



No. 730 | JUNE

Bossard News

[Assembly Technology Expert](#) | We'll make you assembly technology experts ...

[Smart Factory Logistics](#) | The new SmartBin cloud ...

[Product Solutions](#) | Innovation management at Bossard ...

EDITORIAL



Dear customers,

The first half of the year is over. Many of you have had a good first half of the year in a business regard. We see that the economic recovery is widespread. It's great. So let's enjoy the moment and solve the generally positive problems that we are facing in everyday business due to large demand and delivery bottlenecks.

I can't help feeling a little skepticism about the economic recovery. Of course I welcome it, but it is hard for me to understand. I don't really see that the macroeconomic logic that this upswing is sustainable. I believe there are still too many uncertainties for a longer-lasting economic recovery. I hope that I am wrong in my assessment.

Together we Create. We have realized that we, the people in the Bossard Group, can work together in more ways and more effectively worldwide. That's why we have adopted the slogan "Together we create." Please read the private stories of some colleagues from other regions around the world. They are inspiring.

In the Assembly Technology Experts column, we present the Expert Education service to you. Our seminar series makes you and your people experts in joining technology. In addition to standard seminars, we also offer customer-specific seminars on certain topics. They may also be of interest to you.

"SmartBin Cloud:" Another pioneering feat by Bossard. Read more about this in the Smart Factory Logistics section. Here are the keywords as a teaser:

Real-time, transparent, reliable. Another practical implementation of digital opportunities.

We are happy to present our own solutions for connections in composite and plastic materials to you in the Product Solutions section. Innovative, lightweight, fascinating.

As a practical example of custom C-parts management, we present to you the application at the company SWARCO FUTURIT in Austria. Of course we are especially pleased by the very positive customer feedback.

Dear ladies and gentlemen, we are doing everything in our power and even more to stay on top of the very challenging supply situation. You can help us by actively placing orders and doing so early, because the restocking times are very long and unstable.

I hope you have a great summer with hopefully recuperating moments in the great outdoors.

Thank you very much for your appreciated trust and confidence

PETER KAMMÜLLER

General Manager, Bossard Switzerland

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We are wherever you are.



Online

You can find the PDF edition of the Bossard News online at:
www.bossard.com

TOGETHER WE CREATE

The people behind the scenes

"Together We Create" is the embodiment of the Bossard culture, inspired by the passionate commitment of our employees all around the world. They have sound knowledge of the market and offer solutions that are tailored to our customers' individual needs. We would like to present to you three of our heroes behind the scenes who help implement this task. Here are their stories and videos. Enjoy!

PIM CHUSONG

Pimpita Chusong, who most of us know as Pim, is a warm-hearted and happy person. She joined Bossard 14 years ago as a sales manager. Today, she manages the sales team for Electronics Manufacturing Services (EMS) from Bangkok as a deputy sales manager.



"As a strategic partner, we offer our customers a unique experience."

Understanding the customer's business and needs and putting yourself in the customer's shoes is the quintessence of Pim's work. And the sales staff are perfect figureheads for Bossard in the figurative sense. She considers the best skill being able to convey trust and reliability to the customer. She especially likes working in sales when the communication with a customer works well. She thinks it's especially great to tell her team colleagues the good news after a deal is concluded.

JEFFERSON LEE

Jefferson's Korean name is Jong Hyuk. He works as an application engineer in R&D and in Quality Assurance. He has been working at Bossard Korea for more than four years.



"Thanks to the 'expert walk,' one customer saved CHF 35,000 per year. This creates added value and solid partnerships."

Everyone at Bossard Korea benefits from Jefferson's straightforward attitude and his excellent expertise. He is diligent about continuing to educate himself as an engineer and deepen his expertise thanks to his thirst for knowledge. He offers our customers the best possible service in his area of expertise.

KRYSTIAN SOBIECH

Krystian is a team leader in the field sales service at Bossard Poland. He is responsible for the continued development of sales in one region and supports the sales team all over Poland, in particular when it comes to complex activities, such as TCO projects involving the Assembly Technology Expert and Smart Factory Logistics departments. When he is not working, Krystian likes to spend his time playing sports, listening to music, and with his family.



"It is great to hear that customers can sleep better at night thanks to Smart Factory Logistics."

Teamwork is paramount in Krystian's work. Mutual trust and support are essential to offering the customer the highest level of quality. Experimentation is another key factor for Krystian, and he does not shy away from learning new things. Knowing that every customer and every project are different, Krystian and his team are constantly learning and improving. This behavior contributes to progress and innovation at Bossard.

안녕

[Annyeong] = Hello



"I love learning, having new experiences, and enjoying life."

Jefferson Lee, application engineer in R&D and Quality Assurance, Bossard Korea

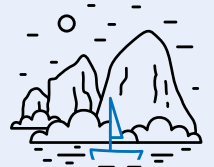
A dream profession as a child: High school teacher for natural sciences

Biggest passion: Learning new things, having new experiences, and enjoying life

Life motto: Always remember to help the weak.

สวัสดี

[Sà-wàt-dii] = Hello



"I love to sing and I love to travel to new places."

Pimpita (Pim) Chusong, segment manager EMS, Bossard Thailand

A dream profession as a child:

Singer, architect, make-up artist

Biggest passion: Family, art, travel, shopping

Life motto: Strong people can stand up for themselves, even stronger people stand up for everyone else.

Cześć

[Czech] = Hello



"I like outdoor endurance sports: trail running, cycling, hiking."

Krystian Sobiech, team leader for field sales service, Bossard Poland

A dream profession as a child: Rock star

Biggest passion: Trail running and mountain biking

Life motto: Just do it.

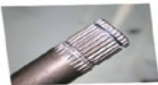


BOSSARD

Retaining rings for an axial assembly onto shafts and into bores

Retaining rings for shafts and bores

These rings prevent the axial movement of a given component on a shaft or in a bore. For example, the gear is placed onto the shaft. Then the retaining ring is expanded with a pair of special pliers, pushed onto the shaft into the groove next to the gear.



Retaining rings for shafts and bores sit in a groove and can absorb high axial forces. They are usually made of spring steel with an appropriate hardness: 470-560 HV (27-54 HRC). Rings for diameters over 50 mm are slightly softer.

Retaining rings are specified by national standards only.

Such rings are installed axially, i.e. pushed onto the shaft or into the bore until it engages into the groove.

Retaining rings for shafts



To push it on, the ring is expanded with retaining ring pliers. It then snaps into the shaft groove. Once the ring is set, slightly expanded it to hold firmly in the groove.

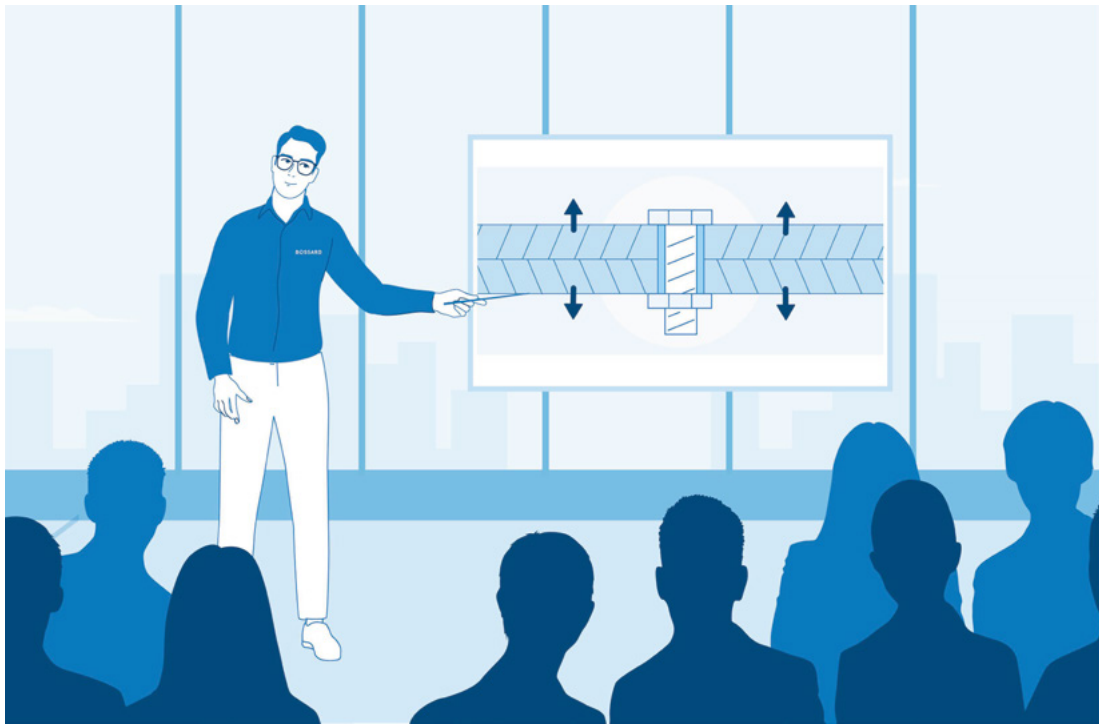
ENGINEERING

Assembly

Technology Expert

SEMINARS, WEBINARS AND E-LEARNING

Expert Education – We turn our customers into experts in joining technology.



We believe that you should become an expert in joining technology. Because as a manufacturer, you are responsible for the safety and reliability of your products. Expand the know-how of your employees with extensive knowledge about joining technology and start improving your products today. Discover our custom learning formats and take advantage of our expertise.

Assembly Technology Expert

The Expert Education Service is a fixed component of our Assembly Technology Expert services, which we use to offer our customers solutions for all joining technology challenges.

Our services help you to develop a new product, optimize assembly processes, or train your own employees. You'll see – you've come to the right place. We are especially passionate about training our customers in assembly and joining technology – and that's exactly what this is about.

Expert Education – The full program

We have developed a diverse training program in order to train you to become experts. This is intended for everyone who comes into contact with assembly and joining technology in their work. It does not matter whether these are employees from procurement management, engineering, maintenance, production or quality assurance – we make sure that all areas in your company receive the necessary expertise. Our offer covers the whole range, from the basics to expert knowledge, and from public to specific seminars tailor-made for your company. But that's not even close to everything!

So that you can benefit even more flexibly from our expertise, we have added compact webinars and the new e-learning portal from Bossard to the Expert Education service. Any learning formats can be used independently of each other or in combination with existing training programs – entirely to suit your needs.

Why actually?

A not entirely unjustified question is: Why does Bossard actually makes its own customers into experts? The answer is simple: Because there are always new directives and laws as well as basic changes to assembly and joining technology, which can only be complied with and taken into consideration by the players affected in companies if additional training is completed. Only then can the highest product quality and product safety be ensured. Numerous people come into contact with fasteners everyday at any company. What unites all of them: All of these companies want to develop and produce a safe and reliable product at the lowest possible cost. We are happy to help you in meeting this challenge so that questions such as “Are my production mechanics using the tools correctly?”, “Which methods best secure my screw connections?”, “How can corrosion be avoided?”, “How do I screw things in to be process-reliable?”, or “Which standards and guidelines need to be taken into consideration in joining technology?” are soon a thing of the past.

Your advantages with Expert Education:

- You are trained in **assembly technology**
- You design your product with the **correct fasteners**
- You develop a low-cost and safe product with the **correct fasteners**
- Your product meets the corresponding **quality standards**
- You guarantee a **smooth assembly process**

Overview of learning formats

As already mentioned, we offer you standardized and public or private learning formats that are specifically tailored to your company. Just choose one of the following to suit your needs:

- Seminars (at Bossard/at your location/virtual)
- Webinars (compact online seminars)
- E-learning (web-based self-learning program)



Seminar at the Bossard Academy at the head office in Zug, Switzerland

Our seminars consist of a mix of theoretical and practical workshops and cover all relevant joining technology topics. You benefit from the practical approach and interactive learning sequences. There are both public seminars as well as seminars that are tailored specifically to your company. In addition, these can be held at our location, directly at your production location or virtually – it's entirely up to you.

If you cannot take part in our seminars, we can offer you brief introductions to the most important engineering topics or to our product technologies and services in the form of **webinars**. You can easily take part in these from your desk.

Alternatively, the new **e-learning portal** from Bossard offers you individual access to all joining technology questions – with the option to learn at your own discretion and at your own speed. This way, you can learn when and where is best for you. You can also gain the desired expert knowledge whenever you need it.

Topics and learning content

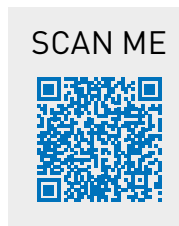
The content of our offerings is as diverse as the challenges related to assembly and joining technology at your company. Just choose the learning format that best suits your needs. One of our standard seminars, for example, offers an introduction to the technical basics of fasteners. Other key topics are, for example, safe screw connections, corrosion, cost savings or becoming qualified in joining technology according to VDI/VDE 2637. If you should want seminars specifically tailored to your company, the topics will be customized and, if desired, presented right at your production location. Alternatively, use the modules of our interactive e-learning portal to acquire sound expert knowledge about mechanical fasteners, raw materials, corrosion and other technical topics. You can find a complete list of all seminars and e-learning topics on our website.

Also take advantage of our expertise and let us find the best solution for your company. Learn more at:

www.bossard.com

New Bossard e-learning portal

Learn how you can not only save time, but also money with our individual learning offer. You will find more information here:





Smart Factory Logistics

BOSSARD SMARTBIN CLOUD

Real-time – transparent - reliable



Factories these days are highly digitized and systems are increasingly interconnected through the exchange of real time information (update). Ideally all systems work smoothly so that human intervention is hardly necessary. A completely networked factory, the so-called 'smart factory,' is able to utilize constant data flows and information from all operation and production systems by using intelligent systems.

Our new SmartBin Cloud system is a step in this direction – it connects the proven SmartBin system with the latest SmartLabel system. The product is a pioneer of additional technological innovations in the factory, supports lean processes and delivers precise real time information (update).

The next level of SmartBin

The weight sensor in our SmartBin systems is triggered by movement and updates the stock and order information every time it is used (the removal or refilling of material). This ensures a transparent and monitored real-time inventory at all times. If a pre-defined ordering point is reached, the system independently initiates a new order. All data is forwarded Bossard's supply chain platform ARIMS cloud-based via IIoT communication.

Another pioneering performance from Bossard that brings the industry a step forward.



The cloud-based solution

The new SmartBin communication is connected to the factory's existing infrastructure through the Industrial Internet of Things (IIoT). The real-time data is accessible via a reliable and secure industrial cloud connection. The IIoT connection makes it possible to access the cloud by using the existing WiFi router infrastructure in the factory. That is why no additional installations are necessary and the data is securely stored in the cloud. The customer can easily access the data at any time at any place in the factory by using the ARIMS interface.

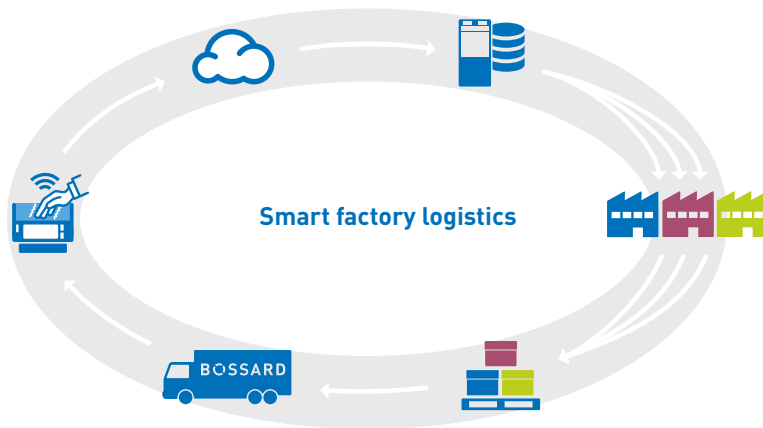
New display design

SmartBin Cloud was developed with a modern and robust industrial design, which is compatible to be used at any location. Every box is equipped with the new SmartLabel cloud. Dynamic ordering information, such as the order status and delivery date, as well as all product information can always be viewed by glancing at the display on the respective box. This gives customers complete control and security. The label itself is a modular, fully comprehensive system and LED allows technological innovations such as pick or put-to-light options.

The modular label with a LED signal light makes it possible to use modern picking systems, such as put to light.

Automatic demand detection

Seamless order management












Assembly workstation filling

Consolidation and delivery

THE ORDERING PROCESS WITH THE BOSSARD SMARTBIN CLOUD

1. SmartBin Cloud can be integrated into existing workcell layouts without an additional infrastructure. Vibrations trigger vibration sensors, which measure the stock level in real-time. The data is forwarded to Bossard via the IIoT communication (cloud).
2. If the minimum stock level is reached, automatic re-orders are triggered. The order status and the delivery date appear directly on the display.
3. Bossard combines the ordered items into one shipment and delivers this to the customer.
4. Depending on the agreement, we deliver the material to the dock or directly to the workcell.
5. SmartBin Cloud detects a need to be refilled automatically and guarantees that the material is refilled in the right location.

FEATURES

	FULLY AUTOMATED
	WEIGHT SENSOR TRIGGERED BY MOVEMENT
	VISUAL PROOF
	INDUSTRIAL CLOUD CONNECTION (IIOT)
	ERROR-PROOF – automatic error recognition
	24 / 7 OPERATION – continuous warehouse adjustment through real time information (update) for each application
	FULL-CYCLE CONTROL
	ARIMS – Access to the operation dashboard
	LED – Pick-to-light option

Your benefits

- Fast, pro-active reaction when demand is peaking in any application
- Reliable and secure communication of real time information (update)
- Utilization of the existing infrastructure
- Transparency and control of data at the workcell
- Shortened order and delivery time
- Lean process without manual intervention
- Maintenance-free
- Reduction of total operating costs

A futuristic digital interface with a hand holding a stylus and various data charts and maps. The background is a blurred office setting with windows. The interface features a central tablet with a hand holding a stylus, surrounded by numerous floating digital panels. These panels display various data visualizations, including line graphs, bar charts, pie charts, and world maps. The overall color scheme is a cool blue, and the lighting is bright and futuristic.

PRODUCTS

Product Solutions

PRODUCT INNOVATION MANAGEMENT AT BOSSARD

Generate ideas and created added value – be innovative together!

At Bossard, we strive daily to find solutions for the global challenges in joining technology. Only companies that are open to new developments and think outside the box can successfully forge new paths. This is why we invite partners and customers to be innovative together with us and create added value in the form of new product solutions.

Exchange with creative minds and innovative customers

We help creative minds to implement their ideas or concepts in new valuable product solutions. Thanks to technical expertise and comprehensive resources, Bossard is a great partner to collaborate with to develop ideas into successful businesses. That is why we welcome any partner and customer with an innovative idea in the field of joining technology. Get active and get in touch with us.

We present newly introduced technologies and innovative products on our own platform – customers are welcome to use the latest joining technologies for their own applications and become innovation leaders together with Bossard.

The cooperation with Bossard offers many advantages: Thanks to our global portfolio of suppliers and many years of experience with all types of joining technology, we reliably support you with your individual innovation project.

Master the challenges of joining technology together with us!

5 advantages of choosing Bossard as an innovation partner:

Proven Productivity



- 190 years of experience in joining technology
- International network of specialist partner companies
- Everything from a single source

Professional consultation



- Comprehensive engineering services
- High-quality technical information and tools

Our own test laboratories



- Test laboratories in different countries around the world that are accredited according to ISO/IEC 17025
- Comprehensive mechanical, optical, geometric and chemical test methods

Optimal delivery conditions



- With more than 80 branches worldwide, we are always there for you
- Short response and delivery times
- E-shop for all catalog products

Smart Factory Logistics



- B- and C-parts material management
- Ready for the Internet of Things
- Smart, lean and reliable

Visit our new production innovation website to learn more and contact us:

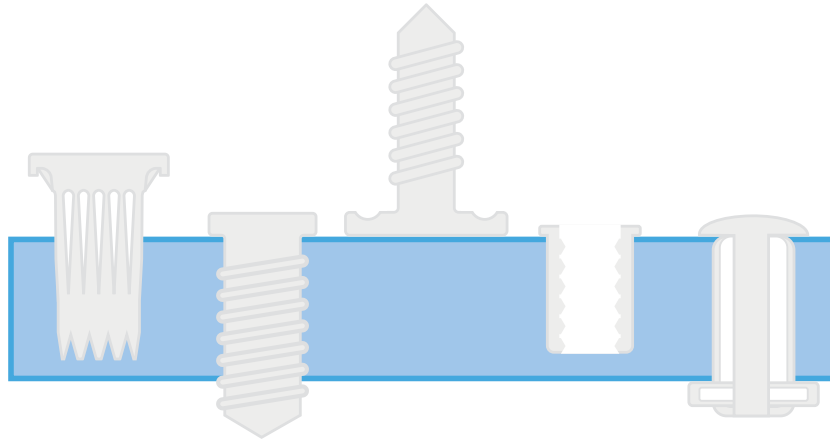
<https://www.bossard.com/ch-de/productsolutions/innovations/>

SCAN ME



NEW WHITE PAPER

Fastening Solutions for composite and plastic materials



Lightweight design and multi-material construction are no longer trends or hype; they are common principles for designers and engineers worldwide today, with great significance in numerous industrial segments, across a huge and increasing range of applications.

It is not only about extensively using carbon-fibre composites; it is the smart combination and optimization of materials and processes. The right material in the right place. Hence usage of material combinations and multi material joints increases and will continue to do so in the future. With this, an increasingly diverse set of fastening challenges.

In the lightweighting and multi-material world, processability, reliability, longevity, sustainability and total cost are equally important to weight reduction itself. So, what is available for creating fastening solutions in this composites & lightweight world?

A team from across Bossard created a new whitepaper to help begin answering this question.

What are lightweight materials?

Lightweight materials are not a clearly defined family; the definition generally extends to materials and material combinations that help reduce the weight of a construction. Fibre reinforced plastics are ubiquitously thought of as lightweight materials: with fibers taking the load and the polymer matrix holding everything together, it becomes a versatile, formidable combination. Sandwich materials are another widespread example. Available in almost infinite variations of outer-layer and core configurations, and serving varying applications including automotive load-floors and commercial vehicle sidewalls, aerospace interiors, furniture, and building & construction.



MM-Welding® LiteWWeight® designed to be melted into porous sandwich material

Lightweight material concepts very often present anisotropic material properties. Variations of properties in different directions can heavily influence what the optimum fastening or assembly solution looks like.

The challenges of joining lightweight materials

Joining lightweight materials and assembling multi-material components to build the macroscopic “end user product” is often beset by uncertainty and limited interdisciplinary expertise. Increasingly sophisticated materials continue to emerge; manufacturing processes develop, and the range of different material properties expands. This runs parallel to increasing demand for multi-material assemblies and global diversification between OEMs, tier suppliers, sub-contractors and design offices. In conclusion, it was never more important to utilize and design with smart and modern lightweight materials, but at the same time never more complex to do so. Fasteners and technology systems that bring together individual high-tech parts as an optimized end-product play a significant role; but superior designs and effective configurations are only achievable, when fastening, joining and assembly are considered and understood in a holistic manner.

Whether the application is high-strength and thin-walled fibre reinforced composites or high duty-cycle honeycomb panels, each involves specific considerations when determining the best possible fastening solution. Are cycle time optimization or cost reduction in the foreground or are there requirements for tightness, strength and processability? Each requirement has its own solution.

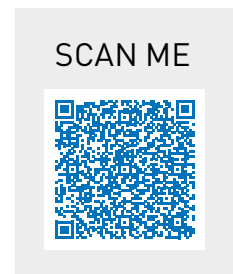
Using ideal, optimized fastening/joining technologies and solutions supports market leadership and competitive advantages through cost optimization, functionalization, design optimization, and of course, weight reduction.

In our brand new and comprehensive white paper “**Fastening Solutions for Composite and Plastic Materials**” we present several technologies that support today's need for effective composites and plastics utilization.

Get your free copy of the new Bossard white paper (English language) here or in our [download center](#):

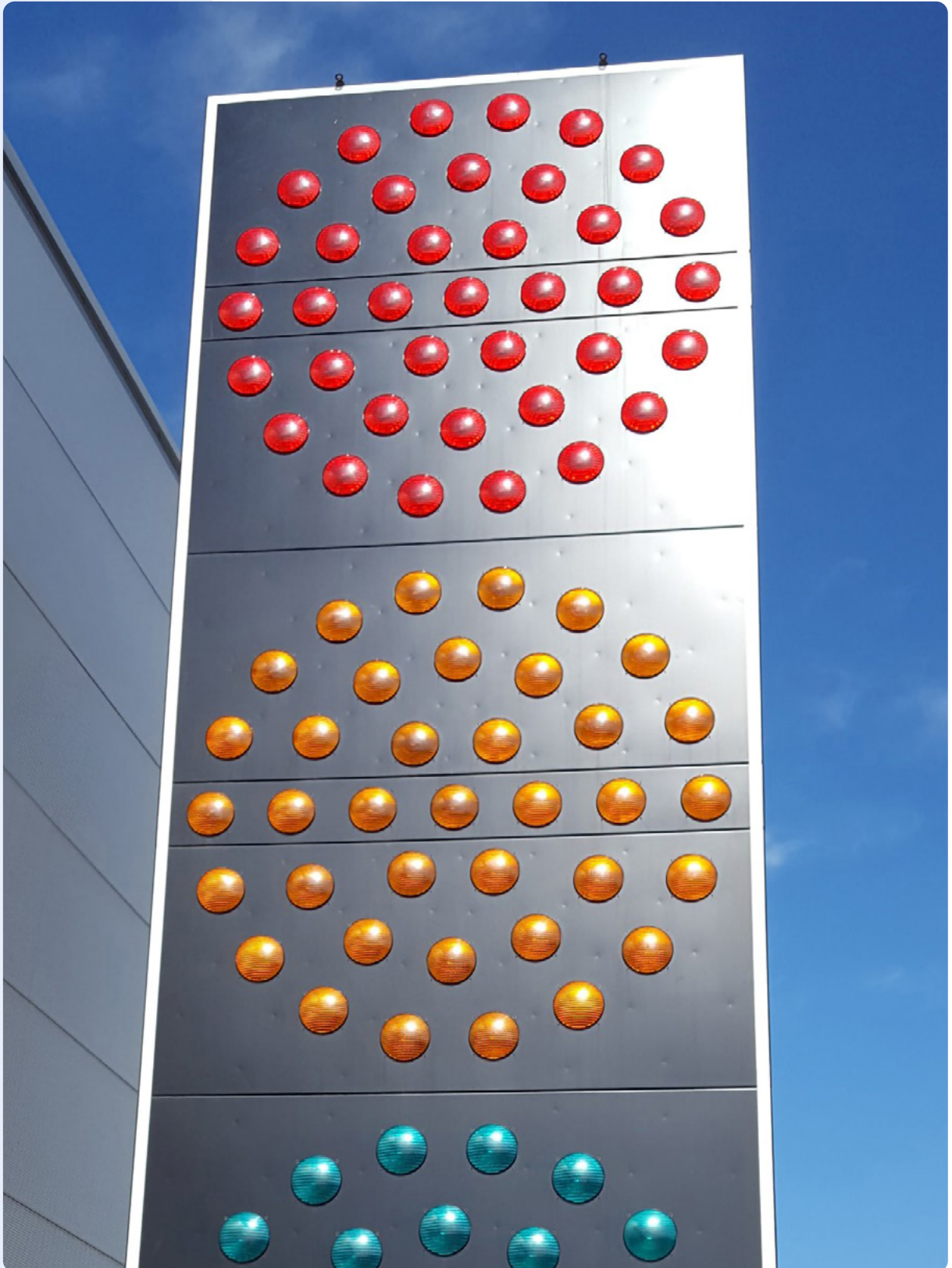


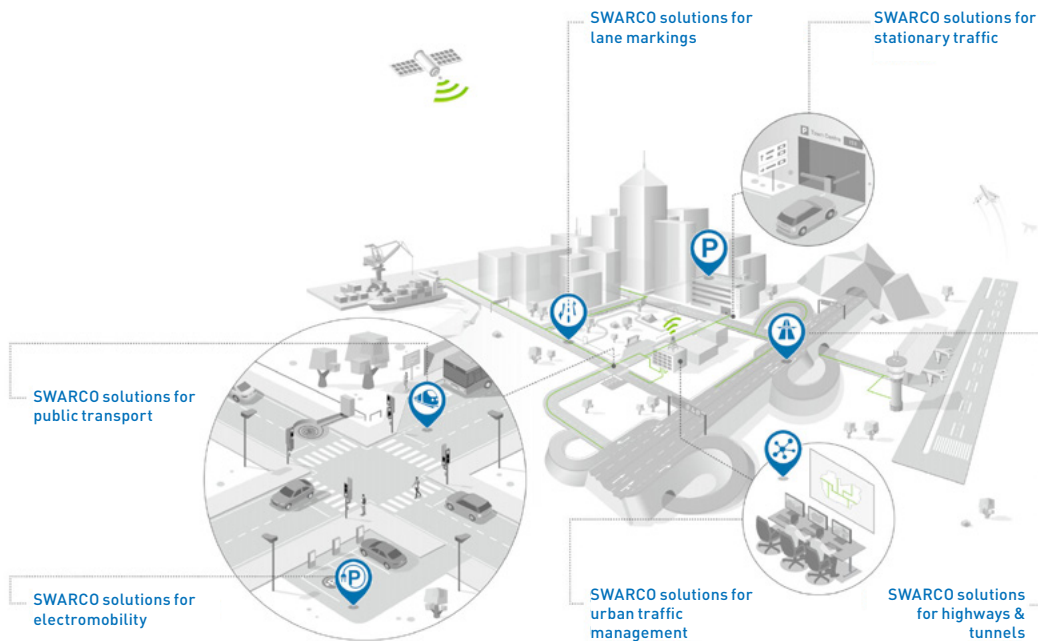
bigHead® fastener designed for embedded into fibre reinforced polymer laminate



C-PARTS MANAGEMENT 4.0

How the smallest parts ensure the greatest process optimization.





Manufacturing companies are best off mastering the challenges of the industrial revolution 4.0 with lean processes and optimized products. SWARCO FUTURIT was able to make its own time-consuming procurement process noticeably more efficient by using Bossard's digital application "SmartBin." The smallest parts in production, the so-called C-parts, received the greatest amount of attention here.

Because while these parts on average make up five percent of the added value, they make up about 80 percent in terms of volume. As a result, in procurement in particular, they take up a great deal of time, even though the focus should actually be elsewhere. But these processes can also be optimized through modern Industry 4.0 applications. At the manufacturer of LED-based signal and lighting technology, SWARCO FUTURIT, the intelligent SmartBin system of the Bossard Group has been in use as of late, which made it possible to optimize the processes within the supply chain and reduce stock levels.

C-parts were long handled like all other purchased parts at SWARCO FUTURIT: In addition to Procurement, Accounting, warehouse employees and Material Management also dealt with the small parts.

Much too much effort for the C-parts, which are almost worthless as individual pieces. That is why in 2019 SWARCO FUTURIT began to look around for a suitable C-parts management system: "We created a very detailed matrix of criteria for the tender, according to which the companies who had participated in the tender were evaluated. This resulted in a ranking that was led by the Bossard Group and its SmartBin system," says Xenia Schinzel, strategic purchaser at SWARCO FUTURIT, as she explains the tendering process.

SWARCO FUTURIT develops and produces optical systems with bright, energy efficient and long-lasting LED technology, such as traffic light systems or variable message signs. These systems are made in Neutal in Burgenland. For a good year, the process of demand notification, procurement and dispatch has now been running fully automated via the Bossard system, just like the re-filling.

"The aim was to free up resources for more important things by implementing the system."



Standard joining technology as well as special designs from Bossard are used in SWARCO's products. The complex process of goods acceptance and quality control is eliminated by the new parts management system. This saves considerable costs.

Intelligent inventory monitoring thanks to SmartBin

The C-parts management system SmartBin that is used is an intelligent logistics system that reliably monitors the C-parts inventory levels and automatically orders replenishments. "This also saves the customer the tedious task of taking inventory of C-parts." At its core, the SmartBin system is a combination of conventional bins for small parts with specially developed weight sensors. The system regularly checks the stock levels and manages itself almost autonomously.

"When a previously defined limit is reached, the order is automatically placed and no longer has to be done manually, which is complicated."

Kai von Buddenbrock, CEO of Bossard in Austria

SWARCO FUTURIT is currently working with three SmartBin systems: Two of them are in production halls for traffic lights and variable message signs and one is in the injection molding department. And there is already a plan in place to extend the digital C-parts system: "Our materials for electrical installations are also to be procured fully automated in the future as well," continues Schinzel.



“In addition, we are thinking about the possibility of an intelligent cabinet system from Bossard for certain consumables.”



“Introducing the Bossard C-parts management has greatly simplified the scheduling process and ensures a greater transparency compared to the past.”

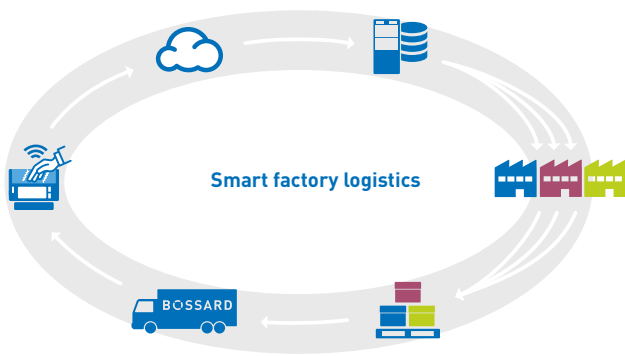
Xenia Schinzel, strategic procurement SWARCO

SUPPLIER MANAGEMENT - THE COMPREHENSIVE LOGISTICS SERVICE
Streamline your supplier base



Do you find it challenging to keep an overview of your suppliers? Managing an increasing number of B- and C-part suppliers presents major challenges to many of our customers these days. This incurs additional administrative work and higher process costs. Bossard's supplier management is an efficient solution for optimizing processes, from the planning to the production level.

And this is how it works: With our service, we take care of the entire management of your B- and C-parts. Three different service levels offer individually tailored solutions, depending on the requirement – from automated ordering to the comprehensively caring for your existing supplier base. This way you benefit from a seamless supply and maximum transparency of your supply chain.



Bossard's supplier management can easily be integrated into any existing Smart Factory Logistics solution.

Regardless of whether you are using Smart Factory Logistics to generate the order proposal or as a comprehensive supplier management: Bossard is your reliable partner with many years of experience.


While you focus on your core competencies, Bossard takes care of the entire logistics of your B- and C-parts.

FEATURES

	Integration of all suppliers
	Streamlining the supplier base
	Coordination of the flow of information
	Coordination of the material flow
	ARIMS Analytics
	One partner

Supplier management with Bossard

- 1) Semi and fully automated intelligent systems are used for purchase requisitions and order release.
- 2) Our interactive supply chain platform ARIMS sends refill orders directly to your suppliers or sends an order proposal to your ERP.
- 3) The suppliers provide the material according to the refill order and label it with the storage location of the item.
- 4) Depending on the service level, the shipment is consolidated and the material is delivered directly to the dock or directly to the workcell.

More than 400 suppliers from different product areas are connected to the system 

www.bossard.com