

# BÖLLHOFF



ANNUAL REPORT **2023**

# BÖLLHOFF

Passion for successful joining.

Böllhoff is your partner for 360° joining technology with assembly and logistics solutions – worldwide. As a family-owned company, we have been standing for long-term success through innovative capacity and local presence since 1877. We know the specific needs of our customers from all industries and support them in enabling successful connections. Almost 3,400 employees continuously shape the future of joining technology – both at our headquarters in Bielefeld, Germany and in our subsidiaries around the world.

# Contents

- Introduction
  - Foreword from the company management . . . . . **4**
  - Certifications and awards . . . . . **5**
- An interview with the management team
  - Caught between a difficult market environment and new developments. . . . . **6**
- 360° joining technology
  - Creating added value for our customers. . . . . **12**



- Our procurement network:
  - the source of our successful connections . . . . . **16**
  - Expansion projects in Europe and Asia . . . . . **18**
  - Trade fairs and industry events 2023 . . . . . **22**



- RIVKLE® NEO P107 . . . . . **24**
- Kanban, but with a system – that’s ECOSIT® . . . . . **30**
- Böllhoff and the technological transformation of the automotive industry . . . . . **36**



- Invest today in the team of tomorrow. . . . . **38**
- The Wolfgang and Regina Böllhoff Foundation: supporting young people for over 16 years. . . . . **42**

- Sustainability
  - Generational thinking: Sustainability at Böllhoff . . . . . **46**
- Key figures
  - Business development of the Böllhoff Group . . . . . **50**
- Management bodies
  - Advisory Council, Board of Management and Management Conference . . . . . **54**



**Interactive PDF**

Just click on a topic in the table of contents to go to the relevant page. You can use the INDEX symbol (bottom right at the edge of the page) to navigate directly back to the table of contents from any page.



*Dear Ladies and Gentlemen,  
dear Business Partners!*

Recent economic conditions could hardly have been more challenging due to upheavals in many markets, a difficult market environment and great uncertainty worldwide. The factors behind these challenges are reported every day.

The good news for Böllhoff: Despite the fraught situation, we were nevertheless able to hold our own in 2023. With an annual sales volume of 809 million euros, we achieved growth of 3.3% compared to the previous year.

The three thematic pillars of this annual report show how this was done. As a company, we maintain a close relationship with our customers worldwide through our 360° joining technology and support them with the right products and services. It's always people – in the company and the immediate environment – who embody this holistic approach.

So we would like to express our sincere gratitude for this. Dear customers, business partners and employees: Thank you very much for your support and successful cooperation, especially in these turbulent times.

*Yours,*  
 

Michael W. Böllhoff

Wilhelm A. Böllhoff

## CERTIFICATIONS

### **DIN EN ISO 9001**

Certified quality management system

### **DIN EN 9100**

Certified 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

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

## AWARDS 2023



### **SUPPLIER AWARD**

Böllhoff Austria received a supplier award as a premium supplier to E. Hawle Armaturenwerke GmbH.



### **AAA PLATINUM EXCELLENCE**

Böllhoff Czechia received the AAA Platinum Excellence Certificate from Dun & Bradstreet in 2023. This means that our local company belongs to an exclusive group of the most trustworthy companies in the Czech Republic.



### **BEST SUPPLIER COMPLIANCE ADHERENCE**

MAHLE ANAND Filter Systems awarded Böllhoff India the Mahle Supplier Excellence Award, confirming Böllhoff's compliance with all regulations and status as one of its best suppliers.



### **CERTIFICATE OF EXCELLENCE**

Böllhoff India received an award for excellent quality and delivery performance for Bharat Electronics.



### **EXCELLENT QUALITY**

Böllhoff China received the Excellent Quality award from UTAS-NOVA Automotive Lighting Systems Co., Ltd. Among other things, the company supplies rear lights to leading Chinese car manufacturers such as NIO and Li Auto.



### **FOX FINANCE AND FOX VISUALS**

The Böllhoff Annual Report 2022 received the FOX FINANCE 2023 Gold Award for outstanding reporting performance and the FOX VISUALS 2023 Gold Special Award for design.

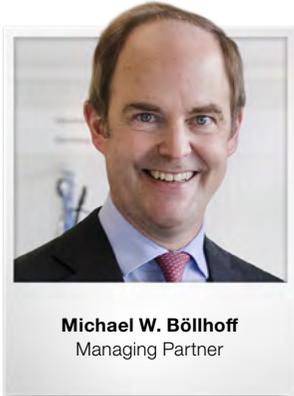
An interview with the Böllhoff Group management team:

# Caught between a difficult market environment and new developments

2023 was an eventful year. This was the case for the global economy and developments in Germany in particular. And change has come to the Böllhoff Group itself over the past year: After many years of stability at the highest decision-making level, we welcomed two new faces to the company management team in 2023.

This was a good reason to invite the newly configured team to an interview in this annual report. The five managers discuss the challenges of today's world, new developments in digitalisation and investment, and future opportunities for the company.

The annual report has always been an opportunity for the Böllhoff Group to look back on the past year. How would you describe your experience in 2023?



**Michael W. Böllhoff**  
Managing Partner

It has had its ups and downs, that much is certain. Firstly, we were – and are – deeply saddened and shocked by the sudden loss of Dr Carsten Löffler, our longstanding and trusted Chief Financial Officer. Until his untimely death, he helped shape our company for over three decades – he will be sorely missed. We remain eternally grateful to him for everything he has done for the company and for us. Meanwhile, we are very pleased that we were able to quickly find Thomas Pixa as a suitable successor for the important role of CFO at Böllhoff.

**Wilhelm A. Böllhoff:** We were also pleased to welcome Dr Cathrin Wesch-Potente (responsible for the area of “Processes and Digitalisation”) to the Management Board in early 2023. She has mastered the work here and already contributed to many changes. Overall, we see ourselves at the beginning of a new but challenging era for the Böllhoff Group worldwide.

**Cathrin Wesch-Potente:** I am very happy that I joined Böllhoff right at the beginning of the realignment of our company-wide processes and IT structures in March 2023. This allowed me to work with the teams to shape how we want to work together in future and systematically advance digitalisation within the company.

**Jens Bunte:** Wilhelm just mentioned a challenging era: I found working in the market in 2023 to be particularly demanding, especially regarding price adjustments, some of which could not be avoided. We used this time to do a lot of work on our internal processes, such as the introduction of agile methods in product development.

**Thomas Pixa:** From my perspective as the new CFO, I can say that 2023 has challenged us in many ways. A weakening global economy, high interest rates with negative effects for companies and consumers, and widespread reluctance to invest – these are just some of the areas creating noticeable obstacles for the economy. Despite this, the company was able to withstand the difficult international market environment and once again achieve growth of 3.3% with a sales volume of 809 million euros. This was due, in particular, to the strong first half of 2023, which offset the negative economic performance in the second half of the year.

Wilhelm, you just mentioned Cathrin's appointment to the Management Board in the area of "Processes and Digitalisation". Why did you decide to combine these issues in a new role on the Management Board?



**Wilhelm A. Böllhoff**  
Managing Partner

Digitalisation has been a key issue for us for years. Nevertheless, digitalising end-to-end processes from inquiry to delivery is a major and complex challenge. There are also new opportunities from artificial intelligence, for example. That is why we remain committed to strengthening our position in the digital area.

**Michael W. Böllhoff:** As the company management, in future we will focus even more on coordinating issues relevant to the group and less on day-to-day operations. This includes strategic issues such as processes and digitalisation, innovation, market development and penetration, but also operational excellence in all areas.

**Wilhelm A. Böllhoff:** Take Michael and me as an example: In the past, we were involved in a kind of hybrid role as managing directors for our wholesale and own brands areas. Now we have transferred these more operational roles to two dedicated CEOs for our FSS and FAT business units.

**Michael W. Böllhoff:** Today we see ourselves more as co-CEOs in the sense of being "Chief Empowerment Officers". As such, we do everything we can to support and encourage our great leadership team around the world so that they can work effectively and efficiently together with their fantastic teams. We also want to continue to do our part to inspire interest in Böllhoff, our connections and the opportunity to work at a family business, among talented individuals inside and outside our company.

Cathrin, as a digitalisation expert, what opportunities do you see for Böllhoff in this area?

**Cathrin Wesch-Potente:** I think the potential for digitalisation in general is great, the next big push will come from AI. To improve even further in this area, we need to take a close look at today's working methods, processes and data structures – and analyse what we will need for our future business models in order to properly position ourselves. The aim will be to work together to develop the best solutions for us all. This will not work if the company tries to implement this solely via a single central department.

To pick up on Michael's empowerment idea, at our newly created central "Corporate Processes & Digitalisation" department, or CPD for short, our overarching goal is to provide digitalisation expertise to all areas of the company. Just like in the Lean approach, it is very much about digital empowerment, about simple and quick solutions in the low-code and no-code area, about driving digitalisation. It is also about standardising the interfaces for processes, applications and systems so that teams can work together cross-functionally in the best possible way. There is great potential here that we want to exploit together.

Can you give us a specific example of where we used digital methods to help us rethink processes and procedures in 2023?



We are a manufacturing company, so let us look at manufacturing. In 2023, we implemented a project that stands as an excellent example of competence in digitalisation combined with an agile approach. At a production section in Bielefeld, it involved fully automating the transportation of parts from the storage area to the machines and back. If an employee needs new raw parts at the production machine or wants to have finished parts removed, they can simply initiate this by pressing a button. The removal and storage of parts in the storage systems is fully automated, and the parts are transported to the machines and back to the warehouse by automated guided vehicles. This allows the on-site employees to concentrate fully on value-adding activities. This is a clear example of how cooperation between humans and machines can improve established processes – in a system that our colleagues on site optimise and develop together.

It is vital for a company like Böllhoff to constantly rethink itself, not only at the level of its own processes, but of course also at the product level. How are we innovating in this area?

**Jens Bunte:** For us today, it is about becoming even more agile in product development. We want to continuously increase the effectiveness and efficiency of our development processes.

The goal is to be able to provide our customers with the right product at the right time – this means the product that addresses their personal pain point. Where a product developer used to think about a new solution on their own, today a product owner team describes the product development goal. This team consists of a representative for each of the market and technology areas as well as a project manager. This core team

coordinates content daily. This allows us to react much more quickly to external influences, including those that come directly from the customer, as well as, of course, to current project results. For example, we managed to develop a new fastener for the construction industry in just one year.

**Innovation is an important cornerstone for corporate success. But today, more than ever, it is important to combine this success with sustainability. How long has the topic of sustainability been particularly important to us as a company?**

**Wilhelm A. Böllhoff:** Sustainability has long been a part of our corporate DNA. Why? As a family-run company currently in its fourth generation, we are used to long-term thinking – in terms of generations. And for us, long-term strategies have always included environmental, personnel and charitable objectives. These are the activities that we now call “Planet, People and Partnership” in our sustainability strategy. Sustainability has therefore been an important part of our values, our corporate culture and our success goals for many years, even if we did not explicitly use that term in the past.

**Michael W. Böllhoff:** Around 2019, we started working on our own, explicitly named sustainability strategy and sustainability report. Both gave us the opportunity to systematically examine where we as a company are already well positioned in terms of sustainability, and where we see potential for improvement in the future. For example, our primary goal in the area of Planet – that is, the environment – is to achieve carbon-neutral status within the scope 1 and 2 framework by 2030. This means the emissions we cause directly, as well as indirectly through the purchase of energy.



**Jens Bunte**  
Managing Director Technology,  
Research and Development

**We are already on the right track here. We have almost reached the next milestone: By the end of 2024, we intend to have reduced our carbon emissions by 25% compared to 2021. In recent years, we have completely switched to a green energy supply in Germany and other countries. We are heating buildings with renewable energy for the first time, and increasingly meeting a portion of our energy needs with our own energy – generated with photovoltaic systems, for example.**

**In 2023, the largest PV plant in the entire Böllhoff Group was put into operation in Wuxi, China – with an initial output of 800 kWp, but expandable to up to 1.3 MWp. In Germany, too, we are currently building new PV systems or expanding existing ones, for example at our large production and logistics sites in Sonnewalde and Oelsnitz.**

**What do you expect for the Böllhoff Group in 2024 and the future? What opportunities and risks do you see?**

**Michael W. Böllhoff:** The current year started under difficult conditions – and we do not expect any improvements in the short term. Demand remains subdued, particularly in Germany and parts of Europe. With rising costs and increasing bureaucracy in this country, we expect low growth for years to come, especially in Germany. And abroad, the consequences of the “new global reality” are being felt increasingly with the rise of nationalism and protectionism. However, this also presents opportunities for our group. We see this in growing markets such as Vietnam, Thailand, India, Mexico and Turkey.

**Wilhelm A. Böllhoff:** And on the fifth Böllhoff continent, Africa, more precisely in North Africa, we will also intensify our sales initiatives for the industry based there: From mid-2024, we will be setting up a local production facility in Morocco for our customers in the aviation industry. The aim is to support our customers and help them to grow directly on site.

**Jens Bunte:** Following the forced decline in face-to-face communication during the pandemic, this close cooperation with our customers to help them find the right joining solutions has increased significantly again over the last two years. Of course, this presents us with many opportunities. I also expect that in 2024 we will be able to successfully transfer the product developments of recent years to applications in various industries such as aerospace, the automotive sector or the construction industry.

**Cathrin Wesch-Potente:** As already mentioned, there are also further opportunities at the technology and process level, especially in the areas of automation and artificial intelligence.

**Wilhelm A. Böllhoff:** And we are doing everything we can with our investments to ensure that we can continue to grow in the future. We are doing this nationally at our headquarters in Bielefeld with the construction of the Böllhoff Education Campus – a state-of-the-art training and further education centre aimed at addressing the shortage of skilled workers, and internationally by establishing new production facilities close to our customers. In addition to the example of Morocco, that I already mentioned, we are also currently building a new production facility in Turkey.

**Michael W. Böllhoff:** We will continue to invest in a successful future – in products and services, in qualified employees and in the digitalisation of our processes. This is our approach to staying on the road to success even in difficult times.



**Thomas Pixia**  
Chief Financial Officer

To follow up in particular on what Wilhelm and Jens just said, with our broad product and service portfolio and our international orientation, we stay close to our customers and their requirements worldwide – this is what we call: 360° joining technology. So we can remain confident despite increasing economic uncertainty in 2024. We expect continued, albeit moderate, growth in the current year.

We create added value for our customers:

# 360° joining technology from Böllhoff

Whenever our customers want to connect components, we are at their side as a competent partner along the entire value chain and worldwide. We are always focused on the specific requirements of their industries. We call this all-round service concept “360° joining technology”.



**Michael W. Böllhoff**  
Managing Partner

We place a high value on communicating with our customers on an equal footing – to determine together at an early stage where and how our solutions can help them to realise their goals.



# We are:



Industry focused.  
**Customer oriented.**  
**Worldwide.**

Our joining solutions are as individual and diverse as our customers and their industries.

That is because our 360° joining technology means that we focus on the specific needs of our customers worldwide.

**We can support our customers at any point in their value chain:**

from early in the product development process when designing connections to efficient delivery of fasteners directly to the assembly line.

**We create successful connections together with our customers –**  
as their competent partner for 360° joining technology.

**Wherever our customers need us at their side:**

from Shanghai to Detroit,  
from Île-de-France  
to the Ruhr.

**Whatever solutions our customers need:**

from standard screws according to DIN or ISO standards to special fasteners or from technical application advice to the right assembly system for a specific fastener.



## We are there for our customers worldwide

We have our own sales locations, production facilities and logistics centres, as well as sales agencies in other industrial markets where we do not have our own subsidiaries – all to ensure quick availability of our products and short supply distances!



**Wilhelm A. Böllhoff**  
Managing Partner

The common thread throughout our extensive portfolio is the focus on the customer, and on their value chain in particular.

Our goal is to determine how to best meet our customers' needs based on this broad portfolio – this can be with fasteners, assembly solutions, but also other joining technology services.

After all, we are not a parts supplier, we are a solution and system supplier.

# Worldwide

360° joining technology worldwide means that we are on site for our customers in all relevant markets with established procurement networks, production facilities and logistics centres. And also with our own sales consultants who always provide all our customers with the right joining solutions and services.



The Böllhoff Group's global procurement network:

## The source of our successful connections

We offer our customers worldwide a broad and deep joining technology product portfolio with over 100,000 fasteners according to DIN or ISO standards, brands and special fasteners from our own production, as well as components based on customer drawings. One thing is key to making this possible – our global procurement network.



## Procurement partner for our customers worldwide

From Germany to Europe and Asia – for finished fasteners alone, we are able to rely on over 1,500 suppliers from more than 40 countries. We also have countless other suppliers of raw materials. They provide the basis for all the fasteners that we manufacture at 13 production facilities worldwide. With this comprehensive supplier and manufacturing network, we are ideally equipped to support our customers as a reliable procurement partner – even in an increasingly uncertain world.

Today, experts often speak of a VUCA world – one characterized by volatility, uncertainty, complexity and ambiguity. These difficult conditions result in many fluctuations in the market. The fluctuations, in turn, place ever greater demands on companies and their purchasing departments. We are meeting these contemporary challenges with our network competence backed up with close, long-term supplier relationships, digital options and scheduling tools.



**Akin Incesu**  
 Director Purchasing  
 Business Unit  
 Fastener Service Supply

**We are always able to offer our customers significant added value when we are free to choose our suppliers.**  
 For finished fasteners alone, we rely on a network of more than 1,500 suppliers in over 40 countries.

## Our Code of Conduct as the basis for sustainability in our supply chain

What are our expectations of our own suppliers? In addition to high product quality and delivery reliability at competitive prices combined with the required agility and flexibility, sustainability also plays a decisive role. Our Code of Conduct sets out all the requirements we place on our suppliers to ensure a sustainable supply chain. It includes topics relating to corporate social responsibility, and specific requirements for quality and environmental management in the company. For example, we expect our suppliers to certify their environmental management system according to DIN EN ISO 14001 and to continually develop it.

**Why? Because our customers should be able to create sustainable connections with Böllhoff fasteners – literally and figuratively.**

# THINK GLOBAL, ACT LOCAL:

## Expansion projects in Europe and Asia

Whether in Shanghai, Detroit, Île-de-France or the Ruhr – our almost 3,400 employees are ready to serve all our customers, wherever they want to create successful connections. For fast availability of our products and close cooperation. Worldwide.

Think global, act local: Following this aspect of our 360° joining technology, we expanded our production and logistics capacities internationally in 2023. The largest expansion projects were completed at our company sites in Oradea (Romania) and Wuxi (China).



There are over  
**4,000**  
pallets and small load  
carriers at the new  
narrow-aisle warehouse



## A reason to celebrate and opening of a new building: Expanding logistics capacities on our 25<sup>th</sup> anniversary in Romania

After a quarter of a century on the Romanian market, the Böllhoff company site in Oradea was at full capacity. With the opening of a new office and warehouse complex in July 2023, we have positioned ourselves for further growth in the region – to coincide with the anniversary celebrations.

The new buildings expand the storage area over a total area of almost 1,000 m<sup>2</sup>. This means that storage capacity of the site has more than tripled. The narrow-aisle warehouse has space for over 2,000 pallets and

2,000 additional small load carriers – at a height of up to 12 metres. All processes in the warehouse are computer-aided. Goods are removed more quickly and efficiently with the help of new narrow-aisle forklifts. The new building also includes modern office areas for on-site employees. Today, just over 20 people work at the site in Oradea, Romania. More than 200 employees work in our entire Southeast Europe group, which extends from Poland to Turkey.



**Gratian Ivan**  
Managing Director Romania

With this investment, we have taken a step closer to two of our main goals: continuously improving the service we provide to our customers and the sustainability of that service. We aim to create added value for customers with 360° joining technology and to optimise their purchasing processes. The new logistics centre in Romania makes us even faster and more reliable.



Almost  
**12,000 m<sup>2</sup>**  
 additional building space –  
 equivalent to around 1.7 football fields



Phase V in China:

## Expansion of production capacities for thread technology

September 2023 saw the official opening of the fifth expansion stage of our company site in Wuxi, China, celebrated at a “family day” for all employees and their families. Over 550 people attended and took the opportunity to take a look behind the scenes of the new building.

Phase V – which is the internal name of the expansion project – added almost 12,000 m<sup>2</sup> building space to the Böllhoff site in Wuxi. This is equivalent to an area of around 1.7 football fields, and it has since been in use by the Thread Technology business unit. The ultra-modern building complex includes additional production areas and offices, as well as a company restaurant for all employees at the site.



This expansion will increase our local production capacity from 680 million parts per year (in 2022) to up to 1 billion parts in the future. In Wuxi, we have been producing various fasteners especially for the Asian market since 2004, including RIVKLE® blind rivet nuts and screws, various threaded inserts, and fasteners made of plastic. Just over 300 employees currently work at the site, which also supplies the growing economic region of Southeast Asia with Böllhoff joining technology, including Thailand and Vietnam.

**NEW from 2023:**  
**1 billion**  
parts per year



**Sven Ammer**  
Managing Director Asia region

Creating a good working environment is about fostering a culture where employees can thrive. Our new company restaurant also plays its part.

It is more than just a dining area.

It is a place where our employees can build connections that benefit them in their shared, passionate pursuit of excellence every day.

Both new building projects focussed on using renewable energy: Find out more on page 47.



Personal connections and professional exchange around the world:

# Trade fairs and industry events 2023

We place great value on customer proximity and always being there when they need us. We measure ourselves against this standard. Customer proximity is therefore a core element of our full 360° joining technology service. We put it into practice at trade fairs and events around the world, where we engage in personal exchanges with customers and interested parties.

This put us close to different industries and their specific requirements at major industry events and face-to-face with our customers – at trade fairs in various countries around the globe. In 2023, we attended more trade fairs than at any other time since the beginning of the COVID-19 pandemic. The following pages provide some impressions of the past year of trade fairs.

## Fastener Fair Global

21 to 23 March 2023  
Stuttgart, Germany

The international exhibition for the fastener and fixing industry



A first for Böllhoff: In 2023, for the first time, we attended the Fastener Fair Global in Stuttgart with our own stand. Our stand covered almost 100 m<sup>2</sup> and we used it to present our fasteners as well as our ECOSIT® delivery system – providing greater security of supply for C-parts and more sustainable procurement processes. You can also see our short film for more impressions of the trade fair:



<https://www.boellhoff.com/gb-en/news/fastener-fair-2023/>



## Auto Shanghai

18 to 27 April 2023  
Shanghai, China

The 20<sup>th</sup> instalment of the leading trade fair for the automotive industry in Asia

At Auto Shanghai 2023, over 1,000 exhibitors from 20 countries, both OEMs and suppliers, presented their products and services. As a partner of the automotive industry, we attended with a 91 m<sup>2</sup> exhibition stand and a broad product portfolio – from fasteners specifically for battery packs in electric vehicles to a wide range of solutions for fastening and adjusting add-on parts.

The international trade show for intralogistics solutions and process management

### LogiMAT

25 to 27 April 2023  
Stuttgart, Germany



### Paris Air Show

19 to 25 June 2023  
Le Bourget near Paris, France

The 54<sup>th</sup> anniversary of the world's largest air show

300,000 visitors, 125,000 m<sup>2</sup> of exhibition space, over 2,500 exhibitors. The sheer numbers of the Paris Air Show 2023 are impressive. Every two years, the “who’s who” of the aviation industry meets in Le Bourget – and Böllhoff, as a partner of the industry for decades, was no exception. We presented a wide range of solutions for cabin interiors on site, such as ONCERT® fasteners for adhesive bonding, HELICOIL® thread inserts for metals and matching processing systems.

### MetalMadrid

15 and 16 November 2023  
Madrid, Spain

The leading event in manufacturing, machining and metal processing in Spain

### Autumn trade fairs

October/November 2023 with Motek, Fakuma and Blechexpo

### Trade fairs in 2024

We look forward to speaking with you at trade fairs and industry events in the future. We will be happy to tell you about the latest joining solutions and innovations from Böllhoff. Find the events where you can meet us on our website at any time:

<https://www.boellhoff.com/trade-fairs>



**Horst Wittop**  
Head of Sales Automated Assembly Systems

The 2023 trade fairs were a resounding success for us, as we were able to present our products to a wide audience while also making valuable contacts and winning potential customers. We also had the opportunity to meet many of our existing customers and inform them about our new products.

# Products and Services

360° joining technology for products and services specifically means that Böllhoff customers get everything from a single source. This includes everything from fasteners to assembly systems (manual to fully automated), together with logistics solutions and application-specific advice.



The new generation of setting tools for RIVKLE® blind rivet nuts and studs:

## RIVKLE® NEO P107

**Comfort, performance and precision** – three properties that were the primary focus when developing the new pneumatic-hydraulic setting tool RIVKLE® NEO P107. Since its launch in July 2023, the NEO P107 has complemented Böllhoff's tried-and-tested tool range. It is the fastest pneumatic setting tool for RIVKLE® elements in our product portfolio.



## NEO – a revolutionary innovation

NEO, or “new generation”, is as innovative as its name implies. Unlike previous pneumatic setting tools, the RIVKLE® NEO P107 was developed and produced entirely in-house – at the Böllhoff site in La Ravoire, France, our competence centre for the RIVKLE® blind rivet nuts and studs product group. Another special feature of the tool’s development process is that customers were systematically involved in numerous field tests. The goal was to develop a powerful tool with particularly user-friendly operation, even for demanding industrial environments.

“We wanted to give our new development a name that would mark the beginning of a new era – a new generation of setting tools. For us, NEO means change, revolution”, says David Macchieraldo when asked about the name of the new pneumatic setting tool for RIVKLE® blind rivet nuts and studs. David Macchieraldo is Development Manager for setting tools at the Böllhoff site in La Ravoire, France. His pride in the product is unmistakable. His team and many others have worked tirelessly over the years on this newly designed, completely in-house developed and manufactured pneumatic RIVKLE® setting tool from Böllhoff.

The pneumatic setting tools were previously developed in close cooperation with an external development partner. But now the company has switched to developing

its own tool: “Before we started developing the NEO P107, we decided to set up our own competence centre for setting tools here in France. The goal was to combine all phases of the product life cycle of the tools in-house: from design and development to production and assembly, and including the existing after-sales service.”, says David Macchieraldo. “We want to be able to react even faster to market trends – and get closer to our customers and their requirements.” Xavier Sutz, product manager for the entire RIVKLE® product family, adds: “At the end of the day, this perfectly expresses our 360-degree joining philosophy at Böllhoff: offering our customers everything from a single source. We want to give them the best of both worlds – for the fastener and the associated setting tool.”



**David Macchieraldo**  
Development Manager



Almost 50 employees currently work in the competence centre for setting tools in La Ravoire. The associated fasteners – RIVKLE® blind rivet nuts and studs – are also manufactured directly on site.

In total, over 150 employees are employed at the various production facilities in La Ravoire, working on RIVKLE® fasteners and the corresponding assembly tools.

↑ The team behind the new RIVKLE® NEO P107 setting tool – with Jean-Francois Jambut, Head of Setting Technology Development France (back row, far right), David Macchieraldo (front row, far left) and Ludovic Guillet (middle row, third from right)

## Resilient threads on thin-walled components with RIVKLE® blind rivet nuts and studs

RIVKLE® blind rivet nuts and studs from Böllhoff are a versatile solution for creating a resilient nut or stud thread in thin-walled components wherever it is not possible to cut a thread. Depending on the number of elements to be processed at the customer's site, we offer various processing tools: from hand tools to mechanical tools (such as the RIVKLE® NEO P107) to fully automated solutions.



## A revolution in close coordination with customers and users

A customer-centred approach is key to getting close to customers and meeting their needs in the best possible way. Customer feedback played an important role in helping this approach to succeed with the RIVKLE® NEO P107. A field test phase was therefore an essential part of the development process in order to systematically obtain this feedback. **"In this phase, we took a highly advanced version of the NEO P107 that was technologically already close to our serial tool – and gave it to various customers for testing over a defined period. The customer's workers were**

**then able to use the new setting tools in their daily manufacturing processes"**, Xavier Sutz describes the field test approach. Feedback from customers and users was then systematically collected in predefined subject areas, such as "How do you rate the handling of the tool compared to your current Böllhoff tool?". The feedback received was then incorporated into the further development process.

The findings from this field test phase had a major impact on the fine-tuning of the tool until it was ready for serial production. In this way, the RIVKLE® NEO P107 has been optimally tailored to the needs of customers and their workers. This is a win-win situation for customers as well as for Böllhoff. This is also confirmed by Ludovic Guillet, Team Leader



**Davy Le Corre**  
Methods Technician at AIMB

Böllhoff is a long-standing supplier of AIMB.

It was therefore a matter of course for us to participate in the field tests in the development project for RIVKLE® NEO P107. The approach was interesting for us because it aligns with AIMB's continuous improvement mindset.

And it also made sense for our assembly teams to contribute to making the new setting tool even more ergonomic, reliable and faster. Improving production tools also means improving working conditions.



**Xavier Sutz**  
Product Manager RIVKLE®



↑ The AIMB assembly team involved in the field test

of the after-sales support team for RIVKLE® setting tools, someone who stays in close contact with those who use Böllhoff tools every day:

**“Field testing is critical. Of course, we have our own laboratory and test bench where we can simulate millions of setting cycles for our tools. In the end, however, none of this can ever replace the practical feedback we get directly from users – after days, weeks, or even months of intensive use of the tool.”**

## Focus on comfort, performance and precision

The most important properties of the tool, however, were already established long before the field tests, at the beginning of the development process for the RIVKLE® NEO P107. **“Our aim in the development process was to equip the NEO tools with exactly the features that would best meet the needs of our customers – for example in terms of performance and speed.”**, says David Macchieraldo.

The RIVKLE® NEO P107 pneumatic-hydraulic setting tool is the fastest setting tool in the RIVKLE® range. Up to 36 blind rivet nuts or studs can be riveted per minute. This is made possible by a newly designed air duct within the housing and the pneumatically assisted piston return stroke. This makes the RIVKLE® NEO P107 ideal for use in medium and large series production. The patented tool processes RIVKLE® blind rivet nuts and studs made of steel in dimensions M3 to M8.

In addition to tool performance, development also focussed on comfort and usability.

**“Ergonomics is one of the most important aspects of a portable setting tool, especially for a worker who is holding the tool in their hand day after day – up to 8 hours per shift”**, emphasises Ludovic Guillet. Weight is an essential component of ergonomics. The NEO P107 weighs just over 2 kg without tooling. This makes it slightly lighter than Böllhoff’s previous pneumatic-hydraulic setting tool. **“However, much more important than the slight weight advantage compared to the old tool is the new tool’s completely different centre of gravity.”**, explains Ludovic Guillet. David Macchieraldo adds: **“We attached great importance to this aspect during development: The improved centre of gravity changes the balance. The new tool is therefore much more comfortable to hold while working.”** The finishing touch is an ergonomic grip, which was adapted based on the findings of the customer field tests. Ease of use and high precision were also high on the list of requirements. A blind rivet nut or stud is screwed onto the tool by simply pressing the element onto the mandrel; the unscrewing process is triggered automatically when the setting force is reached. The tool is operated exclusively with a single button for the entire riveting cycle.



**Ludovic Guillet**  
Team Leader of RIVKLE®  
After-Sales Support Team



## Into the future with the next generation of tools

Up to  
**3,000**

RIVKLE® NEO P107 tools can be manufactured at the Böllhoff site in La Ravoire per year

But this production version is only the beginning of the journey. The development team works continuously to improve the tool for customers, including in further revisions. **“The field tests have also given us valuable clues for future revisions.”**, says David Macchieraldo. **“From the beginning, NEO was intended as a new generation, a whole family of tools.”** We can therefore expect a lot more from the RIVKLE® setting tool team in future.



## An overview of the advantages of the RIVKLE® NEO P107 tool:



**Compatible** with existing RIVKLE® tools (mandrels and anvils), quick change.

**Efficient – force-controlled:** For each RIVKLE® dimension (e.g. M6) only one setting force has to be set.

**Range of application:** 3 to 18 kN (RIVKLE® elements made of steel, M3 to M8).

**Optimised maintenance** (easier and faster than with previous tools).

**High performance:** Setting up to 36 RIVKLE® elements per minute.

Efficient C-parts management with ECOSIT®:

# Kanban, but with a system

**Economic supply in time.** With our Kanban system ECOSIT®, the name says it all. With ECOSIT® we take over the entire fasteners logistics chain for our customers – from planning to delivery of the elements, even directly to the workplace of a manufacturing employee.

We want our customers to be able to concentrate fully on their core business. Meanwhile, we will optimise their processes with ECOSIT® – reducing costs and guaranteeing 100% security of supply for fasteners. This is how we strengthen our customers' competitive position.



ECOSIT®

ECOSIT®

ECOSIT®

ECOSIT®

## 30 years of ECOSIT<sup>®</sup>, 30 years of systematic development

Number of ECOSIT<sup>®</sup> systems at our customers:

**500+**

We launched ECOSIT<sup>®</sup> as a logistics solution for efficient management of C-parts back in 1994. Based on our own experience and customer feedback, we have continuously developed the system over three decades and added new features. ECOSIT<sup>®</sup> has grown into a product family with which we can meet a wide range of customer requirements for efficient C-parts management. In 2023, for example, new RFID devices were added, as well as even more flexibility for our customers.

Need resupply?  
Kanban plus RFID make it easy

Reorders of fasteners are initiated in our Kanban system ECOSIT<sup>®</sup> using RFID technology. It works like this: We have long relied on transponders that are discreetly integrated into our paper labels to uniquely identify items. These labels are then attached to our containers (ECOBINS), which are used to deliver and store our fasteners. The reordering process for an item is triggered simply and easily when a worker at the customer's location brings the label close to an RFID reader. A repeat order is placed with Böllhoff and the item is restocked on the next delivery date.

Number of ECOBIN containers in use:

**300,000**



ECOSIT<sup>®</sup>

ECOSIT<sup>®</sup>

ECOSIT<sup>®</sup>

ECOSIT<sup>®</sup>

ECOSIT<sup>®</sup>

ECOSIT<sup>®</sup>

## Our new RFID devices in detail

In 2023, we developed new RFID devices for the ECOSIT® product family. We now use standard components that we adapt to meet the respective requirements. The advantage of this is

that these components are produced in large quantities anyway. This means that serial products are used with high performance and low susceptibility to errors.

Three different RFID devices are now available, all based on a newly developed Android app:

## Custom solutions adapted to the Kanban needs of our customers

A special feature of ECOSIT® is that in keeping with our 360° joining technology approach, we focus 100 percent on the needs and previous Kanban experiences of our customers. Everything is possible: from simple and cost-effective system configurations to professional full-service systems with a large number of annual order items. And we understand that requirements, experiences and needs evolve over time. Therefore, our ECOSIT® system can grow with our customers at any time and be expanded as required as soon as conditions change. Kanban with a system.

1. The **ECO-MOBILE** – a lightweight and compact solution that can be used as a wearable. ECO-MOBILE can be paired easily with any Android smartphone via Bluetooth.

2. The **ECO-FLEXIBLE** – a small smartphone-based station that can be used as a table stand or for wall mounting.

3. The **ECO-ULTIMATE** – with a large touch display for maximum ease of use, available as a stand-alone version as well as for wall mounting.



## What advantages do supply systems like ECOSIT® provide for procurement?

In conversation with Mario Graß, innovation manager and ECOSIT® expert at Böllhoff:



**Mario Graß**  
Innovation Manager

**Why do high costs arise quickly in the procurement process – especially for fasteners – if you don't use a supply system?**

**Mario Graß:** On the one hand, various departments in a company are involved in the entire process – that includes Purchasing, Logistics, IT and others. This is a considerable amount of work. On the other hand, many different product types must be managed using an identical process.

Companies usually use a single process as a blueprint for procurement processes. This is geared towards a complex product and therefore includes all relevant factors.

However, products can be categorized into A, B and C parts. Fasteners are classic C-parts: The small procurement price per element is offset by a large variety of items. Many different items in turn means many throughput processes. There are often also many different suppliers that need to be managed. This rapidly results in high procurement costs. This is where a supply system such as ECOSIT® can help.

**What distinguishes Böllhoff's ECOSIT® supply system?**

**Mario Graß:** Every customer has different requirements for C-parts management and needs a tailor-made solution. With ECOSIT®, we use transparent processes, ongoing

situation-dependent adjustments, and the latest technologies such as RFID to achieve extensive automation of C-parts management. We want to ensure that the system changes very little for the worker in their daily work while providing added value. The focus is on low-maintenance RFID technology for a simple reordering process.



ECOSIT®

ECOSIT®

ECOSIT®

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**What does the rest of the process look like – from the moment the customer places a reorder using RFID technology?**

**Mario GraBy:** When the customer places the order, the reorder of the desired item is automatically transferred to the Böllhoff ERP system. We handle all the steps from that point on: from procuring the required fasteners to quality assurance and delivery to the customer. The type of delivery is also agreed on a case-by-case basis, depending on the customer's specific needs and processes. There is a wide range to choose from: From one delivery per month to a goods receipt ramp, to delivery to each individual workstation directly in the manufacturing facility several times a day – everything is possible. Our ECOSIT® partners (ECOSITEURS) carry out the deliveries. These are accredited Böllhoff logistics partners who are specially trained to fit our ECOSIT® systems.

Our sustainable ECOFREIGHT transport concept is another component of the ECOSIT® product family with which we implement paper-free, cardboard-free and wood-free deliveries. We also completely avoid using wrapping foil. Instead, a delivery consists of three components that can be reused many times:

1. A plastic pallet (½ or full format)
2. Our ECOBIN container system, in which the fasteners are stored
3. A lid with integrated tensioning straps

The lid secures the load; no additional packaging materials are required, resulting in less waste in the delivery process.



**i**  
All components are made from recycled plastic.

**What are the other advantages of ECOSIT®?**

**Mario Graßy:** In addition to time and cost savings in the procurement process and improved sustainability, the system also makes planning easier. Our goal is 100% availability of all items in the system. This applies to the more than 100,000 catalogued Böllhoff products, some of which are manufactured in-house, and also other customer-specific items and supplier-specific products. All these items and products can be ordered immediately via ECOSIT®.

Customers therefore benefit from a solution that covers many needs and reduces inventory levels. We also monitor whether there are enough or too many containers in circulation for a product and whether they are filled optimally. Since we at Böllhoff were involved in Kanban at an early stage, we now have a great deal of experience in this area. Our innovation team uses this to continually optimise existing modules and to add new ones. New functionalities and improvements are constantly being added – like our new RFID devices in 2023.

**Developing ECOSIT® – together with our customers**

A decisive factor in our ECOSIT® service is innovation. We are therefore continuously developing the Kanban system in close cooperation with users. We also rely on substantive feedback from our customers and their workers who use our systems every day.

For example, in a pilot project with our customer Voith in 2023, we tested a new generation of electronic labels in the field together with P.S. Cooperation GmbH as development partner. These eLabels make it possible to track the current location of each container – at the customer site, with the ECOSIT® partner or in the refill process at Böllhoff. This should create even more transparency in the supply chain. The new eLabels will also be included in our ECOSIT® portfolio in the future.



**Sophie Möckl**  
Head of Strategic Purchasing  
at Voith

**Together with the Böllhoff team, we can take up new ideas that we would otherwise not easily find on the market. As part of our Track & Trace project, we have gained valuable information along our supply chain using electronic labels and can now turn this innovative concept into reality in collaboration with Böllhoff.**



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# Böllhoff and the technological transformation of the automotive industry

**The history of the automobile is a tale of fascination and passion, design and technology, people and brands. Since its invention, the automobile has always been considered the engine of progress. To continue to be a driving force for innovations in manufacturing and processes, the automotive industry must respond to new challenges today. The car of the future needs to be climate-neutral not just on the road, but also in its production.**

**The technological transformation of the automotive industry is in full swing. Innovative technologies and solutions are needed globally to achieve its ambitious goals. As a long-standing partner to the industry, we support implementation with fasteners and processing systems (e.g. in modern lightweight construction).**

## Innovative thread technology meets die-cast aluminium

Aluminium, the third most abundant element in the earth's crust, was only discovered in the 19th century. Today, the lightweight metal is one of the most important materials in the world. In addition to its low weight, aluminium has other positive properties, such as good corrosion resistance, high dimensional stability and excellent recyclability.

The future prospects for the use of aluminium in the automotive industry are also promising. Consistent lightweight construction remains a focus of the industry. It is also increasingly important in electromobility, as vehicle mass impacts vehicle range as well as driving dynamics. The growing proportion of aluminium vehicle parts for bodies and structures therefore requires the continuous expansion and optimisation of the product portfolio in joining technologies.

When we take a closer look at the trend towards large cast aluminium structures – including options for functional integration – with a view to high-strength screw connections, there are various challenges. Joining technology also has to address these challenges in order to create long-lasting and sustainable connections.

The long flow paths of the aluminium and the use of secondary aluminium (sensible in terms of CO<sub>2</sub> reduction) increase the risk of porous structure formation. Requirements for load transfer also increase significantly, and there are other aspects such as minimising mass accumulation (installation space optimisation), which is essential in lightweight construction. In addition, electromobility requires higher levels of

technical cleanliness (in the sense of a particle-free environment), regardless of whether the battery storage units are integrated using functional integration in mega-casting or are provided as separate housings in the high-voltage range. HELICOIL® technology has been meeting these demanding requirements for decades in the semiconductor industry, in vacuum technology and in aircraft engines.



**Proven and innovative: Thread generation with HELICOIL® Smart**

The HELICOIL® Smart thread insert is made of austenitic chrome-nickel steel with a tensile strength of at least 1,400 N/mm<sup>2</sup>. The high surface quality of the rolled nut thread ensures a highly resilient, wear-resistant thread with an extremely low and constant thread friction torque. Repeated use with the same tightening torque results in a higher and consistent preload force.

With HELICOIL® Smart thread technology its users worldwide get an intelligent system solution consisting of a fastener and efficient processing – in quantities of “1 to 1 million”.



**Innovative and new: “in-moulding” thread generation with HELICOIL® Cast**

With the new HELICOIL® Cast thread insert, metallic threads can be generated in light metal components using the in-moulding process, such as in this case by in-moulding the insert with aluminium. The threaded insert itself consists of an asymmetrically rolled stainless steel wire A2 or A4, which is wound into a solid bush with at least one flange-like extension. This innovative joining solution arose from the idea of transferring the basic principle of IMTEC® CO – a proven Böllhoff thread insert for in-moulding with plastic – to application in aluminium die casting.

When designing the HELICOIL® Cast thread insert, the focus was on two manufacturing processes where liquid or pasty aluminium is poured or pressed into preheated steel moulds – low-pressure casting and die casting. The tests conducted showed that smooth core pins are sufficient for the use of HELICOIL® Cast in the low-pressure process and that spindle cores are required for processes with higher pressure forces in order to prevent liquid aluminium from flowing into the internal thread. Validation tests with automatic spindle devices and corrosion tests at OEM level were completed successfully. Thanks to this intelligent combination, among other things, users benefit from functional integration – the opportunity to reliably inject functional elements directly onto the component.

**Whether with HELICOIL® Smart or HELICOIL® Cast, it is always possible to implement a wear-free, resilient thread in high-quality lightweight components.**

**Particularly innovative and cost effective: two of the latest developments from our HELICOIL® product portfolio**

# People

Creating successful connections for our customers with 360° joining technology would not be possible without all the people behind the connections. That is why we put people at the heart of everything we do. As a family business, we also take responsibility for our employees worldwide – and for the society around us.



## Invest today in the team of tomorrow



Well-trained employees are the key to the company's long-term success. Throughout the Böllhoff Group, we therefore promote the expertise of our employees in both minor and major aspects by using the right framework – for example with investments in training and further education centres, as well as with new educational programmes.



## Böllhoff Education Campus: the future of education and training in Germany is taking shape

Especially in times when there is a shortage of skilled workers, we must invest even more in the training and continuing education of our employees. For this reason, we are currently investing around 5 million euros in the Böllhoff Education Campus at our headquarters in Bielefeld. In the autumn of 2023, construction started on an open world of learning and continuing education for apprentices, students and employees. The goal: to create sufficient capacity for changing training needs while making space for new approaches.

Our commitment to new approaches applies to technologies and training concepts alike, and also to communication with partner companies, start-ups and educational institutions. The Education Campus will have dedicated areas for future technologies such as robotics and AI, and it will also focus on the practical use of augmented reality, for example for innovative training concepts. An open creative area with seminar rooms and an event hall for over 100 people will provide enough space for workshops and open exchange – both internally and

externally. The creative space will not only host company events and in-house training courses – it will also accommodate external parties such as partner companies or universities. This is intended to promote networking within the region and interdisciplinary exchange of knowledge. Completion of the Böllhoff Education Campus is planned for the end of 2024.



**Eike Krull**  
Head of Corporate  
Human Resources



**Would you like to take a look at the construction progress?**

You can see how the construction of the Education Campus at the Böllhoff headquarters in Bielefeld is progressing at any time via webcam at: <https://www.boellhoff.com/bildungscampus-cam>



**Investing in the continuing education of our employees is more than just an investment in their individual careers. It also ensures the success of our company in the global competition for skilled workers.**

**With international training programs and the Education Campus currently being built, we ensure that our employees can always keep their expertise up to date and continuously improve their skills in order to be successful in the long term. It is a win-win situation for our employees as well as for Böllhoff.**

**BÖLLHOFF**  
**BILDUNGS**  
**CAMPUS**

# Continuous training as a success factor: worldwide



## “180 Skills” in the USA

Our company location in Kendallville, Indiana introduced a new employee development initiative in 2023: the 180 Skills training programme. 180 Skills is a continuing education program from an online training provider with around 800 courses to choose from.

Our employees in the USA can complete courses during working hours from a range of 180 skills relevant to their respective fields, thus ensuring continuing training. Some training courses in production or logistics are also mandatory and must be repeated at set intervals depending on the field of activity. A training module on operating forklifts, for example, must be completed every three years. There are also compulsory courses for new colleagues that they must complete when starting out at Böllhoff. In this way, we ensure that employees can refresh their knowledge at any time and stay up to date.

## Targeted support for employees in Brazil

Employee development is also a focus at the Brazilian Böllhoff site in Jundiaí. Following the annual employee feedback meeting, supervisors and employees work together to draw up an individual development plan. They look at the goals for the coming year and use these to determine the hard and soft skills required by employees – as well as any gaps that may exist. To systematically close these gaps, employees are then supported with suitable further training opportunities based on their skills in internal or external courses. Many internal courses even take place directly at the company’s location in Jundiaí at the Josef Böllhoff Training Center. This 1,500 m<sup>2</sup> continuing education centre has been in operation since 1992.



## “Culture Qualité, Qualité Cultivée” – quality training in France

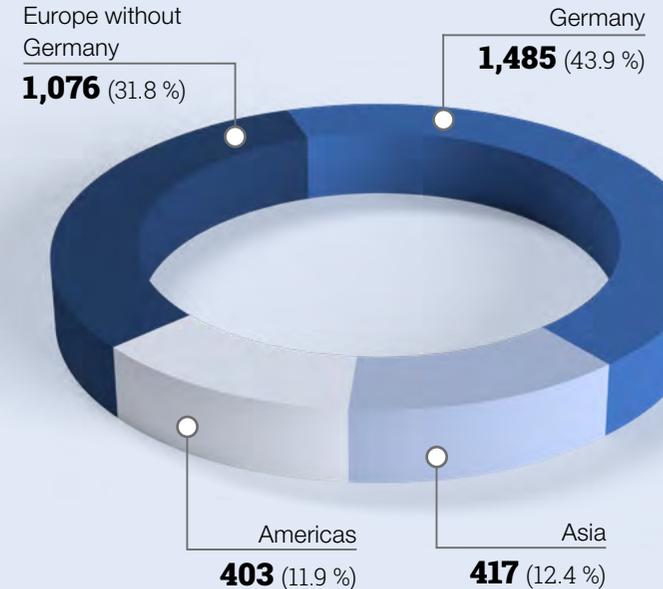
Quality is essential for the success of a company. Quality, in turn, results when employees are well trained – particularly with respect to the company’s shared understanding of quality. Our French locations in La Ravoire (production/administration) and Sainte-Hélène-du-Lac (logistics) have introduced the “Culture Qualité, Qualité Cultivée” initiative. Roughly translated, this means: “Quality culture, cultivated quality”.

Since the initiative began in 2020, six different training modules have been implemented for the various target groups at both locations – from machine operators to technicians to management. All participants received theoretical and practical comprehensive training in quality-related topics. The modules include interactive workshops and provide direct insights into production or simulated audits. In 2023 alone, a total of over 20 training courses for over 220 employees took place in France.



## Employees in the Böllhoff Group 2023

Average number of active full-time workers including temporary workers



Company and society:

# The Wolfgang and Regina Böllhoff Foundation: over 16 years supporting young people

## Education is the key to success:

This sums up the basic principle behind the work of the Wolfgang and Regina Böllhoff Foundation. Since its founding in December 2006, the Böllhoff Foundation has been supporting young people who receive little support from their parents. It has helped them in their personal development and in entering professional life.

The beginning of January 2022 saw a generational change in the foundation's management. After 15 years of successful work with the foundation, founding donor Dr Wolfgang W. Böllhoff handed over the chair to his daughter-in-law Anja Böllhoff. One year later, they look back at the founding of the foundation, its programmes and the work of the sponsors – but also ahead to future challenges in the foundation's work.



*A visit to Dr Oetker World in Bielefeld\**



*Educational trip to the Bundestag in Berlin\**



*Advent celebrations for participants of all ages\**

\* Just a few examples of activities in 2023 that the Wolfgang and Regina Böllhoff Foundation implemented for the young people and their sponsors.

Dr Böllhoff, in 2006 you and your wife founded the Wolfgang and Regina Böllhoff Foundation to support young people on their path to a self-determined life. What motivated you to do this?



We often talked about how lucky we were in life. We both grew up in solid, Christian families and had good educations. Then my growth within Böllhoff and – above all – healthy children.

But we have also seen a lot of misery and injustice in the world and asked ourselves: how can we make things a little bit better? We realised that people who were educated and had learned something were the least vulnerable to negative influences.

This is how we came to establish the foundation.

Since the foundation was established,

**264**

young people were supported

This article and all key figures contained are based on an interview in the Bielefeld church magazine “Jost”, issue 01/2023, conducted by journalist Manfred Matheisen.

Ms Böllhoff, you took over the chair of the Böllhoff Foundation from your father-in-law in 2022 after heading the community foundation in Bielefeld for many years. What is your motivation for volunteering?

**Anja Böllhoff:** What you describe as volunteer work, I see not merely as volunteer work, but as a combination of profession and passion. When I look back on my youth, I always wanted to do something like this. And my good fortune in life is that I am

able to do what I enjoy doing and maybe even to some extent what I do well: which is to bring together people who want to do good. And with my work in the foundations, to find solutions to social problems through collective efforts.

The Böllhoff Foundation supports talented young people, regardless of their origin and nationality, who receive little support from their parents. There are two programmes for this: “Ich will” (I want) and “Hand in Hand”. What exactly happens in these programmes?

**Anja Böllhoff:** They are both educational programmes, each lasting three years. With “Ich will”, we address pupils from comprehensive, secondary and high schools, age 14 to 18. The primary goal of the programme is to help the sponsored students to achieve good school qualifications.

The second programme, “Hand in Hand,” emerged in 2015 from the wave of refugees coming to Germany. Here we address young people with an immigration or refugee background – age 17 to 22, unaccompanied or living with families. This programme has three overarching goals: career orientation, acquisition of language skills and strengthening self-esteem.



How many young people are currently taking part?



**Anja Böllhoff**  
Chair of the Wolfgang and  
Regina Böllhoff Foundation

Currently, 60 young people are participating in the “Ich will” programme at the Bielefeld and Finsterwalde locations. At “Hand in Hand” we currently have 30 sponsored students from seven countries participating in the programme – mostly from Syria, but now also five young people from Ukraine.

To give you some more figures:

Since the foundation was established, we have supported 216 young people in the “Ich will” programme and 48 in the “Hand in Hand” programme.

A total of

**113**

sponsors currently  
give their support  
to young people

**Dr Wolfgang W. Böllhoff:** All graduates receive a certificate detailing what they have learned and experienced during the three years of their participation.

**In both programmes, the sponsors who support the young people play a special role with one-to-one guidance.**

**Anja Böllhoff:** Yes. We have 83 sponsors in Bielefeld and 30 in Finsterwalde. They are women and men from a wide range of professional fields who enjoy helping young people.

**Dr Wolfgang W. Böllhoff:** The basic requirement for a sponsor is that they must love children – and be extremely trustworthy. Ultimately, it is not a question of age. Our youngest sponsor is only 32, is enthusiastic and does her job very well. We are happy when we hear from the women and men how this work and their contact with these young people enriches their own lives.

**Do you also attach great importance to strengthening the self-esteem of young people in the programmes?**

**Anja Böllhoff:** Absolutely. After they graduate, we want these young people to be able to say that they can do something they never thought possible – that they have opened themselves up to new things. Previously they may have dreamed of reaching for the stars, but now they know that they are capable of reaching for the stars.

**Dr Wolfgang W. Böllhoff:** If you can be self-confident and open to life, then you can be successful. You know, it is a real joy to see mature, self-confident students on the stage at the final events after three years – students who have actually learned something.

**Ms Böllhoff, looking ahead, what challenges will the foundation face in the coming years?**

**Anja Böllhoff:** We see challenges primarily in the changing social conditions. The Covid pandemic played a decisive role here, profoundly impacting young people as they were isolated at home. We have noticed a decline in motivation to perform, and gaps in their knowledge have become more pronounced. We had to – and still must – encourage young people to move past this and to embrace the joy of being with others and going out.

All this will not be easy. But I am very confident that we will find the right answers.

**You can find out more about the work of the Wolfgang and Regina Böllhoff Foundation at:**

<https://www.boellhoff-stiftung.de>

**We are active nationally and internationally with foundations and also social initiatives and associations. In Brazil, this includes the Instituto Böllhoff de Medula:**

## Bone marrow donations for leukaemia patients

In 2019, Michael W. Böllhoff and Megan Böllhoff founded the Instituto Böllhoff de Medula in Jundiaí, Brazil. The institute works to enable a larger number of leukaemia patients to receive successful bone marrow transplants. To this end, it launches campaigns in collaboration with hospitals, universities, and transplant centres.

Twice a year at the Böllhoff location in Jundiaí, all employees and guests are also invited to donate blood and register as bone marrow donors. During the 2023 campaigns, 146 potential donors registered from among employees in Jundiaí and invited companies.



# Generational thinking: Sustainability at Böllhoff

As a family-run company in its fourth generation, we take the long view. Sustainability and responsible action are firmly anchored in our corporate values. They are part of Böllhoff's DNA.

We are constantly working on making our own processes more sustainable. At the same time, we provide our customers with products and services that help to conserve resources and reduce carbon emissions.

But for us, sustainability is more than just the future of our home planet. The well-being of our employees worldwide and of the society around us are equally important. In our sustainability strategy we call this: Planet, People, Partnership. Read on for a selection of measures taken in all three areas in 2023.



PLANET



PEOPLE



PARTNERSHIP



A focus on renewable energies and the environment – at expansion projects in China and Romania

In 2023, we expanded capacity with the commissioning of new building complexes at our company locations in Wuxi (China) and Oradea (Romania). The focus at both locations was on the use of renewable energies. In both Wuxi and Oradea, the new buildings are heated by heat pumps. The electricity required for this is generated in part by our own photovoltaic systems – in the case of our site in Wuxi, with what is currently the largest PV system in the entire Böllhoff Group. It currently has an output of 800 kWp, and expansion of up to 1.3 MWp is possible in the future.

Wuxi is also taking further measures to increase energy efficiency and environmental compatibility. Excess heat energy generated in our on-site production processes is reused for underfloor heating in the newly built company restaurant. In addition, the flat roof of the restaurant was greened: Over 5,000 plants create a habitat for insects, bind pollutants from the air and protect the building from sunlight in summer.

Potential savings of approximately

**682t**  
CO<sub>2</sub> annually in China\*

Over  
**800,000 kWh**  
self-generated electricity  
per year in China



\* The potential CO<sub>2</sub> savings from the PV system in Wuxi result from the underlying emission factor of the electricity mix in China.



Start of the DualStrat project:  
Strategic management of the dual transformation

**How can digitalisation help companies with intelligent systems make their own value chain more sustainable?**

We have been working on this question since April 2023 in collaboration with top-level corporate and research partners from the East Westphalia-Lippe region and beyond – as part of the DualStrat project of the “it’s OWL” technology network. We are focussing on developing a digital product passport. Among other things, we want to be able to collect and consolidate sustainability

information about our products. The goal is to achieve even more transparency for further improvements along the entire value chain – from raw material extraction to the finished fastener.

The DualStrat innovation project will run for three years until April 2026. In addition to Böllhoff, further companies are participating in the project, including Schmitz Cargobull and Weidmüller, as well as research partners such as Fraunhofer IEM, the University of Padernborn and the Wuppertal Institute for Climate, Environment and Energy.



Healthy and sustainable mobility for work and leisure: JobRad introduced throughout Germany

Since 1 July 2023, we have been giving employees at all German Böllhoff locations a boost towards owning their own bike with the JobRad leasing initiative. Whether you are muscle powered or prefer electric aid, commuting or mostly cycling in your leisure time: it is all possible with Jobrad.

By the end of the 2023 cycling season in October, over 230 employees had opted for their own company bike.



**Maja Schucht-Rump**  
IT Inhouse Consultant – was one of the first to order a JobRad through Böllhoff

Thanks to the “JobRad” company initiative, my car stays at home much more than before. I currently am also going long distances by e-bike in my private life, whatever the weather.



## Certification of occupational health and safety in production expanded

In 2023, another Böllhoff production facility (in Sonnewalde, Brandenburg) was certified according to DIN EN ISO 45001, the international standard for occupational health and safety management systems. This underlines our commitment to continuously improving occupational health and safety in the company and systematically backing it up with certifications. Why? Our employees are our most valued asset – and their well-being is our top priority. In addition to Sonnewalde, all German production facilities and logistics locations in Bielefeld and Oelsnitz are certified according to DIN EN ISO 45001.

Find out more about sustainability at Böllhoff, our sustainability strategy and our goals and measures on our website:

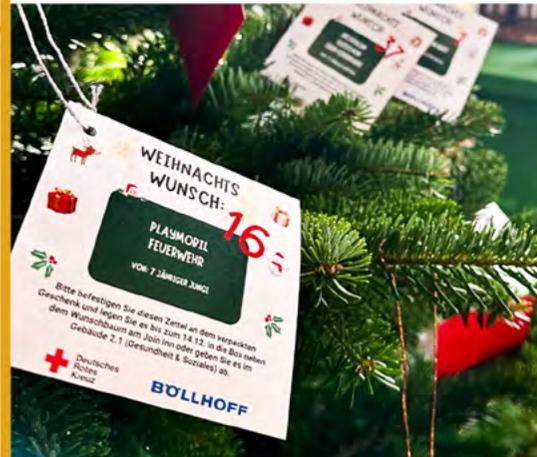
<https://www.boellhoff.com/de-en/sustainability>



## The first Böllhoff Wishing Tree (Wunschbaum) campaign: Fifty Christmas wishes bring joy to people in need

In December 2023, the very first Böllhoff Wishing Tree campaign was held in Bielefeld in cooperation with the German Red Cross. Fifty Christmas wishes from people in need were hung from the Christmas tree in the foyer of our “Join-Inn” company restaurant – these people are often overlooked by society and therefore receive support from the German Red Cross. Our employees were able to take these wishes from the tree and make them come true.

The response was overwhelming: Within a short time, all the wishes had gone from the tree and were on the way to being fulfilled. We were able to hand over all 50 gifts to the German Red Cross on 18 December 2023 in time for Christmas. A big thank you to all employees who gave the gift of Christmas joy in our campaign!



# Business development of the Böllhoff Group

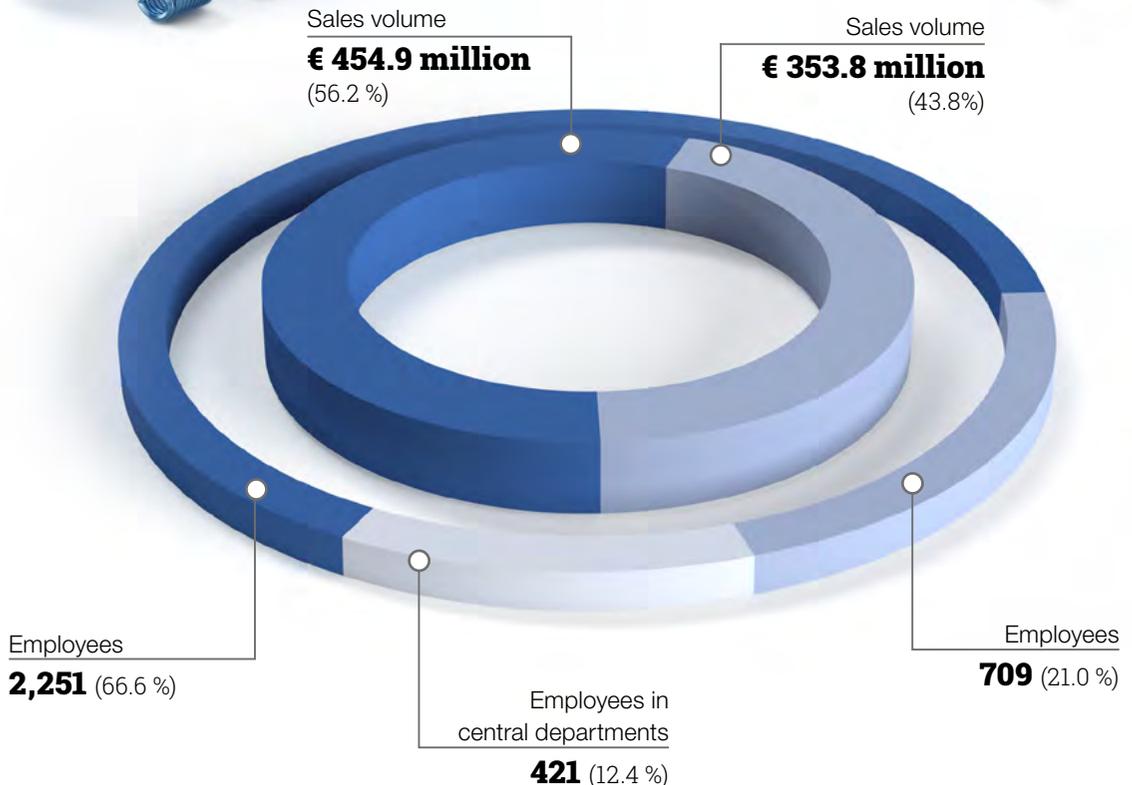
In 2023, Böllhoff was once again able to make headway in an overall difficult market environment. Thanks to our extensive product portfolio and international orientation, we achieved an annual sales volume of 809 million euros. This represents growth of 3.3% compared to the previous year.

As an independent family business, we are used to thinking long term. That is why we continuously invest in the successful future of our company – specifically in people, products and processes. In 2023, we invested a total of around 43 million euros across the Group. Our equity ratio remained stable at around 50%.



## Development of our strategic business units

The Böllhoff Group has always been 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 joining technology and appropriate assembly systems for a wide variety of industrial applications. Due to the difficult global market environment, both strategic business units fell slightly short of our plan in 2023. This reflects the impact of the challenging conditions of the global economy in general and Germany's current economic weakness in particular.



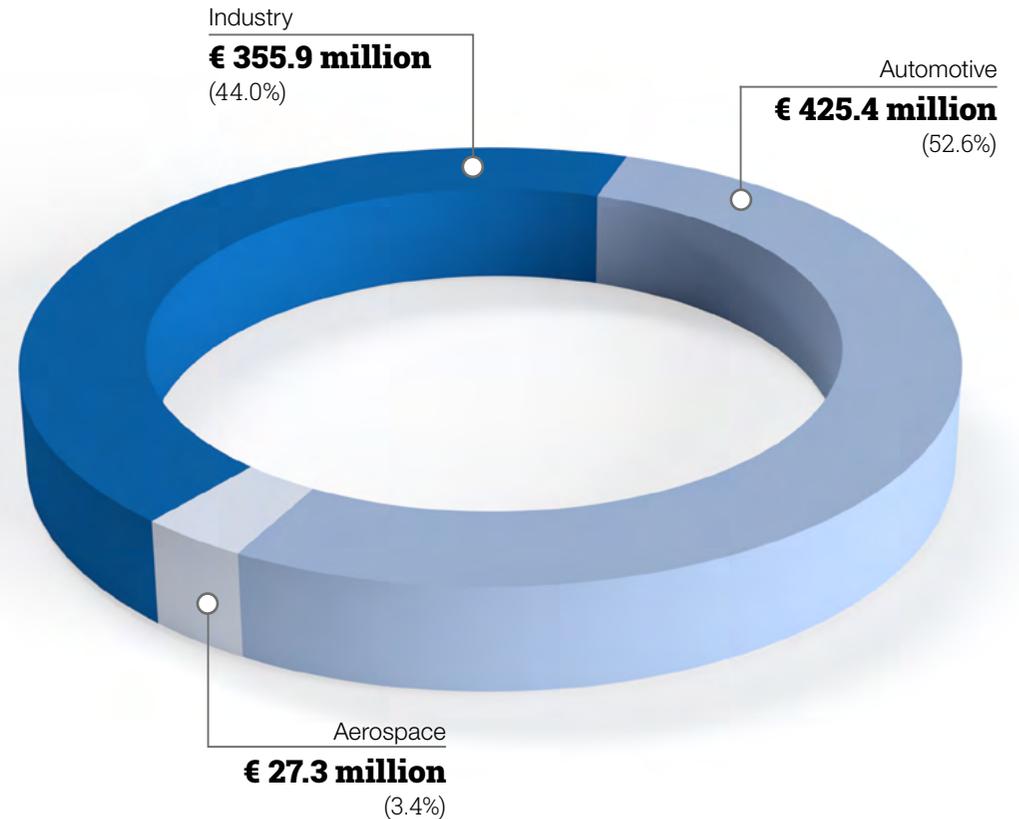
All sales and employee figures include the following companies, which are also part of the Böllhoff Group:

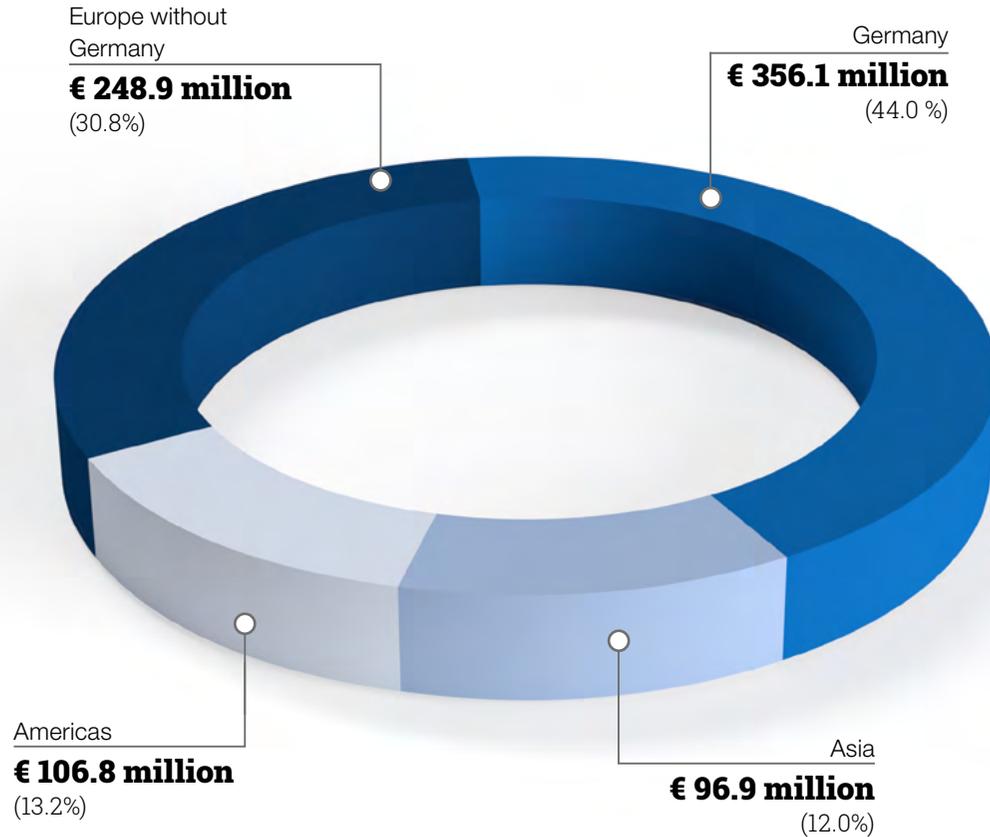


## Sales volume development in detail

Broken down by market segment, sales volumes in our automotive, industrial and aerospace customer groups have evolved differently. In the aerospace sector, we were once again able to significantly increase our share of sales. As in the previous year of 2022, this area was positively impacted by the targeted expansion of our services for the aerospace sector, including through recent acquisitions. The trend from the previous year also continued in the automotive industry: Demand remained subdued due to uncertainty in view of the ongoing structural transformation in the industry. Overall, our sales volume in the automotive sector in 2023 was slightly higher than the levels of the previous year.

The challenging economic conditions were most clearly reflected in the industrial sector. After significant growth in the previous year of 2022, our sales volume in this area was slightly reduced in the current year. The fact that we were able to maintain this level despite the difficult environment can be attributed to the distribution of our business across many different customers and applications – from renewable energy generation to metal processing, rail vehicle construction and mechanical engineering.





Our sales developed differently in each region, depending on the currency and the market. In Europe apart from Germany, we grew overall – mainly due to our growth in the aerospace sector. In Asia and in North and South America, sales volume remained at the previous year’s level. Major gains in countries such as Mexico and India were offset by lateral developments in earlier growth countries such as the USA and China. For the first time in many years, China did not contribute to the Böllhoff Group’s growth in 2023 due to currency fluctuations.

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Overall, the Böllhoff Group was able to hold its own in a difficult market environment in 2023 – thanks to its broad product and service portfolio and its international corporate network. However, 2024 remains challenging.

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# The management structure of the Böllhoff Group



↑ Advisory Council of the Böllhoff Group (left to right):  
Jens Fiege, Christian G. Böllhoff, Dr Wolfgang W. Böllhoff, Dr Markus Miele and Christian Messinger (not pictured: Hans Beckhoff)

## 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

C = Chair



↑ Board of Management of the Böllhoff Group (left to right):  
Wilhelm A. Böllhoff, Dr Cathrin Wesch-Potente, Dr Jens Bunte, Michael W. Böllhoff and Thomas Pixa

## 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** (since March 2023)

Business processes, digitalisation and information technology

**Thomas Pixa** (since October 2023)

Finance, Controlling, Legal, Indirect Purchasing and  
Facility Management

## Management Conference

**Dr Ralf Adenstedt**

Automation in setting systems, Europe

**Sven Ammer**

Asia region

**Andreas Bertram**

Plastics engineering, Europe

**Niels Brandt**

Thread technology, Europe

**Dr Wissem Ellouze**

Joining technology, Europe

**Christian Hagemeier**

Corporate Management System

**Sandra Homburg**

Corporate Finance

**Alexander Kehrer**

Mechanical Joining Technology, Europe

**Jean-Michel Mary**

Aviation

**Thierry Morin**

Blind rivet technology, Europe

**Wolfgang Öhler**

South-east Europe region

**Steven P. Paddock**

North America region

**Marcel Rupprecht**

Fastener Service Supply, Western  
Europe

**Martin Schnitker**

Joining technology sales, Europe

**Jens Schöne**

Logistics, Europe

**Flavio da Silva**

South America region

C = Chair

# BÖLLHOFF

Passion for successful joining.

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