin, Managing Director of the Blind Riveting Technology division. Until now, Böllhoff has been represented in Turkey by only a single sales office in Istanbul.

RIVKLE® blind rivet nuts and AMTEC® thread inserts for customers throughout Europe will be produced at the new site in Izmir, Turkey, on a production area of

around 7,000 m<sup>2</sup>, within a total building area of 10.000 m<sup>2</sup>. After the ramp-up phase, the facility will have the capacity to produce over 100 million elements annually. This new site will thus support our established production facilities in Europe, such as those in Bielefeld (AMTEC®) and La Ravoire (RIVKLE®). "The production capacities at our existing European sites were stretched in the past, which required us to ship additional deliveries from our production facility in Wuxi, China, to meet the demand in Europe," says Thierry Morin. "With the additional production capacity in Turkey, this will no longer be necessarv." So the new location will also positively impact our carbon footprint by shortening delivery routes for many of our European customers.

Construction of the building in Izmir is scheduled for completion in spring 2025. The production machines will be commissioned at the same time, so that the qualification processes can begin. The official opening ceremony of the new Böllhoff production site in Turkey is scheduled for October 2025. Initially, around 30 people will be employed at the site, with the number of local employees expected to grow to up to 70 in the future.





Thierry Morin
Managing Director Blind Riveting
Technology Division

We are pleased to support our European customers with increased production capacities following the launch of production in Turkey, while simultaneously reducing our carbon footprint in the logistics chain.



# Forging ahead with 360° Joining Technology

An afternoon at the Hockenheimring in southern Germany. Excitement fills the air around the racetrack as the sun shines down on the paddock. Small formula cars zoom along a closed-off track. Tires screech, crowds cheer – but otherwise only silence. Because, for the first time in 2024, the international Formula Student Germany (FSG) design competition featured only electric formula cars.

The highlight of this competition and others like it: all the vehicles are designed and built by student teams. A total of 84 teams from 20 countries gathered for the 2024 FSG event at the Hockenheimring.

Their goal: To put their self-designed cars to the test, advance their knowledge, and engage in dialogue with their peers and industry experts, including Böllhoff.





André Röhr Team Leader Application Technology

It is exciting to see the vehicles designed by tomorrow's talents take to the racetrack during their studies, showcasing how well thought-out these student designs are. We are proud to support them in this competition at the highest technical level with sponsored fasteners and our expertise in joining technology.

Every year, numerous teams compete in this and other student racing competitions with vehicles held together by Böllhoff fasteners. We support more than 20 teams across Germany and around the world, some of them for many years, with our expertise and sponsored fastening solutions. These include UPBracing (Paderborn University), OWL Racing (OWL University of Applied Sciences in Lemgo), and PWR Racing, the oldest Formula Student team in Poland (Wrocław University of Science and Technology). Two Spanish teams are even building their own electric motorbikes with our fasteners: ePowered Racing (Universitat Politècnica de Catalunya) and UPM

MotoStudent Electric (Universidad Politècnica de Madrid).

Sponsorships like these lead to opportunities for fruitful exchanges that benefit both parties. Students can put their academic knowledge into practice and test drive the results together as a team, while we as a company can engage directly with the engineers and designers of the future, keeping closely connected to the latest developments in this exciting area of electromobility. Forging ahead towards the future as partners!



The UPBracing team from Paderborn University – racing toward the winners' podium with our fasteners since 2010.



"We have been using Böllhoff products since 2022. Thanks to these components — especially the HELICOIL® kit and RIVKLE® blind rivet nuts and studs —, we were able to assemble our latest electric motorbike prototype in the most professional and precise way possible. As a result, we obtained second place in the main race of the 2023 MotoStudent competition and third place in the overall standings, establishing ourselves as one of the best university teams nationally and worldwide. Our collaboration with Böllhoff is a great privilege, and we are proud of the good results we have achieved with their support."

**Team UPM MotoStudent Electric,** student racing team of the Universidad Politècnica de Madrid (supported by Böllhoff since 2022)

## Joined by our shared commitment!

At Böllhoff, we all put our heart into supporting charitable initiatives.

As a fourth-generation family business with strong regional roots, we place people at the centre of everything we do. This is why we are particularly committed to social causes and take our social responsibility seriously.

As a company, we actively support social projects and encourage our employees to make their own valuable contributions to the common good. Selected projects from 2024 are presented on the following pages.

#### Advancing inclusion one step at a time

3,422 laps
1,369 kilometres run
and € 3,422
amount raised

These are the impressive results of the 143 staff members from our French site in La Ravoire who took part in the "La Savoie Court pour Handisport". This charity run, organised by the "Comité Handisport Savoie", a local organisation promoting sports for people with disabilities, sends a clear message: solidarity and inclusion through collective sporting

activities. For the employees of Böllhoff France and their families, it was a wonderful opportunity to demonstrate their commitment to inclusion and contribute to the total amount raised with strong dedication and team spirit. Step by step, lap by lap, kilometre by kilometre.







#### Joining forces against blood cancer



Every 27 seconds, someone, somewhere in the world receives the devastating diagnosis of blood cancer. For many of them, finding a suitable donor and a stem cell donation is often the last chance for a cure. Michael W. Böllhoff contracted blood cancer himself a few years ago while traveling in Brazil and was able to recover, thanks to a stem cell donation. Inspired by this experience, he and his wife, Megan Böllhoff, founded the Instituto Böllhoff de Medula association in Jundiaí, Brazil. The goal of the association is to help leukemia patients receive a successful bone marrow transplant. To achieve this, the association

works with hospitals, universities, and transplant centres to initiate campaigns and raise awareness. A donor drive is held at the Böllhoff site in Jundiaí twice a year to encourage employees to register as bone marrow donors. In autumn 2024, this initiative was expanded to Böllhoff employees in Germany, who were also encouraged to register as donors through a typing campaign organized by the non-profit organization DKMS. But that's not all: for every typing completed by an employee, Böllhoff also donated 50 euros to DKMS.





Simone Lazarotti Assistant to Management in Brazil

The Instituto Böllhoff de Medula association is very close to my heart. As a proud member, I can actively contribute to campaigns that register new potential bone marrow donors – offering new hope to leukaemia patients in urgent need of help.



#### Prøject Cøpenhagen

#### **Every. Kilometre. Counts.**

574 kilometres by bike from Bielefeld to Copenhagen. In 24 hours. All for a good cause. In September 2024, our employee Bastian Harfmann took on this incredible challenge, which was initiated by the video agency FrameStory.

The ardent cyclist collected 1 euro per kilometre cycled from private individuals, agencies and companies to benefit the Bethel Children's and Youth Hospice in Bielefeld. For Böllhoff, supporting this campaign financially as part of our "Volunteering Together" initiative was a point of honour. We have been supporting our employees in their personal commitment to social causes for over 15 years. Thanks to Bastian's remarkable effort, a total of 4,400 euros was raised: an amazing contribution to the important work of the children's and youth hospice.







Cyclist in the "Project Copenhagen",

working in sales at Böllhoff

I just thought it was awesome to be raising money for the children's and youth hospice in Bethel with every kilometre I cycled. That motivated me even more: knowing that this is for so many others, not just for myself.

Would you like to learn more about how this unique idea came to life and what it feels like to achieve such a challenging goal?

In our Böllhoff Magazine, you can read an interview with the masterminds behind "Project Copenhagen" and find a link to the German documentary film by the agency FrameStory, which covers the entire campaign:

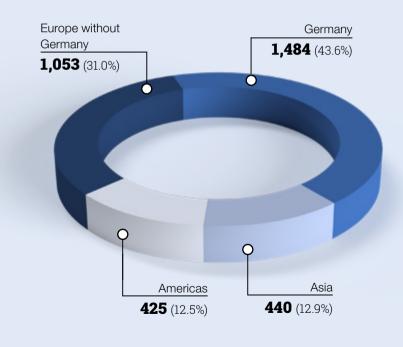






#### Employees in the Böllhoff **Group 2024**

Average number of active full-time workers including temporary workers





How are we contributing to a liveable future?

Visit our new sustainability website

and find out now!

As a family business, we are used to thinking longterm – in generations.

That's why we take responsibility and actively drive sustainability within our company, guided by a clear strategy focused on three key areas: our planet, our employees, and the communities around us. We call this approach: Planet, People, Partnership.

Since the summer of 2024, we have been showcasing our efforts in a fresh, new format – 100% digitally – on our dedicated sustainability website.

www.boellhoff.com/sustainability

Discover our goals, actions, and achievements across all three key focus areas. Learn how we are saving energy and conserving resources within the company. Find out what we are doing to remain an attractive employer for the long term. Explore our social commitments.

A new addition to our digital sustainability hub is the Böllhoff Magazine. It features the stories and people behind the sustainability efforts taking place at our company. Take a look behind the scenes!



■ People and responsibility BÖLLHOFF

#### Have we piqued your interest?

Here are some of the latest

featured topics:

By the way: New topics are continuously being added to the Böllhoff Magazine.

Be sure to check back regularly to stay up-to-date with the latest in sustainability at Böllhoff.



www.boellhoff.com/magazine



#### More sustainable joinings – with recycled steel

Around 600 million finished fasteners, mostly made of steel, come off our production machines at the Böllhoff site in La Ravoire, France, every year. We use recycled steel as a raw material to reduce carbon emissions and create more sustainable compounds.



#### Energy scouts at Böllhoff – trainees develop potential savings

We actively involve our trainees in our pursuit of sustainability by training them as energy scouts. With their unbiased perspectives on our operational processes, our trainees often come up with the most interesting ideas for saving energy.







#### Bringing joy together

Christmas magic lives in small acts of kindness and the wish to brighten someone's day. At our Böllhoff sites in Bielefeld and La Ravoire, employees joined festive campaigns to share a little holiday cheer with those in need.



# Business development of the Böllhoff Group

A volatile global economic environment, a decline in customer demand across many industries in Europe, and high price and cost pressures, particularly in Germany, driven by rising energy prices, labour costs, and inflation. In light of this situation, despite profitable growth in Asia and North America, the Böllhoff Group recorded an overall decline in sales to 754 million euros in 2024. This represents a decrease of 6.8% compared to the previous year.

As an independent family business, we think long-term, even and especially in challenging times. In 2024, we therefore invested around 40 million euros across the Group in our future growth and efficiency. These investments were focused particularly on our processes, digitalisation, and automation. Our equity ratio remained stable at around 50%.





#### Development of our strategic business units

The Böllhoff Group is divided into the two strategic business units of Fastener Service Supply and Fastening and Assembly Technology. In the Fastener Service Supply (FSS) unit, we act as a supplier of fasteners, and provide our customers with a wide range of DIN and standard parts as well as supplementary items. The Fastening and Assembly Technology (FAT) unit develops and produces innovative ioining technology and appropriate assembly systems for a wide variety of industrial applications.

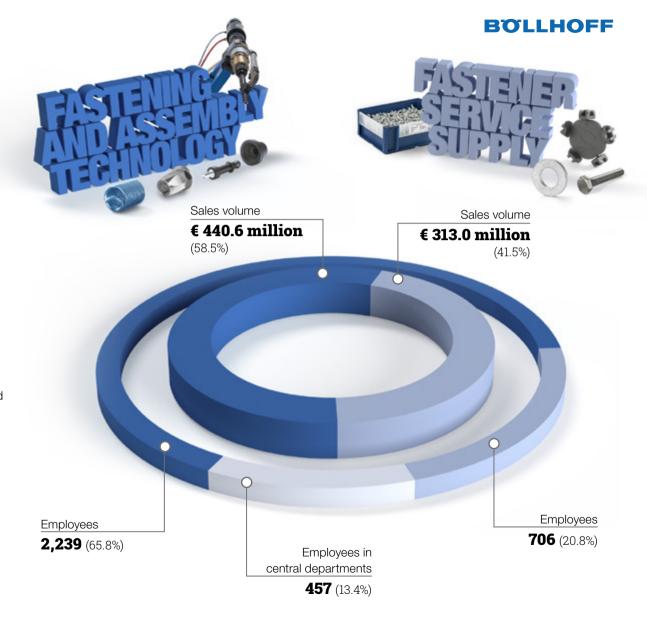
Both strategic business units fell short of our plan in 2024 due to the difficult market environment, especially in Europe. This reflects the impact of the challenging conditions impacting the global economy in general, and the structural problems of the European automotive industry in particular. The FSS division recorded a decline in sales of 11.5% compared to the previous year, while the FAT division recorded a decline of 3.1%. By merging the two strategic business units, FSS and FAT, from 2025 onwards, we will generate synergies in the future and place an even stronger focus on our four global regions: Asia, Europe, North America, and South America.

All sales and employee figures include the following companies, which are part of the Böllhoff Group:







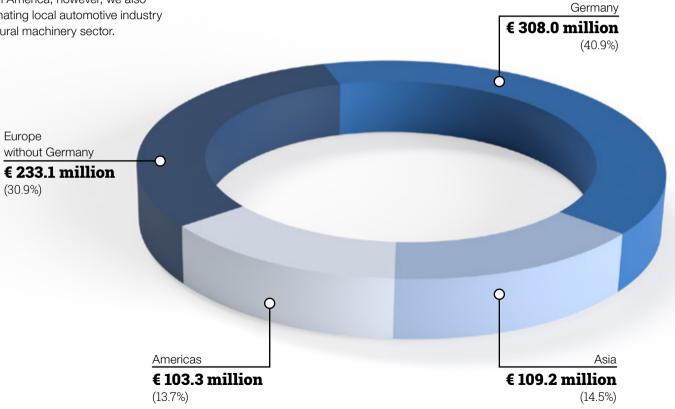






#### Sales volume development in detail

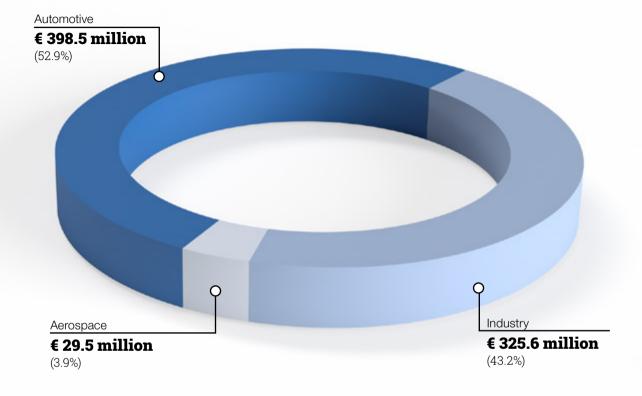
Our sales developed differently across the regions. The significant decline in sales in Europe, particularly in Germany, was offset by strong growth in Asia and North America in 2024. In South America, however, we also recorded a decline in sales due to the stagnating local automotive industry and the continued weakness of the agricultural machinery sector.



Key figures and governing bodies

**BOLLHOFI** 

Broken down by market segment, sales volume in our automotive, industrial and aerospace customer groups have evolved differently. In the automotive division, the structural problems in the European automotive industry were reflected in our sales, with a decline of 6.3% compared to the previous year. Our growing business with car manufacturers in China, the USA, and Mexico was unable to fully offset the significant decline in sales in the crisis-stricken European automotive industry. Our sales in the industrial sector were also dampened by a challenging market environment for our European industrial customers. particularly in Germany. As a result, we recorded an 8.5% decline compared to the previous year. The aerospace sector, on the other hand, developed positively: here we achieved sales growth of 8.0% with our solutions. We anticipate further positive momentum from 2025 onwards from our new production site in Casablanca, which will primarily serve local customers in the aerospace hotspot Morocco.



Framework conditions for the global economy remain difficult, as reflected in our sales in 2024.

However, by expanding our international network of locations and investing in strategic areas such as training, digitalisation, and innovation, we are putting our Group in the best possible position for a successful future.





#### Governing bodies of the Böllhoff Group



#### **Advisory Council**

**Dr Markus Miele (C)**Managing Partner of Miele & Cie. KG

Christian G. Böllhoff Managing Partner of Prognos AG

Christian Messinger Sales Manager at CLAAS E-Systems GmbH

Hans Beckhoff
Managing Partner of Beckhoff Automation GmbH & Co. KG

**Jens Fiege**Managing Partner of FIEGE Logistik Stiftung & Co. KG

**Dr Wolfgang W. Böllhoff** Honorary Chair of the Advisory Council







#### Board of Management

#### Wilhelm A. Böllhoff (C)

Fastener service supply, personnel, quality management, logistics

#### Michael W. Böllhoff (C)

Fastening and assembly technology, production, marketing

#### **Dr Jens Bunte**

Research and development, quality, sustainability

#### **Dr Cathrin Wesch-Potente**

Business processes, digitalisation and information technology

#### **Thomas Pixa**

Finance, controlling, legal, indirect purchasing and facility management

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### BOLLHOFF

Passion for successful joining.

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