

MÜLLER-GUTTENBRUNN GROUP

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Dear readers!

If you don't move with the times, you move with the times. Innovation, research and development have always been essential components of Müller-Guttenbrunn's DNA. Since our company was founded, we have been known as "early adopters" and innovative technology pioneers. We are not afraid to be the first company in the industry to recognize, take up and establish new topics.

We currently see huge potential in the recycling of photovoltaic systems. Every day, around 3 million PV collectors are installed worldwide, which will reach the end of their product life in 15 to 20 years. In Germany alone, a return of 50 million modules is forecast for 2030. Someone has to take care of this material flow. This is precisely why the Müller-Guttenbrunn Group is involved as an investor in the Lower Austrian start-up 2nd Cycle - one of the first Austrian FlexCos.

What's behind it? Five young mechanical engineers are currently developing an automated upcycling system for used photovoltaic modules. In future, the system will check modules for their functionality and analyze which parts of the modules are still functional and which are not. At the end of the process, there will

be a switch that decides which modules have sufficient efficiency and can be returned to the cycle (re-use) and which need to be recycled. And this is another area where we can play our part, because at MGG Metran we have been working for some time on how to separate and recycle non-reusable PV modules in a meaningful way.

In doing so, 2nd Cycle is pursuing an ambitious goal: by 2031, around eight percent of the EU-wide return flow of used PV modules are to be processed in 20 upcycling plants, which could save around 200,000 tons of PV waste and prevent 75 million tons of $\rm CO_2$ emissions. An idea that makes a decisive contribution to climate protection. We are happy to be involved because we believe this is real sustainability!

Until then, I would like to recommend the current issue of our Spectrum to you. Enjoy browsing, because a lot has happened in the Müller-Guttenbrunn Group in the past year.

Yours Mag. Christian Müller-Guttenbrunn CEO



Ringing bells for a true circular economy

In winter 2023, the IERC, the International Electronics Recycling Congress, took place in Salzburg from 18 to 20 January. About 400 participants on site and online discussed the current challenges of the industry. This annual meeting has been taking place since the beginning of the 2000s, previously in Basel, Hamburg and Davos and for the last 14 years now in Salzburg. From the very beginning, representatives of the Müller-Guttenbrunn Group have played a leading role as participants, discussants and input suppliers – first and foremost Chris Slijkhuis, who has been involved on behalf of MGG for almost two decades as an expert in the field of Europe-wide e-scrap recycling.

The IERC is mainly used by recyclers and the supplier industry for networking, which Slijkhuis assesses with one laughing and one crying eye: "Of course it is good if we in the industry regularly exchange and coordinate across Europe and internationally. But I find it a bit of a pity that fewer and fewer manufacturers are on board at this event. Because it is precisely those companies that bring the recycled material back into the economic cycle that are essential."

The "Circular Economy" was also the primary theme at IERC 2023, with several discussion panels and presentations. Around the "Circular Economy", the political aspects were explained, the industry's points of view were discussed and technical advancements were presented.

Chris Slijkhuis received the IERC-Honorary Award

Every year, the IERC brings a member of the international recycling industry to the forefront and presents him or her with an award of recognition. The so-called Honorary Award, which used to be dubbed the "Cowbell Award" because of its design as a giant Swiss cowbell, went this year to Chris Slijkhuis of MGG. Following Christian Müller-Guttenbrunn in 2017, Slijkhuis is the second dignitary from the Müller-Guttenbrunn Group to receive the famous cowbell for his promotion of the European e-scrap processing sector. Specifically, the committee justified the award decision as follows: "Chris Slijkhuis receives this award in recognition of his lifetime achievements as a plastic recycling expert. He has been an active promotor of compliant solutions, with a deep understandig of all technical and legal aspects of the

end processing and recovery industry. His work has made a great contribution to our society and industry, as well as tot he International Electronics Recycling Congress throughout his career."

The MGG veteran, who hails from Holland, was overwhelmed above all: "I am overwhelmed by the decision of the steering committee to choose me for this honorary award. I am merely one of the many cogwheels in this WEEE recycling clockwork. But at the same time, I believe that this decision is also a choice for rewarding the WEEE plastics recycling industry as a whole and in that sense, I see this award also as a wonderful recognition for the work that WEEE plastics recyclers have been doing to get there where we are today," Slijkhuis explained in his acceptance speech, in which he further elaborated that "the development of this WEEE plastics recycling industry is a fascinating story with many hurdles and problems but also with successes. Today I see this WEEE plastic recycling industry still as a starting industry, but we managed to develop processes and a market for Post-Consumer Recycled plastics from WEEE even within high-tech markets." He thanked everyone involved in the industry – loyal suppliers, brave customers, innovative and hard-working colleagues and, of course, the recycling industry networks and associations EERA, StEP, EuRIC and BSEF. At the end of his words of thanks, Chris

Slijkhuis, who has officially been in "retirement" for about a year, got very personal: "Please allow me to thank especially my wonderful wife Elsie, who is here with me today. She gave up her career to accompany me abroad for us to become an expat family. Els allowed me to spend far too much time away from home and to accept me to even often work when at home. I am so happy that you are here now so that I can publicly tell her how grateful I am."

Excursion to MGG works with "wow effect"

However, the Müller-Guttenbrunn Group was not only the focus of the IERC participants' attention during the panel discussions and the Honorary Award. The three plants MGG Metrec, MGG Metran and MGG Polymers were also the destination of a technical excursion for the congress participants. Around 50 people visited MGG's Mostviertel production sites and were impressed: "I can only say: wow! The way the three Müller-Guttenbrunn plants close the recycling loop here - from scrap to new product - is very impressive. MGG is truly a pioneer in the European recycling industry thanks to this mapping of the entire recycling process, but also thanks to its enormous innovative strength with constant new developments and separation and processing ideas," summarized one excursion participant.



Recycled ABS now even more heat resistant!

After extensive research and development work, the innovation team at MGG Polymers has succeeded in making its recycled ABS plastic even more resistant to the continuous influence of heat and warmth. In a project lasting around two years - together with the renowned testing and certification institute Underwriters Laboratories (UL) - the mechanical RTI values (Relative Thermal Index) in the "Impact" category were increased to 80 degrees Celsius and in the "Tensile Strength" category to 95 degrees Celsius. This once again makes MGG Polymers the European leader when it comes to the quality of plastic recycled from old electrical appliances.

In 2021, a well-known manufacturer of coffee machines and regular customer approached the sales team at MGG Polymers with a big request: "The question was whether it would not be possible for the recycled ABS plastic they have been using for years to be even more heat-resistant in the future and to have a higher RTI value," reports Darko Huskic, the sales professional responsible

for the DACH and CEE regions at MGG Polymers. His colleague Jose Maria Barraca adds: "At that time, other customers started asking similar questions. This is because the trend in the telecommunications market is for manufacturers to develop smaller and more powerful products. This means that the plastic housing is closer to the heat source during the product's lifetime. Therefore, it is crucial that we should achieve this important step according to the official UL standard, which is the most recognised among electronics manufacturers."

The goal: increase the mechanical RTI values for ABS!

The task was thus clearly defined: The RTI values of the ABS plastic produced had to be increased – from a long-term perspective. Therefore, Philipp Felber, the "Head of Quality and Environmental Management" at MGG Polymers, developed a concept and started the project "RTI Optimisation". The relative thermal index is – as one might say colloquially – about the ageing resistance of a plastic. "Basically, every plastic reduces or loses its properties





over time due to certain environmental influences. Plastics from old electrical appliances, as we use them, are affected by environmental influences but also by general usage influences such as mechanical or thermal stress. Everyone knows this from home: plastic parts that are several years old sometimes become brittle, "Felber explains.

The RTI values quantify these plastic properties and thus make the materials comparable. The RTI is given in three categories: The electrical property, the impact property (Impact) and the tensile property (Tensile Strength). In order to improve the RTI values, quality manager Philipp Felber and his team started to develop different compound formulations (ABS mixtures with different numbers and amounts of additives). "Our products have always had an extremely high PCR (post consumer recycled) content. In order to improve the RTI values, we therefore wanted to make changes to the added additives as sparingly as possible. For us and our customers, the mechanical values were in the foreground. We tweaked our ABS formulation, so to speak, until we achieved good results in in-house tests."

10,000 hours of testing at UL

After about six months of testing in MGG Polymers' laboratories, the collaboration with the renowned Underwriters Laboratories (UL) institute in Germany began. A total of around 800 test rods made of the new ABS material were subjected to a 10,000-hour long-term study there – that's roughly 416 days or one and a half years, as Felber explains: "Even if you can simulate and extrapolate certain things, it is necessary to expose the test material to high temperatures for a correspondingly long time. You simply cannot accelerate the reaction of the polymers. Physics remains physics." The test rods were therefore heated to four different test At the end of the two-year project phase, everyone involved was more than happy when the desired RTI target values were exceeded. "Our customers' desired target was around 75 degrees Celsius, but we achieved 80 degrees for the RTI-Impact and 95 degrees for the RTI-Tensile Strength," says a delighted Darko Huskic, who can now add another product to the spectrum of

80 degrees for the RTI-Impact and

95 degrees for the RTI-Tensile Strength."

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his product range. "Of course, this new ABS is not only ideal for coffee machine producers, but can also be used especially well in the field of electrical appliances. Let's think of a WLAN router, for example: they are getting smaller and smaller and have more and more power, so temperature resistance is naturally an important issue. But we will also continue to offer our previous ABS, because RTI values of 60 degrees are sufficient for many applications." And Chema Barraca also confirms how important further development is for a sustainable circular economy: "Our sales are mainly concentrated on the most important OEMs in the electronics sector. For example, manufacturers of coffee machines and telecommunications equipment in particular are asking whether our material can meet this standard."

At the end of the day, it's all about reducing CO,

For Darko Huskic, the main focus is on sustainability: "In the past, recycled plastics were used mainly because they were cheap. There were a few visionaries who had the environmental idea in mind, but the primary buying motive was price. But the world has changed. We live in new times where true sustainability counts. MGG Polymers realised long ago how important a sustainable circular economy and high recycling rates are. It is tremendous fun and an absolutely meaningful activity to be a part of this mission. With our new ABS product with high RTI values, we can meet new demands from our existing and future customers and make our world a little more sustainable! Freely according to our motto: It's about CO_2 ".





"There is no standing still"

When it comes to quality and environmental management at the three Austrian locations of the Müller-Guttenbrunn Group, Lisa Rainer is the lynchpin when it comes to standards, authorities, notifications and legal foundations. We asked the mother of two for an interview.

Mrs. Rainer, how long have you been with Müller-Guttenbrunn? How and why did you join back then?

I have been with the company since May 2003, so I am now celebrating 21 years with the company. These 20 years were only interrupted by the births of my two daughters. When I was looking for a job after graduating from the HLW Amstetten, I also came across the Müller-Guttenbrunn company. As a native of Amstetten, I was of course familiar with the company. However, at that time I simply thought: "They do recycling and things like that". But what exactly goes on behind the walls of the company was more of a mystery to me at the time.

What are your areas of responsibility?

In the beginning, I was at the registration desk. My field of activity included weighing, reception and telephone administration. Basically everything that belongs to the delivery. As it turned out later, this entry was very helpful for my further career because I was

able to gain a good overview of the entire group of companies and its processes. About six years after I joined the company, the position of assistant to the management became vacant because a colleague was pregnant. I applied together with external candidates – and I was more than proud when I got the job. When I became pregnant myself, I said goodbye to my maternity leave with a wistful eye - despite my great joy at this new task. After the birth of our first daughter, I was happy about another pregnancy and a sister for my firstborn. However, it was always clear to me that I did not want to stay at home, but to return to work as soon as possible, which I did in January 2015. I was employed at Metran in the secretariat and soon took over various replacements. During this time I also had to deal with quality and environmental management for the first time. After some time, there was a change in the management and some employees moved to Polymers. I stayed in Amstetten, took over the department I was working in and was responsible for all three plants from then on.

If I may jump back for a moment: What were your initial impressions when you joined the company?

At the beginning, there was the view of the delivery of companies and private individuals, of the logistics processes. The subject of recycling came later, when I started to look at the processes

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outside my office, especially when I followed Chris Slijkhuis and started to give guided tours to school classes in all three companies. This activity completed my view of the entire group of companies.

And are you satisfied?

Yes. Constantly having to be up to date is an exciting thing. You are constantly challenged to develop further. There is no standing still, that suits me perfectly.

What exactly does "quality and environmental management" mean? What do your concrete tasks and work look like?

For example, I take care of the applicable compliance guidelines: Have the legal circumstances changed here, is there a need for us to take action? Notifications are also part of my job, as is contact with authorities and ministries in general when it comes to implementing requirements or submitting applications. In order to always be up to date with the latest legal requirements, I regularly attend seminars for further training. ISO certifications are also part of my job. Our quality management is certified according to ISO 9001, our environmental management according to ISO 14001, and I am in charge of the integrated management system and the audits of all three companies. Risks and opportunities must be considered, because every risk also holds an opportunity.



It is important to recognise which risks and opportunities we have and which measures result from them. By "integrated management system" we mean the combination of ISO 9001 and ISO 14001, both – quality and environment – are no longer considered separately, but together in one file. An essential part of daily business also includes ensuring that waste is correctly classified. This is done by assigning key numbers that indicate, for example, whether the waste is hazardous or what the contents of the waste are. This process is carried out in close coordination with the responsible experts in the respective companies. If mistakes were to be made here, illegal shipments could occur and this in turn could even lead to legal action.

That sounds like a central area of responsibility that is involved in all areas of the company.

Yes, that's true. I come into contact with pretty much all internal company processes.

What are the special challenges in your work?

It's a matter of translating very theoretical content, such as ISO certification, into lived practice. That's a big challenge, but one that I don't face alone, but work on together with colleagues. My field of activity or job description was not clear from the beginning, it has developed over time. When I started working at Müller-Guttenbrunn after graduating from the HLW, it was in no way foreseeable that I would develop in this direction. For example, I have completed training as a certified quality manager and internal auditor at TÜV-Akademie Austria. I am involved in many internal processes. Notifications in particular can often be very tedious and extend over a long period of time. We have to communicate intensively with the responsible authorities and ministries, and exact deadlines have to be met. It is not unusual to take one or the other tricky matter "home" in one's mind. Requests from suppliers are also often a challenge, and the associated clarifications – for example on the subject of feasibility – can be extensive and complicated. What I love about my job is that no two days are the same. Often planned things have to be postponed because of another urgency, which requires great personal flexibility. All this gives me the chance to develop and grow with the tasks.

What does a typical working day look like?

Of course, there are also routines for me, such as ongoing tasks, notifications or updating the management system. But rather to a lesser extent, the focus is on the flexibility I mentioned earlier.

You are responsible for Metrec, Metran and Polymers. What are the differences in quality and environmental management at these three companies of the Müller-Guttenbrunn Group?



The materials we receive at Metrec are basically always the same raw materials, i.e. end-of-life vehicles, which are first de-polluted and then the iron is extracted in the shredder. Or the electronic scrap is also always a relatively similar basic mass. At Metran, on the other hand, every incoming waste must first be analysed and then separated using a wide variety of processes and machines. MGG Polymers is primarily concerned with plastics recycling, and here the major challenges lie above all in the clash between waste management and product legislation.

You also do factory tours for schools, for example. What message is most important to you during these tours? And: What are the most frequently asked questions of the pupils?

Thank goodness the environmental idea is already very strongly anchored in the minds of the younger generation. But it is also enormously important to promote the idea of recycling. We work here with valuable raw materials that are only finitely available on our earth. We have to make sure that copper, for example, ends up in copper smelters and aluminium in aluminium smelters in order to keep these materials in the cycle. We need to raise awareness for the circular economy, which in turn requires consistent and correct waste separation. And this path already begins at home. Discussions with students are always exciting, for example when it comes to the disappearance of end-of-life vehicles to Africa. Students often ask why this circumstance should be viewed negatively, when the vehicles can still be used for a few years by people who urgently need them. What is not taken into consideration here is that the vehicles are ultimately dumped in these countries and not recycled properly, as is the case here. The

central message of these tours is always: What can I do for the environment as an individual? Proper disposal supports the environment, supports health, supports our landscape, our homeland.

Let me conclude by asking you a few personal questions. Since "environment" is in your job definition: How important is sustainability in your private life? And: Is green energy an important part of your everyday life outside of your working hours?

Absolutely. I am proud to be able to work in a company that deals with these issues. This naturally leads to my role in private life: I keep a watchful eye on the correct waste separation of my family. But it is not only the idea of recycling that is important to me and us as a family. We try to live our lives in a sustainable way. Our house has a unit heating system, an air heat pump and recently also a photovoltaic system. For the future, it is most important to be a role model for our children.

And now really the last question: Who is behind the private person Lisa Rainer?

I am 41 years old, live with my family in Amstetten, am married and the proud mother of two daughters (9 and 11 years old). In my private life I am very close to nature, my hobbies are hiking and photography, because they are a perfect balance to my sometimes stressful job. Together with my husband, I am also active in the volunteer fire brigade and we run the Amstettner Hütte on the Forsteralm twice a month on a voluntary basis.

Mrs. Rainer, thank you very much for the comprehensive interview and the exciting insights into your everyday professional life.

A look behind the scenes at the Müller-Guttenbrunn Group

Metran, Metrec and Polymers, the three MGG sites in Amstetten and Kematen, opened their doors on 28 and 29 September 2023 and provided insights "behind the scenes". Initiated by the Federation of Lower Austrian Industry and the Industry Division of the Lower Austrian Chamber of Commerce, more than 40 companies across the province invited visitors to the open days. More than 25,000 visitors throughout Lower Austria took the opportunity to get to know one or two companies better.

The Müller-Guttenbrunn Group invited interested people to take a closer look at the world of recycling. At all three sites, there was a first-hand demonstration of how state-of-the-art technology is used to recycle metal and plastic waste in a sustainable and ecologically responsible manner.

A look behind the scenes of recycling

At the sites in Amstetten and Kematen, visitors were able to take a look behind the scenes during plant tours and experience first-hand what high-end recycling and the circular economy mean. MGG employees vividly explained how much know-how is required to recover valuable materials from "waste" and thus sustainably protect the environment.

It quickly became clear at the start of each tour that recycling is no "walk in the park": safety instructions and the wearing of a high-visibility vest were mandatory for the participants. In addition to the "live experiences", the program included film screenings, which once again demonstrated the business areas of the Müller-Guttenbrunn Group and allowed the topics of recycling,





sustainability and the circular economy to be experienced as a homogeneous whole.

The guests' physical well-being was also catered for. Hunger was satisfied with sausages and pastries as well as coffee and cake. The hunger for more sustainability and circular economy was hopefully awakened by the visit to Müller-Guttenbrunn!

Commitment to green jobs

Opening doors and the associated "granting access" is also intended to raise public awareness of the industry located in the region. At MGG, there is also the "green jobs" factor. The company stands for social and ecological responsibility, genuine sustainability and economic efficiency, and does so with complete conviction. When you ask employees why they work at MGG, you often get the answer: "Because it makes sense to work for a company that makes a significant contribution to protecting our environment through recycling!"

The open days were two eventful days for the Müller-Guttenbrunn Group, giving visitors a glimpse into the fascinating world of recycling. Many thanks to those responsible on site and to the visitors at the sites in Amstetten and Kematen!

FAKUMA 2023: A firework of innovations

The 28th International Trade Fair for Plastics Processing (Internationale Fachmesse für Kunststoffverarbeitung) – FAKUMA for short – took place from 17 to 21 October 2023 in Friedrichshafen. Among the more than 1,600 exhibitors, MGG Polymers was a sought-after and valued contact when it came to plastics recycling and sustainability. Topics that – together with others – were the focus of the trade fair at Lake Constance.

FAKUMA 2023 impressed more than 39,000 trade visitors. With the thematic pillars of digitalization, automation, flexibility, energy efficiency and sustainability, the organizers were once again able to score points. On 85,000 square meters, the exhibitors presented a host of innovations and gave a confident outlook for the future, including the recycling of plastics. The establishment of closed material cycles, product optimization for recycling and the processing of recyclates for high-quality applications were at the top of the agenda. Of course, the recycling pioneers from MGG Polymers were not to be missed at this industry highlight. With a new exhibition stand and a total of eight employees, the company from Kematen presented itself as an innovative and competent partner when it comes to recycling, sustainability and the circular economy.

Challenging economic times bring price to the fore

This year's trade fair was another successful one for MGG Polymers. With a new exhibition stand – the largest in the company's history – the recyclers from the Mostviertel region attracted attention. "It felt a little less crowded than in previous years, but that allowed more room for detailed and high-quality discussions," summarized Darko Huskic, Sales Manager of MGG Polymers, after his return. "We were able to make an exceptionally large number of contacts this year and had excellent discussions. A huge topic was the price issue, which is still due to the challenging economic situation. In general, however, the industry is clearly looking to the future."

Circular economy: plastic is a precious material, not a problem material

At FAKUMA 2023, the focus was not only on the production and processing of plastics, but also on reuse and recycling. Plastic is

a valuable material that is still not sufficiently recognized as such by the public. A topic that is particularly close to MGG Polymers' heart. Those responsible agreed that a great deal of educational work is still needed in this area. The topic of sustainability has long since ceased to be a side issue; on the contrary, sustainability has long since moved to the center of attention. Combined with reliable key figures such as the "CO₂ footprint", sustainability is now on everyone's lips. The experts at Polymers have been scoring points in this sector for years, and their knowledge and technological pioneering role are in demand internationally.

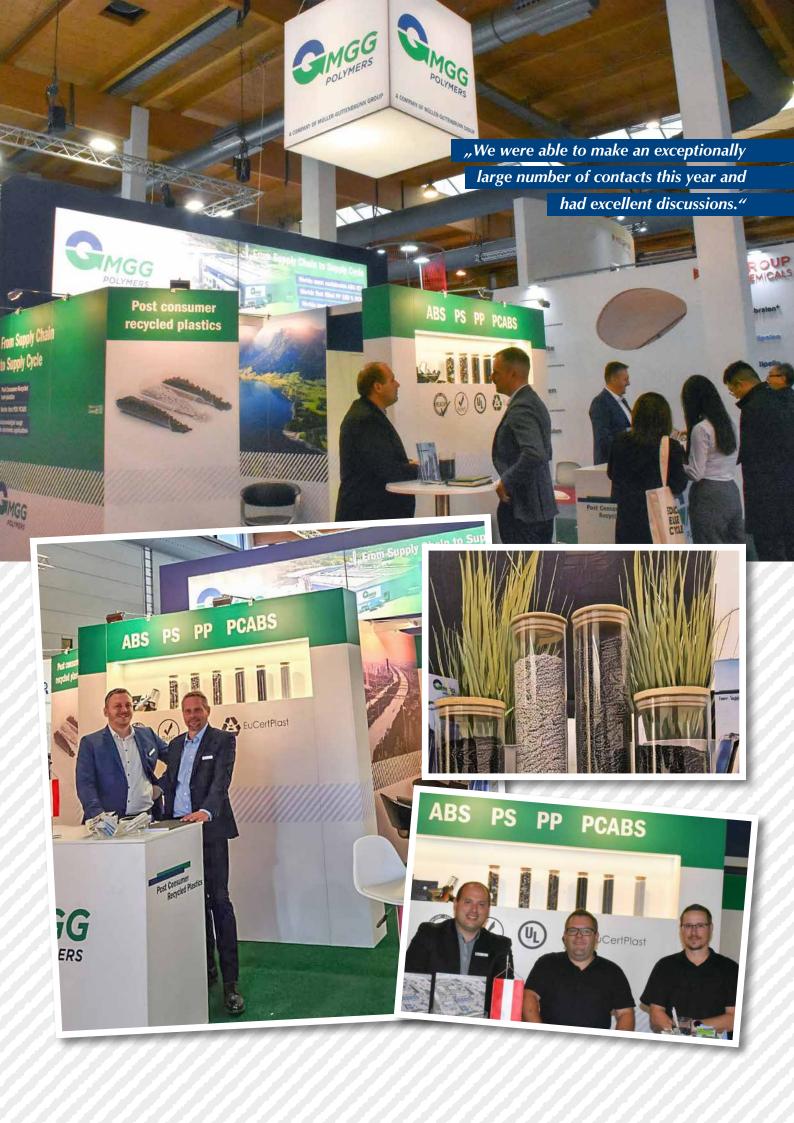
Design for recycling - an approach for the future

"Design for Recycling" is about linking two worlds, that of product design with that of recycling. "We are delighted to have been approached, as we have been at previous trade fairs, to take part in specific measures here," says Günther Höggerl, Managing Director of MGG Polymers. "The challenge is to sensitize those responsible for product design to how recycling works in practice. For example, that different black plastics are very difficult to separate from each other by type. Simply not coloring any internal, invisible plastic parts of a product black would simplify the recycling process after the product's useful life. However, this should in no way restrict the freedom of design," explains Höggerl. Although the approach is a realistic one, not all challenges will be solved quickly. However, the topic is now much more important than it was five years ago.

After the trade fair is before the trade fair

As in previous years, MGG Polymers' participation in FAKUMA 2023 was a complete success. Good discussions and contact with industry specialists were on the agenda on all five days of the exhibition. Günther Höggerl and Darko Huskic were full of praise for the trade visitors at the trade fair: "The exchange with our customers and many other players in the plastics industry was once again an inspiring experience for us. Despite the current difficult economic situation, we once again feel encouraged in our growth strategy."

After the trade fair is before the trade fair, and planning for 2024 is already in full swing in Friedrichshafen. MGG Polymers, the recycling pioneers from Kematen, will be there again!



"My name is Polymers. MGG Polymers."

When looking for employees, the company in Kematen relies on the well-known movie character James Bond. With five short videos in the style of the agent's adventures, the sustainable activities of the plastics recycler are brought closer to potential applicants and the image of MGG Polymers is positively charged.

Probably one of the biggest challenges for companies in general and in western Lower Austria in particular is currently the issue of personnel. Getting and keeping good, loyal and committed employees has always been essential for the success of a company. But the issue is more challenging than ever before. A de facto full employment in the region intensifies the struggle for suitable team members, as many companies are looking for employees.

How it all started ...

Since MGG Polymers implemented a shift change about a year ago, more employees had to be recruited quickly. "Already in previous years, we were repeatedly faced with the challenge of finding suitable employees. In the process, we were constantly

confronted with the issue that many people in our region don't know MGG Polymers. And I'm not even talking about the fact that people know what our company does. That's why we decided to invest in our image in the long term and position ourselves more strongly as an employer," says Polymers Managing Director Günther Höggerl, explaining the reasons for initiating an employer branding campaign.

Employer branding - what is it?

"Employer branding" refers to corporate strategy measures that present the company as an attractive employer. The aim is both to attract new applicants and to strengthen the bond with existing employees. In contrast to recruiting, which is primarily about quickly acquiring employees, employer branding focuses on the long-term image approach.

After some analysis, strategic preparation and conception, the starting signal was given for MGG Polymers' employer branding campaign entitled "With a licence to recycle" at the beginning of 2023. The aim of the campaign is to present the company as a







modern employer in the region and thus, on the one hand, to be attractive to existing and potential future employees and, on the other hand, to be perceived as a high-tech recycling company. "Put simply, it is about explaining to the people in the region that we exist, who we are and what we do," specifies Höggerl. And so, together with the Amstetten advertising-agency ...und Punkt, they developed a campaign idea that generates as much attention as possible and presents MGG Polymers as a cool, modern and sustainable recycling company.

With a license to recycle

When thinking about sustainability, recycling and environmental protection, few people would have thought of James Bond first. On closer inspection, however, the comparison is extremely apt: the employees of MGG Polymers work for a better environment and save our world, so to speak, through their activities in the circular economy. So you could say they are secret agents in the service of the environment, who don't push themselves to the fore, but simply tackle and do what is necessary. In doing so, they rely on the latest technologies – similar to 007, who is always equipped with modern technical gimmicks. Günther Höggerl: "When the concept was first presented to me, I was not immediately convinced. However – we had asked ...und Punkt to develop something special – and after some reflection I was soon able to identify with the idea. Because, like the movie character Bond, we are also almost unique in what we do – and how we do it. So why not be an "agent" for a special cause? I was finally convinced by the positive reactions of some of our employees, who immediately liked the idea."

Facebook, LinkedIn and print media

The focus of the campaign is in online marketing: Thus, in addition to the website www.mgg-greenjobs.at, a separate Facebook

page was created in order to reach as many people as possible as easily as possible by means of social media campaigns and to present MGG Polymers. "We shot five short clips that we play out via various social media channels. The clips are really something to see and, in addition to the main message, always make you smile a little. We would like to take this opportunity to thank all the employees involved for their enthusiasm," says Barbara Moser, who is supervising the project internally. The advertising measures are rounded off by advertisements in the regional community newspapers.

MGG Polymers

"With the license to recycle"

You can watch a compilation of our five employer branding videos here: https://www.youtube.com/watch? v=OZHqOji8DV8&t=30s

You can also simply scan the QR code on the right to open the video!





Hot stuff battery

Armin Blutsch, former vice-president of the Austrian Federal Fire Brigade Association and fire safety officer at MGG Metrec, is one of the country's experts when it comes to fires and their extinguishing. His statement that "batteries and accumulators do not primarily catch fire through heat" may be surprising, but it is a fact. Nevertheless, it happens again and again that batteries and accumulators start to burn. This has already happened on the factory premises of MGG Metrec. And trucks have also caught fire during the transport of e-wast. This is a danger that should not be underestimated.

Electronic waste is delivered to MGG Metrec every day. Mixed metal and plastic fractions that are separated, shredded, temporarily stored and finally transported onwards at the plant. The e-waste consists of household appliances that are no longer functional, toys, tools, mobile phones and much more. Before disposal, batteries or rechargeable batteries are often not removed, and sometimes it is not even obvious that batteries are contained in the part to be disposed of. Batteries and rechargeable batteries thus end up with the e-waste in the separation facilities of a recycling company and thus become a potential source of danger.

In the first step, the delivered e-waste goes into the so-called smasher, where a large part of the batteries and accumulators – about 80 per cent – are sorted out. The remaining 20 per cent goes into the EVA shredder with the primary material. Some of it

"Batteries and rechargeable batteries
do not primarily catch fire due to
heat, but through damage."

is still recognised and removed here, but the small batteries (for example button batteries on motherboards in computer cases) fall through every now and then. And it is precisely here that the hazard potential grows enormously.

Battery fires are almost exclusively caused by mechanical damage

"Mechanical impacts such as knocks, cracks or bends damage the small batteries, making them susceptible to malfunction. In addition, they are exposed to moisture outdoors. It is usually only a matter of time when – uncontrolled – a short circuit happens," Armin Blutsch explains the problem. "Batteries and rechargeable batteries have an enormous energy density. When a short circuit occurs, this energy is converted into great heat, which in turn ignites the adjacent material extremely quickly. The fire starts and escalates at lightning speed!", says the fire protection expert. "Extinguishing a battery fire is impossible. Here, it is necessary to save the surrounding areas, which can be done most easily by keeping an appropriate distance from the source of the fire. The secret recipe is therefore: Distance! Distance! Distance!

At Metrec, these fire hazards are countered on various levels. Of course, the company relies first and foremost on technology: A fire protection or extinguishing system that meets the latest standards prevents worse in the event of an emergency. But the danger is averted much earlier. Great care is taken to ensure that scrap material is stored appropriately. The sorted batteries and accumulators are stored in barrels until they are collected by processing companies. A layer of batteries is followed by a layer of sand, etc., until the barrel is full. When sealing the barrels, care is taken to ensure that as little oxygen as possible is included. If a fire does occur, the sand acts as a resistance. Due to the lack of oxygen, the fire goes out very quickly.

An important precaution is that no e-waste is on conveyor belts or in machines when they are out of operation. This prevents damage to the plant and equipment in the event of a fire. However, the most essential component in fire prevention is people. Metrec therefore attaches great importance to the training of its employees.

If a fire does occur, which is rare but can happen, the smartest thing to do is to let batteries and accumulators burn out – controlled by the fire brigade – and make sure that the surrounding areas are secured and preserved. Either by keeping a distance or by extinguishing or cooling the surrounding area appropriately.



Practical tips from a professional

But it is not only in the recycling business that it is important to keep a watchful eye on batteries and accumulators, says Blutsch: "We handle these energy sources far too carelessly in everyday life. Just think of mobile phones, which we carry on our bodies almost all the time. As already mentioned at the beginning, heat, e.g. in summer, does not primarily trigger a battery fire. But if the mobile phone falls to the ground frequently and the battery is damaged, it can short-circuit at any time and catch fire. Blutsch therefore advises not to place mobile phones on a wooden plate for charging, but to use a base made of glass or ceramic for this purpose. Curtains or similar easily combustible materials should also not be in the vicinity – distance is also an important preventive measure here. But there are also numerous sources of danger in the cellar, garage, tool shed and even in the children's room (!), such as batteries in toys, which should not be forgotten.

When disposing of a household appliance or toy that still contains rechargeable batteries, the expert asks for special care: "Every individual can help to minimise the risk of fire and explosion in the recycling chain by removing batteries and rechargeable

batteries before disposal and sending them for separate collection. Sometimes there are also so-called "hidden" batteries in the appliance. In this case, a second, controlling look at the goods to be disposed of helps. Under no circumstances should batteries and rechargeable batteries end up in the residual waste or in the yellow bag!"

The Müller-Guttenbrunn Group would not be so successful if the focus were not permanently on innovation and constant further development, and this is also the case with this topic. To the question: "What does the future hold in store in this case?" Armin Blutsch immediately has an answer ready: "Batteries and rechargeable batteries are getting smaller and smaller in terms of dimensions, but the performance is getting bigger and bigger. As the power increases, so does the energy contained in the batteries and rechargeable batteries, which in turn increases their flammability and the resulting heat that is released in the event of a fire. A danger for Metrec, but also for every user of battery- and accumulator-powered devices. Let's be mindful together and take precautions. The easiest way is to take the three most important measures: Distance! Distance! Distance!

True circular economy cannot be built upon linear thinking!

In a well-received presentation at the IERC (International Electronics Recycling Congress) in Salzburg in January 2023, Chris Slijkhuis illustrated, among other things, the enormous administrative effort that companies such as the Müller-Guttenbrunn Group have to make to classify and notify E-Waste – WEEE (Waste of Electric and Electronic Equipment) – when it is shipped across borders. His conclusion: "E-Waste classification has become too complex!"

Before diving into the matter of e-waste classification, however, one must shed light on the legal basis in Europe. The basis for the classification and notification of e-waste is firstly the "mother of regulations" – the Basel Convention (Annex VIII or IX, if applicable), then the "daughter" – the OECD Waste Shipment Framework, which differs from Basel, and the "son" – the EU Waste Shipment Regulation and the EU Waste Codes. In addition to these international requirements, many countries carry out classifications according to their own waste codes for the respective

exporting and importing country, which further complicate the procedure. In this context, Y-codes, H-codes, UN-codes, UN-classes, UN-numbers, UN-shipping names and customs codes also come into play. "It's just crazy how complicated it has become to classify a truck with e-waste material," Slijkhuis reports from the field.

The analysis of e-waste for hazardousness has become defacto impossible!

The MGG-expert considers the distinction between hazardous and non-hazardous waste according to European guidelines to be extremely complex and downright impossible. The SVHC-list (Substances of Very High Concern) now lists 224 chemicals, the REACH Restriction List even more than 1,000 substances in 59 categories and the POP list lists more than 30 substance groups, of which the industry expects that there could soon be 200 groups. "These lists are getting longer every year, for which more and more disposal solutions then have to be found. Analyses of



mixed e-waste for hazardousness are no longer possible in practice," Slijkhuis noted.

Another complicating factor is that the lists are not harmonised. This means that certain pollutants do not appear at all on one list or another or are classified differently. "The classification needs uniform, harmonised rules. For example, if I have a 25-year-old television set, it is of course quite possible that it contains substances such as brominated flame retardants, which can be classified either as a POP substance or simply as a substance of concern. We should therefore simply accept that all waste can contain substances of concern," Slijkhuis pleaded. Mature technologies exist for sorting these substances out of the material mix. For example, 98 % of brominated flame retardants in plastics could be separated out by the recycling industry. The SOFIES-Study, for example, shows how this can be done.

Slijkhuis: "The mistake is in the mindset!"

According to Slijkhuis, the crucial question is where in the recycling cycle the measurement of hazardous substances should take place: "A circle has the property that it has no beginning and no end. Of course, at some point in the circular economy it must be determined which ingredients are present in the material used. This check makes most sense at the point where the material is recycled and reintroduced into the cycle. One should measure at that point in the cycle where the material changes from waste back into a product. So at the end of the recycling process and not in the middle of one of the many individual stages of the recycling chain!"

According to Chris Slijkhuis, this is exactly the crux of the matter, that people around the world too often "think in linear terms when it comes to a cycle. But that doesn't make sense! A real circular economy does not work with linear thinking patterns!"

In addition, measurements in the contaminated input stream are much more difficult to carry out than in the clean output stream. Especially since it is to be expected that the pollutant load will not decrease, for example, due to new flame retardants that are only recognised as harmful in retrospect. Slijkhuis considers the constant revisions of the REACH, RoHS and POP regulations with ever further reductions in limit values to be a major stumbling block when it comes to recycling more material in the future. Capacity expansions and technology investments in the recycling



industry would thus be slowed down. And recycled plastics that are already successfully used in electrical appliances could be taken off the market. These would be clear steps backwards instead of forwards.

When asked how realistic it is for Slijkhuis to have his approach of checking the materials used at the end of the recycling process (where waste becomes a product again), the Dutch visionary replies, alluding to the IERC Honorary Award: "Someone has to start ringing the cowbell! Passing laws that no one can implement makes no sense. Circularity cannot be built upon linear thinking!"

Administrative stumbling block notifications: Lengthy, cumbersome, expensive!

But it was not only basic philosophical thought patterns that were on the agenda of Chris Slijkhuis' IERC presentation, but also very practical challenges such as the problematic issue of waste transports requiring notifications. This is an extremely complex and time-consuming process that has taken the plastics recyclers at MGG Polymers up to four years and always involves many tricky questions: How do I distinguish between hazardous and non-hazardous fractions? Which codes do I have to use? Even

CONTINUE ON PAGE 22! ▶

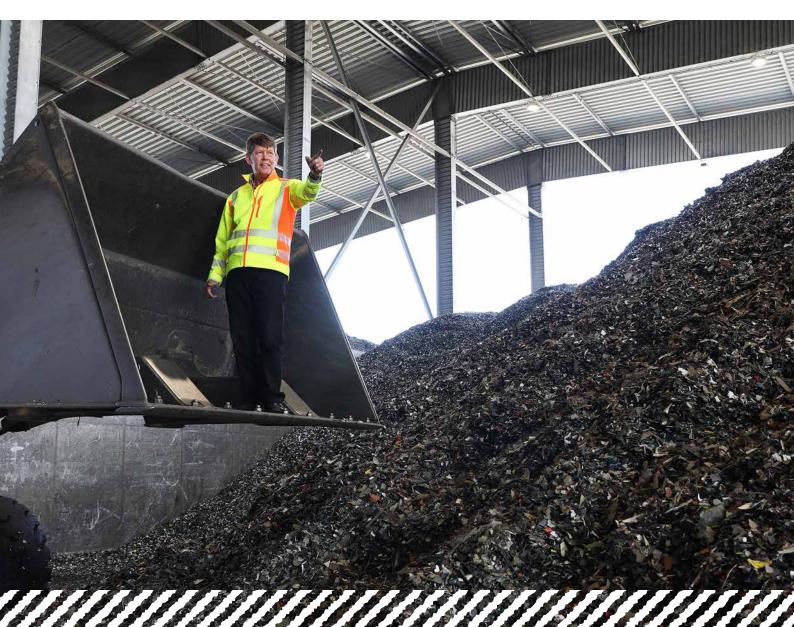
more so, where each code leaves a lot of room for interpretation. In practice, all this takes far too long and, above all, shipments from or to third countries outside the EU have become de facto almost impossible. In addition, the notifications require enormous financial resources. Currently, it is estimated that in the EU alone, around one billion euros of capital is tied up in the financial guarantees required for notifications. This complexity of the shipment bureaucracy therefore encourages illegal trade with valuable recyclable waste. A correct notification application with information on the goods to be transported, waste producers, recipients, recovery facilities, transporters and much more can easily fill 50 pages. Unfortunately, not all companies are willing to go to these lengths.

Pioneer Müller-Guttenbrunn Group: Fast Track Notifications!

In order to simplify the bureaucratic hurdles, the Müller-Guttenbrunn Group has helped to develop proposals on how to massively shorten the notification procedures for EU waste

shipments to recovery facilities. A pilot project managed a so-called fast-track notification in as little as 19 days. Chris Slijkhuis explains how the idea of fast-track notifications came about: "In the customs world, they had a similar problem. Customs clearances became very complex due to numerous regulations and at some point it was no longer administrable. Therefore, the customs authorities developed a simplification in the 1990s. Without further ado, they defined who was to be considered an Authorised Economic Operator (AEO) and certified and audited them accordingly. These AEOs are allowed to load, seal and ship containers without further inspection of the loads. And these containers no longer need to be inspected until they reach their final destinations."

A working group of authorities, companies – including the Müller-Guttenbrunn Group – and associations developed proposals for such an accelerated procedure. These proposals have contributed to the inclusion in the new EU Waste Shipment Regulation of a passage stating that in future companies throughout the EU



can be certified as "pre-consent recovery facilities". In addition, electronic procedures were introduced that lead to faster notification procedures. Therefore, notifications to "pre-consent facilities" are often referred to as fast-track notifications.

In Austria, MGG companies were already recognised as "preconsent facilities" many years ago. Fast-track notifications basically simplify legal waste shipments in Europe. "But for the time being, of course, this only applies within the EU," says Slijkhuis, pointing out the drawback of this concept. It is possible, however, that this procedure will also be introduced at the OECD level, because the concept of prior consent has already been included in principle in the OECD rules.

The biggest challenges are still with global shipments. As a member of the StEP (Solving the E-Waste Problem) Initiative, Chris Slijkhuis contributed to a working paper entitled "Practical Experiences with the Basel Convention". The results of this work were presented at the Basel COP (Conference of the Parties)

2022. One proposal of this paper would be a regulation stating that port stops of container ships are not transit and that competent authorities in third countries are provided with more human resources, trained and enabled to carry out notification procedures in a harmonised manner. Countries that have little experience with notifications should be trained accordingly. "Above all, we urgently need faster procedures when it comes to pre-consents. These pre-consents should be established throughout Europe for treatment facilities that comply with the law," Slijkhuis demands.

"Unfortunately, the planned improvements will still take time. We are talking about several years. But the improvements and the acceleration through simplification of the notification processes are urgently needed. We absolutely need a change in thinking from linearity to circularity! Because this also goes hand in hand with the realisation that waste should not be considered to be a problem only, waste should be considered as the new raw material source, that opens up a world of material recovery," Chris Slijkhuis looks to the future.



"At some point in the circular economy it must be determined which ingredients are present in the material used. Ideally at the end of the recycling process."

Rain battle on the Wachauring

On 17 June 2023, the MGG Cart Trophy took place on the ÖAMTC Wachauring near Melk. Despite adverse weather conditions, eight teams from four countries fought for victory. The top spot on the podium was secured by Team Metran 1.

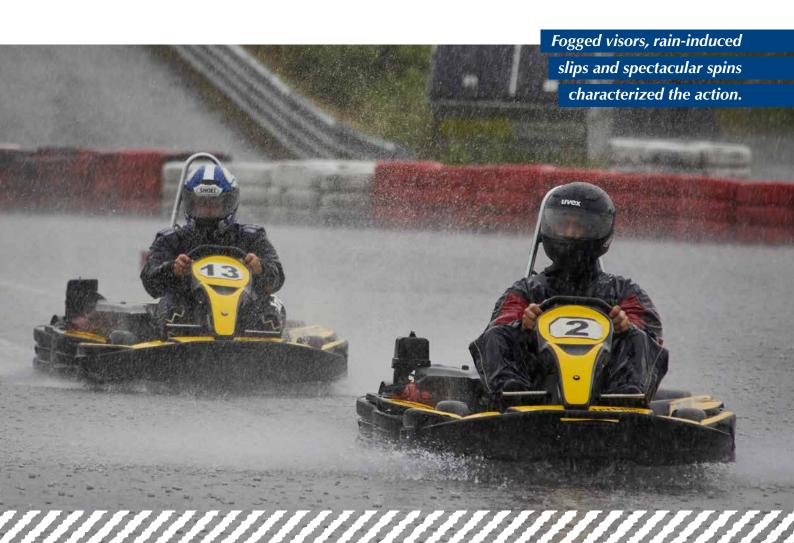
The race day started perfectly. In bright sunshine, the drivers from four nations – all employees of the Müller-Guttenbrunn Group – completed the test run as well as the qualifying. But after lunch, dark rain clouds began to gather. When it got serious for the teams and they went to the start, torrential rain set in, which accompanied the approximately 50 participants until the end of the race. In order to offer a little protection from the water masses, the ÖAMTC kindly provided rainwear.

However, the wet weather could not affect the good mood and motivation of the riders. A turbulent and eventful race took its course. Fogged visors, rain-induced slips and spectacular spins characterised the action. The winner of the rain battle at the Wachauring was finally the Metran 1 team – then again in bright sunshine – but the winners were everyone – on and around the race track. In a good mood and sensationally motivated, they

stood up to the rain and made the day a perfect event. CEO Christian Müller-Guttenbrunn was also highly motivated at the wheel of one of the racing cars. "It was really a challenge to compete in these weather conditions. Respect to all my fellow competitors who made this race an unforgettable experience. Despite a few rain-related slips, thank goodness everyone remained unhurt!"

The good mood on the course was certainly also due to the culinary care of all participants. In the morning there was coffee and pastries, and at lunchtime the restaurant "Gastwerk" served a warm buffet directly at the race track and thus provided for the physical well-being. At the end of the day, the award ceremony was on the agenda. The teams in first, second and third place were honoured with a trophy, and all other participants received a medal.

A successful event ended as it began: with lots of fun and happiness... and a strengthened sense of unity. Last but not least, a big thank you to Alexandra Müller-Guttenbrunn for the perfect organisation.

















"The world's best team"

Johannes Müller-Guttenbrunn has been part of the MGG Polymers team since the first test runs in 2006. He knows the factory like the back of his hand. Today, he is a shift supervisor and proud to work in such a great team. In an interview, the 40-year-old reveals what his working day is like and what he particularly appreciates about his job.

Mr. Müller-Guttenbrunn, you have been working here at MGG Polymers for almost 20 years. What have you experienced during this time?

JOHANNES MÜLLER-GUTTENBRUNN: At the very beginning, I had the opportunity to see Mike Biddle, the founder of MBA Polymers, in full action. He came to the factory early in the morning, day after day, put on his overalls in the locker room and worked with us to set up the machines. A very hands-on person, you could feel that he wanted to put his ideas into practice, and he did it successfully. A lot of innovation was required, especially in the first five years, because the plants first had to be adapted to our conditions and optimized. Looking back, a lot has happened since 2006.

That means progress is the be-all and end-all here?

MÜLLER-GUTTENBRUNN: As I said, a lot has happened since the systems were commissioned. You can tell just by looking at the fact that one line is operated by one or two team members and no longer by four or five people. To achieve this level, the machines have been optimized and further developed over the years. This also improved the working conditions for the employees. For example, a few years ago we installed a bridge between two machines so that we don't have to permanently climb down from one machine and up to the other. Any employee can make such suggestions for improvement. If anyone in the company has an idea for optimization, they can submit it to the Employee Suggestions Department. Because: We can only develop further together.

What has this further development meant for you personally? MÜLLER-GUTTENBRUNN: I have grown with my tasks. Over the years, I've gotten to know all the machines better and better. Today, I would even go so far as to say that I have seen every error

day, I would even go so far as to say that I have seen every error message at least once. No malfunction can surprise me anymore. But above all, fixing these errors has made the teamwork with my colleagues even closer. When you solve problems together, you learn to know each other better as well.

Which tasks do you expect as a shift supervisor on a working day? MÜLLER-GUTTENBRUNN: Every day is different, and it is exactly



this variety and the challenges that I really enjoy. As a shift supervisor, I'm more or less the pivotal point in production, where everything comes together. Another important point is the handovers between the shifts. Since 2021, we have been working in five shifts, which means that the transfer of information in particular has to work perfectly. There are organizational and technical activities, which makes my work area very broad! On top of that, there are also personal challenges within the team. And in this context, my secret weapon is patience – basically, there's a solution for everything, as long as you communicate in a reasonable way.

So you definitely keep an overview of the big picture. What else do you appreciate about your work?

MÜLLER-GUTTENBRUNN: Everything at MGG Polymers is in general very cooperative. I appreciate my team because despite the interpersonal challenges that come with being a team, we stick together. No matter what we are facing, we find a solution together. A very special moment was my birthday last year. My team surprised me with a 40th birthday banner in front of the office. That was something that had never happened before! It's really great to know that you're appreciated as a shift supervisor. There's a wonderful sense of community throughout the company; it's like being part of a big family.

Why do you enjoy working for the Müller-Guttenbrunn Group?

MÜLLER-GUTTENBRUNN: For the young generation, the topics of sustainability and climate are very important. We at MGG think and act green, the environmental awareness is our biggest concern. That's why we draw attention to the important issue of proper recycling in many ways. After all, at Polymers we do not produce any new plastic, but save huge amounts of CO₂ by recycling so-called post-consumer plastics. This is an extremely effective and efficient approach to climate protection. This is also one of the reasons why working for us is so varied and exciting.

So, it's important for you to work for a sustainable company. How do you deal with the topic of recycling at home?

MÜLLER-GUTTENBRUNN: I've been separating waste quite consistently since I was a child. In our two households, for example, only half-full ton of residual waste is produced in two weeks. We really do separate everything that can be separated. In my private and professional life, recycling is a decisive factor. I am convinced that every individual can contribute to climate protection. And I also have many general ideas for improvement. Furthermore, I think that the local collection centers need to be made more accessible. If we look around the Amstetten area, not only is



the number of collection centers too low, but the opening hours could also be expanded. Many people get annoyed because the waste disposal is not compatible with their daily work routine. It should be made as easy as possible for the population to recycle in a meaningful way.

Do you think more people would then pay attention to waste separation?

MÜLLER-GUTTENBRUNN: I am absolutely convinced of that. Although we in Austria are among the global leaders in terms of recycling, there is still a lot of room for improvement. For example, a common set of rules for the collection centers would be a good first step. We could recycle a lot more if there was even better separation of waste.

Is there anything else you can and want to tell us about Johannes Müller-Guttenbrunn as a private person?

MÜLLER-GUTTENBRUNN: In summer I like to play golf to relax from work, and in winter I head off to the ski slopes, provided the snow conditions allow it. My children also have great fun on the slopes! Besides that, there's always something to do around the house and in the garden, and I do as much as I can by myself. If there is still time left over – which happens rather rarely – I also enjoy sitting around and relaxing.

We can see that you take a lot of joy in your work – we wish you all the best for the future!



Visions and

non-cyclical expansion

The challenges posed by the current economic situation are also keeping the Müller-Guttenbrunn Group busy. Discussions about full warehouses and price problems were not only on the agenda at FAKUMA 2023. The company is also facing up to the current difficult economic phase internally. However, this phase should not be confused with permanent changes. The focus therefore remains on the future. And that is precisely why investments are being made right now.

The Müller-Guttenbrunn Group is responding to the current global economic situation with acyclical investments and expansions, and the outlook for the future is correspondingly positive: "We must not make the mistake of only looking at the economic phase and overlooking the permanent changes," explains Günther Höggerl, Managing Director of MGG Polymers. "Plastic has found its place in the world of materials and will continue to do so. The recycling and reuse of plastics still has huge potential compared to other materials," says Höggerl, painting a positive picture of the future. Gunther Panowitz, Managing Director of MGG Metran, echoes this sentiment. "We have no reason to bury our heads in the sand, quite the opposite. We have great visions that are ready to be realized. That is why we are continuing on our chosen path towards the future".

Conversions and new buildings. Reorganization and restructuring.

MGG Polymers, the competence center for plastics recycling, is pursuing a multi-year investment program, internally called "Growth Strategy 2030". Only around 9% of the plastics used

worldwide are currently recycled. MGG Polymers is working relentlessly to increase this rate. Of course, the Kematen-based pioneers in the circular economy also assume that recycling rates will increase significantly in the future. This and the increasingly diverse requirements of Polymers' customers mean that larger capacities will be necessary in the future.

MGG Polymers already produces around 60 customer-specific product types with its compounding systems – by adding various additives to the respective base plastic. In order to be able to maintain delivery capability with this wide range of products, a corresponding stock level is required, which in turn requires space. "We have been aware for some time that we need to restructure and improve our premises," explains Günther Höggerl. "We need more space for recycling and compounding, but also storage space for our products in order to be able to guarantee our customers security of supply for all plastics."

A new distribution centre is being built on the MGG Polymers site, which will provide additional storage space, among other things. We are currently working on the necessary framework conditions for more recycling. To improve internal processes, the volume flows (incoming and outgoing material) within the company premises are being reorganized and additional storage space is created. The first construction activities for a new distribution center on the MGG Polymers site have already begun. The new center will be ready for occupancy in spring 2024. This will make it possible in future to make do without externally rented storage space, as is currently the case. A number of loading silos

will also be built for the delivery of products to customers by silo truck. The four compounding lines (extruders) currently in use will also be expanded in 2024.

At the end of the day, it's the overall package that counts

"MGG Polymers is characterized above all by the fact that we offer a complete package, not just plastic granulate in a container. We have been providing our customers with factory test certificates and many other certificates for years, we provide support with further processing on the machines and offer special quality aspects," says Höggerl, proud of what has been achieved. "Ultimately, this is what sets us apart from other suppliers."

Similar challenges at Metran

The second Müller-Guttenbrunn company in Kematen – MGG Metran – also needs more space. As part of a total investment package of 10 million euros, an additional hall with a floor area of 2,000 m² and a height of around 15 meters was built in autumn 2023. PV panels with a total output of 600 kilowatt peak will be installed on the new "Hall 10" to ensure sustainable energy generation. In addition, the heating system will be activated by heat pumps. Construction work on the hall is in full swing. "We expect to be able to start installing our machines in the middle of next year," says Gunther Panowitz, Managing Director of MGG Metran. 50% of the newly created space has already been planned, as a new composite processing plant is to be installed

in Hall 10, which is scheduled to go into operation in December 2024. "This plant will be able to detect much smaller particles than the machines we already operate. The smallest is 0 to 0.2 mm," says Gunther Panowitz, looking forward to expanded separation options.

The new wonder weapon

Machines and systems are also being regrouped in MGG Metran's existing halls in order to achieve greater efficiency. Infrastructure such as electrical systems have to be adapted or newly installed, for example a third transformer. And there are other systems and machines that have been put into operation or will be in the near future, including an X-ray fluorescence separation system for grain sizes from four millimetres. "We will be particularly efficient in the treatment of aluminum sandwich panels, for example," explains Metran Managing Director Panowitz. If everything goes smoothly, the system will be in continuous operation 24 hours a day, 7 days a week.

Next level: Artificial intelligence

The use of artificial intelligence is still a dream of the future for Gunther Panowitz, but it is certainly conceivable. "Machines with cameras that work in a similar way to the human eye would take us another step forward. We would make room for sorting robots of this kind in our halls," says Panowitz, immediately forging a new plan. Because: That's how it works at MGG!



Big meets small: Sigi's passion for trucks

Siegfried Kamleiter is a truck driver at MGG Metrec. He has fulfilled a childhood dream with his job: Driving trucks. Loaded with scrap iron, he travels all over Austria on behalf of sustainability. Now his profession has also found its way into his private life. The passionate model maker has built a scale replica of a remote-controlled MGG truck. And even the paintwork was done in MGG design!

Siegfried Kamleitner is a professional driver and has been working at MGG Metrec, the company where his father was already employed as a truck driver, since 2020. As a boy, Siegfried was fascinated by the big truck driven by his father. He was often there and marveled at the truck with wide eyes. Years later, Sigi, as he is commonly known, became a driver himself and has been driving for MGG Metrec since 2020. There are also parallels between father and son in their private lives: model making. While his father spent his free time building model trains, Sigi's heart is set on building larger vehicles. Currently, he is building remote-controlled trucks.

And so it came about that Sigi's profession, which he pursues with great passion, has also found its way into his private life. In the spring of this year, he began building a model of a Mercedes Actros truck that looks exactly like the MGG truck that his colleague and friend drives on a daily basis and which looks very similar to Sigi's professional vehicle. When asked why he didn't build "his" truck, Sigi answers pragmatically: "The model was a whole lot more expensive, so I just bought the other one."



Truck 24/7

Sigi started assembling in March 2023. "I came home from work, took a shower, ate a few bites and then I started building," he says, recounting a very intense time. It took him around 700 hours in total before he was finally finished. But you're never really finished with a project like this, as Sigi vividly explains. But let's go back to the beginning. The basic model was quickly assembled, and it was also driven relatively quickly. But then it's time to get down to the nitty-gritty of model building. The standard kit only provides the basis. Add-on parts, additional equipment, extra features such as lights and sound, the remote control, the paintwork – and much more – are then added separately. Sigi has invested a lot of time and money in this: High beams, warning lights, headlights, fog lights and much more were fitted, and a sound system that "plays all the tunes" was installed. The final paintwork and decals made it perfect: the MGG truck "in small".

No models for the glass cabinet – they have to prove themselves in real operation

The remote-controlled model truck is 12 km/h fast, but speed is not the goal here, it's the power that counts. "I can load the trailer with a 10 kg load," says Sigi. "We built a small wall in the garden this year. An RC model excavator did the digging and the excavated material was taken away by my truck. It felt pretty real," he says with a big grin on his face.

Sigi gets ideas and inspiration for the further development of his models from the Internet or at model building fairs, which he regularly attends. He is not alone in his passion. One of his friends – also a truck driver by profession – indulges in the same passion. Together they spend a lot of time with their hobby, where building is the main focus according to the motto "The journey is the destination". They often take the truck off-road, often over hill and dale and through mud and dirt. "I don't build models for the glass cabinet. My trucks are functional models," Sigi likes to emphasize. And if something breaks during operation – no problem. He knows all about repairs.

Can shredder and concrete crusher

Committed to the idea of recycling and sustainability, Sigi already has his sights set on his next model-making project. It will be a (beer) can shredder so that the aluminum waste at home doesn't take up so much space and can be collected better. And then a



concrete crusher, drawn in AutoCAD, powered by a 24-volt battery, is planned as a joint project with a model-making colleague. A really powerful piece. He never runs out of ideas. Sigi is not a member of a RC-club. He is also not – yet – prepared to present his masterpieces at trade fairs or exhibitions. But who knows, maybe that will come. After all, he only started his hobby at this level of intensity less than three years ago.

The next generation

The youngest of his three daughters, nine years old, supports him within the family. She shares his passion for assembling things. And she also loves to accompany her father to his real, big truck. The one he drives on the roads of Austria every day for work ...



TECHNICAL INFO:

Towing vehicle:

- Mercedes Benz Actros 1851 from Tamiya
- 1:14 electric RC model truck kit
- 3-speed manual gearbox
- Maximum speed: 12 km/h
- 14-channel remote control, some channels assigned multiple times
- Extensive extensions and numerous functions:
 Sound effects, various lights, indicators, signalling lights,...

Trailer:

- 1:14 electric RC model dump truck from Carson
- Maximum load: 10 kg
- Length including trailer: approx. 1 meter
- Various functions such as various lights, tilting, lift axle,...

No truck can get past her

Edith Washüttl has been with MGG Metran since 2005 and is part of Gunther Panowitz's core team. The trained accountant joined the company by chance. Although she originally dedicated herself to the world of numbers, today she is passionate about the handling of lorries.

Mrs. Washüttl, how long have you been working at Metran and how did you find out about your current job?

EDITH WASHÜTTL: I am a qualified accountant and really enjoyed my work for a tax consultant. When my husband and I decided to start a family, the plan was for me to stay at home with our children and only return to work when they started school. But things turned out differently – as they so often do in life. After a year and a half, I realised that I wanted to go back to work. So I looked for a job that was compatible with my family situation. In 2005, friends drew my attention to a vacancy at MGG Metran.

But the job offered was not that of an accountant, was it?

WASHÜTTL: That's absolutely right. Nevertheless, I applied. And I haven't regretted it to this day. I was offered a part-time job that was easy to combine with young children and family due to its proximity to my home town Mauer. After the interview with Gunther Panowitz, who is still my direct line manager today, I spontaneously decided to join the company. The area of responsibility sounded exciting.

What exactly do you do now?

WASHÜTTL: Together with a colleague, I am primarily responsible for handling all trucks coming into or leaving the plant. The drivers of lorries delivering mixed raw materials have to be allocated a place to dump the load. If goods are collected, it must be checked whether the lorry has been notified in advance and what or how much specifically needs to be loaded. In both cases,





internal communication with colleagues at the site is extremely important so that loading and unloading can take place quickly and waiting and idle times can be kept as short as possible.

Every load, regardless of whether it is coming in or going out, has to be weighed, which is why the lorry drives onto the weighbridge. At my workplace, I am connected to the scales by computer and can operate them from the comfort of my desk – even in the cold season. Once the load has been weighed and an unloading point assigned, the lorry can be unloaded. When a lorry collects goods, I take care of issuing the necessary transport documents while it is being loaded, which are handed over to the driver when it leaves the factory. As I am also responsible for the load and weighing, I make sure that the load weight is correct. Not only would overloading be very dangerous, but the penalties for drivers in the event of an inspection are extremely high.

That sounds like a lot of stress potential – how many lorries do you usually complete per day?

WASHÜTTL: Thank God I'm blessed with good nerves. I can't be shaken so quickly. So far this year, the average has been 20

lorries per day. That may sound feasible on the surface, but it's difficult because the lorries don't arrive spread out over the entire day, but mostly in clusters. On a busy day, there can also be up to 40 lorries passing the scales. On those days I'm exhausted in the evening and glad to be able to go home after work.

What else is part of your job?

WASHÜTTL: I take care of practically everything that my colleagues "bring in from outside". For example, loader reports have to be entered or forklift logbooks updated. And, of course, everything that is weighed has to be entered into the warehouse accounting system. My former work as an accountant and my affinity for figures really come in handy here.

You have been in the same job since you joined the company. How has the work changed despite this?

WASHÜTTL: When I started here in 2005, the volume was much lower. I was a part-time employee back then, and a colleague did the weighing in the afternoon alongside his main job, so to speak. That hasn't been possible for a long time now. My hours were constantly increased and I've now been working full-time

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for years. Apart from the fact that considerably more goods pass through the scales, the bureaucratic effort has increased many times over. Today, a large number of documents and forms have to be filled out and signed before a truck or container can leave the factory. Organizing the customs documents alone often takes a lot of time. The customs service office in Amstetten, which is my point of contact here, also suffers from the increasing bureaucracy, which often results in unpleasantly long waiting times for drivers and freight forwarders. Apart from that, the same applies here as probably everywhere else: you have to move with the times and not close yourself off to innovations. That suits me very well.

That's a good transition: What does it take to do your job well? What makes you stand out?

WASHÜTTL: I am a resilient person who is not easily flustered. That really benefits me here, as things can get very turbulent at times and I'm faced with a lot of demands at the same time. Nevertheless, it's important to maintain a friendly tone, and a nice smile doesn't hurt. Flexibility is also one of my strengths, which is helpful in many situations.

Interim question: Do you enjoy your job?

WASHÜTTL: Thank you for this question! Yes – it's fun! It's the variety, as I mentioned earlier, that I appreciate so much. As I am a very communicative person, in addition to my passion for numbers, I can live out all my strengths here. And: no two days are the same, so there's no monotony.

Now that we have gotten to know your work, please tell us something about Edith Washüttl as a person.

WASHÜTTL: I am married and live with my husband in Mauer

near Amstetten. Our children – our son is 25 and our daughter is 26 – are both already working and have moved out of the family home. A comfortable home is very important to me, which is why I enjoy looking after the house and garden in my free time. Some time ago, my husband and I discovered our love of dancing and we attend dance classes together. And then I also do voluntary work. I am a driver for the "Tafel" food bank and have been working at the Amstetten Lions flea market for more than ten years.

How important is recycling and sustainability to you in your private life?

WASHÜTTL: Sustainability has always been very important to me, even before my time at Metran. Separating waste is a matter of course. We even have a small circular economy at home in certain areas. Two examples: the water from the dehumidifier is used for the ironing station and the neighbor's chickens get everything they are allowed to eat.

One last question: what is the collection garbage can next to the staff entrance all about?

WASHÜTTL: It bothered me that we here at MGG Metran, virtually at the heart of recycling, simply throw the valuable raw material aluminum into the yellow bucket in the break room. When I came across this collection garbage bin, I quickly declared it an aluminum can collection bin, placed it at the staff entrance and asked my colleagues to dispose of their beverage cans here. Every now and then – as I did just now – I take a look in this dustbin to make sure that no incorrect waste has got lost among the aluminum cans. Waste separation is important to me. And when it comes to things that are important to me, there's no way around it!

MGG Polymers: Maximilian Hager is

second Managing Director

The plastics recycling company MGG Polymers in Kematen an der Ybbs is looking forward to an innovative future. In order to be well prepared for the tasks ahead, the management of the company has again been strengthened with a second managing director. Maximilian Hager, who comes from Weyer, took up his duties on 3 July 2023.



Since the beginning of July, Maximilian Hager, who has a degree in business administration, has been working alongside Günther Höggerl as the second Managing Director of MGG Polymers. Hager has 30 years of management experience in the banking sector and first came into contact with MGG Polymers 19 years ago in the course of his former job. Since then, he has worked intensively with the recycling pioneers as a commercial account manager.

For quite some time, the father of four children had been thinking about a career change. The desire to do something meaningful, something "completely different", became more and more concrete and finally led him to retire from the banking business at the beginning of this year – on good terms. It was not long before the Müller-Guttenbrunn Group made him an offer to join MGG Polymers as second managing director, which he immediately accepted.

Dual leadership is the norm at Austrian MGG companies

For MGG-CEO Christian Müller-Guttenbrunn, this is a correct and important step: "I am glad to have Maximilian Hager on board, a proven financial expert who knows our companies for many years. In addition, we wanted to engage a second managing director at Polymers again, since all our Austrian companies are run by two managing directors."

"With Maximilian Hager's
commitment, we are perfectly
positioned for the upcoming
expansions."

This dual leadership philosophy had also been followed at Polymers with Günther Höggerl and Chris Slijkhuis from 2019 until Slijkhuis' retirement in May 2021. Since then, the second managing director had been vacant.

"With Maximilian Hager's commitment, we are perfectly positioned for the upcoming expansions. We have a lot planned, the market is constantly on the move and our goals until 2030 are extremely ambitious. I have known Max Hager for a very long time and look forward to working with him. The two core topics of finance and human resources are in good hands with him," says Höggerl, looking optimistically to the future.

Höggerl, who has a degree in plastics engineering, can now once again focus more on technical agendas and sales, while Maximilian Hager formulates clear goals for his areas: "Of course, I first have to become acquainted with the topics of the company. One of my first goals will be to strategically position the staff in an optimal way with regard to the planned further expansion steps. And in the future, I would like to make a contribution with my work at MGG Polymers to further promote the exemplary function of this company in the area of "resource-saving, sustainable management and environmental protection". Above all, it is a great wish of mine to introduce our young people to the idea of sustainability in dealing with raw materials."

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