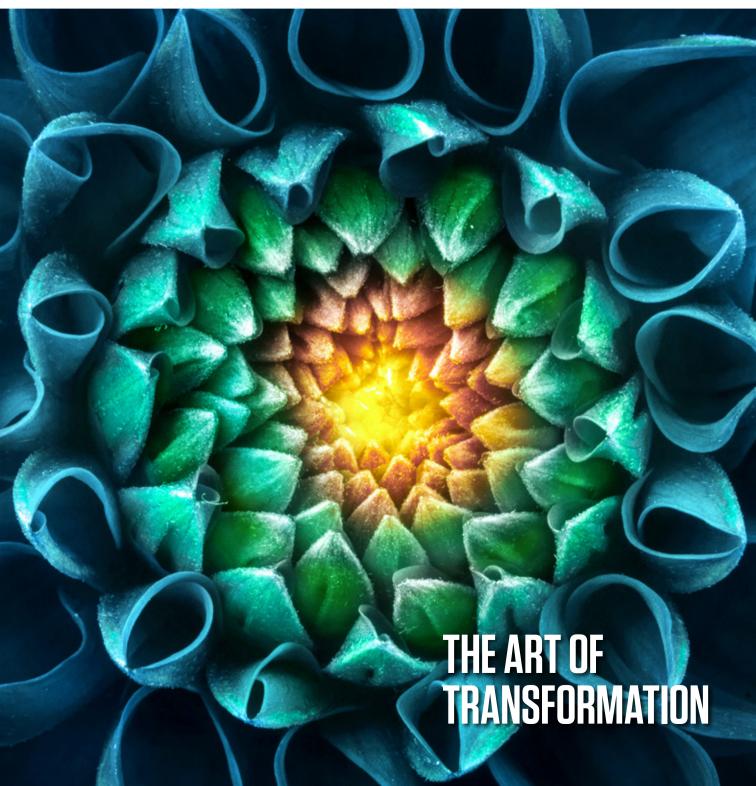
TrueGolours





True Colours

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Dear readers,



s we stride into the promising expanse of the new year, TRUE COLOURS extends a warm invitation to embark on a journey of constant development. In an ever-evolving business landscape, where the requirements of IT security, HSE (Health, Safety, and Environment), R&D, Purchase, Production, HR, Communication, and ESG (Environmental, Social, and Governance) are the guiding pillars of progress, our commitment is to showcase the transformative power of continuous improvement.

In the intricate tapestry of today's business environment, the threads of innovation and adaptation are woven seamlessly into every facet of successful enterprises. This issue serves as a beacon of inspiration, offering profound insights and real success stories that underscore the significance of staying agile and responsive to the evolving demands of diverse business areas.

IT security stands as a fortress guarding against modern threats, and HSE practices ensure a workplace that prioritizes the well-being of its most valuable asset – its employees. R&D becomes the heartbeat of innovation, and efficient Purchase and Production processes lay the foundation for operational excellence. The intricacies of HR and Communication weaves the fabric of organizational culture, while a commitment to ESG principles shapes businesses that are not only profitable but sustainable in the long run.

In these pages, you'll find narratives of businesses that have embraced the winds of change, aligning their strategies with the imperatives of the times. It is a testament to the resilience and adaptability that define successful organizations in today's dynamic environment.

Let this edition of TRUE COLOURS be your compass for constant development and your inspiration for improvement and evolution in 2024.

Best regards,

Dietmar Jost

President of the KANSAI HELIOS Group Management Board



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Precision coatings for small industries





5 years of advancements in sustainable ACE coatings

Unveiling the rich heritage of HELIOS TESSAROL





The compliance components

A(I) game changer for workplace safety





Combined know-how for the global railway market

High potential for low-energy consumption

The essence

responsibility

of social



Bridging technology

and awareness in

IT security



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Global collaboration at the heart of our annual **R&D Summit**

PROGRESS

"We are what we repeatedly do.
Excellence then is not an act, but a habit."

Will Durant



Electromobility has grown rapidly in recent years and has become a key force in the ongoing shift towards sustainable transport. We examine the impact that high-performance coatings are having on the growth of electric mobility.

lectromobility is no longer just a trend; it is now the pivot of the future of transport.

As electric cars, e-bikes and e-scooters become more prevalent in society, industry collaboration is intensifying to grasp the significance of these transformative technologies. Electric vehicles are proving to be an environmentally friendly alternative to conventional internal combustion engines, making a significant contribution to reducing CO2 emissions.

Fast bonding and punching process

Innovations in core plate varnishes have become increasingly important in this

dynamic sector, especially for electric motors and critical components. Our brand Rembrandtin has been a globally recognized specialist in core plate varnishes for many decades. These products have pioneered this niche with numerous innovations. Our latest development, EB 549 RAPID, is already widely recognized in the industry and in high demand by various OEM's. It makes it possible to speed up the bonding and punching process, thus significantly reducing process times, which is especially essential considering the larger vehicle series to come.

But there are many other specialized product solutions in this interesting niche market. Precision-engineered

for robust applications, highperformance coatings, including inorganic/organic hybrid coatings and bonding varnishes, offer excellent punchability, weldability, and resistance to continuous temperature exposure. In bonded stacks, these coatings optimize production times by providing mechanical stability, improved thermal conductivity, noise reduction, and corrosion resistance. With sustainability at the forefront, advances in our C5 coatings demonstrate resistance to aggressive environments and corrosion, contributing to the extended life and improved performance of electric vehicles.

Innovation and collaboration for the future of electric vehicle coatings

The effective bonding of electrical laminates is imperative for the seamless operation of electric motors in vehicles during the manufacturing process. In particular, Remisol EB 5350 S, with its field-proven solution, is our most widely specified e-mobility coating. This seamless transition between innovations in core plates and high-performance coatings reflects our overall goal of advancing environmentally responsible solutions in the dynamic field of electric transportation. Rembrandtin core plate varnishes have been produced in Vienna for many decades, demonstrating our strong commitment over the years.

However, the focus remains on the broader context of sustainable solutions, innovation, and collaboration that are shaping the future of electromobility. •



he chemical industry offers much more than laboratories and research facilities. It serves as a catalyst for economic growth and a promotor of innovation, bearing significant responsibility for sustainable advancements and affording ample scope for the formulation of novel solutions. At KANSAI HELIOS research and development experts are exploring ways to save energy and conserve resources in the production and application of coatings. Our products also help our customers to reduce energy consumption, and in the future, coatings may even have photovoltaic properties and contribute to power generation. Furthermore, paints and coatings are essential for the successful and safe implementation of mobility with autonomous vehicles.

Future topics that concern us today

All future challenges also hold great opportunities. The coatings industry is mixed with many ideas and several question marks. One of the crucial considerations for the future revolves around the generation of energy. The prospect of achieving independence from fossil energy sources is a significant query. There's speculation about the potential role of enormous solar panels on satellites to power the world. Additionally, alternative sources like hydrogen or ammonia fuel cells are being contemplated for their potential importance. The feasibility of nuclear fusion is also a subject of interest, prompting inquiries regarding its potential success in the future.

Enormous changes are expected also in the fields of mobility and technology, and numerous questions occur: Will e-mobility become the norm? Will there be autonomous vehicles? Will packages be delivered by drones? And will we use supercomputers with the capacity equal to that of 100,000 of today's laptops? If yes, will they be powered by special fuel cells?

Digitalization will increase and it will change our lives. The further development of artificial intelligence will lead to fully integrated, intelligent production systems that operate with a minimum of human intervention. As a result, more people will work in the primary sector and fewer in production. This will be called industry 6.0 or even 7.0.

It is difficult to make any predictions, but computer scientist Alan Kay was right when he said: "The best way to predict the future is to invent it."

A sneak peek into the future of the coatings industry

The coatings industry is committed to contributing to a positive future. Coatings are present in all aspects of life. Wherever we look in our modern world, we see a coated object. Coatings of the future will be highly scratch resistant, have special functions and provide the highest level of protection against environmental stress and corrosion. Sustainability, safe chemistry, and efficiency will be the priorities for coating producers.

New polymer molecules and new coating systems

At KANSAI HELIOS, we believe in the possibilities of shaping the future, and we focus on R&D, production, and application.

However, all developments are strongly influenced by legislation. The battle against climate change poses ever new challenges. Many raw materials will no longer be available for use in coatings formulations, either for environmental or health reasons or because they are becoming scarce. The protection of resources and energy savings will play a major role in the choice of raw materials and processes.

R&D is the area in which the coatings industry can make a positive contribution. We already have solutions and promising ideas for many different issues. Al and digitalization will support the development of new polymer molecules and the formulation of new coating systems, as well as high-throughput units, which are already in use in some laboratories, and which will help us reach our goals faster.



IMPECCABLE ROAD MARKINGS, INCORPORATING INDICATORS FOR E-LOADING STATIONS AND OTHER E-MOBILITY INFRASTRUCTURE. ARE ESSENTIAL TO GUIDE SELF-DRIVING VEHICLES.



INNOVATIVE COATINGS PROVIDE VERSATILE SOLUTIONS FOR ENERGY EFFICIENCY, ADAPTING TO EXTERNAL CONDITIONS AND ENHANCING INDOOR HEATING SURFACES.

Powder coatings and sustainable raw materials

VOC reduction will continue to be a focus until ultra-high solid or water based systems with lowest VOC content will have become the standard. The scope for powder coating applications will also continue to expand as these products are solvent-free.

There have been significant efforts recently aimed at developing bio-based raw materials to replace fossil-based raw materials, with promising results. New resins containing bio-based or recycled monomers are already available for powder coatings. In the future, systems with reduced layer thicknesses will be widely used and contribute to protecting resources.

Direct to metal (DTM) coatings are a new approach in this context. They can be applied without a primer, saving both raw materials and energy.

New resins such as polyaspartics (PAS) make it possible to develop coating systems that cure quickly at room temperature without heat. In addition, UV, EB and LED systems will offer opportunities for energy-efficient curing, which will also require the development of new resin systems.

Functional coatings for energy savings

Nature is also a source of inspiration. Bionics is used e. g. in coatings that reduce the air drag of surfaces and will be applied in the

SUSTAINABILITY, SAFE CHEMISTRY, AND EFFICIENCY WILL BE THE PRIORITIES FOR COATINGS PRODUCERS.

mobility sector or in wind power. This will contribute to significant energy savings.

The architectural coating segment will present new developments including facade systems which, depending on the weather and outside temperatures, reflect or absorb heat or can even generate energy. Indoor coating systems may also work as heating surfaces. The idea of wall paints acting as interactive screens where you can check messages when you get home seems a little futuristic, but not impossible. Electrically conductive paints are already available, and research is currently underway to explore photovoltaic coatings that possess the capability to generate electricity.

In the application sector, automation will continue to advance. Automated coating application will become standard. The development of new coating systems may also require the development of new application systems. Digital printing could be a model for new application systems with reduced overspray.

Road marking solutions for the traffic of the future

The future of mobility will also be significantly influenced by the coatings industry. Vehicle automation will continue until cars, buses, and trucks are fully autonomous. This will require flawless road markings to guide self-driving vehicles. Camera

markings at all times. Durable premium marking materials are needed that are visible in all weather conditions. The visual attributes of road marking paints will play a pivotal role in ensuring the efficacy and safety of autonomous driving. In the future, even road markings outside our visual range may be used to transmit additional information to vehicles using electrical conductivity, radar, or infrared light.

sensors must be able to detect

Doc Brown in the film "Back to the Future" said, that we have to dream of positive social, technological and economic developments to make them happen. So let us dream! •



In 2018, KANSAI HELIOS set out a vision for the future of ACE coatings during an IKI coating symposium in Slovenia. This vision revolved around the key factors of environmental sustainability and cost-effectiveness. Fast-forward five years, and those past predictions are coming true in ways that are transforming the world of coatings. In this article, you can join us on the journey of sustainable coatings, where innovation is turning yesterday's vision into today's reality.

nticipating the evolution of the paint and coatings industry in the agricultural, construction, and earthmoving segment (ACE) revealed an upcoming strategic transition in materials, where an emphasis on reducing the carbon footprint serves as a guiding principle and aligns with the principles of a circular economy. Amidst these foreseen changes, bio-based binders were recognized as a feasible solution for the future development of sustainable coatings.

In pursuit of cost efficiency, the focus shifted to the simplification and enhancement of coating application processes. A steady stream of improvements forecasted the development of machinery, enabling seemingly simpler technologies, like one-component waterborne coatings, to be used in more complex applications. Innovations such as direct-to-metal (DTM) coatings, a streamlined layering approach, and reduced energy consumption during curing processes emerged as practical steps forward. Beyond the financial implications, these measures also promised a tangible contribution to the environment.

The first examples of future coatings, whether presented as tech-demonstrations or unveiled as cutting-edge offerings, heralded a fresh era for the paint and coatings sector, one where effectiveness meets cutting-edge technology, with a focus on growth and sustainability.

ACE, Trucks & Trailers Business

Skipping ahead 5 years from where our story started, the IKI (Innovation – Know-how, Information) coating symposium 2023 took place in Germany and this time did not solely focus on ACE but encompassed trucks and trailers as well. Due to their technical similarities and shared market potential, the two sub-segments have been merged within the KANSAI HELIOS Group. Since 2018, our group has not only evolved its products and technologies, but also its knowledge and competence as a system supplier. KANSAI HELIOS is constantly growing, and therefore expanding its product portfolio.



Bio-based Binders as an Option to address the Circular Economy

Having a look at today's sustainability movement, a 55% reduction in greenhouse gas emissions by 2030 and carbon neutrality by 2050 are set as the new goals for our industry and the general population.

Certainly, cost-related concerns remain and are even more prominent than they were all those years ago. Taking this into concern, what solutions can we offer? The answer is:

Those predicted 5 years ago.

"The Life Cycle Assessment analysis of an industrial coating indicates that there are two main sources of emissions: raw material production and coating application. End of life scenarios for a coating system for ACE, Trucks & Trailers offer minimal opportunities for traditional recycling. Separating a coating from its substrate requires more resources than are recovered through reprocessing the materials. The most viable option for achieving a circular economy involves embracing the natural carbon cycle, acquired by incinerating the old coating during metal smelting and using the resulting CO2 in the creation of new bio-based binders. To address the substantial energy requirements in

"IT WAS AN ABSOLUTE HONOUR TO PRESENT OUR RESEARCH ON CORROSION AND SURFACE TREATMENT TECHNOLOGIES AT THE ESTEEMED IKI SYMPOSIUM. THE EVENT WAS A VIBRANT HUB OF INNOVATIVE IDEAS AND ADVANCEMENTS IN THE FIELD. OUR PRESENTATION WAS MET WITH ENGAGING DISCUSSIONS AND INSIGHTFUL FEEDBACK, FURTHER FUELLING OUR PASSION FOR OUR WORK. IN THE NAME OF FERROECOBLAST EUROPE GROUP, WE ARE GRATEFUL FOR THIS OPPORTUNITY AND LOOK FORWARD TO CONTRIBUTING MORE TO THIS DYNAMIC COMMUNITY IN THE FUTURE."

Bojan Črtalič, Peter Drakslar, FerroČrtalič d.o.o.





coating application, a reduction in curing steps and lower curing temperatures are imperative", explains Miha Steinbücher, head of laboratory for new technologies and ESG at KANSAI HELIOS.

At KANSAI HELIOS, we proudly extend a diverse portfolio of single cure systems to our customers. Our offerings include solvent borne and waterborne monolayers and DTM systems, wet-in-wet liquid systems, and powder-in-powder systems. In line with our research focus from the past, we have successfully reduced the cure temperature of these materials, with some cutting-edge UHS DTM materials demonstrating efficient and rapid curing even at room temperature.

Our commitment to a more sustainable development of coatings has led to the use of biobased binders in a growing number of products. Recently, KANSAI

this topic at different conferences and published it in several leading scientific and trade journals. The studied bio-based binder, provided by Helios Resins, is a commercial material, with selected components for the ACE, Trucks & Trailers segment already incorporating partially bio-based raw materials into their production. Continuing this trend, we were able to introduce partially bio-based versions of our best-selling primers, top-coats and DTM systems at this year's IKI coating symposium.

"Remarkably, all the predictions made 5 years ago have come true and we were able to share those with our partners at the IKI ACE Symposium in 2023. However, our achieved milestones in the last years do not mark the end of our efforts. The journey of sustainability coatings for ACE, Trucks & Trailers has just begun", states Miro Treven, sales director

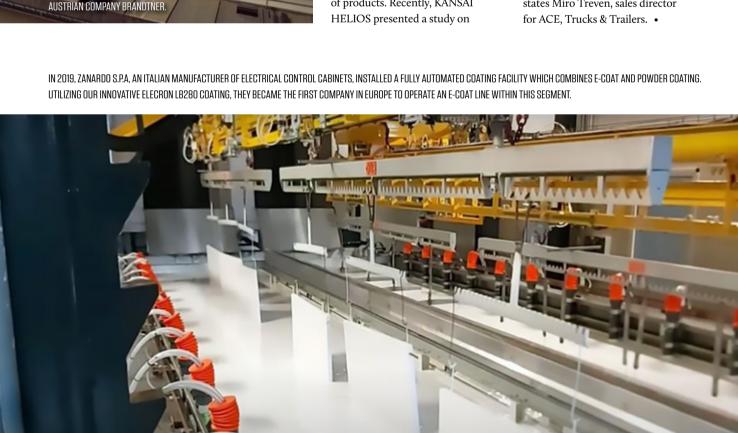
"IT WAS A GREAT OPPORTUNITY FOR US TO GET TO KNOW INTERESTING COMPANIES AT A VERY PROFESSIONALLY ORGANIZED EVENT AND ENGAGE IN MEANINGFUL PROFESSIONAL DISCUSSIONS."

Daniel Weiss and Markus Biess, Elcometer Instruments GmbH

"AS BOTH ATTENDEES AND PRESENTERS, IT WAS A PLEASURE TO BE INVOLVED IN THE IKI ACE COATING SYMPOSIUM. THE INFORMATION PRESENTED WAS INTERESTING AND RELEVANT TO THE INDUSTRY. WE WOULD RECOMMEND ANYONE INTERESTED IN COATINGS AND THE ACE INDUSTRY TO ATTEND FUTURE EVENTS: KOMATSU LOOKS FORWARD TO SEEING WHAT'S COMING UP NEXT."

Ethan Kelly, Komatsu UK Limited

IMPRESSIONS FROM 2023 'S IKI COATING SYMPOSIUM ACE, TRUCKS & TRAILERS









Recycled packaging is a decisive step towards sustainability. It saves up to $40\%~\mathrm{CO_2}$ compared to new goods. KANSAI HELIOS Serbia trialled recycled packaging from Jokey and was able to take a remarkable step towards a resource-efficient circular economy: The result of the collaboration is a new bucket, which consists of 35% recycled household and commercial waste, while the remaining 65% are obtained from recycled production waste at Jokeys.



THE PRODUCTION OF A PLASTIC BOTTLE FROM RECYCLED MATERIALS REQUIRES 75% LESS ENERGY, UNDERLINING THE ENVIRONMENTAL BENEFITS OF RECYCLING.

s one of Europe's leading industrial producers of paints and coatings, we are continuously taking steps towards sustainability and looking at different ways to reduce greenhouse gas (GHG) emissions. One of the key facets of sustainability that has received significant attention is Scope 3 emissions. These emissions, which include all indirect GHG emissions associated with a company's value chain, are crucial for organizations seeking to reduce their overall carbon footprint. They account for more than 70% of the total amount of GHG emissions in the chemical sector, and they represent the most challenging part. For many chemical companies, category I (purchased goods and services) represents the largest share out of 15 categories within Scope 3. Together with raw materials, packaging accounts for the lion's share of these emissions.

At the same time, plastic waste poses a significant environmental challenge, littering landscapes and polluting oceans, harming wildlife and ecosystems. The persistent nature of plastic materials makes their disposal and degradation a long-term issue, requiring global efforts to reduce, recycle, and responsibly manage plastic waste to mitigate its negative impact on our planet. The transition to a circular economy can help.

Contribution to a more environmentally friendly economic framework

Departing from the traditional linear economic model characterized by

production, use, and disposal, the circular economy takes a sustainability-focused approach, that emphasizes the continuous recycling and reuse of materials, including packaging. This model ensures that packaging materials are fully utilized, minimizing waste and environmental impact. It emphasizes the importance of designing recyclable and reusable packaging, adopting environmentally friendly production processes, and promoting efficient systems for recycling and reusing materials, all of which collectively contribute to a more environmentally responsible economic framework.

Recycled packaging is a crucial step towards sustainability, bringing a wide range of environmental benefits. Not only does it contribute to a significant reduction in greenhouse gas emissions, it also plays a key role in reducing plastic waste, moving us towards a circular economy. Since most new plastic is made from fossil fuels, the production of plastic generates hundreds of millions of tonnes of greenhouse gases every year. Increased production of new plastics increases the demand for fossil fuels, exacerbating the impact on climate change. While it is essential to reduce the use of plastic wherever possible without compromising other environmental aspects, the use of recycled materials is essential where plastic is unavoidable. In particular, the production of a plastic bottle from recycled materials requires 75% less energy, underlining the environmental benefits of recycling.

PCR packaging

Companies opting for PCR packaging demonstrate their commitment to environmental responsibility, which can enhance their appeal to consumers. Here are some further explanations of the PCR category (to distinguish it from Post-Industrial Recycling, PIR): Post-Consumer Recycled (PCR) material includes items discarded by consumers, such as soda bottles, cans, and cartons, which are collected and sent for sorting, cleaning, and sterilization before being made into new products. This approach conserves resources by reducing the need for virgin materials, thereby reducing greenhouse gas emissions. It is also cost-effective, eliminating the cost of creating new materials.

On the other hand, Post-Industrial Recycled (PIR) material differs in that it has never reached the end consumer. PIR is made up of manufacturing waste from various sources and it is sometimes referred to as pre-consumer waste. While it does reduce landfill waste, it doesn't fully complete the recycling loop. In this aspect, PCR has a greater potential to contribute to the circular economy compared to PIR.

PCR pioneers in Serbia

Given the many advantages of PCR material, KANSAI HELIOS Serbia, has taken an important step by incorporating recycled packaging from Jokey. This move marks a remarkable commitment to a resource-efficient circular economy,

with our Serbian site becoming Jokey's first customer in Serbia.

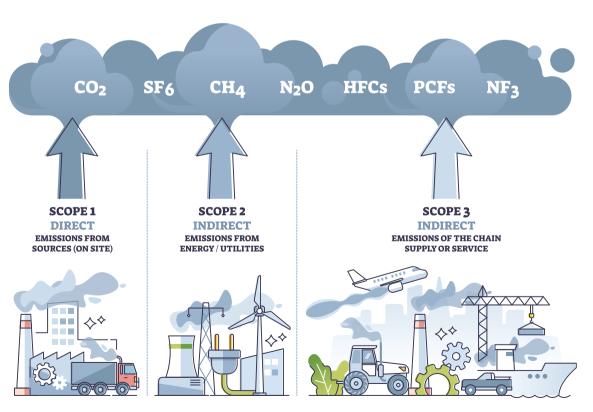
The collaboration is the result of a six-month project in which teams from Jokey Serbia and our team explored sustainable packaging solutions for the Serbian market through extensive discussions and exchanges. Jokey Germany also provided extensive expertise and experience in working with recycled materials, which was shared during customer meetings and events as part of the "Gray is the New Green" initiative, which has been running since 2018. The common goal is to further advance the European circular economy and reduce greenhouse gases. Recycled packaging saves up to 40% CO2 compared to virgin plastics.

THE JETO 185 WITH PCR CONTENT, IS TECHNICALLY UP TO 100% RECYCLABLE THANKS TO THE USE OF MONO-MATERIAL.



KANSAI HELIOS SERBIA IS JOKEY 'S FIRST CUSTOMER IN SERBIA. THE COOPERATION OF THIS YOUNG TEAM RESULTED IN THE DEVELOPMENT AND PRODUCTION OF A NEW PCR BUCKET.

THE THREE SCOPES ARE A WAY OF CATEGORIZING THE DIFFERENT KINDS OF EMISSIONS A COMPANY CREATES IN ITS OWN OPERATIONS AND IN ITS WIDER VALUE CHAIN (SUPPLIERS AND CUSTOMERS).



New PCR bucket JETO185

The result of the collaboration was a new PCR bucket JETO185, that was successfully developed and produced in Jokey Serbia. These PCRs are sourced from household and commercial waste collections, accounting for 35% of the material used, while the remaining 65% is in-house regrind, using Jokey's own production waste. The bucket lids are the only components made from virgin plastic. Rigorous testing in the R&D and Quality Management departments at the German and Serbian sites ensures that the JETO 185 with PCR content meets all the required standards, including aspects such as handle stability, colour, compression pressure, and impermeability. The external appearance of the two product lines remains unchanged, with the inmold labelling process ensuring that the previous colour design covers the entire bucket, with a narrow grey stripe along the top edge indicating the recycled content. Importantly, like all Jokey packaging, the JETO 185 with PCR content, is technically

up to 100% recyclable thanks to the use of mono-material.

"We are constantly working to improve our environmental footprint and build a carbon-neutral future," says Jadranka Orlović, Marketing Director at KANSAI HELIOS Serbia. The move towards sustainable packaging solutions is one of many measures the company is pursuing as part of its ESG strategy. "With the JETO 185, Jokey Serbia has worked with us to develop a recycled bucket that is optimized for our products and that once again helps to reduce our environmental footprint significantly along the entire value chain." This will be extended to the rest of the range."

The collaboration between KANSAI HELIOS Serbia and Jokey Serbia marks a significant milestone in the pursuit of sustainability and the reduction of greenhouse gas emissions. The use of recycled packaging, particularly Post-Consumer Recycled (PCR) materials, exemplifies a dedicated commitment to

a resource-efficient circular economy.
As an industry leader, KANSAI HELIOS recognizes the importance of addressing Scope 3 emissions, with a particular focus on Category I (purchased goods and services) within Scope 3. Incorporating recycled packaging and producing the innovative JETO 185 PCR bucket was a first step in this direction.



A PARTNER COMPANY PORTRAIT

Harmony in chemistry

Stefan Lenzer, Chemische Werke Kluthe GmbH

Chemische Werke Kluthe is a long-standing partner of KANSAI HELIOS and a specialist in innovative surface treatment and technology. Sustainability is a top priority – according to the principle: avoid, reduce, compensate. "Harmony in Chemistry" is more than just a slogan for Kluthe. It is a compass and a recipe for success.



s a global family business, we stand for tailor-made, innovative products and comprehensive process knowhow in the field of surface treatment. Our vision is to be the driving force behind the best possible solutions for our customers", says Martin Kluthe, Visionary and Managing Director Chemische Werke Kluthe.

Sustainability in paint pretreatment and paint shop

Kluthe is convinced that sustainable management is essential for our future. The company strives to create a world in which a thriving economy, the well-being of people and an intact environment are harmonizing with each other.

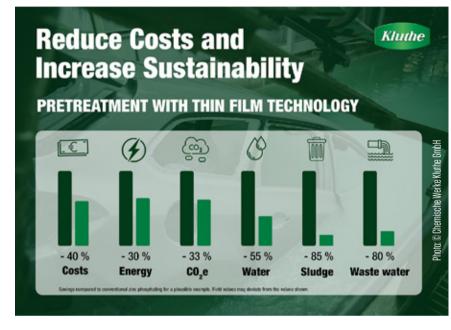
The core elements of new developments are sustainable, recyclable, and renewable raw materials, reduced chemical consumption and lower application temperatures to minimise energy requirements and the associated CO₂ emissions for customers as far as possible. Kluthe's proprietary thin film technology and low-temperature zinc phosphating

not only save energy and CO2 emissions, but also conserve limited resources, reduce waste, and lower costs. Through continuous optimization, Kluthe reduces the consumption of scarce resources, increases energy efficiency, and reduces CO₂ and pollutant emissions for its customers and for itself. The company focuses on climate-friendly raw materials right from the purchasing stage: with a Supplier Engagement Program, they specifically request CO2 data for raw materials and select environmentally friendly variants. PCF (Product Carbon Footprint) is a scale of the environmental impact of a particular product and is an important part of sustainability assessment.

Resource efficient pretreatment

The resource efficient DECORRDAL thin-film technology sets the standard in the paint applying industry. It is the key to designing environmentally conscious and sustainable pretreatment. Customers rely on Kluthe's proven expertise in prepaint applications and support in achieving their sustainability goals.

Thin-film technology is primarily used in surface treatment to replace conventional conversion coating processes with a more environmentally friendly, cost-effective, phosphate free zirconiumbased technology. This extremely thin, high-quality oxide and zirconium/titanium conversion can be applied on iron, zinc, and aluminium substrates and is in a wide field used for both passivation purposes and optimum paint pretreatment. Its characteristic is comparable to zinc phosphate coatings, corrosion protection and paint adhesion, and is an excellent base for powder, wet paint, and electrophoretic coatings. Applications range from automotive, agricultural machinery, industrial trucks, and construction



THIN FILMS REPLACE TRADITIONAL ZINC PHOSPHATE CONVERSION COATINGS, OFFERING ECO-FRIENDLY PROTECTION AND IDEAL PAINT PREPARATION FOR IRON, ZINC, AND ALLIMINIUM SURFACES.

machinery to the manufacture of printing presses and furniture.

Compared to zinc phosphate processes, the thin-film technology is more environmentally friendly and more economical. It significantly reduces costs and consumption of chemicals, water, electrical energy, process waste and maintenance.

Sustainable paint shop at Kluthe

CONTROX paint strippers are another pillar of the company's commitment, as many of them are even recyclable, VOC-free and can be used sparingly, contributing to a significant elimination of harmful emissions. VOC refers to the group of volatile organic compounds – a collective term for substances that evaporate at room temperature or higher.

In addition, Kluthe offers NIKUTEX,

representing a wide range of top-notch solvent and water-based purges and line cleaners. These are not only economical but also significantly reduce the environmental impact (low to no VOC). Whereas CYCLOSOL stands for a full range of closed loop recycled and recyclable solvent-based cleaners.

Kluthe actively contributes to the reduction of waste and wastage of resources and does not only sell chemicals, but also uses innovative sustainability tools to calculate the environmental impact of its customers' processes and advise them on how to reduce emissions, waste, and costs. The company's commitment goes even further: unavoidable emissions are offset by forward-looking and sustainable forest management of Kluthe's own and self-managed forests in Canada, which also promotes biodiversity. •



NEW PROTECTION AND REPAIR SYSTEM FOR CONCRETE COMPONENTS

Reinventing garage flooring

Lidija Balta

Chromos introduces the certified Floor Expert Garage OS8 system. The system is designed to achieve an optimal solution in terms of material cost and installation time. It meets the stringent criteria required by the German Committee for Reinforced Concrete (DAfSTb) guidelines for the "Protection and repair of concrete components" (RiLi-SIB). It provides a robust protection for ground floors exposed to heavy mechanical load, and all floor surfaces where there is no requirement for crack-bridging properties.

he floors of multi-storey car parks and parking lots are exposed to heavy loads that affect both, the service life of the floor covering and the structural stability of the building itself. Heavy mechanical loads from frequent vehicle traffic, prolonged exposure to the action of water and various chemicals, release of noxious gases, and large temperature fluctuations are a major challenge for the concrete floor protection system. The occurrence of premature damage and costly repairs has led to the need to regulate this area of construction for floor areas larger than 250 m².

The German Committee for Reinforced Concrete (DAfStb) has issued guidelines for the "Protection and repair of concrete components" (RiLi-SIB), which specify the technical requirements for garage flooring systems, according to the loads to which they will be exposed during exploitation.

OS GARAGE SYSTEMS IN ACCORDANCE WITH DAFSTB GUIDELINES

| System | Ability to bridge cracks /mm | System thickness/ mm | Building parts |
|--------|------------------------------|----------------------|----------------|
| OS8 | 0 (no crack bridging) | 2,5 | Ground floor |
| OS13 | 0,1 (low) | 2,5 | Ground floor |
| OS11b | 0,3 (high) | 4,0 | Upper floors |
| OS11a | 0,3 (high) | 4,5 | Open deck |

To enter this strictly regulated construction sector, our team in Chromos, Croatia, has developed and recently certified a new flooring system: Floor expert garage OS8 fulfils the technical requirements according to DAfStb guidelines, for use in the ground floors of multi-storey car parks and parking lots that are subject to heavy mechanical loads, but do not require crack-bridging properties.





WHEN DEVELOPING THIS SYSTEM,
THE GOAL WAS TO ACHIEVE
AN OPTIMUM SOLUTION IN
TERMS OF MATERIAL COST AND
INSTALLATION TIME.

THE SYSTEM IS DESIGNED TO MEET THE HIGH DEMANDS OF GARAGES FACING HEAVY MECHANICAL LOADS, EXPOSURE TO WATER AND CHEMICALS. EMISSION OF HARMFUL GASES, AND WIDE TEMPERATURE FLUCTUATIONS.

FLOOR EXPERT OS8 SYSTEM DESCRIPTION

| Function | Product | Consumption |
|--------------|---|-----------------|
| Base coat | Floor Expert EP 101 filled with Floor Expert Quartz $0,1-0,3-1:1$ | 1,5 - 1,6 kg/m² |
| Broadcasting | Floor Expert quartz 0,7 -1,2 | 4 – 5 kg/m² |
| Seal coat | Floor Expert EP 311 | 1,0 - 1,2 kg/m² |

Rigorous certification: Ensuring excellence in every aspect

The coating system has been certified according to a comprehensive list of requirements that are an integral part of the EN 1504-2 standard: Surface protection systems for concrete. In addition to abrasion resistance, flexural and compressive strength, impact strength, slip resistance performance and fire performance, the test criteria also included water absorption, water vapour permeability, carbon dioxide permeability, adhesion strength after weathering cycles and temperature changes, and resistance to severe chemical attack.

When developing this system, the goal was to achieve an optimum solution in terms of material cost and installation time, whilst ensuring that the system meets the stringent criteria required by the German standard.

Versatile applications and future innovations

In addition to garage floors, Floor Expert OS8 can also be used on other floor surfaces exposed to heavy mechanical and chemical loads, where an anti-slip surface is required for safety reasons, such as production plants, warehouses, workshops, and similar application areas.

It should be installed only by professional contractors who are fully conversant with the installation methods. As with all flooring systems, proper preparation of the substrate (shot blasting, grinding, repair of holes and cracks) and compliance with the appropriate application conditions, such as air temperature and concrete surface temperature, as well as air and substrate humidity, are particularly important.

Obtaining the certificate for the garage system OS8 is the first and decisive step in the development of flooring systems for garages, allowing us to enter this construction segment. However, we've already stepped into a new phase of development, moving up from the ground floor. OSIIb is a garage system, which will be used on the upper floors of garages and all other surfaces subject to vibration.

THE MAIN FEATURES OF THE FLOOR EXPERT OS8 GARAGE SYSTEM ARE:

- Resistance to low temperatures (> -10°C)
- High wear resistance
- Good mechanical resistance
- Moderate thermal shock resistance
- Anti-slip surface
- Possibility of tinting
- System coating thickness: 2.5 mm



axcom, a leading Bulgarian bicycle manufacturer and a user of KANSAI HELIOS's coatings, has embraced a new approach by investing in a state-of-theart robotic painting line. This marks the first instance in Europe where a bike manufacturer adopts a 6-axis robot installation equipped with an external charge rotary bell, specifically the PPH707 EXTI. While this solution comes with a higher cost and complexity, it promises unparalleled transfer efficiency, surpassing conventional methods like the disc in omega booth or reciprocator.

Meticulous lab trials were conducted to prove that this investment in advanced technology would yield a significant return on investment for Maxcom.

A global pioneer project

At the core of this innovative solution lies the implementation of 6-axis robots, moving along precise trajectories tailored to the unique geometry of Maxcom's bicycle frames. The electrostatic bell ensures a high transfer efficiency, utilizing its wrap-around effect perfectly suited for the tube-shaped contours of bike frames. This premium spraying technique results in a superior coating appearance. Utilizing waterborne paint, an external charge system facilitates the electrostatic effect, allowing the paint tank to remain earth-grounded. This unique feature simplifies colour change processes, eliminating the need for ground insulation in the paint kitchen and streamlining tank refilling.

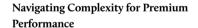
Mustafa Karakas, bike coatings expert at KANSAI HELIOS, emphasizes: "Our

collaboration with SAMES and Maxcom on this project not only introduces cutting-edge technology to the bike manufacturing industry but also underscores the commitment of all parties to sustainable and efficient coating solutions."

In the current study phase, the project will progress through factory built-in, site installation, and finally, site commissioning at Maxcom. Notably, the project incorporates the fully automated version of the external charge bell automizer, originally designed for interior automotive painting. This adaptation offers enhanced accessibility, crucial for bicycle manufacturing. The cutting-edge technology is a configuration with smaller embedded electrodes. It's a world-first in bike production, and it's a testament to the dedication of SAMES and KANSAI HELIOS to pioneering solutions.



THE COLLABORATION REFLECTS THE INDUSTRY'S GROWING EMPHASIS ON ACHIEVING HIGH TRANSFER EFFICIENCY TO REDUCE PAINT WASTAGE.



The Maxcom project, scheduled to start production in 2024, has undergone laboratory validation, projecting a remarkable 15% increase in transfer efficiency compared to the existing production line. The current setup employs up-and-down reciprocator and omega booth with up-and-down electrostatic disc spraying. The paint waste generated by this traditional method is excessive, as it covers the entire area of the paint booth where bicycle frames whizz by.

SAMES, Maxcom and KANSAI HELIOS' cooperation involved intricate design work, including the creation of complex trajectories, coating rheology adaptation, and rigorous design of experiments. This level of detail was necessary to achieve a coating with no sagging, uniform paint distribution and the desired orange-peel effect.

"Our goal is not only to achieve high performance, but also to drive the industry towards more sustainable practices. This project represents our commitment to reducing environmental impact while delivering top-tier coating solutions", says Mustafa Karakas.

Collaboration is crucial. This is a key lesson we have learned in this project. The importance of joint efforts between coating manufacturers and equipment providers is significantly high. The success of implementing top-tier technical solutions relies on a shared understanding of intricacies and a collaborative approach to ensure optimal performance for the end customer.

With plans to explore similar projects

in the future, the collaboration reflects the industry's growing emphasis on achieving high transfer efficiency to reduce paint wastage. The integration of top-tier technical solutions involving 6-axis robots and electrostatic bell atomizers aligns with evolving industry trends.

By challenging conventional practices and embracing novel approaches, this partnership establishes a new benchmark for efficiency and quality in the coating process for bicycles. This project not only represents a significant milestone for the European bicycle manufacturing industry but also paves the way for future advancements in industrial coating applications with a commitment to environmental sustainability. •





CHALLENGES OF BICYCLE FRAME COATINGS

- Diversity of colours: Bicycles are available in a wide range of colours and finishes, requiring manufacturers to manage numerous paint formulations and different application methods.
- Environmental responsibility: In an era where environmental awareness is paramount, manufacturers are under increasing pressure to adopt environmentally friendly and sustainable painting practices. Waterborne and low-VOC paints have become increasingly important.
- Consistent quality: Obtaining a uniform and highquality paint finish is indispensable because even the slightest imperfection can affect the visual appeal and longevity of a bike.
- Efficiency and productivity: In the ever-evolving bicycle market, manufacturers need to streamline their processes to meet market demands and maintain a competitive edge.





SUCCESS

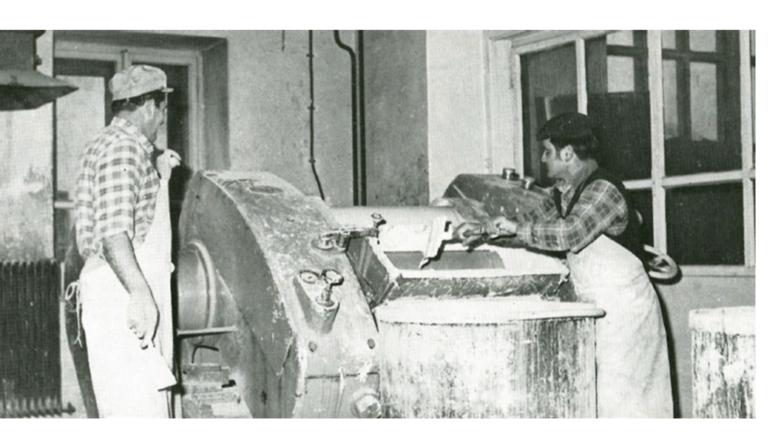
"There are no passengers on spaceship earth.
We are all crew."

Marshall McLuhan Philosopher A CENTURY OF BRILLIANCE

Unveiling the rich heritage of HELIOS TESSAROL

Jana Simonič, Ajda Car

From an old mill to one of the longest-standing brands in the decorative industry: What began 100 years ago is now an integral part of KANSAI HELIOS. Today, HELIOS TESSAROL offers the widest range of products for protecting and decorating metal and wood surfaces in the consumer sector.





ilestones such as the 100th anniversary of a brand are rare gems in the business world, offering us a unique opportunity to reflect on a century of progress and innovation. As we celebrate the 100 years of HELIOS TESSAROL, let's take a journey through time to explore the brand's history, its challenges and its enduring legacy.

Humble beginnings

The journey of TESSAROL dates back to 1924 with the establishment of the jointstock company known as Ljudevit Marx, Tovarna lakov Domžale (i.e. the lacquer factory Domžale) in Slovenia. Ljudevit Marx, an Austrian industrialist and one of the company's founders, faced difficulties in exporting varnishes to the Yugoslav market due to high customs duties. This led to the establishment of an independent factory in former Yugoslavia and the beginning of the chemical industry in the Domžale region. From today's perspective, the process of paint development and production and the conditions were entirely different from today. The first recipes were developed, and the first colours were mixed with a lot of manual labour.

The unlikely birthplace of TESSAROL was an old mill. The company installed machinery in a restored mill in Količevo, Domžale, and began producing paints and coatings in a modern, industrial way. The initial focus was on the domestic market, yet their ambitions stretched beyond borders. The factory in Količevo had a promising start, as its parent company, Ljudevid Marx, was already known for its rich experience and long tradition, dating back even further, to 1873.

Within its first year of operation, the company produced 150 tons of paint

THE BRAND'S COMMITMENT TO EXCELLENCE, CUSTOMER SATISFACTION, ENVIRONMENTAL CONSCIOUSNESS AND SUSTAINABILITY REMAINS VISIBLE TO THIS DAY, EXTENDING ITS INFLUENCE ACROSS 24 COUNTRIES.

and coatings, as well as other coatings for crafts and consumers. The company initially employed 3 full-time workers and II seasonal workers. These modest figures evoke a nostalgic smile when one considers that at the time, nobody could have foreseen that this was merely just the beginning of a remarkable journey.

However, the early years were not without their fair share of challenges. The factory did not operate at full capacity in its initial years, mainly because the products did not instantly resonate with consumers. People were still accustomed to importing products from abroad. The brand gradually secured its place on the market after the factory consistently demonstrated the superiority of its goods, which were on par with those imported from abroad.

The best-known product at the time, which accompanied the company from the very beginning, was TESSAROL, an enamel for metal and wood surfaces. Today, TESSAROL is still a symbol of quality and tradition. However, what once started as a single product has since grown into a diverse portfolio of over 24 different products for the protection and decoration of metal, wood, and more recently also ceramic surfaces, all sold under the TESSAROL name.

Turbulent times and a global breakthrough

In the 1930s, in the pre-war period, the Ljudevit Marx company underwent a rapid development, which owned much of its success to its advanced promotional activities. It actively distributed informative leaflets for a wide range of products, providing customers with clear usage instructions and technical specifications. Marketing endeavours extended to catalogues printed in full-colour,











OVER THE PASSING DECADES, EACH GENERATION OF EMPLOYEES CONTRIBUTED THEIR PART TO SHAPE THE IMAGE OF THE COMPANY.

1924

The early beginning of TESSAROL: establishment of joint-stock company Ljudevit Marx, Tovarna lakov Domžale

1930s

Continuous progress: rapid development and advanced promotional activities promote the brand to a wider audience.

1954

Renaming to Helios, Tovarna lakov Domžale, marking the first association of TESSAROL products with the HELIOS name.

1970s

Successful international expansion: over 60% of production is exported, and there is a great emphasis on product development.

1980s

Investment in R&D and HR: establishment of the research centre, significant production capacity (90,000 tons per year) and growth in the workforce.

advertising banners, notebooks, stickers, and customized metal and wooden plates, showcasing a diverse palette of available colours. What would now be considered a standard promotional toolkit, was exceptionally advanced back then.

However, even the most effective advertising couldn't prevent what was to come. The start of the Second World War had a seismic effect on the business and production. In particular, the shortage of raw materials towards the end of the war, significantly damaged production. Nevertheless, as neither the equipment nor the structures suffered any harm during the conflict, it was nonetheless possible to swiftly reorganize the manufacturing process immediately following liberation. In 1954, after several status changes in the postwar period, the company was renamed from Ljudevit Marx, Tovarna lakov Domžale, to Helios, Tovarna lakov Domžale (i.e. the lacquer factory Domžale).

By the late 1970s and early 1980s, TESSAROL was established successfully on international markets. During this period, exports accounted for more than 60% of production, with a significant proportion going to the Soviet Union. TESSAROL enamel once again proved to be the leading product in terms of sales. As the company expanded and modernized its production facilities – a key aspect of its strategic plan – a strong emphasis was placed also on product development. This led to the establishment of the research centre, with a professional staff becoming a vital component in the company's progress. By the 1970s, the company already boasted a workforce of 589 employees, and by the

1980s, production reached an impressive 90,000 tons of coatings per year. Over the passing decades, each generation of employees contributed their part to shape the image of the company.

Investing in quality and ecology

In the early 1990s, a strong commitment to quality improvement and environmental awareness was evident. In addition to the important milestone of obtaining the ISO 9001 international quality control certificate, the Laboratory for Analysis and Ecology began its operations. In parallel, TESSAROL embarked on an innovative journey with the launch of its first range of water-based products. The expectation was that the environmentally-friendly water-based products would be embraced by consumers, leading to impressive sales numbers, considering they were regarded as the upcoming trendsetters. However, reality painted a different picture. The pioneering environmental stance proved to be ahead of its time, and customers were sceptical about water-based coatings, questioning their effectiveness.

Nonetheless, success is often born of challenge, and this situation was no exception. The solution was to raise public awareness of the environmental benefits of water-based products and build confidence in their quality. In 1998, this vision crystallized into the Helios Ecology Fund, established in partnership with the Ministry of Environment, Spatial Planning, and Energy. Within the framework of the Helios Fund, two partner-oriented projects have been implemented: the Karst Caves and Ravines Rehabilitation, and the

Slovenian Local Wells Revival Project. The main objective of the first project was to reduce the potential risk of pollution of karst waters flowing into drinking water catchment areas. At the same time, it aimed to raise public awareness of the negative effects of pollution on karst caves and abysses through a well-designed publicity campaign. The second initiative, the Slovenian Local Wells Revival Project, was designed to emphasize the comprehensive importance of water in urban areas, inspiring collective action to preserve its quality. It is an enviable achievement that by 2012, a total of 80 wells had been successfully restored, underscoring the importance of cooperation and volunteer efforts in advancing the welfare of the entire community.

The story of sustainable development did not end there. To this day, all new developments respect the strictest environmental standards and the ESG strategy of KANSAI HELIOS. One of the most recent initiatives was the "Paint Smart" campaign, which has served as a platform to promote a sustainable message: "Promoting Sustainability Through Creativity." Recognizing that the responsibility for proper paint waste management cannot be placed solely on the consumer, the campaign was developed with the aim of sharing valuable tips and tricks for the proper handling of paint residues, starting with a crucial step - calculating the precise amount of paint required for a project before venturing to the store. A captivating aspect of the campaign revolved around creative DIY (Do It Yourself) ideas that could be realized with even the smallest

amount of leftover paint, combining the joy of creativity with sustainability. This initiative aimed to captivate our audience by demonstrating that sustainability can be both pleasurable and productive, while simultaneously promoting awareness of the environmental impact of improperly disposed paint.

A legacy of endurance

As we celebrate this remarkable milestone. it is clear that TESSAROL hasn't only stood the test of time; it has thrived. And it continues to stand as a testament to quality, adaptability, the introduction of technical innovations, and a commitment to meeting ever-evolving customer needs. While the visual identity of the TESSAROL brand today is very different from that of a century ago, beneath the surface of its refreshed and modern exterior lies a wealth of experience and tradition. The brand's commitment to excellence, customer satisfaction, environmental consciousness and sustainability remains visible to this day, extending its influence across 24 countries.

Just as TESSAROL grew a century ago under the leadership of Ljudevit Marx companies, KANSAI HELIOS continues to uphold high standards, a passion for innovation, and a drive for continuous improvement and a greener future. Today, TESSAROL is an integral part of KANSAI HELIOS, contributing the widest range of products for the protection and decoration of metal and wood surfaces in the end consumer segment. As we reflect on a century of progress, it's a reminder that what began as a humble endeavour was, indeed, just the beginning. •

Early 1990s

Commitment to quality and ecology: achievement of ISO 9001 certification and introduction of water-based products.

1998

Creation of the Helios Ecology Fund and initiation of partner-oriented environmental projects.

2012

Successful restoration of 80 wells as part of the slovenian Local Wells Revival Project.

2022

Implementation of the Paint Smart campaign to promote the responsible use of paint.



WINNER ON ALL SURFACES

Precision coatings for small industries

Gregor Vodlan, Petra Slabe

In the ever-evolving world of coatings, Helios Refinish has discovered a niche where perfection in colour and surface matching reigns supreme. Started as a side project, GRAVIHEL can now look back on a 7-year success story. The brand stands for a fast and flexible solution for small industries – a brand created to meet the needs of craftsmen, architects, and designers who demand precision in their variety of projects.

magine a hotel owner, who wants to
renovate his hotel with several rooms, where
all the surfaces have to match perfectly in
terms of colour and effect. He wishes to be
assured, that the concrete walls of the rooms

promise, as today the brand is a dominant player in this field of micro-business, offering endless possibilities.

The colouristic system of the brand has been carefully developed in collaboration with

been carefully developed in collaboration with architects and interior designers. Based on their valuable input, each year a GRAVIHEL Colour Guide is launched, offering a great variety of shade possibilities in colour groups. "Chromophobia", "Summer is back" or "Woodn-glass", are just a few examples that provide a glimpse of the inspiration and creativity in colour stories that open completely new possibilities in design. More than half a million shades are currently available in the GRAVIHEL library, which is continuously growing.

The colour variety comes along with several helpful tools, such as the spectrophotometer. This colouristic tool enables the reading of effect shades. Furthermore, customers benefit from a flexible and intuitive weighing system, which can be adapted to their needs. The coverage of the coating can be easily defined by setting the desired ratio of binder to paste – one of the features that lead to cost savings for users.

THE EXTERIOR OF FAST SIDE MALL BERLIN IS COMPLETELY COATED BY GRAVIHEL



INSIGHTS INTO THE COLOUR GUIDE 2024

The remarkable transformation of a side project

The GRAVIHEL system was not a priority project at the time of its launch. It was rather a side project, an innovative vision of a small but enthusiastic team at Helios Refinish.

The team invited partners and customers to share their experiences and identify market needs in the development of the brands product portfolio. The turnover, generated in the launch year, 2016, already exceeded I million euros and set an important path for further developments.

By the end of 2023, 1500 tonnes and a turnover of 8.5 million euros are expected, setting a high bar for the future. And the plans are already on the horizon: the launch of a waterbased line and further increasing the market share.



GRAVIHEL PRODUCTS ARE DESIGNED FOR

THE USAGE ON DIFFERENT SURFACES SUCH

AS METAL, CONCRETE, WOOD, PLASTIC AND

GLASS.









Innovative product expansion

and pillars.

Starting with 6 binders, the product assortment has grown intensively in the past 7 years.

Today, it includes fluorescent pigments, liquid powders, and sprays with special end effects.

Being the "Winner on all surfaces" is no empty

match the wooden bed furniture and the glass

doors of the bathrooms. A unique, attractive

and professional appearance is guaranteed by

the perfect match of all shop floors, hall walls

Especially, craftsmen are challenged to

respond to the versatile trends and needs of the

markets - and they need to be fast and flexible.

coating system with unique solutions and fast

GRAVIHEL, a brand that has addressed the

special needs of this niche segment ever since.

deliveries. In 2016, Helios Refinish has launched

Therefore, they require a fast and flexible



paint, acrylic impregnation, and interior putty from the Helios Spektra range was selected. ZVEZDA FASAKRIL paint and impregnation did the job for the reparation of façade parts. Several products from the ZVEZDA range, such as adhesives and enamels, were used for the ceramic tiles, the fences and various metal structures and surfaces inside and outside. While several ready-made shades were recommended, the most dominant shade, of course, was the red of the Cryena Zyezda football club.

This project demonstrated that the façade can be effectively constructed using metal surfaces. Therefore, we prepared it in shades of red and white, in a system solution with DD PUR AC 2K ML 51 HS and accompanying products. For minor roof repairs and to fill pipes and installations, NEOSTIK foam was used.

The match of a winning team

Stefan Dičić, the director of the Raiko Mitić stadium, is satisfied with the new look of the Red Star Playground: "Upon completion of the reconstruction, the stadium has been given an entirely new look, according to the size of the club. It looks magnificent and ready for the biggest football competition in Europe. On the main court, the most modern hybrid surface was installed. The athletic track and the central lodge were reconstructed, numerous positions were arranged in the complex itself. During the project, we had great support from the entire team from KANSAI HELIOS Serbia. starting with technical support, sales, sales administration, and logistics. We have been in contact every day, and we give great gratitude for their support and patience

throughout the duration of the project. I am satisfied with the opportunities offered by KANSAI HELIOS – especially with the diversity of materials and the experts' knowledge of the employees. I am looking forward to continuing the cooperation in the next phase, which has already begun".

And so do we! In conclusion, like one would say in a soccer game: We played a winning game. There were no red cards in this project. We faced challenges, but its evident that our teamwork and the quality of our products have helped us achieve several goals. We can't wait for the next season. •

or sure, you have visited FC Crvena
Zvezda stadium "Rajko Mitić" aka
"Marakana" at least once or watched
the broadcast of the match from this
stadium on a TV screen. Since 2023, the
stadium is decorated with KANSAI HELIOS
coatings – a renovation project that is worth
looking behind the scenes. It ranks among
the most challenging but also prestigious
projects of KANSAI HELIOS Serbia.

The renovation affected various areas of the stadium. The 'Five Stars' lodge on the west stand has undergone a complete renovation, featuring an interior reminiscent of the world's newest football facilities. Completely new facilities such as offices and a gym were built next to the stadium.

Seamless merge of 50 products and 21,000 kg of paints

For all these works, various paints and product solutions were required for interior and exterior walls, façade surfaces, metal surfaces in the interior and exterior as well as concrete surfaces. In addition to the

fulfilment of the standard requirements, one specific demand has to be met as well: For the very first time, the team of KANSAI HELIOS Serbia joined forces for the reconstruction of a 5,600m² tartan surface along the athletic track around the entire stadium. The track was in a bad state, with mechanical damage necessitating the restoration of surface rigidity.

After several trial tests, with the definition of the application technique and with the selection of special primers, the surface was prepared for applying the finishing coating in the shade RAL 3003 (Rupy-red). Coating and protection of large planters were carried out using the combination of ZVEZDA PALAS waterproofing, ZORKA Impregnation and Acrylic façade paint. Furthermore, SIGNAKOL road marking paint in red and white shades from now on marks the lines for future running competitions, as well as the big sign "Crvena Zvezda" on the track. In total, the project incorporated over 50 different product items in the amount of over 21,000 kg from KANSAI HELIOS

product range. The products have merged seamlessly, from architectural coatings to industrial coatings and adhesives to road marking materials.

Bearing in mind that during such a complex project, all reconstruction positions were covered, the goods were prepared and delivered from three locations: Nova Pazova, Belgrade and Gornji Milanovac, all in the shortest possible time.

A large team of professionals from the contractor performed work for all subject positions. The technical team from KANSAI HELIOS Serbia visited the field regularly to consult and support with detailed education and continuous technical testing on the spot. The great cooperation between both teams was the basis for the successful project.

Premium product mix for highest standards

For the purpose of embellishing and safeguarding the interior wall and ceiling surfaces that are subject to heavy loads, a system comprising of premium dispersive





AN INTERVIEW WITH THE MANAGING DIRECTOR OF KANSAI HELIOS UKRAINE

Moving forward together

Oleksii Ilchuk

KANSAI HELIOS Ukraine celebrated its 90th anniversary in 2023. The company was founded in Cherkasy and has experienced many remarkable moments throughout its history. In this interview, we talk to Managing Director Ivan Zlobov about the challenges the company has faced, its plans for future expansion, and how it works together to achieve success.

r Zlobov, we're delighted to have you for this interview. What are the benefits of KANSAI HELIOS Ukraine for the Group companies? KANSAI HELIOS Ukraine is not only a trading company and representative in Ukraine, but also a modern production site capable of producing specific materials for other Group companies. For example, we have experience in supplying road marking coatings during the "high season" for the Group's customers in Europe. Though we provided support in sharing our production capacity with our Group companies and feel like a valuable member of the global team.

How would you describe the company's identity?

Ultimately, it is the team that achieves the result. From my perspective, KANSAI HELIOS Ukraine represents a group of individuals who share similar values and goals and approach all aspects of the business systematically. Our team values teamwork, especially in challenging times when supporting each other becomes even more important. I have noticed that people are eager to coordinate and move forward together. We just need to make sure we are all on the same page, using all the communication tools at our disposal. It's essential to set a clear direction to our efforts.

What is your role in strengthening this identity?

My personal role is that of a servant leader – to guide and support the team in their endeavours. It's essential to treat

the business you're responsible for as if it were your own. When it comes to managing the business and its operations, I take responsibility for profitability, the resources at my disposal, and the people who have placed their trust in me.

What motivated you to step up and provide strong leadership to the team during challenging times?

When I joined the company, it was clear that the team and I would face both good times and challenges together. Today, it is clear that the team at KANSAI HELIOS Ukraine needed the strongest leadership ever, and I had no right to even think about regrets. The team and the Group Management Board provided continuous support and made me feel valued and indispensable to the team. The difficulties we encountered only served to strengthen us and provide valuable experience for future work.

In today's rapidly changing business environment, innovation is the main key. How do you encourage and support innovation within the company, and where do you see opportunities for further development? Also in Ukraine, there is a constant need for new industrial coatings for metal and wood, as well as consumer architectural coatings. Our collaboration with KANSAI HELIOS and KANSAI PAINT has allowed us to adapt our products and gain a competitive advantage in the local market.



Can you give us some specific examples?

We have localized the production of certain new products, which have attracted the interest of both regular and new customers, especially in the professional industrial segment. Our plant in Cherkasy is the first manufacturer in Ukraine of polyurethane interior coating systems for wood surfaces. This includes transparent and white coatings for wood as well as isocyanates and solvents.

We are currently working on the local production of technological coatings for

use with a wide range of finishing coatings for metal, such as the high-solids epoxy primers. We believe that the innovative products of KANSAI HELIOS and KANSAI PAINT have great potential for further development and localization of their production, especially for the Ukrainian market.

Where do you see opportunities for further development and innovation? Innovations affect not only the quality of the final product, but also the

production processes and the tools used in the process. All production tools are considered part of the company's assets, and we prioritize their modernization, improvement, and maintenance to ensure that they are in proper working conditions. The Group understands and supports these efforts. The first step in improving the working conditions was to modernize the ventilation and air purification system in the workshops. When we release new products or change recipes and raw materials, we often add





new mechanisms to our equipment. These mechanisms, such as additional disinfection and purification of water bases or fine filtration of finished materials, help to improve our operations.

How have you addressed energy challenges and optimized warehouse logistics during the power outages in Ukraine?

The need to conserve and use energy resources efficiently has become more pressing, especially with the ongoing limitations in centralized electricity supply in Ukraine and blackouts. To ensure smooth operations for our enterprise, we have implemented various technical solutions to reduce losses during power outages and promote greater autonomy. All these processes also require some reorganization of our warehousing and logistics services, as the quality of our products depends on ensuring reliable conditions of storage and transportation. The rational use of available warehouse space, the clarity of shipping processes, and the working hours of employees are all important here.

How does KANSAI HELIOS Ukraine ensure compliance with European environmental regulations and maintain product quality?

It is worth noting that from January 1, 2024, all products manufactured and sold by KANSAI HELIOS Ukraine will comply with the Technical Regulation on limiting volatile organic compound emissions. This regulation was developed on the basis of the European Parliament and Council Directive 2004/42/EC. Our products will be the same in terms of safety and quality in both the European Union and Ukraine, regardless of production location or batch. We proactively comply with European regulations and requirements rather than waiting for them to come to us. This means that, as part of a global company, KANSAI HELIOS Ukraine always follows a set of guidelines and principles that enable us to manufacture paint products of the highest quality and safety standards to meet the demands of our valued customers.

What do you think is the secret of the success of a company that has been around for so long and seems to be able to overcome even the toughest crises?

It's important to remember that crises, no matter how severe, are not permanent and can be overcome with time and effort. Our success lies in having the right people in the right places and in consistently addressing fundamental issues to promote continuous learning. We are fortunate to have opportunities to achieve these goals, which are reflected in our key objectives: to retain our team of employees; to increase our production capacity to reach our maximum potential; to maintain our reputation as a reliable, client-oriented coating supplier and to uphold our high standards of quality, environmental responsibility and safety to establish ourselves as a trusted partner.

What are the future prospects for the company and the

With the systematic daily work of our team, the constant support of the Group, and the existing resource base, I am confident that we have a great opportunity to not only maintain our current level of production and sales, but also to increase the value of the company and foster the growth of our team and partners.

Thank you for the interview. •



While KANSAI HELIOS's architectural brands and integrity are well established in Eastern Europe already, the most attractive markets for expanding our business are being identified in the western part of the continent. Running a business that's focused on growth and success means moving forward and always being open to new opportunities.





he importance of expanding into new markets has become significant and the direction clear. From reinventing the Italian market to navigating from Macedonia to Belgium, big steps are being taken towards new and well-known horizons.

Reinventing the Italian market

A quick glance into history shows that Italy is not an unknown territory nor is it a new market, at least not by the definition. The first sales of architectural segment's coatings on the Italian market began in 1986 already and exceeded 4 million euros of yearly turnover by serving over 1000 customers in the 1990s.

Today, Italy is an extremely competitive and fragmented market, with over 600 different coatings producers present. It is also very specific in terms of how the business operations are performed:
Commercial agents act as intermediaries between the manufacturer and either the wholesaler or the distributor. This business practice, which may seem like an extra link in the chain, has its own advantages if done well. Working with established agents with excellent business networks and connections can boost our sales of KANSAI HELIOS' architectural coating's brands on a group level.

Navigating the Italian expansion: plans, progress and partnerships

Our current expansion is being managed by 12 agents in northern, central, and southern Italy. We started the relaunch by targeting professional users in the construction business, offering the thermal insulation assortment. The next step in the market development will be DIY solutions for interior walls and wood surfaces, as well as the private label business. By the end of 2023, we expect a turnover of almost 800,000 euros of turnover, which we plan to double in 2024. KANSAI HELIOS Italy, with its recent warehouse investment, will be the group's local distribution point, which will be a big step forward in terms of distribution and flexibility.

Italy is known for being vibrant, colourful, and bold. We strongly believe that our architectural coating's brands share similar characteristics by being innovative and inspirational. We are excited to take on the challenge of the relaunch and see where the journey takes us.

From Macedonia to Belgium: A journey of partnership and potential

The story of our entry into the Belgian market begins in Macedonia, as it was one of the biggest customers of Helios Macedonia who recommended us to a Belgian construction company. Our cooperation began with the supply of construction and renovation products to a new customer with 25 years of experience in the business. Our products superiority and value for money, when compared to the competition on the market, spurred further advancements. Our

customer recognized the potential of our architectural coating's brands in Belgium, which led to another business opportunity at both ends, distribution.

DF Coatings, a subsidiary of the already well-known DF Building in Brussels, was founded exclusively for distribution purposes of our architectural coatings brand's portfolio in Belgium, with the potential for future expanding into other Benelux markets, the Netherlands, and Luxembourg. The net sales value of 90,000 euros in just 3 months of the cooperation shows great potential for the future.

From construction to retail success in Belgium

Starting off, the newly established company primarily focused on distributing interior and exterior wall paints and impregnations to construction companies, while also targeting the retail businesses. Soon they were able to place our products on the shelves of the largest retail wholesaler in the market, BigMat, part of a European Group, generating an annual turnover of more than 2 billion euros.

Learning from our partners and customers is essential to the successful research and development of our brands, even more so when entering new and unfamiliar markets. Working closely with the distributor, our R&D team has developed two new and competitive products for the Belgian market, special primers with excellent hiding power. We eagerly anticipate the opportunity to exhibit at Batibouw, the foremost construction and renovation trade fair in Belgium, scheduled to be held in Brussels in early 2024.

Goals and growth in architectural coatings

Exciting new chapters are ahead of us, as we focus on new markets growth, identified as one of the strategic goals for Architectural coating's segment. Other goals include revising the distribution networks in existing markets, as well as the market segmentation of our groupwide brand portfolio. •

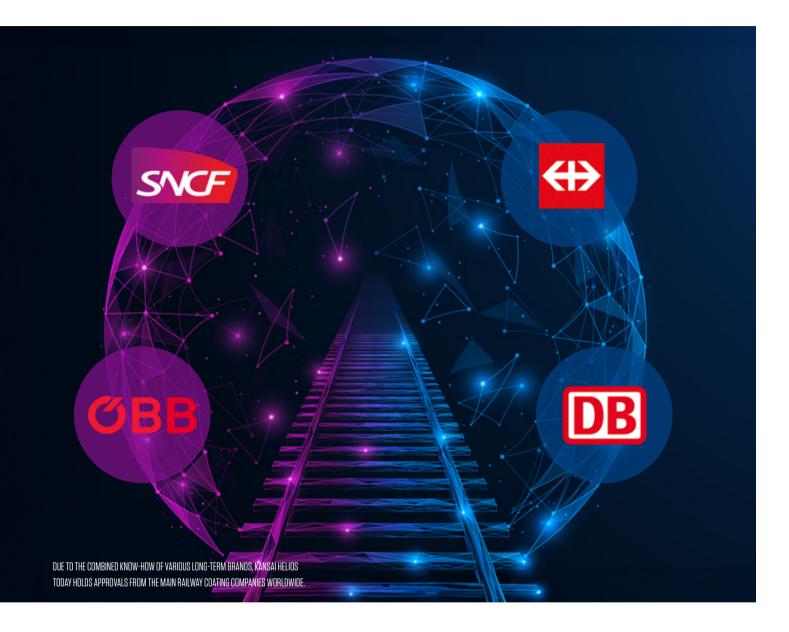
STANDARDS AND CONSOLIDATION

Combined knowhow for the global railway market

Klaus Mölling

From globalization to company-specific technical requirements - the railway coating market is demanding: consolidation among rolling stock manufacturers, new regulations, increasing technical requirements. KANSAI HELIOS draws on the combined know-how of the Group to meet these challenges.





onsolidation and a small number of large players are two distinct characteristics of the railway sector, as well as globalization.

This trend is creating new challenges for the coatings industry in all areas.

Numerous standards and certifications

Coatings producers must comply with a number of standards and certifications issued at different levels: national, European and global. The European rolling stock market is dominated by three large producers. All of them expect their coating suppliers to be certified by all the different European railway operators such as DB, SNCF, ÖBB, SBB, SNCB, etc. Other applicable standards are DIN EN 45545-2 for fire protection on rail vehicles and regulations on adhesive bondability. Adhesive bonding technology is gaining in importance as it is increasingly used to mount even large

vehicle components such as windows, often on the coating, mainly on primers.

With a view to harmonizing all standards and regulations, an ISO standard for railway coatings—liquid and powder—is in preparation. However, it is expected that some operators, e.g. DB, will not adopt the ISO standard without alterations, which means that ISO will be an additional standard to be implemented instead of reducing their number.

PREMIUM COATINGS WITHOUT COMPROMISES: THE RAIL VEHICLE SECTOR IS ONE OF THE MOST DEMANDING INDUSTRIAL AREAS FOR COATING SYSTEMS IN TERMS OF FUNCTIONALITY AND SURFACE AESTHETICS.

Company standards and consolidation

Rolling stock manufacturers have set their own company-specific standards, e.g. DTRF of Alstom. In this context, KANSAI HELIOS provides an interesting example of how consolidation at supplier and customer level are intertwined: In 2021, Alstom bought Bombardier making Alstom by far the largest player in the European market. In 2022, KANSAI HELIOS Wefa and the railway coatings business of the Beckers Group both became part of KANSAI HELIOS. Wefa had been one of the main coatings suppliers of Bombardier but was not DTRF- listed by Alstom after the takeover of Bombardier and was about to lose this customer. Beckers, on the other hand - now KANSAI HELIOS France – has been a long-time supplier of railway coatings to Alstom and holds a DTRF certification. As a result, KANSAI HELIOS Group is DTRF listed, thus has access not only to Alstom but to the important French market as a whole, and can offer the combined know-how of all its members, which is a distinct competitive advantage. Technical issues, qualifications, and validations are now handled by KANSAI HELIOS France.

Meeting decorative and technical requirements

In the context of railway coatings, we generally distinguish between systems for decorative (visible) and for technical (invisible) areas. Technical coatings provide functions such as corrosion

protection, adhesion, elasticity, impact resistance, etc. They are usually applied in one- or two-layer systems. Decorative coatings focus on colour and gloss retention, antigraffiti properties and corrosion protection. Four- or five-layer systems are used for exterior decorative coatings, while two to three layers are applied to interior surfaces.

applied to interior surfaces. Process reliability and optimization are key issues for rolling stock manufacturers. To achieve a perfect finish on all interior and exterior surfaces of a rail vehicle, many different products are needed: liquid and powder coatings, composites, e-coats, gelcoats, adhesives and more. All these products must be compatible with each other to ensure a high level of process reliability. As a system supplier, KANSAI HELIOS aims to offer a complete range of products covering all the materials required for a rail coating task. We have decades of experience in this field and develop products that are perfectly matched. Our expertise is applied to provide technical assistance for all products, assisting our clients in determining the ideal combination for each unique undertaking.

Technical challenges and global availability

Large rolling stock manufacturers such as Alstom attach great

importance to the worldwide availability of the products they supply. Production of various vehicle parts is outsourced to subcontractors around the world, and coatings are expected to be of the same quality on all parts. For coatings producers, local production sites are therefore essential to ensure short response times and to provide local support. This is even more important as the application of coatings is not standardized globally. All processes, from manual to automated, are used. Climatic conditions also vary greatly by season and region, affecting factors such as pot life and drying times. In the rail industry, the climatic conditions exert a greater influence than, for instance, in the automotive industry, where coatings are applied in air-conditioned and dust-free coating booths. This is not feasible for rail vehicles with a length of up to 30 metres long, which are coated in large production halls.

When all the parts and components are finally assembled on the vehicle at the OEM, the finish of the railway coatings is expected to be of the same quality, regardless of the application method of the different components or the country of origin of the component.

At KANSAI HELIOS, we benefit from our global network and expertise to provide solutions for all coating tasks in all regions of the world. •



Besides their sustainability aspect. powder coatings hold a considerable potential in terms of energy efficiency and CO2 reduction. At KANSAI HELIOS we focus on the development of low-temperature powder coating solutions which are not only suitable for smaller industries but also for heavy workpieces.

ll industries are facing the pressure towards sustainable solutions and those who hold on to fossil fuels do not only harm the global environment in the long run but also face a competitive disadvantage in a global market environment already today. The reduction of energy plays an important role in this context - for the environmental protection and for the cost efficiency of a company. The chemical industry, in terms of environmental and climate protection, bears a particularly great responsibility. KANSAI HELIOS has been producing a variety of products for decades, which are directly or indirectly used in various areas for environmental protection. Besides emission reduction and the reduction of VOC emissions, the focus lies on the further development of powder coatings. As they come entirely without solvents, they have been already an environmentally friendly

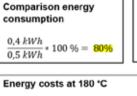
coating solution for many years. However, due to several special characteristics, they are still on the upswing in the upcoming years. At KANSAI HELIOS we are also providing GREEN POWDER, which is based on renewable and recycled raw materials.

The powder coatings industry is experiencing growth due to rising demand in various sectors such as automotive, construction, and furniture.

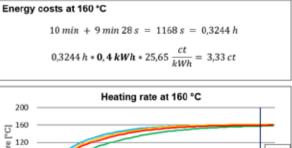
Powder coatings owe their success not least to their environmental friendliness, strong performance, durability, and variety of colours.

Moreover, favourable regulatory frameworks that promote low VOC emissions and environmentally-friendly solutions further aid in propelling the powder coating industry forward. The side of coating manufacturers is investing in research and development, as well as embracing innovative methods, leading

POWDER COATING ENABLES A SIGNIFICANT REDUCTION OF CO, EMISSIONS



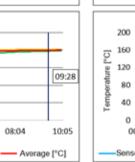




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Sensor 1 [°C] — Sensor 3 [°C] — Sensor 6 [°C]

Time [Minutes: Seconds]



 $10 \, min + 6 \, min \, 40 \, s = 1000 \, s = 0,2778 \, h$ $0,2778 h * 0,5 kWh * 25,65 \frac{ct}{kWh} = 3,57 ct$ Heating rate at 180 °C

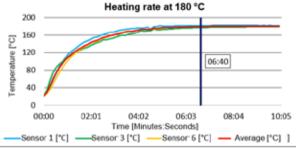


Figure 7: Heating rate at 160°C (own illustration)

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Figure 8: Heating rate at 180°C (own illustration)

to a broader range of products with complementary attributes, catering to the market's energy requirements.

Low-temperature powder coatings

Currently, the standard powder coatings curing conditions are 10 minutes at 180-200°C and approximately 95% of the powder coating ovens are gas ovens. Previously, there was a limited possibility for a comprehensive product portfolio for lower curing conditions. Technological advancements are fostering the creation of innovative powder coatings that can be cured at lower temperatures. These low-temperature powder coating systems can reduce the energy consumption by 20% as the curing is effective already at 150°C. Additionally, the productivity can be increased as an up to 25% higher application speed is possible compared to standard qualities.

These new coating solutions are specifically designed for storage and transportation but can be used in a wide range of industries. They are also suitable for heavy workpieces that historically could not be coated due to the required object temperatures. Thus, low-temperature powder coatings ensure a consistent level of processing and quality in powder coating without any compromises.

Pow(d)erful energy saving solutions

Apart from the right coating solution, there are several ways of energy saving potential. Exhaust air energy from the curing oven can be utilized for heating in pre-treatment processes or within the facility itself. Furthermore, the incorporation of an infrared oven enhances efficiency, enabling quicker and more effective heating, particularly during partial curing phases. The utilization of an optimized oven and temperature control systems, coupled with meticulous process planning that takes into account part geometry, plays a significant role in promoting energy conservation. Measures such as avoiding unnecessary switch-on and switch-off processes and minimizing heat loss, for instance, by elevating the oven and feeding it from below, further enhance the overall energysaving initiatives.

Reduction of the CO₂ emissions

The requirement of less energy during the curing process leads to a significant reduction of the CO2 emissions, further supported by minimizing VOCs, improving application efficiency, and extending the lifespan of coated products.

Conclusion and outlook

Low-temperature powder coatings are the technology of the future. Sustainability will be a driver for further development in this direction, reducing CO2 emissions and thus significantly reducing process costs. Due to our backward integration of own powder resin production, we at KANSAI HELIOS will focus on this topic to confirm our innovation leadership in powder coatings.

In addition, it is always important to analyse the application process from end-to-end to identify key opportunities for saving energy and CO2, lower curing temperatures are only one aspect. Our technical expertise will enable our valued customers to improve their performance to remain highly innovative and competitive. •

UV-LED TECHNOLOGY

Shining a light on sustainable wood coatings

Leon Ostanek Jurina

The use of ultraviolet light-emitting diodes (UV-LEDs) is becoming increasingly important throughout the radiation curing technology industry. Even the wood coatings industry is not left in the dark. Advances in UV-LED technology offer huge advantages over traditional curing methods and pave the way for a more sustainable future. In this article, we focus the spotlight on a significant trend for sustainable wood coating.



oatings, inks, OPVs and adhesives are radiation curing materials. Traditionally, they have been subjected to UV curing using mercury (Hg) or gallium-doped mercury (Ga) arc-lamps to turn specifically formulated liquids into solid. However, with the rise of UV-LEDs, the landscape of radiation curing technology for industrial use is rapidly evolving. This transition involves not only the adoption of novel technologies, but also the development of a more sustainable, efficacious, and environmentally conscious approach to the utilization and application of wood coatings.

Environmentally friendly and versatile

The reason for the rise of UV-LEDs

in the wood coatings industry is multifaceted. Firstly, the LEDs are a clean technology. Unlike their mercury-based predecessors, UV-LEDs don't emit harmful UV-C emissions or ozone, making them environmentally and health friendly. They also don't contain toxic mercury, responding to the global call for more sustainable and less hazardous technologies. In response to the increasing environmental challenges and the industry demand for efficient solutions, the development of UV-LED coatings became necessary. UV-LEDs promise low energy consumption, resulting in long-term cost savings and a reduced carbon footprint.

In addition to their environmental benefits, UV-LEDs are highly versatile. These LEDs maintain a consistent light output







IN THE KANSAI HELIOS WOOD COATINGS LABORATORIES, WE ARE EQUIPPED WITH NEW UV-LED TECHNOLOGY TO TEST AND FURTHER DEVELOP OUR PRODUCTS FOR THE NEW CHALLENGES OF TOMORROW

YOU CAN EXPLORE THE PROCESS IN OUR LATEST VIDEO BY SCANNING THE OR CODE:



and have a very long-life expectancy, ensuring uninterrupted, high-quality results. Since they don't produce excessive heat, they're also great for substrates with high heat resistance (like pine), enabling a broader range of uses.

UV-LED technology in the spotlight of the industry

UV-LED technology isn't just a passing trend in R&D labs. It's very rapidly gaining importance and relevance in the wood coatings industry.

One example of the practice is IKEA, who has recognized the potential of the UV-LED technology. In a move towards sustainability, the global furniture giant mandates that all new UV lines for wood coatings from 2026 onwards should be UV-LED based. Yet, this includes only the putties and base coats. This move, combined with IKEA's push for 50% "better carbon" raw materials in coatings by 2030, reflects an industry-wide push for greener practices.

The market demand is increasingly focused on the implementation of UV-LED technology. Many existing UV lines are being retrofitted with LED lamps in the hope of achieving a more sustainable and environmentally friendly production, while keeping operation expenses even lower than before the switch.

Wood coatings customers are following the trend of moving from UV to UV-LED. Some of them are still in the process of converting from mercury-based UV technology to UV-LED technology, while others are already using UV-LED equipment. With all the benefits that UV-LED technology brings to the table, some companies are even changing the coating system completely. They are, for example, switching from nitrocellulose coatings to UV-LED coatings.

Prepared for the most demanding requirements

KANSAI HELIOS follows the trends in the UV curing industry. In addition to the standard UV product range, the R&D department has developed a special wood coating assortment. This new product line, UVEHEL LED, is designed for UV-LED curing. The photochemical curing process of UV-LED coatings starts, when they are exposed to ultraviolet light emitted from LED modules. Clear coatings are typically

cured using 365 nm or 395 nm, while white coatings are cured using 395 nm or 405 nm.

The UV-LED equipment in our laboratories can use different UV-LED modules: 365, 395 and 405 nm. With the 365 nm module, we can tackle even the most challenging tasks – the development of topcoats suitable for curing only under UV-LED. In today's market, this is one of the biggest challenges.

The world is moving towards a more sustainable and environmentally friendly approach, and we are convinced that the demand for UV-LED materials will further increase in the future! This is why we are continuing our R&D work to further strengthen our knowledge in this field and share it with our customers and end users. Stay tuned for further developments – we will not leave you in the dark. •

UV CURING VERSUS TRADITIONAL COATING TECHNOLOGY

PHYSICAL DRYING

Solvent evaporation
Phisycal drying
No crosslinking

Crosslinking produces a rigid network

Heat

UV - light





INDUSTRIAL COATING SYSTEMS



PERFECTLY ALIGNED FOR HIGHEST SURFACE PROTECTION AND OPTIMAL FINISH







FOUNDATIONS

"The best preparation for tomorrow is doing your best today."

TRIPLE T

The compliance components

Maša Bantan Marot

Transformation, Trust, and Transparency – in short Triple T – are crucial components of compliance in today's dynamic business landscape. They enable companies to adapt to the evolving nature of the compliance function. Combining these elements, it is not just a pathway to success, it is a roadmap to sustainable growth and innovation.

mbracing compliance TRANSFORMATION Challenging times often act as catalysts for transformation. Companies across various industries are constantly adapting to evolving rules and standards. This trend is giving rise to compliance transformation, an ongoing process that ensures organizations remain compliant with current regulations while also positioning themselves to adapt to future changes. While compliance remains a fundamental aspect of business operations, the growing emphasis on importance of ethics and integrity are driven by a combination of societal, economic, and environmental factors.

Companies that not only adhere to laws and regulations but also prioritize ethical behaviour position themselves for greater success, resilience, and positive contributions to society. In this evolving landscape, doing the right thing is no longer just an option – it is an imperative for sustainable growth and relevance in the business world.

Creating a culture of TRUST

Corporate culture sets the tone for ethical behaviour and establishes a foundation

for ethical decision-making. A positive corporate culture, characterized by open communication, trust, and transparency, not only promotes ethical behaviour but also leads to improved outcomes.

The LRN Benchmark of Ethical Culture

(2021)¹ report reveals that corporate culture has a significant impact on business performance. The report found out that companies with well-established ethical culture, perform the best across all traditional business measures. Additionally, the report suggests that cultures characterized by trust and organizational justice empower employees to share their ideas and speak out about observed ethical misconduct. Thus, employees in companies with healthy ethical cultures are more likely to report their concerns to their immediate manager. This is underpinned by their confidence that such concerns will be fully heard, considered, and properly managed. According to the report, a culture of trust is also strongly interconnected with higher employee loyalty as they feel more empowered in their respective positions.

Moreover, a strong ethical culture encourages accountability, ensuring that employees are responsible for their actions. And lastly, when employees understand the value of ethics, they engage in behaviour that enhances the organization's image, building trust and credibility with stakeholders.

Building trust with TRANSPARENCY

Companies that prioritize transparency are better equipped to navigate the complex regulatory environment, build trust with stakeholders, and ensure long-term success in an ever-evolving global economy.

Transparency and accurate data play a crucial role in the effectiveness of complying with international laws and regulations on export controls and international economic sanctions. It allows companies to assess potential risk and vulnerabilities in their supply chains and business operation, while help to prevent money laundering and violations of trade control laws. In practice, this entails ensuring that companies only engage with trustworthy partners who conduct their business in a law-abiding manner. Additionally, it encompasses diligent oversight that exported goods and technologies are used for their intended purpose and safeguarding against their







AS PART OF KANSAI HELIOS'S ONGOING COMMITMENT TO ENHANCING COMPLIANCE AND INTEGRITY, THE GROUP EVERY YEAR OBSERVES NOVEMBER AS THE COMPLIANCE AND INTEGRITY MONTH. THE AIM OF THE INITIATIVE IS TO RAISE THE AWARENESS OF COMPLIANCE AND INTEGRITY, BOTH THROUGH CONTINUOUS COMMUNICATION FROM MANAGEMENT, AND THROUGH INDEPENDENT AND PROACTIVE EFFORTS OF ALL EMPLOYEES. COMPLIANCE AND INTEGRITY MONTH COMPLEMENTS GROUP'S COMPLIANCE PROGRAM FOR THE YEAR AND FORMALLY LAUNCHES REFRESHED CONDUCT GUIDELINES.

Similarly, maintaining transparent data is more critical than ever, particularly in the realms of the new Corporate Sustainability Reporting Directive (CSRD).

In conclusion, the alignment of Transformation, Trust, and Transparency is not just a pathway to success. It represents a roadmap for companies to thrive, grow and innovate in an everchanging business world. By embracing compliance transformation, fostering a culture of trust and ethics, and prioritizing transparent data practices, companies can not only meet their legal obligations but also contribute positively to society and secure their positions as ethical and sustainable entities. DOING THE RIGHT THING IS AN IMPERATIVE FOR SUSTAINABLE GROWTH AND RELEVANCE IN THE BUSINESS WORLD.

THE IMPORTANCE OF ETHICAL CULTURE FOR COMPANIES:

Companies with the strongest ethical cultures outperform by **40%** across all measures of business performance.

Employees in organizations with healthy ethical cultures are **1.8** × more likely to report their concerns to their immediate manager.

An employee's desire to stay with their company is predicted by their organization having a culture of trust of **81%**, purpose-driven and ethical business practices

82%, and a sense of belonging

and inclusion 83%.

When trust or organizational justice is high, employees are **8 x** more likely to observe ethical standards upheld when under pressure.

Source: LRN Benchmark of Ethical Culture, 2021 2

^{1,2,} LRN Corporation. (October 2021). Benchmark of Ethical Culture Benchmark: How ethical behaviour drives business performance in the new world. https://lrn.com/resources/ethical-culture/benchmark-report



MR. MITSURU MASUNAGA EXECUTIVE VICE PRESIDENT, EXECUTIVE DIRECTOR

A POSITIVE CORPORATE CULTURE. **CHARACTERIZED BY OPEN** COMMUNICATION, TRUST, AND TRANSPARENCY, NOT ONLY PROMOTES ETHICAL BEHAVIOUR **BUT ALSO LEADS TO IMPROVED** OUTCOMES.

In what ways is the compliance transformation evident in the **KANSAI HELIOS Compliance** Program?

At KANSAI HELIOS, our common aim is to design excellence not only by acting legally but also by doing what is right. This commitment lies at the heart of our Compliance Program that goes by the motto "Excelling at doing what is right". The program is built upon userfriendly framework of key documents designed to assist our employees when facing difficult decisions or challenges. Furthermore, we have taken significant efforts in enhancing our employees' understanding of their roles and responsibilities through the implementation of a new training program. This program is tailored for different groups of managers and employees and is reinforced with a strong tone and clear message from our Group Management Board Members. To truly embed the right behaviors, compliance function utilizes a variety of channels and awareness activities

to directly reinforce confidence in, and adherence to, appropriate corporate values.

How does KANSAI HELIOS actively foster a culture of trust within the organization?

We foster a culture of open and honest communication, where anyone can ask questions and raise concerns if something does not feel right. At KANSAI HELIOS, we also believe that is essential that employees know where to go if they encounter any issues. For that reason, we have replaced our Whistleblowing Policy with the Speak Up Policy and transform the culture of feedback into a system that will serve as an early warning system for potential issues in the company. In this regard, we encourage our employees that if they see that "something that's wrong" they should "do what's right" and "Speak Up". We aim to build trust as a primary foundation of our Compliance Program by actively listening to our employees.

In which way have new technologies increased the transparency of data and why is this important?

At KANSAI HELIOS, we have embraced new technologies to enhance transparency and accuracy, particularly in the context of our Sanction Compliance Program and Know Your Customer (KYC) process. New technologies simplify processes, increase the transparency of our data and enable us real-time monitoring of transactions and activities, which is essential for promptly identifying and addressing any suspicious or non-compliant behaviour. This is particularly important in the context of ensuring that sanctions regimes are not circumvented and compliance with a rapidly evolving framework of international regulations, where swift responses can mitigate risks.

Thank you for the interview. •

FMPOWERING HUMAN WORKFORGE

A(I) game changer

for workplace safety Angelika Brnada Like a double-edged sword, the advent of Artificial Intelligence (AI) in Occupational Health Safety dances on the delicate balance between the blessings of innovation and the lurking shadows of potential threats, shaping a future where the promise of enhanced well-being in the workplace collides with the formidable challenges of ethical considerations and unintended consequences. 766.71

WHILE AI STREAMLINES PROCESSES AND ENHANCES EFFICIENCY, IT IS THE INVALUABLE HUMAN EXPERTISE THAT REMAINS IRREPLACEABLE IN THE INTRICATE TAPESTRY OF WORKPLACE SAFETY.

t KANSAI HELIOS, our journey into the realms of Artificial Intelligence (Al) and cutting-edge technologies is not just a professional endeavour, it's a testament to our unwavering commitment to safety, innovation, and the well-being of our workforce. Al is becoming more than an ally to our safety professionals; it is becoming a dynamic force, offering realtime insights, data analysis, and customised recommendations to identify and mitigate potential risks. Yet, we acknowledge that while AI streamlines processes and enhances efficiency, it is the invaluable human expertise that remains irreplaceable in the intricate tapestry of workplace safety.

Our safety professionals play an indispensable role in interpreting Algenerated data, making informed decisions and developing strategies to address emerging risks. Beyond data analysis, they shoulder the responsibility for ensuring adherence to safety protocols, maintaining a secure work environment, and keeping training programmes up to date. The idea is that artificial intelligence acts as a useful aid, enhancing the capabilities of our human workforce in the pursuit of security excellence.

The Al transformation

Moreover, the impact of Al extends far beyond our safety professionals, seamlessly weaving its way into various work processes From collaborative robots ("cobots") and wearable technologies on production lines to assistive tablets and chatbots in our various environments, the reach of Al is transformative. The integration of smart Personal Protective Equipment (PPE) and algorithmic processes in our Human Resource (HR) applications,

including people analytics and gamification, demonstrates Al's multifaceted contribution to the evolving landscape of our working environments. As a symbiotic partner in our workplace, Al is working alongside human skills to usher in a new era of collaborative efficiency and safety.

Navigating the unique landscape of our KANSAI HELIOS production sites, we find ourselves at the crossroads of demographic shifts and evolving workforce dynamics. In order to address the challenges posed by an ageing population and the integration of foreign workers, we acknowledge the necessity of adapting and innovating.

Workforce development and training

In this dynamic environment, our strategic focus for the future is on workforce development and training. Committed to elevating the skills and knowledge base of our teams, we embrace cutting-edge technologies. Specifically, the incorporation of e-learning platforms and Virtual Reality (VR) stands out as a transformative approach to revolutionising safety training and emergency response methods. This immersive technology will enable our workers to practice handling hazardous situations in a controlled environment, enhancing their preparedness.

In response to recent changes in EU legislation on the maximum weight that can be lifted per employee, we are actively exploring the integration of support tools to enhance the well-being of our workforce. One notable innovation is the Exoskeleton.

Exoskeletons for lifting weights, also known as "exosuits" or "powered exoskeletons," represent a groundbreaking solution designed to augment human strength and endurance during lifting or



repetitive tasks. Particularly beneficial in our industries such as construction, logistics, and manufacturing, exoskeletons prioritise safety. Equipped with features such as emergency stop buttons and fail-safe mechanisms, they ensure the well-being of the wearer. Some models even have sensors to detect potential collisions or obstacles.

Personalized AI technology

In our commitment to the safety and wellbeing of our workforce, especially for those who work alone, we've embraced cuttingedge technology to enhance our safety measures. Our introduction of an Al-driven dead man's switch is a testament to this commitment, personalised to the unique needs of our team members.

This intelligent device, powered by Artificial Intelligence, acts as a watchful guardian, constantly monitoring the



activities of our lone workers. It goes beyond a traditional dead man's switch by leveraging Al to detect unusual patterns or potential emergencies, adding an extra layer of protection.

In the unfortunate event of an emergency where a worker becomes unresponsive, the Al-powered dead man's switch acts quickly. It autonomously triggers alarms, notifies designated contacts or activates emergency protocols. This individualized approach to our safety measures ensures that our loan workers have a reliable and responsive safety net, thereby demonstrating our utmost commitment to their well-being.

ESG focus

As we embrace Al in safety reporting and compliance, our commitment to innovation extends to the digitalisation of ESG data. Beyond transparency and reliability, our focus includes environmental considerations, occupational health and safety, and incident reporting and investigation.

In our unwavering commitment to prioritise the safety and well-being of our workforce, we have strategically embraced innovative technologies to propel us toward our ambitious safety goals. Our vision includes achieving a Lost Time Injury Frequency less than 1.5 by 2030 (ILO), and every technological advancement is a crucial component of this journey.

I am genuinely enthusiastic about exploring and implementing these cuttingedge solutions. The prospect of integrating innovative technologies such as Al-driven safety measures, VR-enhanced training methods, and advanced devices such as the dead man's switch excites me. It's not just about meeting safety goals; it's an opportunity to set new standards and create a workplace that embraces the forefront of technological advances for the well-being of our team. I look forward to witnessing the positive impact these solutions will undoubtedly have on our safety initiatives and the overall working environment at KANSAI HELIOS Group. •



Bridging technology and awareness in IT security

Tonči Cera

When it comes to IT security, technology alone isn't the answer. The human factor is equally important! By ensuring that users are aware, companies create a multi-faceted defence strategy, that combines the power of technological tools with informed and vigilant users. The synergy between aware users and advanced security systems is essential for a robust defence against cyber threats.





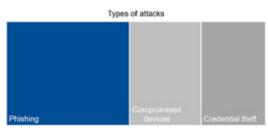
10.5 trillion EUR annual costs in 2025

4.5 million EUR AVERAGE COSTS of

3,4 billion daily SPAM EMAILS

493,33 trillion

attacks in 2022



CYBERATTACKS ARE THREATENING THE PRIVACY, FINANCIAL SECURITY, AND EVEN THE PHYSICAL SAFETY OF INDIVIDUALS AND ORGANIZATIONS.



BY ADHERING TO SEVERAL BASIC SECURITY STANDARDS, IT IS POSSIBLE TO PROTECT AGAINST THE MAJORITY OF ATTACKS.

n today's interconnected world, information technology (IT) plays a central role in the functioning of businesses, governments, and individuals. The vast amount of data generated and exchanged electronically has made IT security a paramount concern.

The digital age has brought remarkable advances, but with these conveniences come vulnerabilities. The growth of remote working, cloud computing, and the Internet of Things (IoT) has made data more accessible than ever before. Cyber attacks have become more sophisticated. As a result, organizations of all sizes and in all industries around the globe feel the urgency and pressure to protect and defend against increasingly sophisticated attacks.

Protection is a priority

Making cyber security a priority has many reasons. Basically, they can be summarized in three main points:

- I. Cybercrime statistics: cyber attacks are on the rise, with global losses reaching trillions of dollars annually. Ransomware attacks, data breaches, and identity theft are just some of the many ways cybercriminals exploit vulnerabilities in IT systems.
- 2. Data protection regulations: Governments around the world are implementing strict data protection regulations, such as GDPR (General Data Protection Regulation) in the European Union and CCPA in California, to ensure that organizations prioritize the protection of sensitive information.
- **3. Reputation and trust:** A security breach can have a lasting impact on an organization's reputation and trustworthiness. Customers are more likely to do business with

companies that prioritize their data security.

As we examine the numerous it is imperative to note that a significant proportion of successful cyber attacks can be prevented by implementing a few fundamental security hygiene practices.

At KANSAI HELIOS, we follow the best practices and guidelines, such cybersecurity rules came into force in increasing digitization and an evolving

Phishing emails on the rise

Phishing e-mails are currently one of the most popular methods used by cyber criminals. Occasionally, some of these emails may evade our email scanning filters and end up in your mailbox. Phishing emails are malicious attempts to trick you into revealing sensitive information such as login credentials, personal data, or financial information. These fraudulent emails often appear convincing and may even seem to come from trusted sources. We want to make sure that you are aware of the telltale signs of phishing emails to help you stay protected.

It is important to be cautious of unsolicited emails, particularly from unfamiliar senders, as cybercriminals typically pose as legitimate organizations to gain trust. Verify the sender's email address, especially avoiding free or suspicious domains, even if the email appears to be from a known organization. Watch out for spelling and grammatical errors in emails, as these may indicate phishing attempts. Refrain from clicking on unexpected or urgent

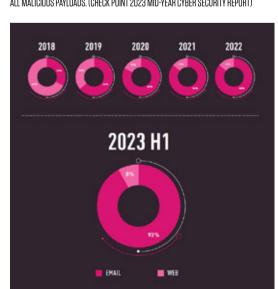
service provider to protect others from potential scams.

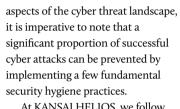
IT Security is no longer an option but a necessity

The integration of technology into business is a double-edged sword – on the one hand, it offers efficiency and innovation. On the other hand, it exposes companies to cyber threats, making IT security an indispensable part of the corporate strategy. The increasing number and sophistication of online assaults make it crucial for individuals and entities to prioritize safeguarding their online possessions.

By adopting best practices, staying informed about emerging threats, and investing in cybersecurity measures, we can collectively navigate the digital frontier with greater confidence and resilience against the evolving landscape of cyber threats. The emergence of new technologies (Al, ChatGPT) will create more challenges for ensuring a secure IT environment.

EMAIL REMAINS THE PRIMARY VEHICLE FOR LAUNCHING ATTACKS, DELIVERING 92% OF ALL MALICIOUS PAYLOADS. (CHECK POINT 2023 MID-YEAR CYBER SECURITY REPORT)





as the European Union Agency for Cybersecurity (ENISA) NIS2. The EU 2023. They modernized the existing legal framework to keep up with cybersecurity threat landscape.

> links, and hover over them to check the actual URL. Avoid sharing personal information via email, as legitimate organizations don't request sensitive details this way. Ensure online interactions occur on secure sites with "https://" and a padlock icon. Exercise caution with email attachments, especially if unexpected, as they could contain malware. Report any suspicious emails to your IT department or

> > In the digital age, security is everyone's responsibility. •



he year 2022 marked a significant chapter in the evolution of the KANSAI HELIOS Group, with the addition of two German companies, CWS Powder Coatings and ATCOAT. As they commenced on their journey as part of this international conglomerate, challenges, and opportunities awaited, setting the stage for an inspiring transformation. Let's delve into the experiences and aspirations.







Peter, please explain how you experienced the joining process?

The process was carried out in a very efficient manner, avoiding major uncertainties for the people involved. The overall objective of KANSAI HELIOS as the new owner was communicated from the very beginning, ensuring that CWS would continue its successful business and the opportunity to strengthen the production site in Düren. The core values of KANSAI HELIOS fit perfectly with the CWS way of doing business. Priority during the whole process were the people at CWS.

How do you feel after joining KANSAI HELIOS?

The first few months of post-merger activities have been very intense. Most important was the very warm welcome of CWS from all the people at KANSAI HELIOS. While things are on the way to be aligned, we as CWS discover more and more opportunities for growth and productivity improvements that would not have been possible as a stand-alone company. As management has kept its word during the post-merger process to strengthen the position of CWS, the entire CWS team is very positive about the future.

What do you think are the areas that CWS will contribute most to the group?

CWS is a growth-driven company with high competitiveness. Its success is based on customer focus and professionalism,

CHARTING A NEW COURSE AND EXPLORING DYNAMICS OF INTEGRATION

Interview with Peter Frese – Managing Director CWS Powder Coatings GmbH

both also values of the group. I am convinced we will contribute to the KANSAI HELIOS group in this respect. Moreover, the structured approach through professional project management in terms of process and efficiency improvement as well as digitalization and automatization will be an additional asset provided by CWS.

Please share your expectations to maximize the benefits of CWS joining the group.

Our expectations are very high. In the short term, we should be able to grow since we will have better access to the markets in Europe and globally with our existing portfolio. On top, the access to the largest European coatings market (Germany and Benelux) with Kansai Paint technologies will generate further opportunities. The doors are wide open for the "full system supplier approach". The innovative power of the group is enormous, and we will use it as much and as fast as possible. And we expect support from the group in strategic discussions on how to take advantage of the new set-up to build a strong organization and to grow in key segments with high profitability.

Any other positive message you would like to share with everyone?

Personally, I am very excited about the future. The opportunities I see are becoming clearer to the whole CWS team – and they are huge compared to what was possible as a stand-alone company.







FORGING FUTURE FRONTIERS

DISCOVERING SYNERGIES FOR THE EXPANSION OF INNOVATION

Interview with Monika Schneider – Managing Director ATCOAT GmbH







What does it mean for ATCOAT being part of a new group?

Being part of a large group like KANSAI HELIOS opens completely new opportunities for us. This means even beyond Europe. It makes it easier to deal with the increasing bureaucratic and regulatory challenges in the chemical industry. We particularly appreciate the fact that we can join forces with Helios Resins, one of the major resin manufacturers in Europe. We complement each other perfectly, and we were already able to demonstrate that at the European Coatings Show in Nürnberg in 2023.

Can you give an overview of ATCOAT's contribution to the group? What are the company's main strengths?

ATCOAT has the expertise and technical capabilities to produce powder polyesters, which is a new division in the KANSAI HELIOS Group. This not only increases vertical integration in the powder coatings sector, but also provides greater security of supply. In addition, ATCOAT is known as a reliable and flexible resin producer, especially in Germany, Switzerland, Austria, and the Scandinavian countries. We could therefore act as a business intermediary for Helios Resins for these customers, and because of our smaller reactors, sometimes with special equipment, we could also be a partner for Helios Resins for specific tasks.

How does ATCOAT approach innovation and staying ahead in the rapidly evolving resin landscape?

As a small team, ATCOAT has always focused on technology and innovation. We intensively cooperate with selected customers in different



sectors, and we work very closely with R&D and production. This enables us to respond very quickly to our customers' requests. As a member of KANSAI HELIOS, we are now in a global network and the cooperation with Helios Resins has given us much better and faster access to market information and trends.

What are the main priorities and objectives for the company in the next two years?

Our priority is not only to continue to reliably supply our existing customers with resins, but also to continue our strategy of expanding our customer base and product portfolio to include high-quality resins. Our ambition will be to remain a valued and reliable resin supplier within the KANSAI HELIOS Group alongside Helios Resins. In this area, we are particularly looking forward to working with the internal powder coating manufacturers – in terms of innovations, as well as the fruitful cooperation with our Japanese colleagues of Kansai Paint.

Any other positive message you would like to pass on to everyone?

I would like to thank the KANSAI HELIOS Group team for the open and warm welcome. A special thank, of course, goes to all the colleagues of Helios Resins. Our collaboration and the awareness of being part of a strong group open new horizons and offer new perspectives that provide a sustainable framework for ATCOAT.

Global collaboration at the heart of our annual R&D Summit

Mateja Smodiš, Tina Razboršek

In the dynamic chemical industry, research and development emerge as the transformative path paving the way for innovation and progress. At KANSAI HELIOS, a focus on R&D and strategic investments in this area strengthens our adaptability and ensure to stay ahead in an ever-evolving market. Our annual R&D summit reflects our collective expertise and strengths, positioning us as pioneers and innovation drivers. In this article, we invite you to journey through the latest achievements in R&D.

s technological advancements and environmental considerations continue to reshape market demands, the significance of interconnecting with all R&D specialists within the entire group becomes paramount. Bringing these diverse expertise to one table not only enhances the collaborative synergy but also fosters a holistic approach to problem-solving, ensuring that our collective efforts yield solutions that are not only cuttingedge in performance but also address sustainability challenges comprehensively. This interconnected collaboration serves as the catalyst for transformative growth, reinforcing the understanding that the journey becomes richer and more impactful when undertaken collectively.

Crossing Borders: Innovations from Europe and Japan

Our latest R&D summit in Bohinjska Bistrica, Slovenia, in November 2023 illustrates the growing connections and



interactions among our R&D experts in the countries, including colleagues from Kansai Paint Japan, and across all segments. This demonstrates our unwavering commitment to pioneering industry advancements and underscores the efficacy of collaborating to develop cutting-edge paint and coating solutions that are capable of meeting the future requirements of our esteemed customers.

Through our close collaboration and network with Kansai Paint Japan, we can

enhance our coating technologies on a global scale while our close cooperation at the local level, maintaining direct contact with our customers, remains personal and service oriented. Innovation and sustainability go hand in hand in this context and this was made crystal clear across all presentations and discussions at the summit. These included sustainable solutions in line with the EU Green Deal, such as developments in photovoltaics and advanced bicycle coating systems.

THE AIM OF THIS, AND OTHER SUMMITS WITHIN THE KANSAI HELIOS GROUP, IS TO CREATE AN ENVIRONMENT IN WHICH THE COMPANY CAN NOT ONLY GROW, BUT ALSO DEVELOP BEYOND CONVENTIONAL BOUNDARIES.





The summit served as a catalyst for a collaborative encounter, revealing the current state of research and development, resin advancements, and initiatives to boost the effectiveness of development processes.

Key advances

Major breakthroughs were presented by the Analytics, Resins and Coatings departments, with new products characterized by reduced carbon footprint and improved final coating properties. The team also looked at advances in composite resins that meet the rigorous European Railway Standard for fire safety, demonstrating the Group's expertise beyond coatings. Innovations in fire-resistant materials, including intumescent fire-resistant gelcoat and unsaturated polyester resin, were also discussed, highlighting the shift towards more environmentally friendly alternatives in flame retardants.

Sustainability and the role of R&DAt the summit's round table discussion

entitled "Sustainability as a Competitive Advantage: The Role of R&D" the dialogues focused on aligning sustainability with broader business objectives, balancing profitability, and environmental responsibility. Speakers engaged in discussions on strategies for adapting to industry changes and establishing a responsive R&D framework. The goal: an even quicker and more effective respond to changes in the industry, marked demands and emerging trends.

"We will continuously focus on our ability to flexibly adjust research priorities, allocate resources efficiently, and stay attuned to evolving technologies and customer needs in various industries. Especially for us as a system supplier, it is crucial for maintaining competitiveness and ensuring that innovative solutions are developed promptly to address dynamic challenges and opportunities in the business environment", says Karla Roncevic, Group Director R&D Coatings.

The round table also provided a forum for discussions regarding a substantial upcoming investment, the majority of which is allocated to initiatives focused on Environmental, Social, and Governance (ESG) considerations. KANSAI HELIOS' strategic focus includes renewable energy, optimization strategies, and proactively addressing evolving customer needs, envisioning a future characterized by automated, traceable production processes.

The discussion underlined the centrality of strategic R&D investment, with Yoshiro Tanaka, executive director, emphasizing the need for strategic thinking and Uroš Primožič, Group Director Purchasing, accentuating the key role of procurement in reducing carbon footprints. The discussion emphasized KANSAI HELIOS' unwavering commitment to environmental protection, creativity, and adept acclimatization to changing market conditions.

CELEBRATING INNOVATIONS FOR THE FUTURE

A consistent commitment to sustainability and innovation has proven to be a decisive catalyst for differentiation. The tangible result of this dedication is underscored by ongoing R&D innovations. Notably, our R&D Summit not only serves as a hub for fostering innovation, but also annually recognizes exceptional contributions by awarding internal innovation awards. This acknowledgement is made possible by the unwavering support and motivation extended by our colleagues, thereby fostering a culture that champions and recognizes advancements.

• The analytical and metal coatings team in Slovenia has implemented a ground-breaking method to determine photo-oxidation value. This method enables accurate and comparative assessment of diverse coating systems. It provides a reliable estimate of coating performance in terms of photostability and weathering resistance. This capability is of particular significance for exterior objects, where determining the life of a coating is of paramount importance. Helios TBLUS d.o.o. received a silver award for this innovation.

- · Besides their many advantages, characteristics and applications, powder coatings offer a high potential for excellent corrosion resistance. But did you know, powder also plays a crucial role in safeguarding pipelines? The powder coatings experts at CWS Powder Coatings in Germany developed FBE (Fusion Boned Epoxy), a specialized product category of highly reactive epoxy-based powder coatings renowned for their superior corrosion resistance. Achieving exceptional adhesion to both the substrate and the intercoat layers is a critical attribute, requiring a careful combination of different epoxy fibres, accelerators, and crosslinkers. This achievement was awarded as well with a silver medal.
- This year's Gold Award was awarded to the team of Helios Resins for their remarkable developments in their field. "The development of a specialized acrylic water-based resin for core-plate varnish systems marks a significant stride in enhancing reliability and achieving backward integration within the KANSAI HELIOS Group. Following the laboratory development phase, the Resins department implemented multiple enhancements to streamline production in terms of safety and cost efficiency. Thanks to exemplary intercompany collaboration,



we take pride in successfully completing the entire project within a commendable two-year timeframe", was the discernment and evaluation provided by the jury", says Dr. Martin Ocepek, Director R&D Synthetic Resins at Helios TBLUS.

Once again, environmental responsibility took centre stage with the award of the R&D Achievement for Sustainability 2023 for Biobased Waterborne Wood Coatings. This achievement not only received recognition at our summit but was also honoured with the "Silver Award for Innovations of the Central Slovenian Region".

Reflecting on our R&D summit, it becomes evident that a commitment to sustainable innovation not only serves as a key differentiator but also acts as an engine for transformative progress, offering chances and support towards more environmentally friendly product solutions in the chemical industry. As a part of this industry, we at KANSAI HELIOS see this as our responsibility to strongly contribute to a saver and greener future. The latest research and development initiatives underscore not only new solutions but also the potential for enhanced performance, durability, and eco-friendly formulations. As we

look forward, the integration of ESG considerations in 2024 promises to elevate this value proposition, ensuring that our innovations align seamlessly with responsible and impactful practices, fostering a future where the paint industry thrives through sustainable excellence. •

PILOT REACTOR SYSTEM

Circular Economy leads the way in sustainable polymers

Martin Ocepek

In a dynamic world where sustainability and innovation converge, our Slovene production site and the Strategic Research and Innovation Partnership (SRIP) – Circular Economy are collaborating on a pioneering pilot reactor system. This project is reshaping the production of sustainable resins and coatings, embodying the potential of research and sustainable business practices.

good cooperation requires knowledge, experts, and the right infrastructure. The strategical development and investment partnership between Helios TBLUS d.o.o. and SRIP – Circular Economy has it all. It connects numerous experts in science, research, and business on issues of great importance to the chemical industry. A pilot reactor system to produce bio-based resins and coatings, which was installed in 2023 at KANSAI HELIOS' production site in Preska, Slovenia, is the first of its kind to be openly accessible.

On the path to a circular economy

The pilot reactor system for the production of biomaterials enables the transfer of product development from the laboratory to the industrial level. It also opens opportunities for cooperation between the partners involved. It is an excellent complement and development support for the construction of biorefineries in Slovenia. This was already identified

at the time of the establishment of the SRIP - Circular Economy as strategically important for accelerating the country's transition to a circular economy. The new pilot plant will be used to test the production of new products on a larger scale to anticipate how the process will work in large-scale production. Simultaneously, it establishes a link between the laboratory and production by bringing together colleagues, experts, and individuals engaged in diverse projects.

A joint investment for more sustainability

Helios TBLUS d.o.o. has been a member of the SRIP - Circular Economy since 2017. This joint investment is aimed to acquire the relevant knowledge faster and successfully develop the path to the circular economy by incorporating as many bio-based building blocks as possible into resins. SRIP - Circular Economy, managed by the Chamber of Commerce and Industry of Štajerska, is orchestrating the venture, together with its member company Helios TBLUS and project







partners, the National Institute of Chemistry and Steklarna Hrastnik. The investment by The Chamber of Commerce and Industry of Štajerska in the plant amounted to around 244,000 €, with 50% co-financing from the state and the EU, which was obtained through a tender. KANSAI HELIOS invested an additional 150,000 € for fitting out of the premises and equipment. This investment underlines the importance of this pioneering project for the future.

Focus on bio-based resins

At the pilot plant, mainly polymers and resins will be produced. KANSAI HELIOS is one of Europe's leading manufacturers of coatings, and the key building block in coatings is the resin. It is the binder or polymer that gives the coating its properties. Additionally, Helios Resins' materials are also incorporated to produce composites such as parts of windmills and components of transport vehicles, making them lighter and more durable. They contribute to the generation of energy from renewable sources and to the reduction of fuel consumption in transport. In the existing production of our Helios Resins, renewable raw materials are already incorporated. They are also certified with the International Sustainability and Carbon Certification (ISCC Plus), which certifies the traceability of products to specific bio-based building blocks, as well as a silver award from EcoVadis, an independent organisation that assesses a company's sustainability orientation and performance.

This pilot project represents a significant advancement in the coatings' industry, both in terms of sustainability and technical innovation. •



In the dynamic business world, where strategies evolve and markets change, there is one enduring truth: "We make a living by what we get, but we make a life by what we give." These profound words from Winston Churchill are a timeless reminder that success is more than just financial gain. In an age dominated by speed, efficiency and productivity, the heartbeat of a company lies not only in its profitability, but in its ability to give back and foster a culture of social responsibility that resonates both internally and externally.

is a commitment to social responsibility.
Internally, it manifests as a conscious effort to cultivate an environment where every employee feels valued, supported, and empowered. Externally, it extends beyond profit margins to touch the lives of customers and the communities in which businesses operate. Today, as the global workforce seeks more than just a job, but a purposedriven career, the spotlight on the importance of social responsibility within organizations is more pronounced than ever.





The Power of Unity

A key moment in 2014, when our colleagues were affected by devastating floods in Belgrade, launched a movement that has deeply united our organization to this day: Colleagues 4 Colleagues. It was more than just an initiative; it was a testament to the strength that lies in unity. Colleagues from across Europe and overseas joined forces to raise funds for their colleagues in Serbia who were affected by the disaster. The overwhelming response showed what a profound impact a collective effort can have and underscored the importance of maintaining a sense of community even in the vast landscape of large organizations. In the spirit of "colleagues for colleagues", our commitment to social responsibility has evolved. United by a common goal, our team has extended its support to colleagues affected by subsequent crises - the earthquake in Croatia, the floods in Slovenia, the war in Ukraine. Each Colleagues 4 Colleagues deployment underscores our collective commitment to supporting one another in times of need. These ongoing efforts are an example of the enduring strength of a community of colleagues who genuinely care about the wellbeing of others.

During corporate structures and hierarchies, it's easy to lose sight of the individual. However, Colleagues 4 Colleagues was a powerful reminder that even in large organizations, individual stories matter and are important. It highlighted the resilience of the human spirit and the power of compassion

when harnessed collectively. This act of solidarity transcended borders, demonstrating that the strength of an organization lies not just in its size, but in its ability to preserve the essence of humanity.

Our commitment to social responsibility doesn't end with extraordinary circumstances. Within our organization, numerous internal initiatives underscore our commitment to making a positive impact. From employee wellness activities to eco-friendly practices, we strive to create an environment where every team member can thrive. These initiatives contribute to a workplace culture that goes beyond more productivity, fostering a sense of belonging and purpose among our employees. The same goes for our commitment to social responsible projects outside our organization. Our responsibility towards society is demonstrated through projects that encourage children's education and creativity. We put special emphasis on projects associated with cultural heritage preservation, and we also actively promote sports and a healthy lifestyle.

Leaders today navigate a complex landscape where profits are essential, but so is the responsibility we bear towards our employees and the communities we touch. By infusing social responsibility into the very fabric of our organizations, we contribute to a better world and create workplaces that inspire, uplift, and stand the test of time. For this reason, we should always lead with heart, because we know that the true measure of success lies in the positive impact we leave behind. •





THE COHESION AMONG ALL COLLEAGUES 4 COLLEAGUES
ACTIVITIES SO FAR HAS BEEN OVERWHELMING. IN 2023, FOR
EXAMPLE, AROUND 15,500 EUROS WERE DONATED IN JUST 4
WEEKS FOR THOSE COLLEAGUES AFFECTED BY THE FLOODS IN
SLOVENIA. THE GROUP MANAGEMENT BOARD HAS MORE THAN
DOUBLED THIS AMOUNT.

APINIDATIONS



Katja Možina Human Resources Director

THE KEY TO A SUSTAINABLE ORGANIZATION

e frequently emphasize that employee satisfaction is vital for any organization, but engagement goes beyond that. The Gallup organization defines employee engagement as related aspects of involvement, dedication, and enthusiasm of employees for their work and workplace. Ush Dhanak, an Emotional Intelligence and HR expert differentiates, according to the level of engagement, three identification groups:

- Actively engaged employees tend to be satisfied in their roles, are more likely to collaborate, be innovative and contribute fresh ideas.
 They can also have a direct impact on an organization's profitability through increased sales, improved customer retention, and cost savings due to lower fluctuation and absenteeism.
- Not engaged employees may perform their job duties adequately but lack enthusiasm, motivation or a strong commitment to their role. Not engaged employees often do the bare minimum to get by. Lack of engagement can affect their productivity, job satisfaction, and overall contribution to the organization.
- Actively disengaged employees are not only disengaged from their work, but they are also actively negative or disruptive in the workplace. They may openly express their dissatisfaction, undermine their colleagues, or even resist company policies and objectives. Their attitude can have a negative impact on others.

According to the "State of the Global workforce 2023 Report" by Gallup, employee engagement in 2022 was higher than in previous years. Overall, 23% of the world's employees were engaged, 59% were not and 18% were actively disengaged.

In Europe, we see a lower percentage of engaged employees in 2022. Only 13% of employees are actively engaged, while a worrying 72% are not engaged, also known as "quiet quitting"

where an employee withdraws from their work and responsibilities without formally resigning. A further 15% are actively disengaged or part of a "loud quitting" group with a clear intention to leave their current organization.

Organizational culture that fosters engagement

The world is currently in a period of low economic growth and Gallup's report also states that low employee engagement costs the global economy \$8.8 trillion. This equates to 9% of global GDP and could have long-term consequences.

It is therefore important to know the level of employee engagement in organizations.

Managers are urged to recognise the key role of engaged employees in driving economic growth and to create a positive organizational culture to manage employees with clear purpose, inspiring leadership, transparent communication, continuous development, and a collaborative spirit.

Surveys are one of the easiest and quickest ways to measure employee engagement. The results are used to guide further work in this area and to create an action plan to promote the conditions for increased employee engagement.

Trends and the future of employee engagement

Employee engagement is a dynamic and evolving concept that reflects the changing nature of work, the workforce, and societal values. The future of employee engagement is likely to be characterized by a greater emphasis on holistic wellbeing, technology integration, diversity and inclusion, personalization, and a focus on purpose-driven work. Those organizations that keep up with these trends will be better equipped to lure and keep top talent and cultivate more enthusiastic staff, which, as we mentioned at the beginning of this piece, is crucial to achieving organizational success.

THE COMMITMENT
SHALL APPLY
THROUGHOUT THE
ENTIRE VALUE CHAIN.



Michelina Traitler Director of Legal

THE EU SUPPLY CHAIN ACT IS GAINING MOMENTUM In recent years, the global economy has witnessed What steps do companies need to take?

n recent years, the global economy has witnessed an increasing demand for transparency and accountability in business practices, especially along supply chains. Recognizing the need to address human rights, environmental protection and unethical practices, the EU has taken a significant step by proposing the EU Supply Chain Act. This initiative aims to transform the manner in which corporations conduct their operations by promoting ethical and sustainable business practices throughout the supply chain.

The first legislative proposal was submitted already in March 2021. In December last year, the EU Parliament and the countries finally agreed on the requirements of the EU Supply Chain Act. The pending confirmation by the Parliament and Council is a mere formality. Member States now have two years to implement the directive into national legislation, which means that the supply chain topic is gaining substantial momentum!

What is the EU Supply Chain Act?

The law obliges larger companies to identify negative effects of their activities on human rights and the environment and, if necessary, to prevent, end or mitigate such effects. This encompasses issues like child labour, slavery, labour exploitation and environmental pollution. The commitment shall apply throughout the entire value chain, meaning to the company's own business activities as well as to direct and indirect suppliers, to products as well as to services. Proportionate administrative penalties and maybe even civil liabilities of the companies are being considered.

Companies that are affected are limited liability companies with 500 or more employees and more than EUR 150 million turnover worldwide, limited liability companies with more than 250 employees and a net turnover of EUR 40 million (more than 50% of which in high-risk sectors such as textiles, food, raw materials, processing of metallic and non-metallic products), non-EU companies with certain turnover thresholds and SMEs possibly as suppliers of affected companies.

- Identify negative impacts on human rights and the environment, take appropriate measures to prevent, end or mitigate these impacts
- Integration into corporate policies and management systems
- Establishment of complaints procedures
- Transparent and public information on the exercise of due diligence obligations
- Controlling and monitoring of the effectiveness of the measures
- Companies with an annual turnover of over 150 million must set out in a transformation plan how they intend to achieve the emission reduction targets of the Paris Climate Agreement

What does it already mean for companies?

Companies with a relevant size or turnover must deal with the requirements. Those that have already done so, which is approximately a third according to EU estimation, have a good basis for further expanding their efforts. Those with little experience need to get to grips with the necessary adaptations quickly, and certainly not underestimate the effort involved.

Bottom line

Some supporters of the EU Supply Chain Act presume that the law does not go far enough and that too many companies are still not affected because they fall below the threshold value. However, for businesses, the predominant fear is that it will be a major administrative burden. Surely, it will entail an enormous amount of monitoring and bureaucracy. There are also concerns that the increased regulation could put companies internationally at a competitive disadvantage. But what is also certain is that it is a reality that companies do have to learn to live with. The question will be how efficiently they will manage to do so. •

LOW EMPLOYEE
ENGAGEMENT COSTS
THE GLOBAL ECONOMY
8.8 TRILLION DOLLARS.

Denmark Poland Germany Ukraine Czech Republic Slovakia Austria France Hungary Romania Slovenia Croatia Serhia Bosnia & Hercegovina Montenegro North Macedonia KANSAI HELIOS **Designing Excellence**

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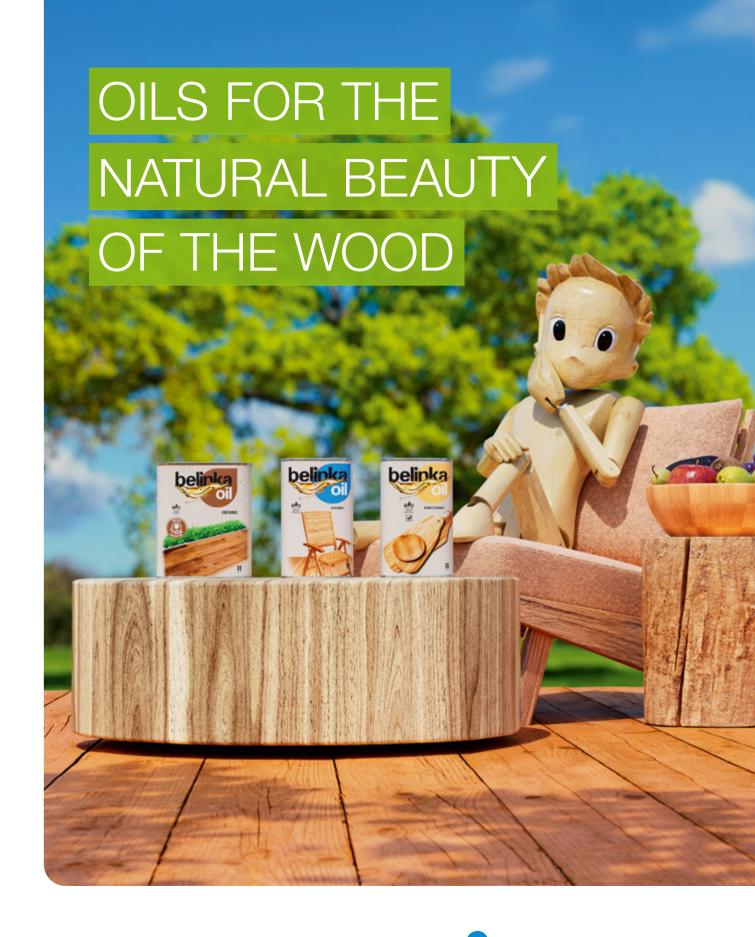
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"The world changes by your example, not by your opinion."

Paulo Coelho

