

Nolato Magasin

No 35 | October 2024



Sustainability review brings gold medal



- Nolato secures long-term agreement
- R-thinking key to product development
- Dynamic market for med tech in Ireland
- Challenges of connecting cars
- SBTi-approved emissions targets
- New code of conduct for suppliers

Swiss Coffee Valley a center for innovation

Brands such as Nespresso are known for their innovations in coffee machines, establishing Switzerland as an industry leader.



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Global solutions in more locations

Nolato merged the two business areas Integrated and Industrial Solutions into a single business area – Engineered Solutions.



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Robots team up to make crankcases

Visiting Nolato Polymer's new production cell in Torekov, which makes crankcases, is a bit like stepping into Santa's workshop.



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High shielding demands ensure traffic safety

Using cameras as rearview mirrors on a truck requires excellent shielding properties to ensure complete safety in all weather conditions.



Find out more on page 18



Nolato's Mosonmagyaróvár plant in Hungary has been continually expanded.

Nolato signs new long-term cooperation agreement

Nolato has signed a long-term cooperation agreement with a major existing customer to supply medical devices for drug administration, including to support treatment of obesity and diabetes.

The supply agreement will have no material impact on Nolato's sales and profit over the next two years.

At full-scale production, within a five-year period, it is estimated that this cooperation will generate annual sales in the region of SEK 700 million for Nolato.

The cooperation will result in Nolato investing, from the second quarter of 2024, a total of around SEK 600 million in new manufacturing capacity by expanding existing premises, machinery and other equipment. Around one-fifth of the total amount will be invested during the current year.

"This cooperation marks a significant milestone for Nolato and is an endorsement of our business concept of supporting large, globally successful companies

that demand high standards of precision, quality and security of supply.

"At the same time it's great to be helping to treat conditions that affect an increasing proportion of the world's population," said Christer Wahlquist, President and CEO.

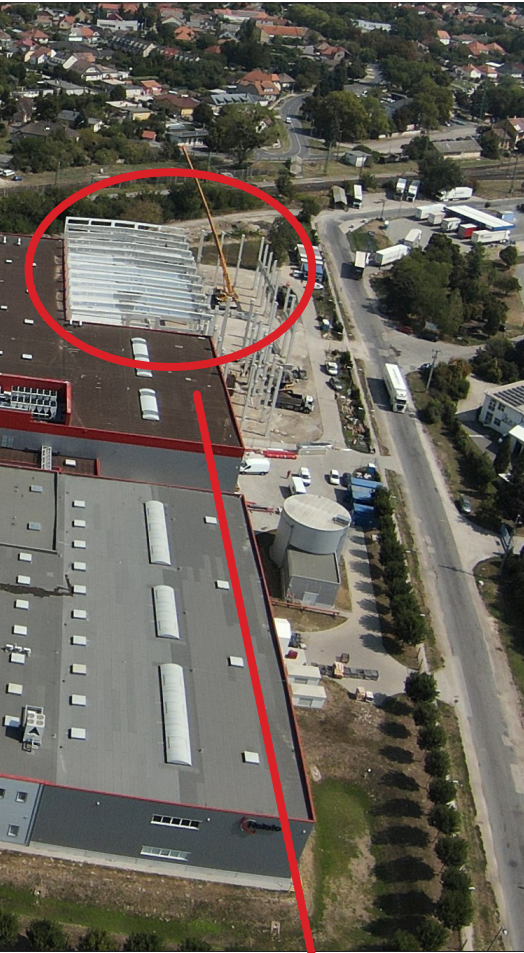
Nolato has been working with the customer in question since 2000.



This magazine is produced for our customers, shareholders and employees, and anyone else with an interest in the Group.

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Hungary plant continues expansion

Mosonmagyaróvár, in western Hungary, around 20 km from the border with Austria and just off the motorway and railway between Vienna and Budapest, is the location of one Nolato's largest units in Europe, employing almost 800 people. This is where Nolato develops and manufactures complex products in polymer materials for customers in both Medical Solutions and Engineered Solutions.

Nolato has had a presence in Hungary for 25 years and the Mosonmagyaróvár plant has been continually developed over that time. And now it's time to expand once more. This time, around 7,000 square meters of production space are to be added for expansion within medical devices. Following the build-out, the unit will comprise a total area of roughly 40,000 square meters.

Meet Kristian Larsson, Sales & Project Director. Congratulations! How do you go about winning such a significant contract?

“Nolato has been working with this customer for many years, which means we've learned a great deal about their expectations and needs. Perhaps more than anything from the times we haven't been chosen as their supplier.”



“Work on this particular contract began at the end of 2022, when we responded to an RFI, or Request for Information.

“We invited the customer to our production facility in Hungary and had a constructive meeting there, which led to an actual request in late autumn and us submitting a tender in January 2023.

“Over the next six months we had more meetings and the customer also inspected the facility several times to look at techniques, processes, management, capabilities, etc.”



“Key criteria for the customer included gaining clarity around our ability to quickly scale up volumes without putting quality and production efficiency at risk, ensuring we had critical mass in our facility to cope with the size of the project, that we had an open way of working and a willingness to collaborate, and that we had previous experience of major ramp-up projects.

“They were also extremely interested in our collaboration with universities, how we looked after our employees, how we ensured those working on the project had the right skills, and how we took on board learnings once the dust had settled and it was time to start delivering.

“I think we had the right answers in these



Kristian Larsson, Sales & Project Director

areas; we were able to demonstrate our competence and experience. But we were also very open about areas where we weren't really able to show previous experience. However, we could then refer them to One Nolato and the experience we have in other parts of the Group.

“We also had clear strategic objectives, and were able to share our thought processes in a practical way. We took the customer on a tour of the location of the planned facility extension: ‘This is where we would put the injection molding, the automation cells will be constructed here, this is how the logistics will work...’”



“Initially there were eight suppliers competing for the contract, then we were down to five and in the end there were just two of us left. We submitted our final tender in December 2023, and then the process continued with negotiations, discussions, questions and so on. Then, finally, the contract was signed.

“And that was when the real work started...”

Center for innovation in Switzerland's Coffee Va



Switzerland has a leading position in the global coffee market, both in trading in raw coffee, and the technology to enjoy it.

Switzerland is considered to be the center of the global coffee industry. More than 40 members of the Swiss Coffee Trade Association control over half of 'green coffee' (beans not yet roasted) that is bought and sold worldwide.

In financial terms, Switzerland is also the largest exporter of roasted coffee beans, with exports totaling more than 3 billion Swiss francs (around USD 3.4 billion) in 2023.

Coffee meets cutting-edge technology

Thanks to its strategic location in the heart of Europe, excellent infrastructure, political stability and its strong financial system, Switzerland offers the ideal conditions for international trade, especially in commodities such as coffee.

What's more, brands such as Nespresso are known worldwide for their innovations in coffee machines, establishing Switzerland as an industry leader, particularly in

technological excellence and innovation in coffee preparation.

Brands such as Jura, Schaerer, Thermoplan and Nespresso lead the way on quality and technical innovation in coffee machines, setting high standards in precision, taste, food safety and sustainability.

Switzerland's state-of-the-art research and development infrastructure allows it to continually develop new technologies and products that influence the global market.

Around 70% of all fully automatic coffee



lley

Nolato Treff

machines sold worldwide come from Switzerland, according to Professor Chahan Yeretzian, head of the Coffee Competence Center at Zurich University of Applied Sciences (ZHAW).

Precision engineering from Degersheim

Nolato Treff AG plays a central role in the Swiss coffee ecosystem, in particular through the production of precision plastic components for the world's leading coffee

machine manufacturers. Its Degersheim site develops and manufactures tailored solutions using a high degree of automation and constant innovation, ensuring Nolato Treff remains an essential partner in the coffee machine industry.

To guarantee the highest quality standards, the company complies with a large number of strict regulatory requirements that are crucial to the food industry. Particular attention is given to the use of specific plastics that are approved for food contact

and that meet stringent usage requirements. These factors, often developed and supplied by Swiss companies such as EMS Chemie, are an integral part of the Swiss coffee industry.

In addition, sustainable business practices are becoming increasingly relevant in the industry, as reducing the environmental footprint has become more and more important. Like the rest of the Group, Nolato Treff has been involved in this area for many years; it uses 100% green energy



Nolato Treff has been manufacturing components and complete brewing units for coffee machines for around 40 years.

and has a consistent recycling management system in place.

Looking to the future of the Swiss coffee

industry, it's clear that Nolato Treff will continue to play a key role. Nolato Treff remains a reliable partner for high-quality

plastic solutions and actively contributes to shaping the industry.

Nine questions for three people in the Swiss coffee ecosystem



Roland Dillitzer, Senior Key Account Manager at the material producer EMS-Chemie AG.

What role has EMS-Chemie AG (EMS) played in developing plastics suitable for use in coffee machines?

We were pioneers in developing high-performance plastics for coffee machines back in the 1990s. These plastics, which met all food approvals, allowed metal die-cast components to be replaced for the first time. This led to considerable cost reductions, as it meant reworking was no longer necessary, so EMS made a significant contribution to reducing manufacturing costs.

What trends and developments do you see in the plastics industry, particularly with regard to applications in coffee machine production?

The market is increasingly demanding

sustainability and the use of recycled or bioplastics. EMS has had "Greenline" products in its portfolio for many years, and these are made from renewable raw materials. The plastics used in coffee machines and all other EMS plastics are fully recyclable. EMS is proud to have been CO₂-neutral worldwide and at all its sites since 2020.



Sandro Hurschler, Commodity Manager Injection Moulding at the coffee machine producer Thermoplan.

How important is local production in Switzerland for your company, and what benefits does it provide?

Local production in Switzerland plays an extremely important role for Thermoplan. The high level of training of our employees enables us to manufacture products that embody the worldwide reputation of "Swiss Quality". Local production not only ensures

maximum precision and reliability, but also allows us to respond flexibly to customer requests and guarantee short delivery times. This combination of expertise and quality is a major advantage that has contributed to our worldwide success.

How important to your company is sustainable production and what efforts are you making in this area?

Sustainability is of central importance to Thermoplan, especially as we sell our products globally and are aware of our responsibility to the environment and future generations. We have defined clear goals to promote sustainable practices in our manufacturing. These include reducing our carbon footprint, optimizing energy and resource use, and using eco-friendly materials. Through these measures, we aim to make a positive contribution to global sustainability and consistently fulfill our environmental responsibilities.

What role do Swiss plastics suppliers play for you?

Thermoplan generally works with longstanding partners in procurement. Swiss plastics suppliers play an extremely important role

for us in our supply chain. We value their expertise and in-depth understanding of our specific requirements and the high quality standards we place on our products. Their many years of experience and reliability are decisive factors for us, which is why we will continue to work closely with them in the future. This also applies to Nolato Treff, with whom we have a longstanding partnership.



Guido Vollrath, MD at Nolato Treff.

How do you ensure your products always meet the latest technological and regulatory requirements?

Coffee machines have to withstand extreme conditions; high pressure of up to 20 bar, temperatures of up to 100°C and high levels of humidity. Our products need to withstand these extremes for many thousands of cycles. To meet these requirements, we rely on modern machinery, stable process control and consistently high-quality raw materials. And continuous investment ensures we always remain at the cutting edge of technology.

How has Nolato Treff established itself as one of the leading manufacturers of coffee machine components and what key factors have contributed to this success?

We've been manufacturing components and complete brewing units for coffee machines for around 40 years and have continually kept pace with the growing requirements of the industry. Regular investment in high-performance and reli-

able machinery, the necessary infrastructure and a high degree of automation have helped us establish ourselves as a leading manufacturer in this field.

To what extent do sustainability and social responsibility play a role in production at Nolato Treff, and how do you integrate these aspects into your corporate strategy?

Sustainability has long been a key issue throughout the Nolato Group. We've made considerable progress in reducing greenhouse gas emissions for many years by purchasing our electricity using hydroelectric certificates of origin. There is still great potential to reduce indirect greenhouse gas emissions, which can only be achieved in close cooperation with our customers and suppliers. We have already launched various initiatives and are confident we will see the first successes in the next 12 to 18 months.



Operations at Nolato in Mexico have expanded and taken on new technologies such as complete assembly and automated box building.

Box building comes to Mexico

Nolato GW Querétaro, which is in the Mexican city of El Marques, became part of Nolato in connection with the Group's acquisition of GW Plastics in 2020. For almost 20 years, the company has been developing and manufacturing polymer products for leading customers in the automotive sector, medtech and industry in general.

In the past, the company has focused

on components with tight tolerances and sub-assembly. Since joining Nolato, the business has expanded and taken on new technologies, such as two-component injection molding, complete assembly and automated box building.

Box building means that during production, the complete assembled product is automatically function-tested, placed in its consumer packaging, supplied with manu-

als, sealed and placed on a pallet for delivery to the end customers.

The concept is perfectly suited to the 'One Nolato' principle, as in this case the product was previously only made in Europe, but production in Querétaro means it is now being made closer to the endcustomers in North America as well.

Three business areas become two

A global range of solutions in several locations

Nolato merged the two business areas Integrated Solutions and Industrial Solutions into a single business area – Engineered Solutions – as of the first quarter of 2024.

“We’re seeing that many of our customers are optimizing their resources and presence based on a global market approach, and are therefore looking for global suppliers with a local presence,” explains Christer Wahlquist, Nolato’s President and CEO.

Joint strategy

“Adopting a joint strategy and management in the merged business area enables us to offer our customers a global range of solutions in several locations. This allows us to proactively develop new, major customers and realize the full potential of our existing customer base.”

The merger means that Nolato now has a group structure comprising two business areas, as opposed to the previous three.

Similar in many ways

“This division feels right for us,” com-

ments Christer Wahlquist. “The two business areas share a number of common denominators, as both are involved in the development and manufacture of products in polymer materials. Their production processes are also similar in many ways.

“What sets them apart and justifies the separation into two business areas is mainly the stringent regulatory requirements and extended time perspectives associated with processes in the medical field. These demand a different way of working with development and production than in other sectors.”

Interdisciplinary collaboration

“At the same time the two business areas are not islands,” notes Christer Wahlquist. “Many of our units around the world support customers operating in both business areas.

“The flows are separated in order to offer each customer optimal conditions, but we are constantly working across disciplines to give all our customers access to our entire range of skills and experience – what we refer to as One Nolato.”



Many of Nolato's units around the world support customers.

Focused product areas for Medical Solutions

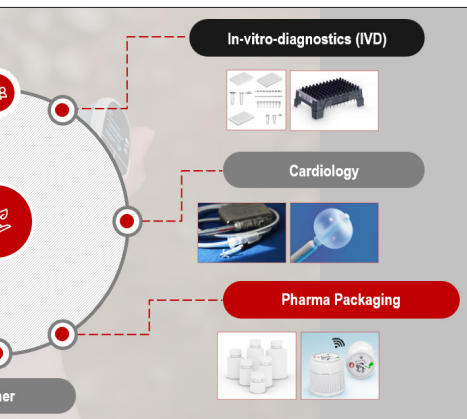


Medical Solutions is a leading developer and manufacturer of components for medical technology, pharmaceuticals, and medical devices.



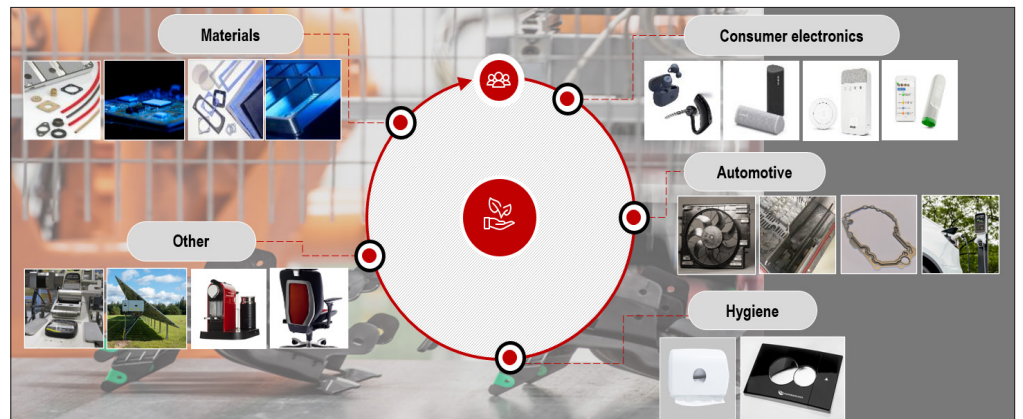
Customers operating in both Medical Solutions and Engineered Solutions.

Medical Solutions



Manufacturer of complex product systems and medical industry, and diagnostics.

Focused product areas for Engineered Solutions



Engineered Solutions specializes in the development and production of advanced components and subsystems for a diverse range of industries, including offerings in EMC & Thermal solutions.



Nolato produces injection-molded components for medical devices at its plant in Sligo, in the north of the Republic of Ireland.

Dynamic market for medical devices in Ireland

When Nolato acquired the North American plastics group GW Plastics back in 2020, it included a company based in Ireland.

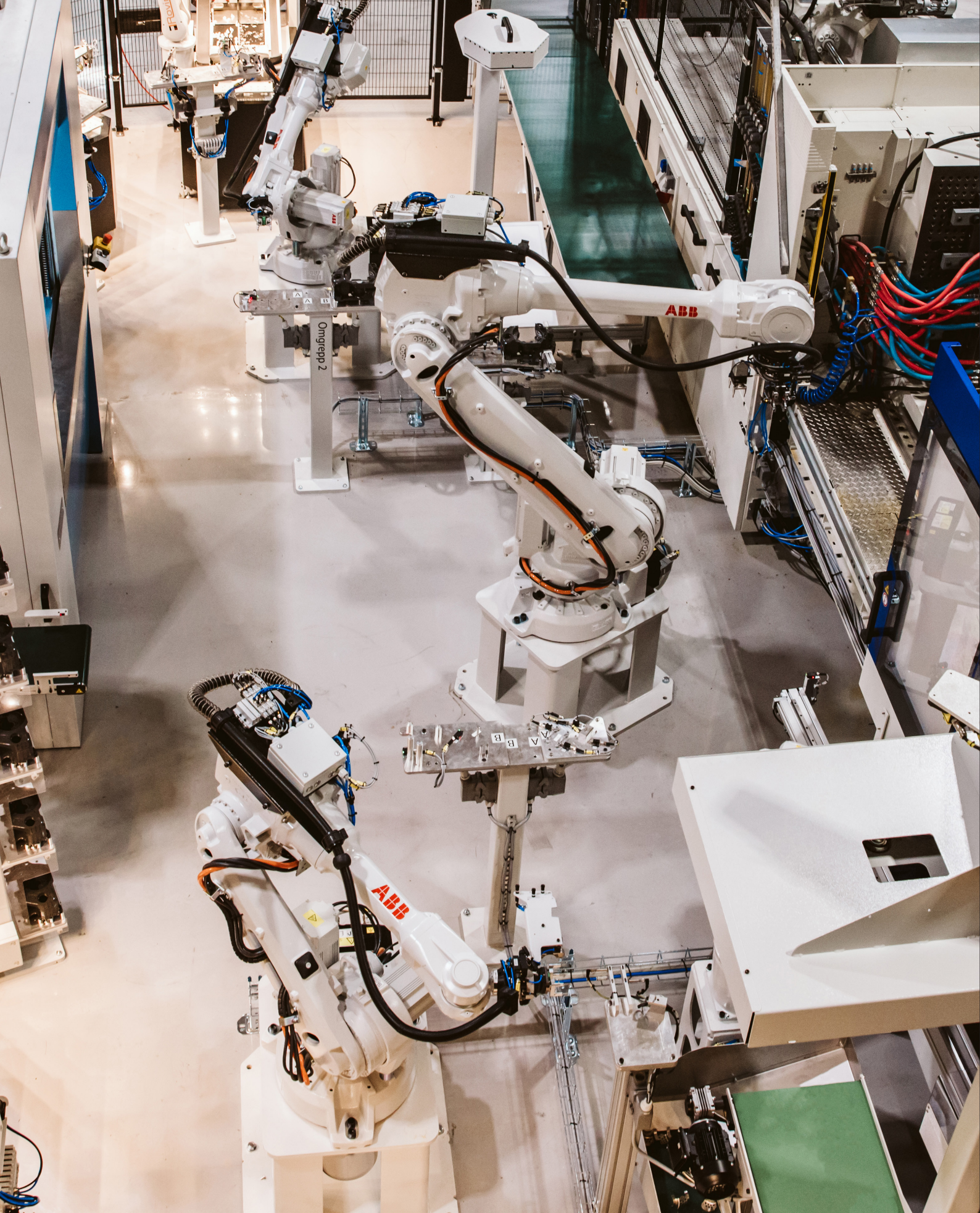
Based in Sligo, Ireland, the company

has mainly been manufacturing injection molds for the past 40 years. The company has now been developed and expanded, and has a strong focus on the production of

medical devices for customers in surgery, laboratory products, pharmaceuticals, etc.

“Ireland is a really dynamic market,” comments Ricardo Silva, Managing





OmniGrepp 2

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Nine robots team up with reused Swiss machine to produce Husqvarna's crankcases

Nolato Polymer has been investing heavily in automation in recent years to improve efficiency and competitiveness, while eliminating several monotonous aspects of the workflow.

Most production cells now have one or more robots. The latest addition is the most extensive and advanced production cell to date, and one of the most innovative in the Nolato Group.

Santa's workshop

Visiting Nolato Polymer's new production cell in Torekov, where they make components for Husqvarna's chain saws, is a bit like stepping into Santa's workshop.

Nine, six-axis robots of various sizes work together in a continual process, which starts with injection molding and ends with labelling the finished article to indicate that it has been approved and is ready for delivery to the customer.

In between these stages, the components are moved from station to station by robots to assemble various inserts and conduct quality checks. For example, at one station the oil tank is welded, while at a subsequent one, pressure testing is carried out to ensure there are no leaks.

Controlled by vision system

Each station is equipped with inspection cameras that both guide and control the process at the station. And instead of shaking out the various subcomponents to be assembled, such as inserts and screws, the robots pick them from a conveyor belt.

The vision system controls the robot, to ensure it only picks the components that are in the right position on the conveyor belt, leaving the others to be picked when they come round again.

The robot also makes sure it has a little buffer stock, from which it can pick a component if it doesn't find anything on the conveyor belt.

"We've been making these kinds of products for Husqvarna for many years, and when we were designing the production process for components for a new model of chain saw, we drew on our experiences with a previous automated cell," explains Jimmy Wallin, Sales Manager at Nolato Polymer.

"This new production cell is a significant investment, but it's going to give us a stable process, improved performance, less scrap and extremely high uptime."

More flexible system

"The robots and the vision systems also make it more flexible. It's currently programmed to be able to make three different products, and it's fairly simple to add more," comments Lennart Thålin, Managing Director of Nolato Polymer.

"It requires fewer man hours; for example, subcomponents are replenished for the various stations in the cell from the outside, which means it can operate with-

out interruption, even when refilling."

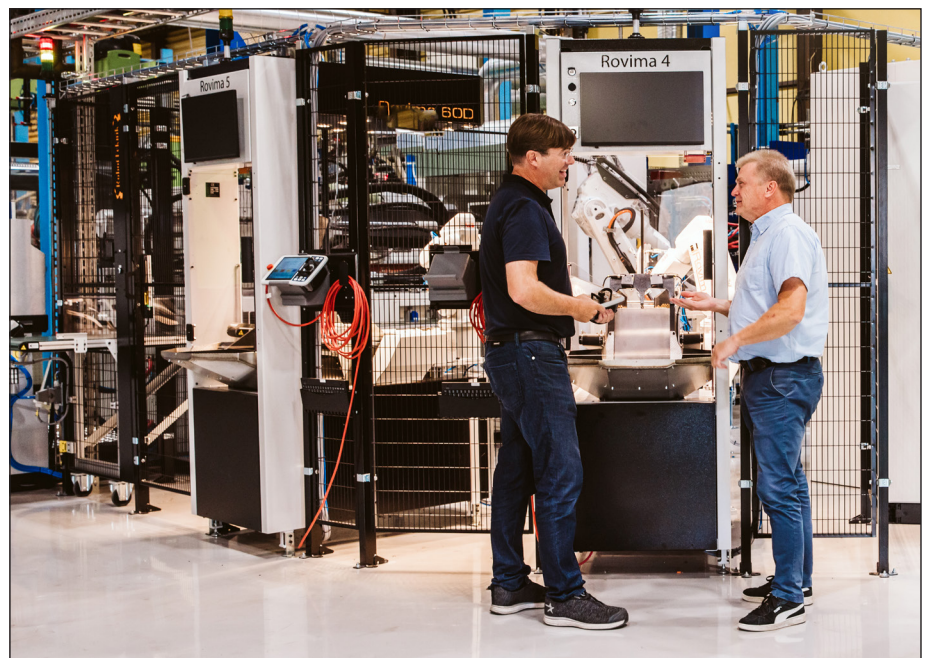
A total of 14 subcomponents are assembled in the production cell before the finished product emerges on the conveyor belt.

Cobots are the future

"Looking ahead there's scope for further investments in more flexible robots, or 'cobots'. These are collaborative robots that work alongside humans and are easier to move where they're needed," explains Lennart Thålin. "We're also looking at smarter vision systems that can do things like detect defects in real time."

The cell also has recycled elements, reflecting Nolato's focus on sustainability. Instead of installing a new injection molding machine, a used one was relocated from Nolato Treff in Switzerland to Torekov.

"They no longer needed it, so it's good that we could continue to make use of it," concludes Jimmy Wallin.



Project manager Fredrik Axelsson and Jimmy Wallin at the new robot cell for Husqvarna.

Stringent shielding requirements as cameras replace rearview mirrors

We are in an era of innovation in road safety, and MirrorEye is emerging as a game-changer. This camera system is redefining the conventional solution for rear-view mirrors on trucks and buses by replacing them with digital HD cameras and monitors.

The result isn't just improved safety, but also a significant reduction in fuel consumption.

Approved by US authorities

MirrorEye is the first camera surveillance system for trucks and buses that has been approved by the Federal Motor Carrier Safety Administration (FMCSA) for use on public roads.

One of the outstanding features of the system is its performance in varying weather conditions. It doesn't matter if

the sun is low, if it's raining or snowing, the cameras provide sharp, detailed images to the monitors inside the cab. The cameras automatically adjust to changing light levels, for example when travelling through tunnels, ensuring continual optimal function even when driving at night.

Works in extreme temperatures

MirrorEye comprises two HD camera units with high shock and vibration resistance, advanced protection against dirt and water affecting the electronics, and excellent capability even in extreme temperatures (-40 to +85 degrees Celsius).

Real-time HD images are displayed on two 12.3-inch monitors using a split-screen format, giving the driver a complete view of their surroundings.

Coping with the extreme conditions to

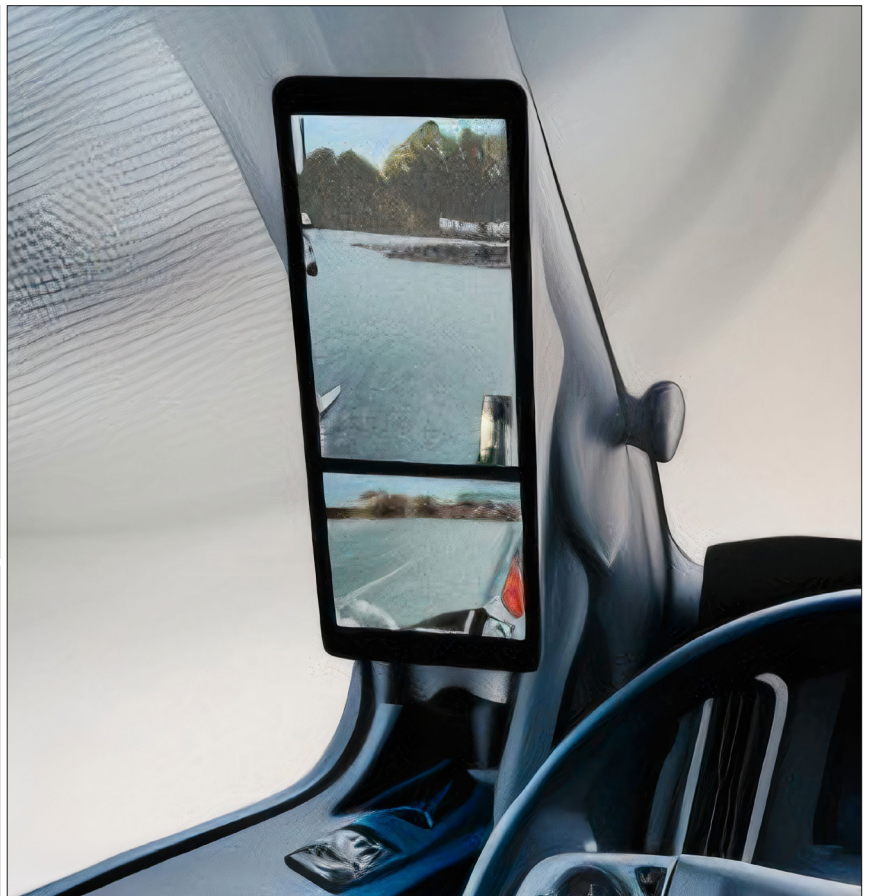
which the cameras are exposed requires excellent shielding properties to ensure complete safety.

FIP gaskets for extreme conditions

Stringent requirements in terms of gaskets are satisfied by Trishield form-in-place gaskets from Nolato EMC in the camera system.

These gaskets are dispensed by robots and have many advantages, including rapid handling, high cost efficiency, excellent shielding effectiveness, superior mechanical performance and the fact that no assembly or tooling is required.

To summarize, MirrorEye and Nolato's Trishield are setting a new standard in vehicle safety.



Coping with the extreme conditions to which the cameras are exposed requires excellent shielding properties.



Nolato Materials provides EMC and thermal solutions for optical modules

Nolato Materials' focus on innovation and customer collaboration makes us one of the leading partners for optical module manufacturers looking to optimize their product performance.

The possibility of combining proven technology and materials with new, innovative solutions for specific applications offers customers reassurance that the solutions will deliver over time.

Successful partnerships:

- Nolato's EMC solutions help leading manufacturers of optical modules eliminate electromagnetic interference in their modules, resulting in improved stability and reliability for customers.
- Nolato's thermal solutions lower the temperature of optical modules, which boosts reliability and cuts energy costs.

Market requirements:

- The global market for optical modules is booming, fueled by heightened demand for data services, cloud services and 5G.
- Manufacturers of optical modules need to guarantee high performance, reliability

and energy efficiency to satisfy requirements in exacting applications.

Solutions from Nolato Materials:

Nolato Materials is a leading supplier of EMC and thermal solutions for optical modules.

We offer in-depth knowledge of:

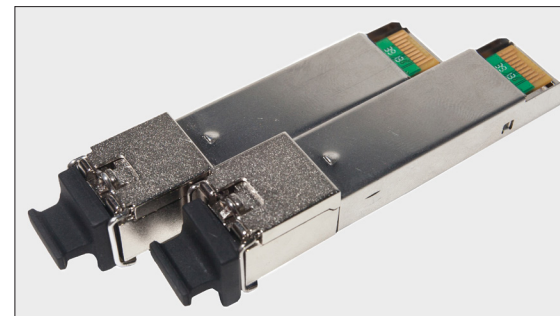
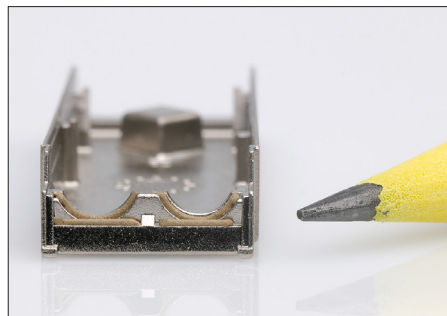
- EMC shielding: Reducing electromagnetic interference and ensuring stable data transmission.
- Heat dissipation: Extending the lifespan of optical modules and cutting energy costs.
- Collaborating with leading manufacturers of optical modules to develop cus-

tomized solutions that satisfy specific requirements.

Customer value:

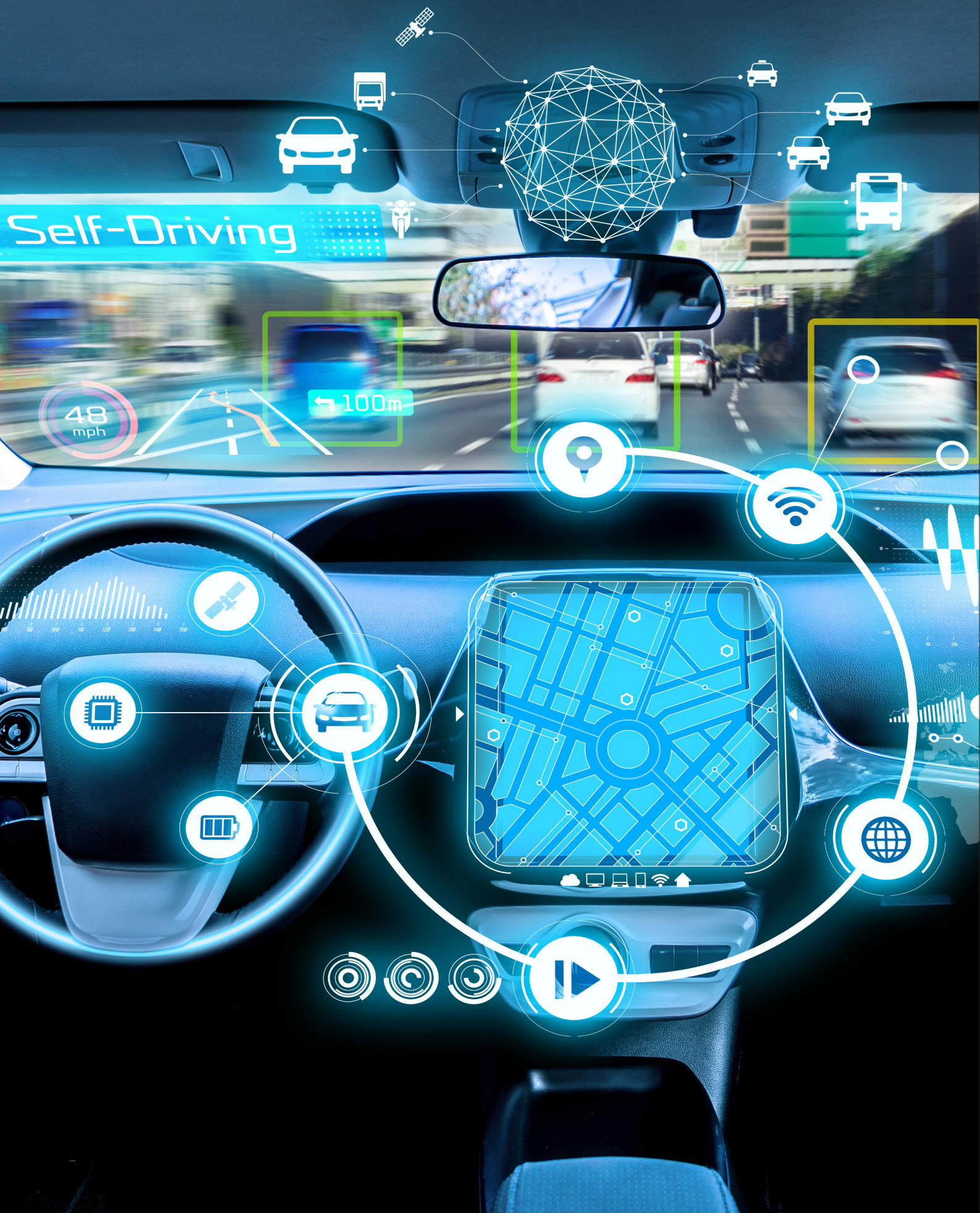
Nolato Materials' solutions help:

- Optimize the performance of optical modules through advanced EMC and thermal design.
- Reduce the risk of shutdowns and faults caused by EMC interference and overheating.
- Improve energy efficiency in optical modules and cut operating costs.
- Give customers a competitive advantage by offering optical modules with unrivalled performance and reliability.



Nolato helps optical module manufacturers eliminate EMI.

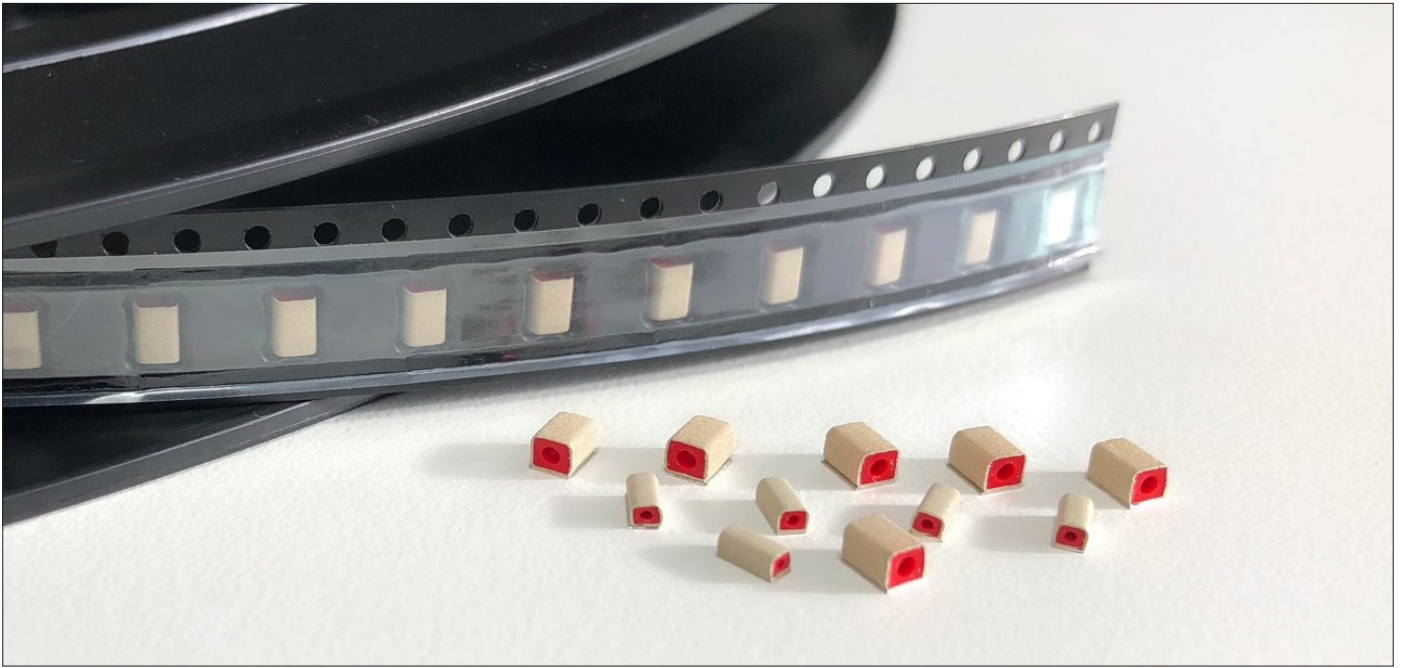
Self-Driving



48
mph

← 100m





Compashield SMT Pad ensures reliable grounding performance for electronic applications.

Connected vehicles pose data transmission security challenges

Automotive engineers face a range of design challenges and sometimes encounter problems of electromagnetic interference (EMI), which can be difficult to solve to achieve electromagnetic compatibility – EMC.

The causes of electromagnetic interference are numerous and include both man-made and natural sources. The effects can range from temporary disturbances and data losses to system failure and even loss of life.

Every new car will be connected

It is widely predicted that, by 2025, almost every new car will be ‘connected’, and connection to the cloud will be standard.

Connected vehicles will ‘talk’ to each other and to the road they’re on. This is useful in emergency situations, to avoid an accident. In the near future, everything will be connected; cars, roads, stop lights, etc. This presents a major challenge in designing networks that can deliver and process unprecedented and ever-increasing volumes of data. Technical developments

have turned automotive systems into complex electrical and radio frequency (RF) devices.

Risk of interference

Fully electric powertrains and the development of vehicle autonomy increase the need for active electrical components, complex interconnected systems and the use of RF systems, so it’s important for industry professionals to keep up to date with changes in the automotive industry. These changes can be viewed as either threats or opportunities.

This automotive transformation will affect car manufacturers and suppliers around the world, with the use of radar and sensors increasing the complexity of RF cosite interference analysis. Automotive engineers must consider the susceptibility of systems that directly control the vehicle and require high levels of safety assurance.

The Form-In-Place EMC dispensing technology is a popular choice in the telecommunications and automotive industry

for its unique properties, as it benefits both manufacturers and end-users. The design is being continually improved to stay one step ahead of the growing needs in this rapidly evolving application area.

Grounding and shielding

Grounding and shielding products ensure electrical performance without deteriorating under mechanical or environmental stress over the product lifetime.

For example, Compashield SMT Pad ensures reliable grounding performance for electronic applications. The pads are delivered in tape and reel packaging for automated placement and soldering reflow using standard SMT equipment.

The Compashield SMT Pad is used as a grounding contact on printed circuit boards commonly used in the electronics industry and anywhere high electrical conductivity is needed in a compressible, resilient form, such as in camera and radar systems and infotainment systems.

R-thinking key to developing new products

Achieving a circular economy, in which we use resources more economically and reuse them instead of basing value on constantly adding new resources, is a change that more and more people consider necessary to bring about a sustainable society for the future. In this regard, R-strategies are an important part of rethinking and innovating around resource use when developing new products.

Adopting a circular mindset

Human consumption has long been based on a linear approach. We create a product, use it and then throw it away. This mindset has kept things going at a rapid pace. But resources such as raw materials and energy have been used at a high rate, which doesn't fit with today's holistic approach to sustainability.

To change this, we need to adopt a circular, rather than a linear, mindset. Systematically reducing resource losses through smarter use and manufacturing that enable the product, or at least its components and materials, to be used for longer or in other forms.

Less is more

The less resources and virgin raw materials that are needed for manufacturing, the more circular it will become. But a completely circular approach is neither possible nor desirable, as this would require huge resources to utilize all the constituent parts of the expended products.

Nolato Magasin has previously written about the importance of taking a circular approach to designing products. It's at the drawing board that a product's sustainability performance is determined.

Holistic approach essential

A holistic approach that takes account of a product's purpose is what's needed to ensure the product is sustainable. Is it really needed? By far the most sustainable option is to not manufacture a product. Or should it have a different design? Can it be made so it's easy to repair when it breaks? Can it be refurbished? Can it be used as something else when it has reached the end of its useful life? Or ground down and its material recycled?

There are lots of options, but it's also important to get the level right so it doesn't end up being counterproductive.

Find the appropriate degree

R-strategies, which have existed for some years, help determine the level of circularity that might be appropriate when manufacturing a new product. The 'R' comes from 'reuse', 'recycle', etc. The strategies includes 11 different actions ranked according to the level of circular economy that they contribute to. The lower the number, the higher the level of circularity.

R0 to R2 are aimed at avoiding or reducing new raw materials in manufacturing, while R3 to R7 are based on retaining resources within the system, thereby reducing the need for new raw materials.

If it's not possible to apply any of the methods in R0 to R7, the methods in R8 to R9 may at least generate a satisfactory positive environmental impact.

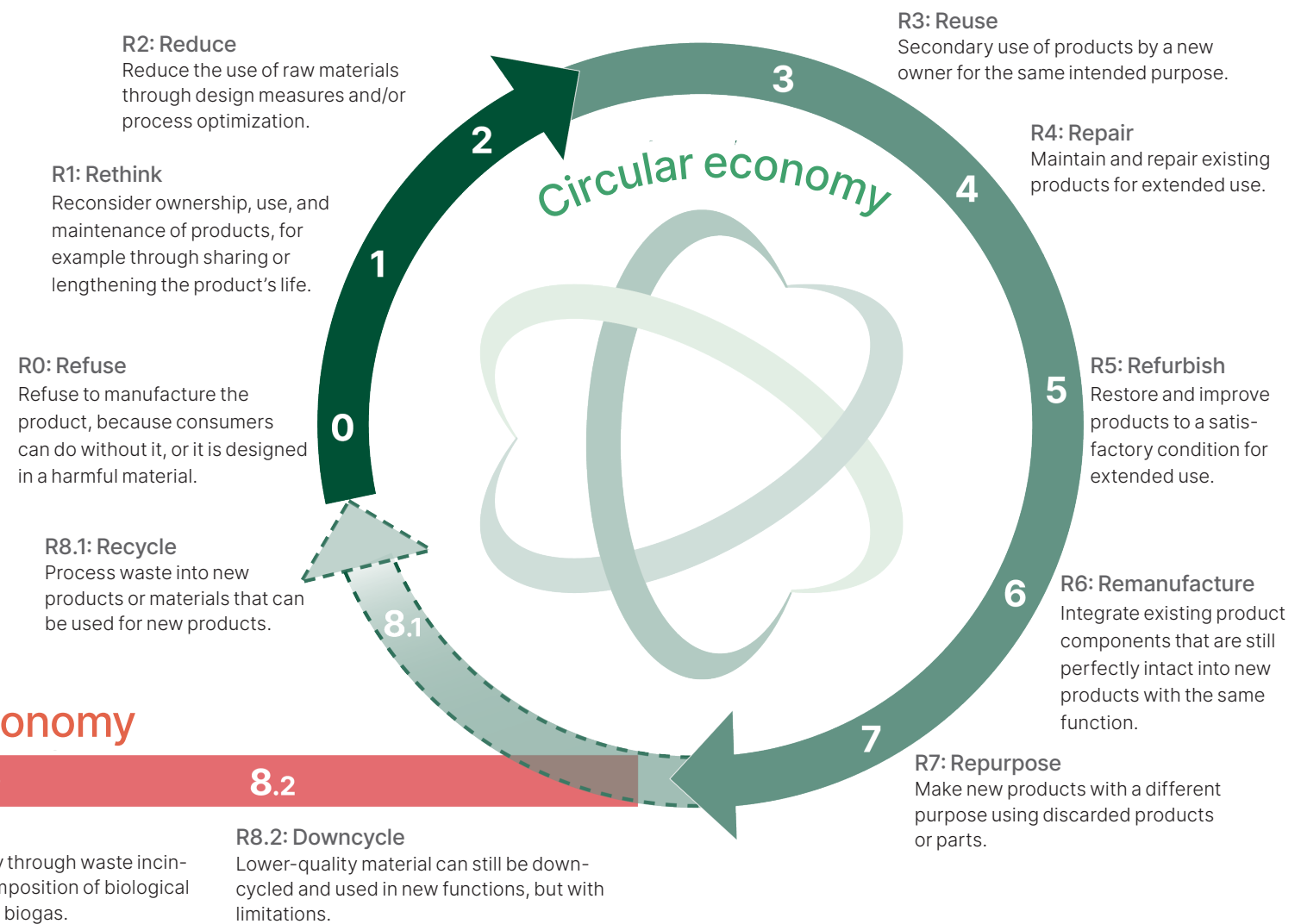
Combining multiple R-strategies

Despite the R-strategies' hierarchical structure, the optimal sustainable strategy is always case-specific and should be based on a holistic, system-wide approach that often draws on a number of R-strategies. The order in which they are ranked provides an indication of what actions will have the greatest impact and the order in which they should be selected.

The purpose of the R-strategies is to encourage everyone involved to start thinking innovatively (they should perhaps be called 'R-thinking') to more easily identify the basis for adapting a new product to a more circular economy.



R0 – R2	<ul style="list-style-type: none"> ■ Design phase ■ Most sustainable ■ Adds value ■ Responsible use and manufacturing
R3 – R8.1	<ul style="list-style-type: none"> ■ Consumption phase ■ Optimal use ■ Preserve and extend life of products ■ Use materials as a resource
R8.2 – R9	<ul style="list-style-type: none"> ■ End-of-life or return phase ■ Capture and retain value ■ Use waste as a resource
	<ul style="list-style-type: none"> ■ Loss of resources ■ Value lost ■ Environmental pollution



Engel receives Nolato Sustainable Supplier Award

As part of Nolato's 2024 sustainability seminar for suppliers, which was held on 19 March in Newcastle, UK, Nolato presented an award to one of our suppliers that has excelled in the area of sustainability.

"Our reason for presenting a sustainability award to a supplier is to promote those who are leading the way in the practical application of sustainability measures," explains Camilla Magnusson, Procurement Director and a member of Group management.

"We aim to highlight suppliers who have gone the extra mile in initiatives such as procuring green electricity, good ratings in EcoVadis assessments and signing up to green initiatives such as Science Based Targets."



Camilla Magnusson, Group Procurement Director at Nolato presented the award to Holger Kast, Global KAM, Engel.

Nolato wants to use the award to draw attention to the significance of sustainable methods in the supply chain, and to promote a culture of continual improvement and innovation in the field of sustainability among all our suppliers.

"Our goal is to reduce sustainability risks in our supply chains and promote transparency and accountability," says Camilla Magnusson. "We want suppliers who can demonstrate that they are aligned with our sustainability goals, and who show their commitment."

Nolato's emissions targets gain SBTi approval

Nolato has chosen to pursue ambitious and structured climate work throughout the Group's operations. An important part of this work has been setting science-based emissions targets in line with the Paris Agreement.

These emissions targets have now been validated and approved by the Science Based Targets Initiative (SBTi), which has established an emissions target framework in accordance with what science considers is needed to achieve the Paris Agreement's aims of the world limiting global warming.

Validated and approved targets

As a company at the forefront of sustainable development, Nolato has long been dedicated to integrating environmental awareness into every aspect of our operations. Our validated near-term targets set a clear pathway for reducing greenhouse gas (GHG) emissions from our own operations, and throughout our entire value chain.

Nolato has made a commitment to reduce Scope 1 and 2 GHG emissions (direct emissions from the company's operations and indirect emissions from the company's energy consumption) by 70 percent by the year 2030, with 2021 as the base year. Nolato has also pledged to reduce Scope 3 GHG emissions (indirect emissions from the business life cycle)

covering purchased materials and services, capital goods, fuel- and energy-related activities, upstream transportation and distribution, waste generated in operations, business travel, employee commuting and upstream leased assets by 25 percent by the year 2030, with 2021 as the base year.

Supporting customers

"The endorsement of our targets not only highlights our role as a frontrunner in sustainable development," comments Christer Wahlquist, Nolato's President and CEO. "It also strengthens our commitment to supporting our customers in achieving their environmental goals.

"Through initiatives like our EcoDesign model, we are striving to continuously increase the use of renewable and recycled materials, and create designs that allow products to become part of a sustainable loop and contribute to a circular economy.

"Nolato's science-based environmental targets are part of a climate strategy that has already led to a significant reduction in greenhouse gas emissions over the past decade. Adapting our targets to the latest climate science findings will enable Nolato to continue to help mitigate the effects of climate change in line with the aims of the Paris Agreement, thus promoting a sustainable future."

Nolato starts EMC production in India

Nolato has established a unit in southern India that will work with solutions and materials for shielding of electromagnetic interference – EMC.

It is strategically located in Bengaluru, which is home to many of our biggest shielding customers in the telecom, automotive, electronics and aviation industries.

"Our customers have been wanting us to offer local EMC solution production in India for some time now," says KJ Sandeep, who is sales manager for Nolato's EMC solutions in India. "We will be able to

provide service to a good mix of local and international customers with development divisions based here."



The factory is located in Bengaluru.



Large quantities of process water are needed to produce and ensure the quality of the breathing bags.

Nolato MediTor's analysis slashes water consumption

Nolato MediTor in Torekov, southern Sweden, is one of the world's biggest manufacturers of dip-molded breathing bags. The bags are created by repeatedly lowering and lifting molds in a bath containing a liquid polymer mixture. The process also involves several aqueous baths to prepare the dip mold for the polymer bath, and afterwards during cleaning, which means that monitoring water consumption is an important aspect.

"Large quantities of process water are needed to produce and ensure the quality of the breathing bags," comments Patrik Gavelin, Director Technology and Projects

at Nolato MediTor. "It also takes a lot of energy to heat up the process water to 70 degrees in parts of the process.

"So a few years ago we launched an operational efficiency plan, and several activities were planned for the dip mold department to boost capacity and cut costs."

The plan included replacing old equipment, optimizing water consumption and reducing energy consumption.

"We carried out a thorough review of the process, including a flow analysis that resulted in a significant reduction in both water and energy usage. We also invested

in new, larger tumble dryers and washing machines, and streamlined the use of process water, which further cut energy consumption by reducing the volume of water that needs to be heated."

The efficiency plan cut water consumption by a total of 44 percent and energy consumption by 330,000 kilowatt hours per year.

"The next stage is to make better use of the heat produced in the vulcanization process," comments Patrik Gavelin. "There's great potential there for further reductions in energy use."

Employment project important for social sustainability

It can be difficult to re-enter the labor market if at any time you've ended up outside it, while at the same time it's hard for employers to identify these future employees, who are often highly motivated.

In Trollhättan, Sweden, the council's Job Centre is working on a project that aims to help people become self-sufficient and employable after a long period of income support, unemployment and perhaps language barriers.

Nolato Cerbo, which makes pharmaceu-

tical packaging in Trollhättan, has been partnering with the council for the past three years, and every year the company takes on up to eight individuals, who combine practical experience at the company with additional training and coaching over a period of six months.

"It's been a great way for both parties to get to know one another and find out whether we're a good fit," comments Cecilia Hellner, Managing Director of Nolato Cerbo. "Following a trial period,

we've been able to offer around half of the candidates some form of employment.

"We're proud to have the opportunity to work with this project, and grateful for the fantastic colleagues we've gained," says Cecilia Hellner. "It's become a natural part of our aim of being an attractive employer, and an important aspect of creating a secure and supportive society, in which each individual has access to basic rights and opportunities to develop – in a nutshell, social sustainability."

New 'Forming the Future' network shares know-how on choice of materials

Nolato has an internal network that was created to increase the proportion of recycled and bio-based raw materials, an area that is seeing growing possibilities.

"There's currently a strong trend in opportunities to use recycled and bio-based materials in the manufacture of polymer products," comments Glenn Svedberg, Group Sustainability & Technology Director. "It's not just about the quantities produced, but also which types of material are offered and their particular properties.

"There's no doubt that there are significant business opportunities, not just for us but also for our customers, in being at the forefront and having solid skills in this field," says Glenn Svedberg. "We're noticing that our customers are becoming increasingly aware that the right material combined with the right design, Eco-Design, presents major advantages."

Important for us to engage

"We believe it's important for us to engage in our value chain," notes Glenn Svedberg. "We're in the middle, which means we have an opportunity to exert an influence both upstream and downstream. We can contribute both to the right raw materials being developed and manufactured, and ensure customers understand the benefits of choosing them when developing new products.

"Nolato doesn't often have much control when it comes to materials, but we can make a difference by getting involved in both directions and sharing our know-how."

Tougher requirements

"A growing number of companies are signing up to sustainability initiatives such as Science Based Targets. This means that they are starting to impose tougher requirements on their suppliers, because they need their knowledge and commitment to achieve their own environmental targets."

Glenn Svedberg believes Nolato is in a

great position to respond to this trend.

"Twice as many companies have signed up to Science Based Targets over the past year than previously. The fastest development right now is among Asian companies."

Nolato has a wealth of knowledge and experience in choice of materials. To share this knowledge throughout the Group, Nolato has created an internal network – Forming the Future.

Selected suppliers will also be able to

attend the network meetings and talk about their offering, which may be an incentive for them in their development work.

"The network will be a great platform for us to come together, share our knowledge and get it out to our customers," comments Glenn Svedberg.

"We know that they are interested, even if it's harder to take an innovative approach in some areas, particularly medtech, due to the regulations."

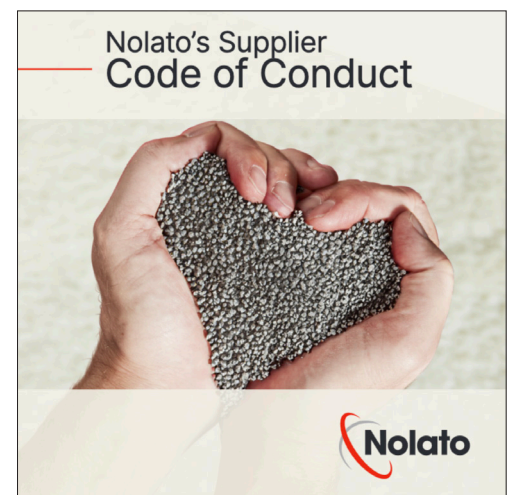
Nolato launches Supplier Code of Conduct

Nolato has a long-standing commitment to sustainability, and we are acutely aware of the importance of achieving net zero emissions. Our journey towards this goal is based on the principles of the Science Based Targets Initiative (SBTi), which means that our endeavors are scientifically informed and will likely have an impact. But we can't do it on our own.

"Achieving a sustainable future requires cooperation with our suppliers," comments Camilla Magnusson, Nolato's Group Procurement Director. "Besides introducing a code of conduct that suppliers need to follow to be our business partners, this year we have presented a program that we call the 'Nolato Sustainable Procurement Initiative 2024', which encourages our suppliers to be proactive about their work with sustainability.

"We are doing this because we know we need to join forces to reduce our collective carbon footprint, which is the key to improving Nolato's sustainability performance."

Camilla Magnusson explains that the Nolato Sustainable Procurement Initiative 2024 aims to assess suppliers' performance based on defined sustainability criteria, and to identify areas for collaboration and improvement.



Nolato will be gathering insights on the following areas:

- Supplier compliance with Nolato's Code of Conduct for suppliers
- Suppliers' EcoVadis rating
- Suppliers' commitment to the Science Based Targets Initiative
- Suppliers' procurement of renewable electricity

"Suppliers who satisfy our requirements will be given a label in Nolato's supplier portal and have the benefit of being designated primary suppliers for future purchasing," concludes Camilla Magnusson.



Thomas Nilsson, Dennis Broberg, Camilla Magnusson, Cecilia Hellner and Rickard Stigh.

Nolato Cerbo wins sustainability award

Nolato Cerbo in Trollhättan, Sweden, which develops and manufactures pharmaceutical packaging, was presented with the prestigious sustainability award at this year's Trollhättan Business Awards.

Trollhättan Business Awards is an annual industry gala organized by the City of Trollhättan and the Swedish Federation of Business Owners. Candidates are assessed in seven categories via interviews, achievements and visits before the finalists are nominated.

Nolato Cerbo won with the following comments:

"Nolato Cerbo is making a difference in the transition to a sustainable future via conscious choices in relation to raw materials and energy sources for their production processes. The company engages with customers and uses life cycle analysis to decide the

proportion of bio-based raw material when choosing products and materials. Nolato Cerbo also endeavors to ensure that packaging is completely recyclable by avoiding combining materials, and by informing and educating customers on the impact of their choice of label material. The company, which has been using electricity exclusively from renewable sources for many years, is also working to reduce CO₂ emissions generated by their production plant in Trollhättan. Nolato Cerbo is making a difference and standing out as a positive role model in a sector that is traditionally fossil based."

"We're delighted and proud to accept this award," comments Cecilia Hellner, Nolato Cerbo's Managing Director. "Especially since last year's winner was tech giant GKN Aerospace, which makes components for aircraft engines."

Acoustic camera finds air leaks

When it comes to protecting the environment, every effort counts. Several Nolato companies have therefore joined forces and invested in an acoustic camera that detects air leaks.

Compressed air and vacuum systems are energy intensive, and leaks make them even more so. Besides costing money, this doesn't really sit well with Nolato's goal of cutting energy usage.

Compressed air and vacuum piping often spans large areas of the business, with numerous connectors, pipes and hoses. Filming with the acoustic camera along the tubing and piping using the handheld device provides a visual image of the leaks, and gives an idea of the annual cost in terms of energy.

"Otherwise we would have had to largely rely on listening for the leaks, which is tricky in the production environment of our plants," notes Mats Carlsson, Facility Manager at Nolato MediTech in Hörby, Sweden.

Nolato in Hungary sells its waste

These days, waste is a valuable resource that shouldn't be thrown away. It is environmentally significant, and may even be profitable.

Nolato's major production plant in Hungary is a case in point. For several years now they've been selling almost all of their waste to a company that processes it for recycling and further use.

"We've sold 87 percent of our waste over the past few years," notes Ibolya Fodor, who is an environmental engineer at Nolato Hungary. "It includes plastic waste from production, paper, packaging, foil, metal, wood and electronic waste."

The company that buys the waste has its own plant on Nolato's production site, where the waste is taken care of. It is sorted, baled and prepared here for further processing.



Nolato awarded gold medal in sustainability review

EcoVadis is one of the world's leading institutions for the assessment of companies' sustainability work. Its methods are based on international standards such as GRI (Global Reporting Initiative), the UN Global Compact and ISO 26000, which is the definitive standard for organizations' social responsibility.

Their assessments focus on how well companies integrate sustainability into their business strategies and management systems.

EcoVadis also looks at how companies manage their environmental impact, working conditions, human rights, ethics and sustainable procurement. And on top of that they examine how transparently companies report their sustainability work, and how their suppliers manage the same issues.

Last year, EcoVadis awarded Nolato a silver medal, placing the company among the top 13 percent in the review. This year we've improved in several areas and were awarded a gold medal, moving us up to the top four percent of the more than 130,000 companies that have been assessed, with a rating of 75 out of 100.

"We have achieved this mainly through four key measures," comments Kristian Sandberg, Group Sustainability Manager at Nolato:

- We have improved the sustainability reporting in our 2023 annual report and made it more transparent.
- We provide a comprehensive report on the Group's carbon footprint, including Scope 3 and emissions in each Scope 3 category.
- Our emissions targets have been validated and approved by the Science Based Targets initiative (SBTi).

■ We have developed a code of conduct for suppliers, and created a new procurement initiative that demonstrates how we encourage suppliers to reduce their carbon footprint, and how through this we offer high-performing suppliers greater recognition throughout the Group, enabling them to acquire more business within Nolato. So a win-win concept.

"Besides these four points we've also introduced a number of other improvements that have helped boost our rating, such as a higher proportion of ISO 14001-certified Group companies (83 percent in 2024 compared to 72 percent in 2022). The aim is for all of them to be certified in 2024.

"In two years we've gone from an overall rating of 54 to 75 out of 100, so that's an

increase of almost 40 percent," explains Kristian Sandberg. "Our score for sustainable procurement has doubled from 40 to 80 during the same period." ■

