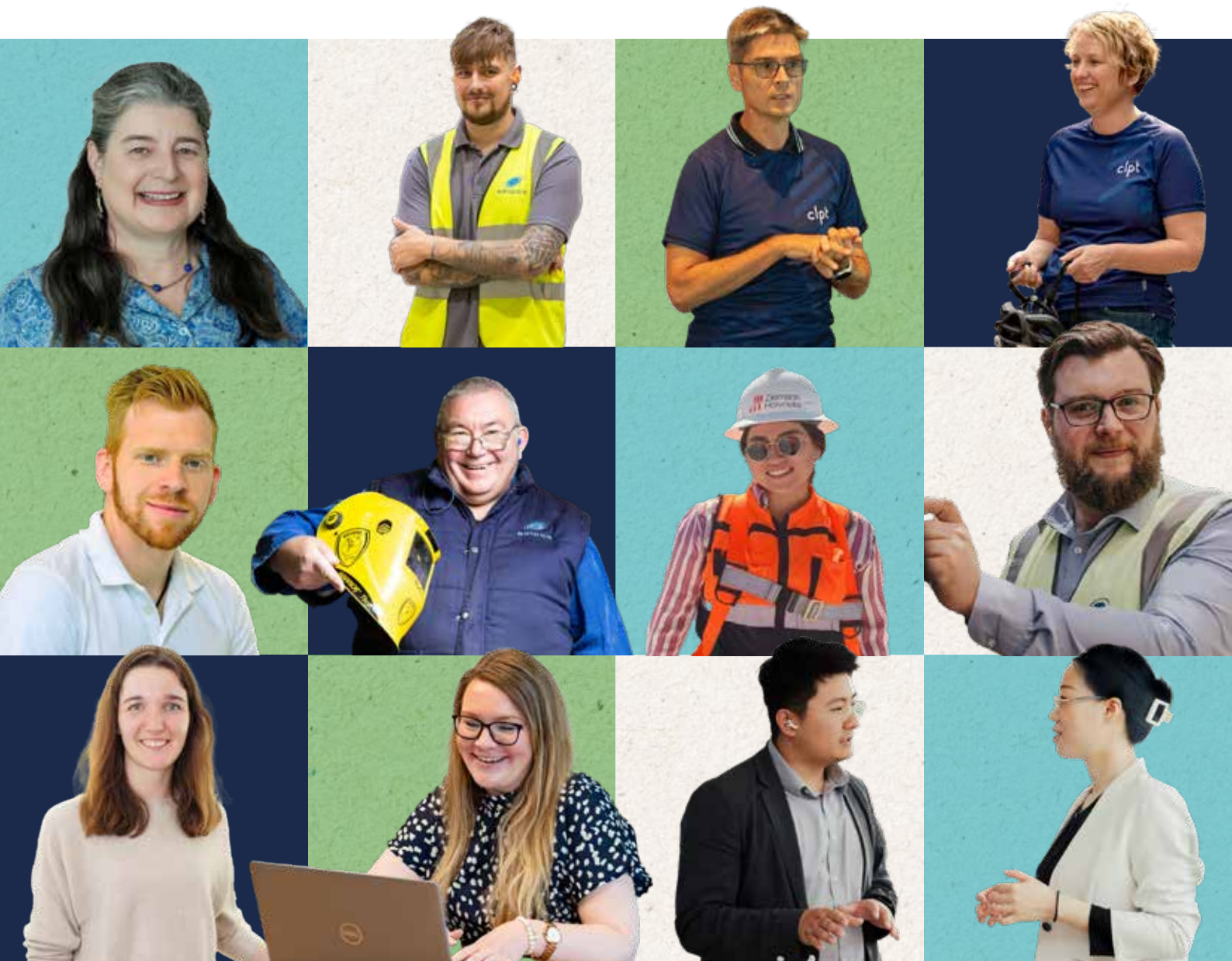


Sustainability Yearbook 2025

Our People, Our Operations, Our Solutions



clpt CIMC Liquid
Process Technology

 **Ziemann**
Holvrieka

 **BRIGGS**

 **DME**

 **Künzel**

 **McMILLAN**
COPPERSMITHS

Introduction

“It’s great to know that compared to our 2021 baseline, we’ve reduced our emissions by more than 70%.

But as this report suggests, sustainability goes beyond CO₂ measurements. Its pages rightly cover many decarbonisation initiatives to be proud of, yet there’s much more to celebrate. For example, the stories of remarkably long and loyal service in our ranks; safety ideas that have crossed between our businesses and over borders; our work to help advance greener forms of medication in the pharmaceutical sector; and the highly specialised expertise we’re lucky to possess.

And with its many varied stories in mind, the report shows the importance of looking after our people, planet and professional responsibilities, in harmony and all together.”

Klaus Gehrig, CLPT Group President

In October 2023 we published our Sustainability Framework – Process and Progress – which showed how we’re embedding sustainability into our day-to-day activities and decision-making. We’ve achieved so much already and are pleased to share the progress from our 2024 performance in this report.

Since publishing our framework, our company has grown: for instance, we’re delighted to now include Künzel products within our portfolio and to have a major new manufacturing facility operating in Mexico. And as our business has expanded, our sustainability targets have stayed high.

Central to our ambitious goals is the aim of achieving climate neutral operations by 2030. And having reduced our CO₂ emissions by over two thirds compared to our 2021 baseline – a transformation in a short time that reflects the dedication of our employees – we believe we can approach the future with optimism.

The report contains stories that showcase our actions against our six sustainability initiatives:

- **Future Workforce**
- **Safe & Healthy Workplace**
- **Responsible Business Conduct**
- **Clean Operations**
- **Sustainable Innovations**
- **Resource & Climate Solutions**

It also unashamedly focuses on people – the individuals and teams who are creating change and driving us towards our sustainability goals every day, as well as some of the customers and collaborators who are setting great examples and helping us strive for net zero.

We hope you enjoy the report and take heart from it, and we thank everyone involved in our ongoing sustainability growth for all of your efforts.

The CLPT Management Team



CLPT Sustainability Framework Themes



Future Workforce

Our teams span four continents, many countries and several time zones. But while different languages and local characteristics are found at each of our locations, it is our people – the endeavours they share, the connections they form – that bind us together.

It stands to reason, then, that the success of our business relies on the people we employ. Which means we need to understand and anticipate the impacts of outside influences on our businesses, and ensure our teams meet our present and future needs. Training, retaining and growing our people, with skills, capacity and diversity in mind, will continue to be at the heart of our initiatives.



Safe & Healthy Workplace

Safe working practices and healthy staff aren't just a positive contributor to our business, they're a crucial factor in our ability to deliver what our clients want. Indeed they help us to make sure that our customers can count on the talent and commitment of dedicated professionals.

A key principle for us is our commitment to ensuring the occupational health, safety and wellbeing of our employees, contractors and visitors. Whether it's at our offices, fabrication shops or construction sites, our goal remains zero harm to all affected by our actions and decisions – a standard that runs through our design and innovation programmes too. And by continuously improving our H&S performance, we'll find ever safer ways to manufacture and distribute our products and services.



Responsible Business Conduct

A company can only be as successful as the culture it creates, guides and nurtures. So we strive to maintain high standards of corporate governance, standards that help grow our business as a responsible and trusted partner. As part of this, we welcome the scrutiny of others and always expect wrongdoing to be highlighted and addressed.

Acting with integrity is a core value for our business. Our culture and attitude, which seek to go beyond what's expected, are communicated and practised both top-down and bottom-up. And we'll keep pushing to educate and empower our teams, so that professionalism and good business conduct come as standard with our people.



Clean Operations

Because we're serious about sustainability, cutting down on the CO₂ emissions of our own operations is one of our top priorities. We're focused on achieving CO₂ neutrality in our offices and production environments, as well as helping our customers to lower their emissions.

We continue to implement the CO₂ reduction plans developed for our places of work, which focus on gains in energy efficiency, lowering energy consumption and transitioning away from fossil fuels. We also recognise the importance of delivering reductions in water usage and waste. And by achieving great 'clean' results from our own efforts to operate more responsibly, we build a stronger platform to promote the amazing technologies we can supply to clients with the same aspirations.



Sustainable Innovations

Many of our customers have ambitious goals to reduce their CO₂ footprints. In some cases they'll be pursuing these targets while operating assets we've designed and commissioned for them, equipment they'll be relying on around the clock and for many years to come. So our products and solutions should recognise both the opportunity and the obligation we have to support them with their sustainability ambitions, now and in the future.

Standing still is not an option. The continuous innovation of our products and services enables our customers to conserve more resources at both existing facilities and new-build sites in the near-term future. Our commitment to research and development spans the globe and allows us to collaborate with some of the world's most respected academic institutions, including exciting early-stage research that has the potential to influence our sector for decades.



Resource & Climate Solutions

Sustainability is fast becoming an integrated element of our engagement with customers, especially through the products and solutions we offer. But we must work as partners, because open-minded collaboration, across different fields of expertise, will be key to making the changes needed throughout our value chains.

It's worth reminding ourselves that, with our collective size and expertise, we can contribute to the global shift towards a low-carbon circular economy. Listening to and engaging with our customers and other experts will see us better able to create the step changes required to make a difference. But fundamentally, we are ready - ready to build future-focused, resilient and ever more efficient systems and solutions.



Helping to: train, retain and grow our people

Future Workforce

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It stands to reason, then, that the success of our business relies on the people we employ. Which means we need to understand and anticipate the impacts of outside influences on our businesses, and ensure our teams meet our present and future needs. Training, retaining and growing our people, with skills, capacity and diversity in mind, will continue to be at the heart of our initiatives.

Taking our talent further

Growth shouldn't just be something a company looks for in its finances, it must be part of the plan for its people too. At CLPT Group, we're committed to fostering a culture of continuous learning and development for all our employees. And we believe in empowering both young professionals and long-serving team members to progress and flourish.

By offering a mix of training programmes, mentorship and leadership development, we ensure everyone has the opportunity to enhance their skills and stay ahead in their careers. Our vision is to create an environment where learning is a lifelong passion, one that enables every employee to thrive and contribute meaningfully to our shared success.



From trainee to trainer

A great example of our ethos is found in the stories of Adriana D'Amico and Leonie Schüller. Both began their careers with Ziemann Holvrieka as apprentices, but when they'd completed their on-the-job learning they opted to continue their training within the company.

Now both Leonie and Adriana are responsible for vocational training themselves, at the business's Ludwigsburg and Bürgstadt sites respectively. In Adriana's words: **"My professional career has gone from trainee to trainer and I can definitely recommend anyone who is not yet a professional to do the training for yourself and to gain your own experiences."** While Leonie notes that: **"The greatest success as a trainer is to have motivated trainees in the company, who feel they're well cared for."** It's a sentiment we want to see echoed across our group's entire workforce.

From students to coppersmiths

To mark Make-UK's National Manufacturing Day, in September 2024, McMillan Coppersmiths welcomed students from East Lothian Works to its base in Prestonpans.

There in its factory, just to the east of Edinburgh, the team helped to inspire the next generation of coppersmiths by giving their visitors first-hand experience of the craftwork needed to make copper distillation equipment. Since joining the BRIGGS Group in 2019, McMillan has recruited up to four apprentices a year, with each joining the team to learn the fundamental principles of copper fabrication and welding.

"The greatest success as a trainer is to have motivated trainees in the company, who feel they're well cared for."

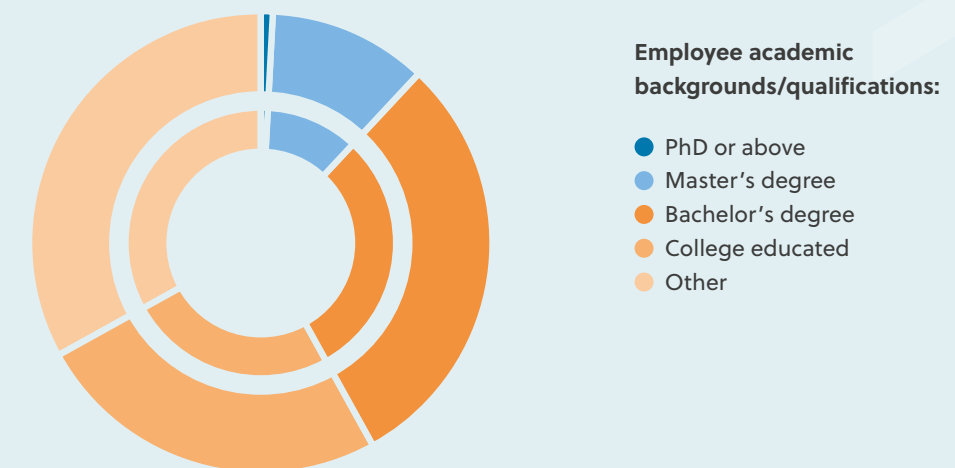


Celebrating careers

From fresh starts to seasoned professionals and upcoming retirees, our Group has resolved to create a workplace where employees can thrive throughout their careers. To that end, we're focused on fostering long-term engagement by promoting wellbeing, offering development opportunities and ensuring a healthy work-life balance.

We believe that when employees are motivated and supported, they stay with us for the long run. And by combining this with a dynamic environment that attracts and nurtures new talent, we create a strong, diverse team. So our goal is lifelong employment, where everyone feels valued and inspired to contribute until they reach their well-deserved retirement.

Employee academic backgrounds/qualifications:



Recognising colleagues with long careers

It's often said that the future belongs to young people. Yet the decades of knowledge and skills that our longstanding team members possess are vital to our youthful recruits' ability to tackle the tasks ahead.

We must recognise the priceless value of experience within our global workforce, which is full of examples of impressive careers and years of dedicated service. And nowhere was this more evident recently than at the BRIGGS Group Awards, held in summer 2024, which included a celebration of those who've committed large parts of their working lives to the company. With staff from England, Scotland, the USA and Mexico present, much joy and respect was on show as employees whose service spanned 10 to 45 years – and a combined total of 775 years! – picked up various prizes.

At the top of the totals were Bob Tarnai (Senior Fabricator) and Jason Machin (Lead Project Accountant), both UK-based and with 45+ years of service at BRIGGS behind them. Bob, who started as an apprentice in 1978, recalls: **"I didn't like metalwork at first, but I wanted a motorbike and my Dad had the sense to encourage me."** With years spent as a welder and sheet metalworker, he certainly stayed the course.

Jason, who began his career as a clerk, arrived straight from school and worked his way up as technology evolved around him. **"There were no real computers at the start, apart from an old accounting machine with magnetic strips which you'd feed cards into,"** he remembers. Being able to input his ideas, as computing revolutionised in-house financial systems, is something that Jason looks back on with pride.

However, that duo's impressive longevity has been eclipsed by Ziemann Holvrieka's Thomas Walz (Senior Site Supervisor). Having followed his father into the business in 1974, Thomas recently marked half a century of mechanical engineering and vessel assembly work, plus much more besides. **"I've always been happiest operating in the field – out in the real world and real life,"** Thomas states. With time spent on projects everywhere from Venezuela to the USA and Papua New Guinea, it's a treasured part of his working life that he shares with Bob, who fondly remembers trips to Germany, and Jason, who enjoyed encountering different cultures, as he did when working in India. It's a reminder too of how our people, from new talent to experienced campaigners, have long served up their abilities and expertise around the world.



Workforce age distribution

< 30	17%
30 – 50	57%
> 50	26%

Years of service distribution



Future Workforce

The success of our Group relies on the people we employ. We're therefore seeking to ensure that everyone in our global team has the support and opportunities they need to prosper.

Over
1500 staff
across the world

A workforce of emerging talent with more than
40% of staff
having been in post for between 1 and 5 years

An organisation where
experience is valued
with almost a quarter of our employees having more than 15 years of service

Why wellbeing is a big priority

Pulling together at work helps both projects and people, so the wellbeing of our employees and the strength of team collaborations are key priorities. This stems from our belief that a healthy, balanced workforce is vital to sustained success. And it's why we offer wellness programmes, including mental health support and sports activities, which help to keep our employees energised and resilient.

We also foster a culture of collaboration, where teamwork and mutual support are essential. By encouraging open communication and group initiatives, we strengthen connections across departments, countries and cultures, ensuring that every team member feels supported, individually and collectively, to achieve shared goals. Because together, we're not only stronger, we're happier and healthier too.



A champion of positive change

Briggs of Burton started to recognise that Health and Safety is tied up with the wellbeing of its employees, so when the Head of HR approached Julie Fletcher about becoming more involved with a mental health initiative for the business, she was happy to help. The business was taking a fresh approach to mental health wellbeing, comprised of two main parts.

Firstly, a set of Mental Health Champions was established from volunteers across the business, with a view to ensuring all locations and levels within the business were covered. These individuals offer long-term support and guidance within the workplace, letting people know where they can get assistance and reducing the stigma that can sometimes exist around the subject. The Champions also seek to help people with their understanding of mental health and will, for example, reach out to people if they seem to be disengaged.

Secondly, a group of Mental Health First Aiders is being created, using volunteers. Focused more on helping with short-term challenges. Mental Health First Aiders use a variety of means to provide support, including being trained on how to identify, understand and respond to someone needing help with their mental health. It's hoped that the roll out of first aiders will see continued success in future.

Sustainability Voices

Julie Fletcher,
Legal & Business Development Director

"I think I was driven really by a desire to ensure a healthy working environment. Take anxiety: it shouldn't be treated casually or as a problem but, like dyslexia, in a proper way. And while everyone has their ups and downs, we need to think about when stress turns bad, because some people thrive under pressure, but others feel it very differently.

Making the initiative globally available for all BRIGGS locations, in the UK, the US and Mexico, has been a big but important challenge as well. In Mexico, for example, we found local support groups to help, and now have a monthly mental health committee meeting established, that acts to share ideas and disseminate them to their teams.

It's a challenge to cover everyone equally too. We have such an age-diverse workforce and tend to find that younger staff know more about the subject and are more open to it, while older colleagues have a greater tendency to shy away from it. As we know it is never easy to discuss these topics, but having Champions and First Aiders drawn from our workforce, across all levels and locations, means that you are never far from help and it's good that you don't need to go through your manager or to HR to get the support you need. It's also great to know that the work we are doing about mental health at all our BRIGGS locations means that all our staff are safer and have a better work environment."





Ensuring we keep: everyone safe and healthy

Safe & Healthy Workplace

Safe working practices and healthy staff aren't just a positive contributor to our business, they're a crucial factor in our ability to deliver what our clients want. Because they help us to make sure that our customers can count on the talent and commitment of dedicated professionals.

A key principle for us is our commitment to ensuring the occupational health, safety and wellbeing of our employees, contractors and visitors. Whether it's at our offices, fabrication shops or construction sites, our goal remains Zero Harm to all affected by our actions and decisions – a standard that runs through our design and innovation programmes too. And by continuously improving our H&S performance, we'll find ever safer ways to manufacture and distribute our products and services.

Making safety count in Mexico

In September 2024, Alondra Jimenez began work at the Ziemann Holvrieka Mexico site. From her very first day during the initial construction stage, and as the new manufacturing facility started to take shape on the outskirts of the city of Saltillo, she's been overseeing the implementation of the health and safety programme. Months on, Alondra has built a health, safety and environment (HSE) culture from scratch and has transitioned to managing a permanent safety regime for tank-building.

Along the way her work has covered personal protective equipment (PPE), training, machinery, hazardous/non-hazardous waste and much more, all while working on legal permits and compliance, and handling the country's three-tiered government system of local, state and federal authorities. Needless to say, it's been quite an experience, with a prime task being to identify which of Mexico's 45 mandatory health and safety norms applied to the project, in order to carefully follow them.



Sustainability Voices

Alondra Jimenez, HSE Coordinator

"I like the HSE culture Ziemann Holvrieka have across the globe and want to duplicate it at our location here in Mexico. Workers' safety has always been a key goal, with its importance made even clearer by a Lost Time Incident (LTI) back in September, which led to formalised risk assessments, machine testing and constructors being challenged, if necessary.

"I like the HSE culture across the globe and want to duplicate it at our location here."

I always do safety inductions with contractors first too, because safety is our number one priority. Some workers have a pretty rustic attitude to things like PPE, but we've had feedback from suppliers saying we're the first to make them do things better. And seeing people more engaged, feeling they can suggest things, and that the culture runs through everything now, makes me really happy."



Expertise in stopping explosions

Künzel was founded over 100 years ago in 1922 and for the last 23 years, the company has been able to call on the knowledge of Rolf Krauss. A business full of specialist expertise and equipment, Künzel caters for breweries' needs in the first phase of brewing – 'from malt to mash', as the tagline puts it. But this dedicated focus sees it dealing with the dry areas of breweries, where dust clouds of fine malt particles can spell danger.

For the last 15 years Rolf has, among other things, been working in the ever-evolving field of ATEX, the shorthand name for European laws for the control of explosive atmospheres. It's an important and complex area, concerning the understanding and identification of zones where a spark can cause a major blast. You need special procedures and systems, and a lot of knowledge and experience of the analysis of potential risks to prevent such problems, but thankfully it's something that Künzel excels at.

"In new-build projects as well as on existing sites, we do assessments, plus equipment and engineering design, helping clients to run things safely and meet the needs of the law," explains Rolf. "For example, we'll make a risk analysis of a machine to determine if it's right for the legal and technical requirements of a particular explosion risk zone. And we'll do assessments where we've installed our own milling equipment, as well as for equipment manufactured and designed by others."

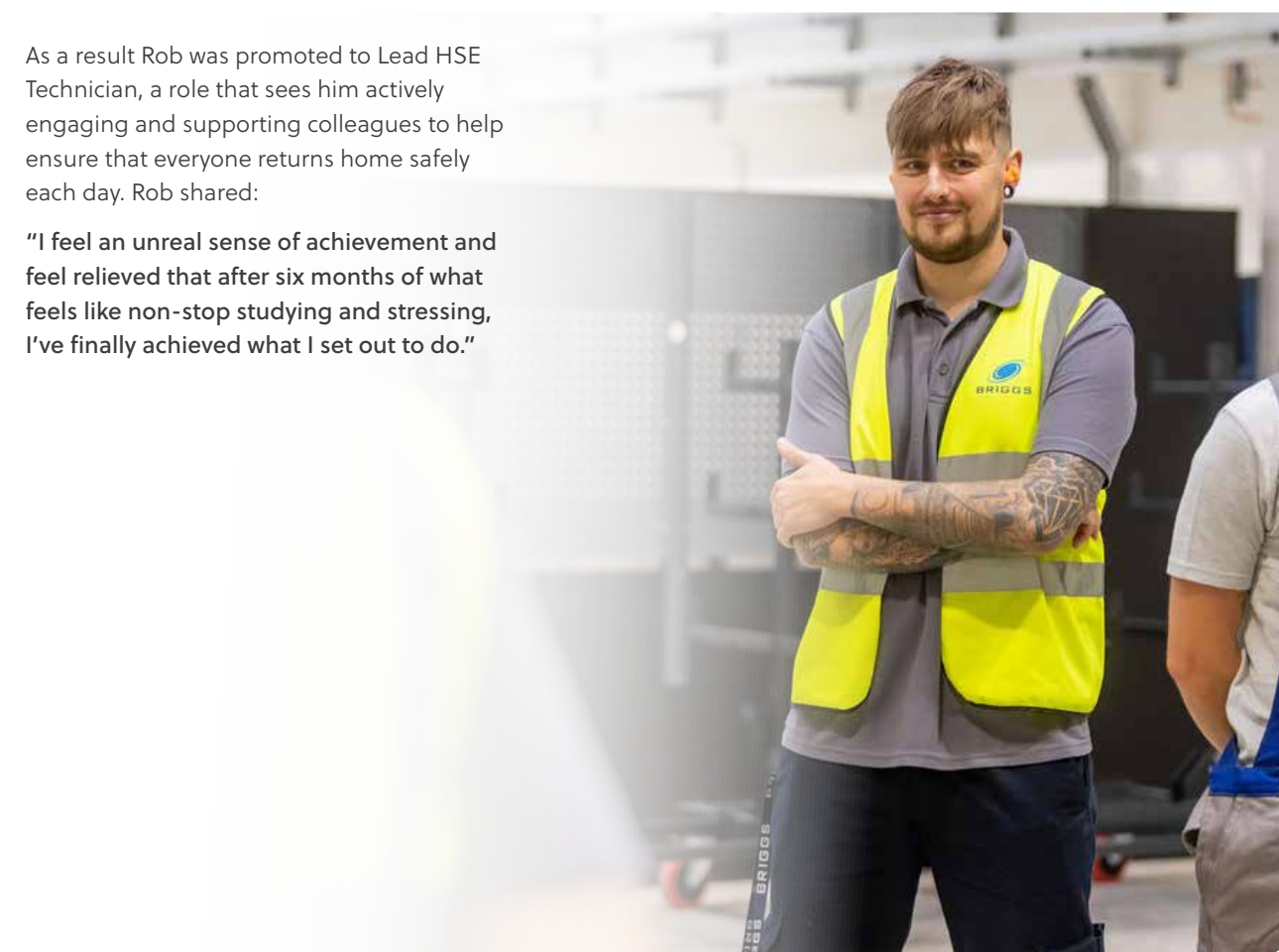
Künzel also investigates machine and plant design to identify potential ignition sources and will take appropriate measures to eliminate possible hazards. Advice and instruction form part of the company's services too. "We offer guidance, as well. Our customers normally ask for that and we'll gladly provide it, especially through the training of equipment operators," continues Rolf. "They're very important for keeping explosion risks to a minimum during everyday operations, and our training increases their understanding of the hazards, as well as the mitigation measures we've recommended and installed."

A studious approach to safety

Rob Goodhand provides a fine example of professional diligence, as well as being open to letting your line of work be led in a new direction. Having started his career at Briggs of Burton as an apprentice fabricator in 2006, Rob moved to the HSE team in 2021 and, in 2024, achieved a key aim by graduating with a Level 6 National Diploma for Occupational Health and Safety Management Professionals.

As a result Rob was promoted to Lead HSE Technician, a role that sees him actively engaging and supporting colleagues to help ensure that everyone returns home safely each day. Rob shared:

"I feel an unreal sense of achievement and feel relieved that after six months of what feels like non-stop studying and stressing, I've finally achieved what I set out to do."



 Sustainability Spotlight

Becoming an HSE benchmark

At CLPT China's base in Nantong, the focus on employees' safety has never been sharper. For example, managers make a detailed safety plan annually and after Chinese New Year the whole team gets together so that leaders can present and discuss the plan with the group. Everyone then signs a huge banner regarding the commitments made, which is hung in the canteen for all eyes to see. In fact, this striking visual safety feature has proved so successful that it's been adopted by British colleagues, at Briggs of Burton and McMillan Coppersmiths.

The team incentivises health and safety awareness through monthly evaluations, with certificates and cash rewards given to outstanding practices and behaviour. A further prize is bestowed once a year to an overall winner too, who receives their prestigious award from the general manager. It's an approach that's won hearts and minds, but also kept HSE high up in people's thoughts.

The drive to promote safety standards comes from the front line too. Annual Family Days allow workers to bring friends and relations on a Sunday to have a canteen party, play games, see their workstations and talk through safety together. A system has been provided for staff to suggest their safety ideas too, leading to big improvements in things like high platform work and tidy toolboxes. And all this work hasn't gone unnoticed externally, as HSE Manager Cheney Wu explains: "The government's safety agency now shows other company managers around our Nantong facility, as a great example of HSE culture and initiatives."



'See it, say it' for safety

A global Safety Observation and Conversation training module was rolled out across the Group during 2024. Based on the premise of "see it, say it", it encourages our colleagues to step in and discuss safety with their peers whenever they see good behaviours or practices which can nevertheless be improved.

All safety culture starts with senior teams and 65 of CLPT's senior team members undertook the training early on, during the first quarter of 2024. The training required participation over a full day, demonstrating senior staff's commitment to the Group's safety culture. The module's roll out then continued, with management, supervisory teams and operational colleagues experiencing it in turn.

In addition to this training, the Group has initiated a programme of Core Safety Teams. The teams hold a cross-section of employees and discuss initiatives and improvements at local level, before feeding back to the executive team via the business's Health and Safety meetings. There are presently eight teams throughout the Group and they've proven successful, contributing valuable discussion points and positive insights for our safety culture.

Training cascaded



65
senior team
members



115
managers,
supervisors
and operators



1200
hours

Safe & Healthy Workplace

'People first' is a core value for CLPT, because people are truly our most valuable asset. The safety of our employees and all the people we influence is therefore always our first priority. During the past year, we launched a global initiative to evolve our safety culture, with various steps and factors included.

8 core safety teams
established

65 senior team members
trained to make safety observations

Training cascaded to
115 managers, supervisors and operators

Over
1200 hours
of training delivered across the globe



Empowering our team: to conduct business properly

Responsible Business Conduct

A company can only be as successful as the culture it creates, guides and nurtures. So we strive to maintain high standards of corporate governance, standards that help grow our business as a responsible and trusted partner. As part of this, we welcome the scrutiny of others and always expect wrongdoing to be highlighted and addressed.

Acting with integrity is a core value for our business. Our culture and attitude, which seek to go beyond what's expected, are communicated and practised both top-down and bottom-up. And we'll keep pushing to educate and empower our teams, so that professionalism and good business conduct come as standard with our people.

Keeping people in the picture

Our sustainability framework recognises the need to communicate with stakeholders about our performance in this area. And because our people are not only the lifeblood of our business, but also key stakeholders, we're ensuring they're well-informed, as well as heard.

Since June 2024 we've produced internal 'Sustainability Yearbook' to explain related initiatives undertaken across CLPT, and to highlight efforts made locally by individual businesses.

The stories have covered topics as diverse as decarbonisation, the nature and importance of ESG reporting, and how the development of our future team is a significant aspect of a sustainable business.



Think twice through ESG reporting

Environment, Social and Governance (ESG) reporting is mandated by standards and regulations across the world. Although CLPT doesn't have to prepare an ESG report at the moment, we understand the value of establishing effective data collection systems in this field, to monitor progress and track improvements.

The starting point for many ESG reporting systems, for example in Europe and in China, is some form of Double Materiality Assessment, showing which of the mandated indicators are relevant to the business. Assessment narrows the long list of sustainability topics and indicators to those areas that can present risks or opportunities on two fronts: for the business, or for the environment and people.

At CLPT, we've completed our assessment already, as it helps us grasp issues that are key to our customers, employees and wider stakeholders, plus those where we can make environmental improvements. We've also developed a bespoke ESG reporting module that allows auditable data collection right across our businesses. So we're moving in the right direction on ESG, but watch this space as there's more to come.



Supporting the right to speak up

Whistleblowers and witnesses to malpractice can help companies to improve. So protecting those who raise their voices against any corruption, bribery, fraud, prejudice or other misconduct encountered, is a fundamental principle in our Code of Conduct.

CLPT businesses encourage people to speak out against wrongdoing and have clear routes to allow this to happen.

Recently, Ziemann Holvrieka and Künzel colleagues in Germany, Belgium and the Netherlands were given access to an independent third party phone line to raise any concerns. Since the implementation of this system, no concerns have been raised in any of our businesses.

In a parallel global development, we've implemented a company-wide policy in this area and launched an all-new email address that's available for anyone right across the world to use. So if you have any suspicions about wrongdoing whatsoever, please get in touch via whistleblowing@clpt.com.



Cracking the code

As a truly international company, the publication of our Code of Conduct was a really significant step. To ensure its accessibility for all staff, suppliers and key customers, it was produced in our four main operating languages: Chinese, English, German and Spanish. Suppliers are also expected to adhere to it, so we're starting to review strategic partners' performance against its key principles.

The code demonstrates our commitment to doing ethical business too and is often accepted by our customers as evidence of our ethical standards. But we know we must remain vigilant to the potential for bribery, corruption and more. The construction sector which we often ally with, for example, has experienced incidences of modern slavery in recent years. So let's all know how to recognise the signs of malpractice and be prepared to act, to protect our business and customers.



Sustainability Voices

Rebecca Hooper,
CLPT Group Sustainability Manager

"Driving sustainability is a core value for our business and we know that measuring what we do is important to help us move forward and build momentum. But it's a value that must be about more than data reporting – it should lead to actual changes being made to the way we do business, to make a difference in the world."

I'm proud to be working for a forward-looking organisation that's looking to tackle the environmental challenges of our times, continues to respect our people and our customers, and champions work with supply chain partners who share our philosophy."

"Driving sustainability is a value that must be about more than data reporting – it should lead to actual changes being made to the way we do business, to make a difference in the world."



Responsible Business Conduct

We've resolved to equip our company and enable our staff to consistently operate with integrity and make sound decisions.

Code of Conduct

published and shared in four languages

Over 1750 suppliers

are aligned with our Code of Conduct

Whistleblowing

policies rolled out across the Group

Continued evolution

of our sustainable supply chains

Established bespoke ESG data collection

and monitoring systems

Six manufacturing locations now providing monthly ESG data

as a result

Sustainability Spotlight

Big job, big responsibilities

Taking on a major project in Mexico, as Briggs of Burton, did recently, was a big step. But a particular issue stood out during the due diligence process. According to the International Labour Organisation, around 18% of forced labour across the world exists in construction, with 15% in manufacturing. Thankfully, the risk factors were highlighted within the project's preparatory stages and put the team on high alert.

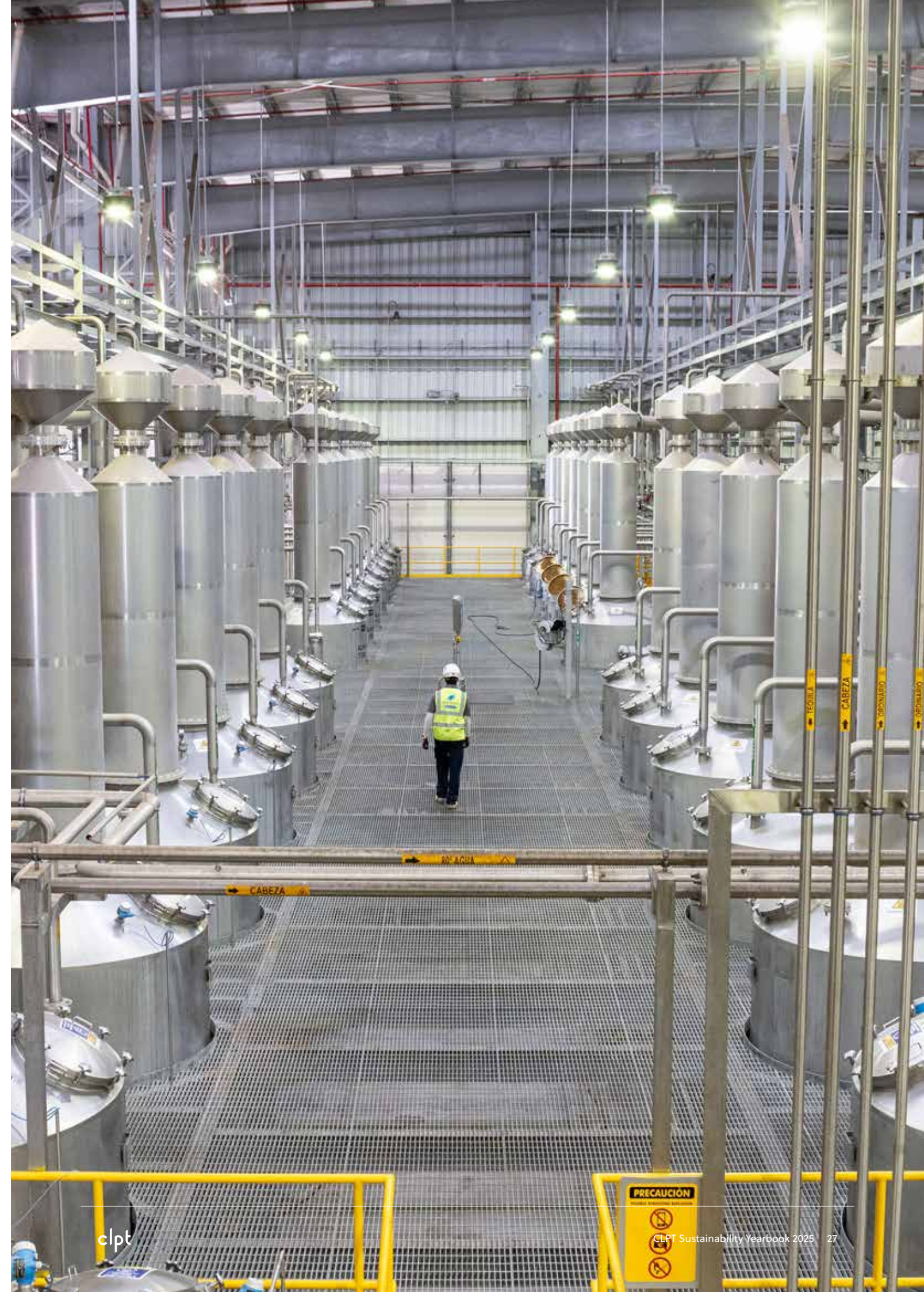
Central to this awareness were the legal and procurement teams, stationed in the UK and at the local BRIGGS office in Guadalajara. Between them they put processes in place to help protect a group of workers who might otherwise have been vulnerable to exploitation. By building effective relationships with suppliers, the team ensured that these employees are being paid and have access to medical care – and by extension, that our business is acting with integrity and our value chain is robust.

The use of local suppliers for the work was something the team was very keen to pursue. Velia Hernandez, a Senior Category Buyer for the BRIGGS Guadalajara office, issued our Code of Conduct to the local supply chain, addressed their questions, and ensured that our entire local supply base was signed up. In addition, addressing the risks of modern slavery meant setting up a framework to

confirm that the suppliers met the standards we use to prevent its occurrence.

This included:

- Major Tier 1 suppliers completing a questionnaire, so the BRIGGS team could understand their approach to preventing modern slavery.
- Gaps in supplier approaches not necessarily being seen as a barrier, but more an opportunity for BRIGGS to help them improve.
- The BRIGGS team being trained to spot the signs of modern slavery and understand how to raise any concerns that might arise.
- Putting additional monthly checks in place on the project, to help spot possible signs of modern slavery.



Sustainability Profile

Brewing a career in safety

The concept of a career change is not hugely unusual these days and one can be motivated by all sorts of reasons. For example, the desire to leave your comfort zone and try something fresh, a sense of fatigue around an existing role, or some newfound inspiration for a different discipline. But significant switches can be challenging and tend to demand serious hard work, plus some career swaps are perhaps more rare than others. That description may apply to the experience of our very own Tom Benninghaus, who transitioned in recent years from being a talented brewmaster to having a firm focus on health and safety.

Tom started as a brewer with Ziemann Holvrieka in Germany in 2014 and soon progressed to work on the research and development side of the business. **"I was working in a small, eager team, my boss liked our work and he encouraged me to apply for Brewmaster School,"** explains Tom. Keen to further his knowledge in the field, Tom did exactly that, securing a position at the Doemens School near Munich, where he spent the next year learning the finer points of his trade. All the while, Ziemann Holvrieka kept his position open for his expected return.

And return he did, to take care of the company's pilot plant and the prototyping of new products and concepts. Here he helped to dream up and test novel inventions and recipes for customers, whether they understood what they needed or were in search of entirely new ideas. **"I found R&D really enjoyable but it's also a challenging environment,"** Tom states. **"It's not a 9-to-5 role, there's a sense that you're 'always on' and you never know what question you'll be asked next, with new issues popping up all the time."** Around

the same time, a subject that had featured in his studies was playing on his mind.

The health and safety component of the brewmaster course, which had only been a small part of his studies, had stuck with him and he decided it was an area he wanted to explore more. Nobody had seemed to regard it as a top priority on the course, but after seeing the perils of some night shift practices in the past, being aware of serious safety incidents that had happened at other companies, and having himself worked at a business where two workers had had potentially fatal near misses, something was nagging at Tom to pursue the subject further.

That feeling only grew as he came to realise that he could apply his expertise in research and development, with its focus on problem-solving, to health and safety topics. Once again Ziemann Holvrieka supported his instincts as his career path took another direction, with further training undertaken at BGHM – Germany's renowned social accident insurance institution for the

woodworking and metalworking industries. Over another two years, punctuated by no less than seven exams, Tom acquired more of the knowledge that has seen him ascend to his latest role: Health & Safety Manager at Ziemann Holvrieka GmbH.

Tom's attention is fixed on various concerns now, like the law's requirements and accountability (responsibility runs right up to the top of organisations and places legal duties on executives), but he also has a big part to play as a construction adviser, among other responsibilities.

More than a decade on from his start in the sector, he's in a good position to reflect on his experiences. **"Health & Safety is in everything, including the brewing industry, which has a better culture and knowledge for it now. And it's improving, H&S managers are more prevalent these days. Sure, some people still don't like it, but it saves hearing, fingers and eyesight, as well as lives."** Quality of life, after all, is priceless, and as Tom's story suggests, there are few better ways to respect that than to keep learning along the way.





Pursuing our ambition: to be climate neutral by 2030

Clean Operations

Because we're serious about sustainability, cutting down on the CO₂ emissions of our own operations is one of our top priorities. We're focused on achieving CO₂ neutrality in our offices and production environments, as well as helping our customers to lower their emissions.

We continue to implement the CO₂ reduction plans developed for our places of work, which focus on gains in energy efficiency, lowering energy consumption and transitioning away from fossil fuels. We also recognise the importance of delivering reductions in water usage and waste. And by achieving great 'clean' results from our own efforts to operate more responsibly, we build a stronger platform to promote the amazing technologies we can supply to clients with the same aspirations.

Boosting local biodiversity

Sometimes it's best to let nature take its course. At the BRIGGS Global Technical Centre in Burton-on-Trent, UK, a sizeable patch of land now offers a haven for wildlife in an otherwise urban environment. In fact, an area of around half a hectare has been dedicated to the task of enhancing biodiversity here.

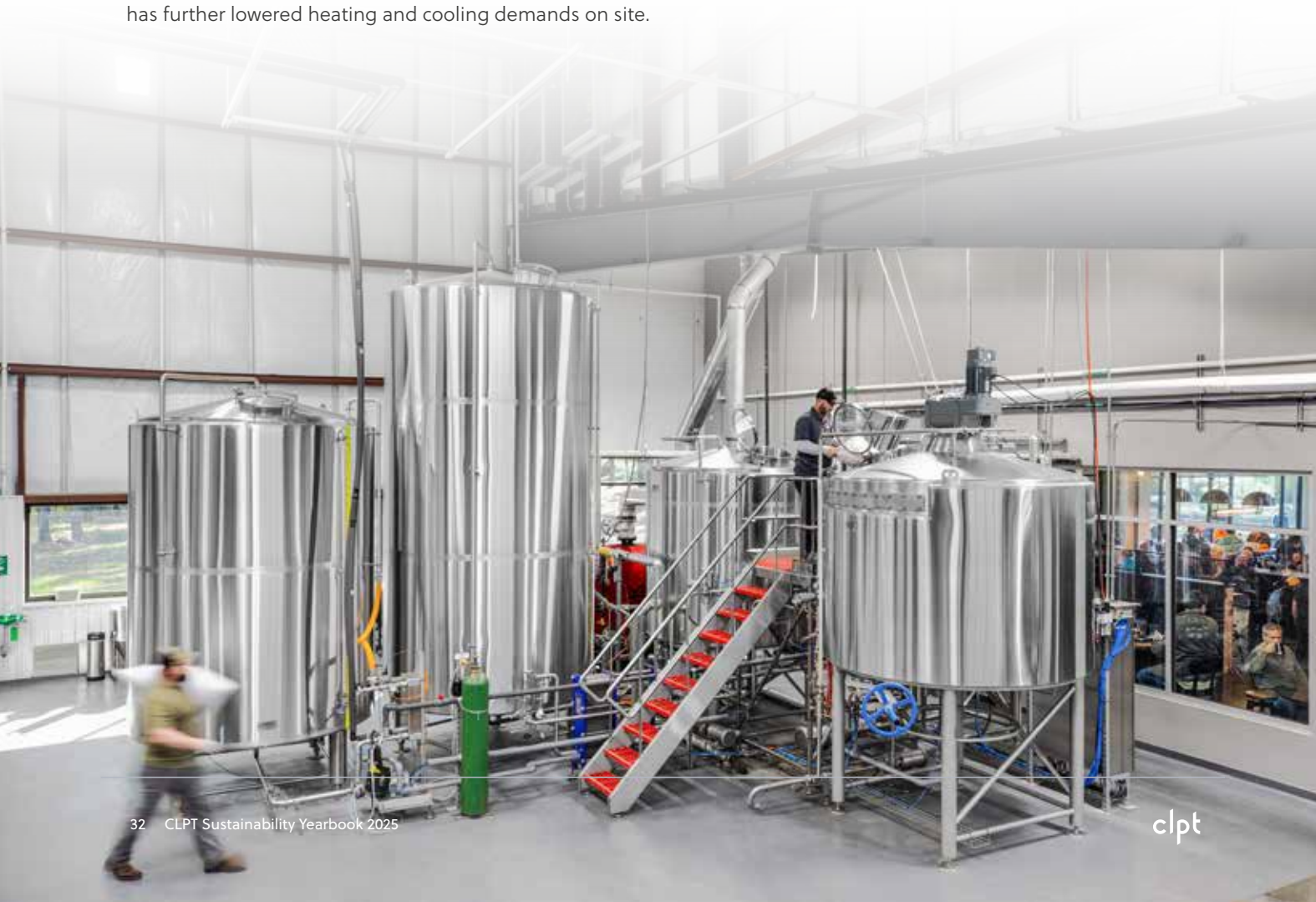
This little natural oasis has seen trees, shrubs and wildflowers planted, to attract butterflies, insects and other pollinators. The plants selected also complement the native hedging and trees found around the site's boundaries, helping to make the spot right for the types of flora and fauna that would usually call it home.



Optimising office temperatures

Our colleagues in Canada know all about windows of opportunity. Because at DME's offices on Prince Edward Island, tinted windows are keeping things warmer in winter and preventing overheating in summer.

DME's refurbished offices can face temperature extremes of 34°C/92°F in summertime and -11°C/11°F in the winter, so energy efficiency is a well-established need in a facility that's already carefully run. The team's recent introduction of tinted windows, which reflect internally in the colder months and keep the sun out when it warms up outside, has further lowered heating and cooling demands on site.



Getting ready to roll again

Finding ways to reuse, rather than replace, existing equipment is an important sustainability practice. At Mainleus in Germany, Künzel are doing so and keeping tonnes of CO₂ out of the atmosphere as a result.

Künzel's mills are already recognised for their optimum power use, low operating costs and long service lives. But the mill rollers' longevity is extended even further by routine reprofiling. By our calculations, reprofiling a one tonne mill roller avoids at least 1.7 tonnes of CO₂, compared with the production of a new roller from recycled steel (or an even greater saving, if primary steel was used).



Innovating in our own backyard

It's not only customers who benefit from our innovative solutions. Fresh investment at Ziemann Holvrieka in Bürgstadt, Germany, is pushing boundaries for the decarbonisation of our own operations.

It's allowed the local team to add heat exchangers to air extraction systems, to improve energy efficiency, as well as a large-scale air curtain for the facility's roller doors, which helps to keep hot air in the building and cold air out. Lower carbon emissions are also being targeted by applying optimisation principles to factory heating. And all these smaller steps added together contribute to bigger and better sustainability results.



Sustainability Voices

Cathie Xu,
CLPT Intercompany Sales Manager

"If I look back 10 years or so, the culture of sustainability has developed very rapidly in China during that time."

"If I look back 10 years or so, sustainability culture has developed very fast in China in the years between. Back then it wasn't something people thought about much, but new technology has really helped and the whole country's focus has changed towards it now. Initially this was led from the top through Government policy and the new Environmental Protection laws enacted in 2014.

But now the next generation's mindset has changed too, so change is happening not just because of government policy but because it's seen as the right thing to do and that there's great value and benefit in looking after our environment for ourselves and our children. And for me, the results are clear. I'm originally from Nantong, and I remember walking by the Yangtze River some years ago and seeing the water looking very unclean and yellow with the dust in it. But in the last couple of years, when I look at the river, it's much cleaner and more like lake water.

And if everyone can feel the benefits – like better air and water quality – that's a motivation too, to find more improvements. I've been at the CLPT Nantong site since the very beginning in 2008, and we started our decarbonisation programme very simply, by changing lights to LEDs. But over time we've made more changes, like bringing in renewable energy, solar panels on the roof and light pipes.

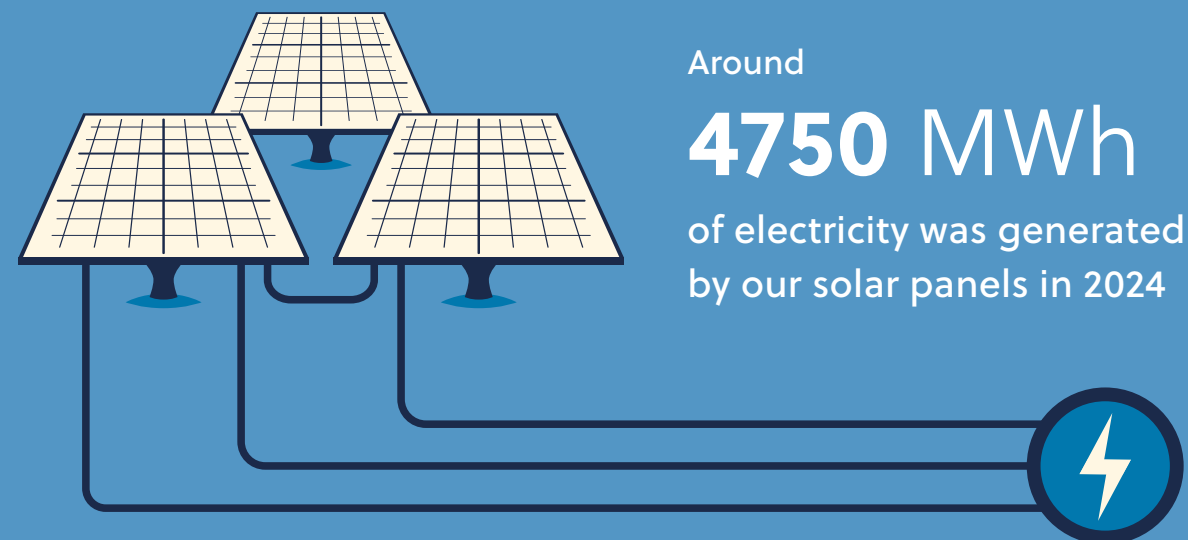
Nowadays you'll see, I think, about 15-20% of our staff using EVs – that's a real change. But we can keep doing more. Personally, I'd love to be able to quickly renovate every remaining old engine and motor to use cleaner energy. Of course, instant change isn't possible, it takes time, but we keep pushing forward and taking every small step we can to make a difference! Also, it's great to see that the work we do here helps our customers to be more sustainable too."



Solar-powering positive change

Six CLPT sites now have solar panels, supplying decarbonised electricity for their operations as well as the electricity grids they operate in. Our team in Nantong, China, recently installed a 1.605MW photovoltaic power generation system on the top of its new manufacturing facility. Providing average annual power of about 1.72 million kWh, it supplies around 50% of the electricity needed by the facility.

To maximise energy efficiency, the facility also includes light pipes to provide high-intensity illumination, alongside roof lights and LED lighting. In addition, all of the site's street lamps are powered by small wind turbines and solar panels.



Electrifying movement

When it comes to electric transportation, we're determined to get on board.

At Ziemann Holvrieka's site in Menen, Belgium, we're already transitioning to EVs, with three fully electric vehicles in use in 2024, alongside one hybrid and two diesel models. By the end of 2025 five vehicles will be electric, leaving just one set of diesel-powered wheels.

An electrical charging facility has been supplied on site to support this transition, with 460 newly-installed solar panels significantly boosting our renewable power supply. The provision of charging infrastructure is a key strand of our aim to electrify staff car fleets by 2030 – and we're pleased to say it's a goal we're on target to meet.

Clean Operations

We're aiming for climate neutrality by 2030. Rapid progress has been made towards our targets already, but we continue to take both small steps and large leaps towards them. Highlights of 2024 include:

A more than
75% reduction

in operational CO₂, compared with our 2021 baseline

And
90% of our electricity

now comes from renewable sources

About
4650 m²

of our office space is heated by geothermal energy and heat pumps

And at least
90% of our waste

is recycled and recovered

Looking after the Long River

Rivers are lifelines wherever they're found, but Eurasia's longest river – the Yangtze – has a particularly high status in China. To protect both environmental and human health, CLPT port operations at Nantong strictly manage their pollution risks. Like all businesses that border the Yangtze, any water from our site, including run-off rainwater, is captured and diverted to local treatment facilities. The river is rightly highly protected, with no direct discharges into it allowed, and we've found other ways to safeguard our work there, especially when it comes to the danger posed by dust.

The discharge of grain from ships at the port creates dust that must be controlled, so discharge conveyers are contained and a vacuum removes dust into filter systems, while water bowsers suppress any dust that has escaped. To ensure further protection, the site is now bordered by dust monitors that provide real-time information on any dust at the perimeter. We're glad to report that since the monitors' installation four years ago, there have been no high dust reports, suggesting that our dust management systems are working well.



Targeting innovations: that improve our technology

Sustainable Innovations

Many of our customers have ambitious goals to reduce their CO₂ footprints. In some cases they'll be pursuing these targets while operating assets we've designed and commissioned for them, equipment they'll be relying on around the clock and for many years to come. So our products and solutions should recognise both the opportunity and the obligation we have to support them with their sustainability ambitions, now and in the future.

Standing still is not an option. The continuous innovation of our products and services enables our customers to conserve more resources at both existing facilities and new-build sites in the near-term future. Our commitment to research and development spans the globe and allows us to collaborate with some of the world's most respected academic institutions, including exciting early-stage research that has the potential to influence our sector for decades.

Exporting our brewing expertise

Our R&D team at Ziemann Holvrieka welcomed a delegation from the Boon Rawd Brewery Company of Thailand, together with members of the German Chamber of Commerce, to highlight how we're helping with 'brewing in the 21st century'. Our team were part of a discussion tour that focused on innovative concepts for sustainable brewery operations.

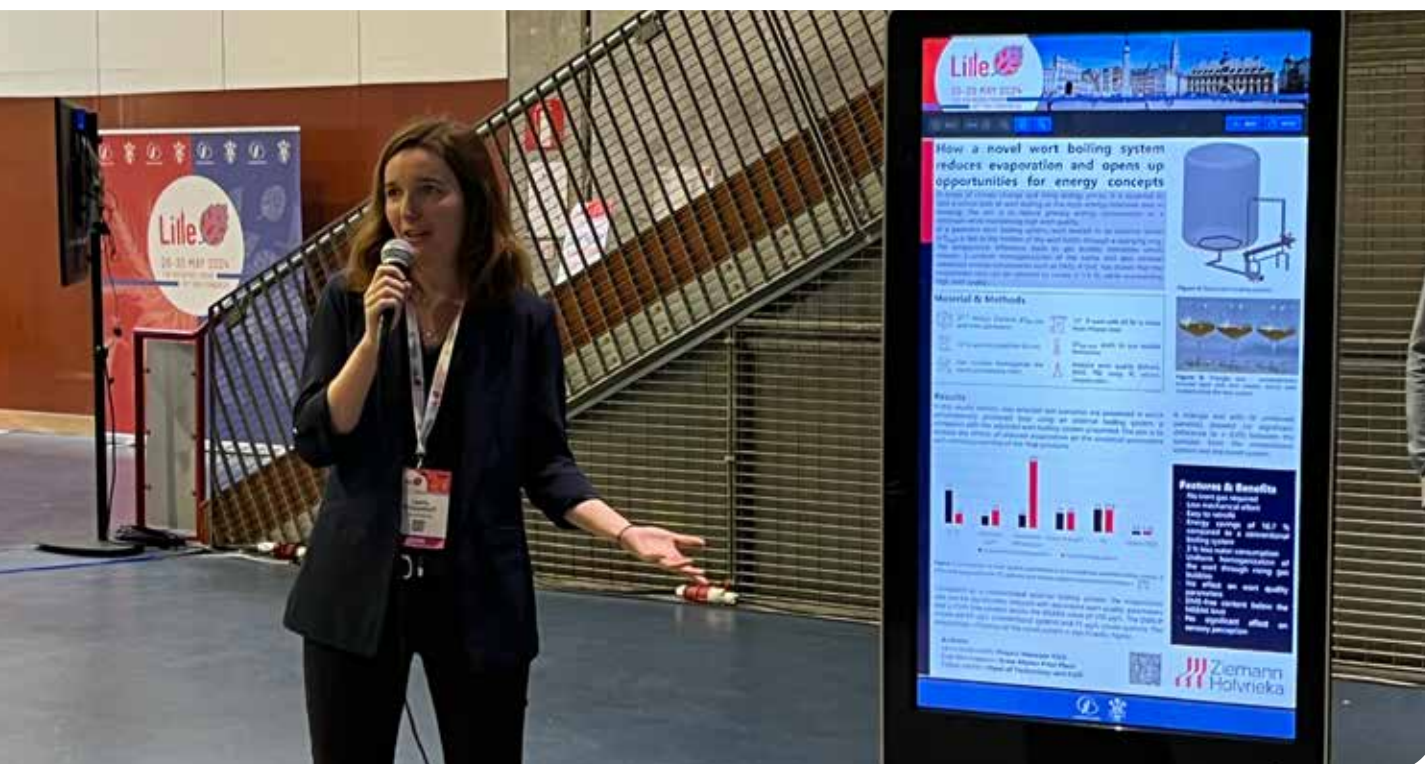
But our team's advice and insights aren't just available for visitors to Germany, because future discussions are now possible at our new offices in Bangkok. It's just one example of the value of excellent customer relationships, as well as the importance of being available for clients home and away. And hopefully, a little further down the line, it'll lead to our brewing knowledge helping renowned brands like Singha beer.

"Research partnerships offer us the opportunity to innovate faster and for new connections to spark fresh ideas."

An idea reaches boiling point

If you like it when new ideas bubble up, how about our new type of wort boiling system? It reduces evaporation and opens up different possibilities regarding energy concepts. Laura Grotenhoff, one of our R&D project managers, presented this innovation to the 39th EBC Congress and 6th edition of Brewers Forum, held in sunny Lille in May 2024.

Her research will help breweries reduce the energy demands from one of their most energy intensive processes, without affecting the quality of the output. If that turns out to be another way of saying ‘lower power, same product’, it could prove to be a very popular development within the brewing community.



Collaborate to innovate

Research partnerships offer us the opportunity to innovate faster and for new connections to spark fresh ideas. Through our R&D team’s participation in the virtASI project of the Technical University of Munich, we’re currently part of a collaboration seeking to deliver faster and simpler automation in the food and beverage industry. It’s being undertaken in partnership with service provider SimPlan from Munich and the technology company Gimbio from Freising, and with financial support from the Bavarian Research Foundation.

Close collaborations like these, with suppliers and customers, help drive forward our innovation programme. As part of the virtASI collaboration, our R&D department hosted a joint workshop with Semodia GmbH. It focused on the research and development of an MTP-System that offers us the opportunity to achieve shorter installation times on customers’ project sites.

Module Type Packages (MTP) provide the basis for the sustainable planning of production plants in the food and beverage industry. And the modularisation of process units makes it very easy to adapt to rapid changes in the market, regarding consumer behaviour. The opportunity to work together with trusted partners to develop systems like MTP are therefore a welcome feature of today’s research programme, and one that will help us lead tomorrow’s marketplace.

The importance of protecting water

Between them Briggs of Burton's Adam Kellett, Process Engineering Manager, and Ben Connolly, Lead R&D Engineer, know a lot about the need to look beyond CO₂ and think about how we protect all the natural resources we rely on. In 2024 that knowledge was put to the test when Ben presented their joint work at the James B. Beam Institute Industry Conference, which is held each year in Kentucky, USA.

Ben's topic at the conference was: 'Towards a Zero Liquid Effluent Discharge Whisky Distillery'. It dealt with BRIGGS' involvement in a project for an overseas customer in which a new distillery was to be built in a highly sensitive environmental area, with zero liquid effluent discharge allowed.

Among other things, his talk covered the kind of water recycling technologies the team pursued in order to satisfy the stringent rules in place. In doing so, he offered insights to audience members in Kentucky about the adoption of effective sustainable practices in distilling operations.



Sustainability Voices

Tobias Becher,
CLPT Head of R&D Liquid Process Technology

"Through relentless R&D efforts and a state-of-the-art pilot plant, we are driving the brewing industry towards greater sustainability, efficiency and innovation. We believe that progress and innovation are crucial to achieving optimal performance and reliability in modern and efficient breweries and distilleries, and for bio-fermentation.

With our pilot plant in Ludwigsburg, we have the perfect platform to thoroughly test and develop new processes under realistic conditions. Our own facilities in Germany are complemented by our partnerships with academic institutions across the globe – like our relationships with Heriot-Watt in Scotland, University of Nottingham in England and Jiangnan University in Wuxi, China. This enables us to ensure that every innovation is market-ready – ready to deliver change at scale at our customers' breweries and distilleries.

The hours of work we spend on our research programmes, our commitment to sharing progress through research conferences, and the patents we've been awarded, all demonstrate our commitment to pushing the boundaries of liquid processing technology."



Sustainable Innovations

Sustainability is central to our innovation and R&D activities.

Highlights include:

The granting of
11 patents

representing sustainable solutions since 2014

More than
10 sustainable

solutions presentations made at brewery conferences in 2024

Over
70 test brewing projects

undertaken in our Ludwigsburg pilot brewery

2 research projects

with universities started in 2024

Sustainability starts with small steps

Sometimes it's a brewery blueprint that's needed – a brand new facility with full-scale sustainability technology built-in from scratch. But more modest additions to existing equipment are a familiar requirement too. One such smaller step that Ziemann Holvrieka has developed in recent years is BrewSonic, an ultrasonic device which can be retrofitted to reduce the total amount of clean in place (CIP) cycles during the production week, thereby decreasing water consumption.

Ultrasonic devices are easy to install on surfaces and pipes without welding, meaning there's no downtime during installation. The devices and control units are small too, so there's minimal power demand involved, while a reduction in cleaning demand of up to 50% also helps lead to fast returns on investment. But an even bigger step forward we've taken has been DeltaBrew.

With DeltaBrew, thermal energy is recovered with cold water – in an open system – from the wort cooler and used to heat up the mash, instead of burning fossil fuels, meaning less energy use and waste for the mashing process. The warm water produced can also be used for mashing in, sparging and so on. The results mean an improvement of more than 30% compared to some state-of-the-art energy recovery systems.

Project Engineer Johanna Krappel, who has been customising the process design of DeltaBrew, recently reflected on how well it's progressed in a short space of time. **"When I started at Ziemann Holvrieka in 2023 I was immediately involved in this future topic and together we've already been able to place DeltaBrew on the brewery market three times."**



Z3ro means zero

Looking for other fresh advances in sustainable technology? Then take a look at spent grains – a carbon neutral energy resource that can help to run a brewery.

How so?

Spent grains can heat a brewery and chill the beer at the same time. And that's what Ziemann Z3ro is focused on. A combination of spent grain dryers and heat pumps, it's one of our latest solutions and has a patent pending.

Want a bit more detail?

The heat pump extracts energy from the glycol return line to produce warm water for the dryer and a chilled glycol stream at the same time. Dry spent grains are combusted to generate super-heated water or steam. When combined with renewable electricity, it results in a brewery with zero CO₂ emissions from fossil fuels.

Konstantin Ziller, a Senior Product Manager at Ziemann Holvrieka, has presented our Z3ro concept in Bangkok and in Mexico City at VLB conferences. **"Say 'Goodbye' to fossil fuels and 'Hello' to total renewable energy solutions; we've been working on recycling the by-products of brewing and distilling to see how we can help decarbonisation in the brewing industry."**

"We've been working on recycling the by-products of brewing and distilling to see how we can help decarbonisation in the brewing industry."





Enabling change: throughout the value chain

Resource & Climate Solutions

Sustainability is fast becoming an integrated element of our engagement with customers, especially through the products and solutions we offer. But we must work as partners, because open-minded collaboration, across different fields of expertise, will be key to making the changes needed throughout our value chains.

It's worth reminding ourselves that, with our collective size and expertise, we can contribute to the global shift towards a low-carbon circular economy. Listening to and engaging with our customers and other experts will see us better able to create the step changes required to make a difference. But fundamentally, we are ready – ready to build future-focused, resilient and ever more efficient systems and solutions.

Inventive solutions for many sectors

CLPT companies' expertise and experience is both broad and deep. But we particularly excel at enabling the fermentation process and crafting hygienic environments; at facilitating heat recovery and heat pump innovation; and crucially, at improving the products and processes our customers use. By reducing their energy needs and increasing efficiency, we also help to make their businesses more resilient.

Whether they're brewers or distillers, work for old industry names or in new foods, have greenfield projects in mind or existing facilities that need retrofitted solutions, our cutting-edge technology is helping clients across multiple sectors right now. And by doing so in ways that boost productivity, we're also helping them to lay the groundwork for their onward decarbonisation and net zero pathways.

In short, efficiency is a key need for our customers, so it's a key aim of our approach. And why we're committed to bringing ever more innovative products to market. Just visit our websites to look at our latest brewing solutions. Or our groundbreaking work for new distilleries like Ardgowan and older ones like Glenallachie – both are prime examples of customers who understand that by investing now, they'll face less cost in the long run.



Sustainability Spotlight

Striking a blow for sustainability

When hammer blows and businesses are mentioned together, it's often because serious problems are in play. But there are exceptions. At Ardgowan Distillery, situated beside Inverkip and close to the Firth of Clyde, an exciting project is approaching its latest major milestone. Seven years after planning permission was granted and an additional seven before its first major single malt is scheduled for release, this contemporary whisky-making cathedral, with its eye-catching bronze and copper roof, will officially open in the summer of 2025.

Ardgowan's people and processes have naturally drawn on centuries of traditional whisky knowledge to plan their home and prepare to craft their spirit. But the distillery has also gained renown for the strength of the modern sustainability measures that have been built into its design. For example, its striking longhouse-style frame was fabricated from 67% recycled steel; its insulation was derived from post-consumer recycled plastic bottles; while its distinctive cladding came from 97% post-consumer recycled aluminium.

It's pleasing to note too that not one but two of CLPT's businesses have played significant roles in the rise of Ardgowan, with the project's vast collaborative effort calling on teams from both Briggs of Burton and McMillan Coppersmiths. BRIGGS have been involved in the design, engineering and construction of the new distillery since 2021, as part of a strategic partnership to explore new carbon reduction technologies, which also included research by Heriot-Watt University.

McMillan's input has been equally important – making the stills that are the beating heart of any distillery. At their base in East Lothian, the resounding noise of hammer on metal means its fabricators are busy. And Ardgowan's needs kept them hard at it, hammering each still with an estimated million blows, to make each one of its pair just right. They also produced BRIGGS ThermoJet – the energy recovery Thermal Vapour Recompression (TVR) condenser, a formidable tool in Ardgowan's state-of-the-art armoury and its pursuit of net zero.

John McIntosh, McMillan's Global Projects Director, explains why TVR will be key to the efficiency of Ardgowan's distillation process. **"Thermal Vapour Recompression uses the energy we have used before – capturing that, enhancing that and using it again so that it is not lost. Traditionally we had energy used once and then is dissipated into the atmosphere. Here we capture it to make our processes more efficient."**

Ardgowan founder, Martin McAdam, is delighted with the stills, which were finished in October 2024, and the fact they'll work with his distillery's new technique to recycle all the waste heat from the spirit production cycle, thereby cutting energy use by 40%. **"While our sustainability journey continues to evolve, I'm proud of the meaningful progress we're making at Ardgowan Distillery Company Limited, working alongside committed partners in the industry."**

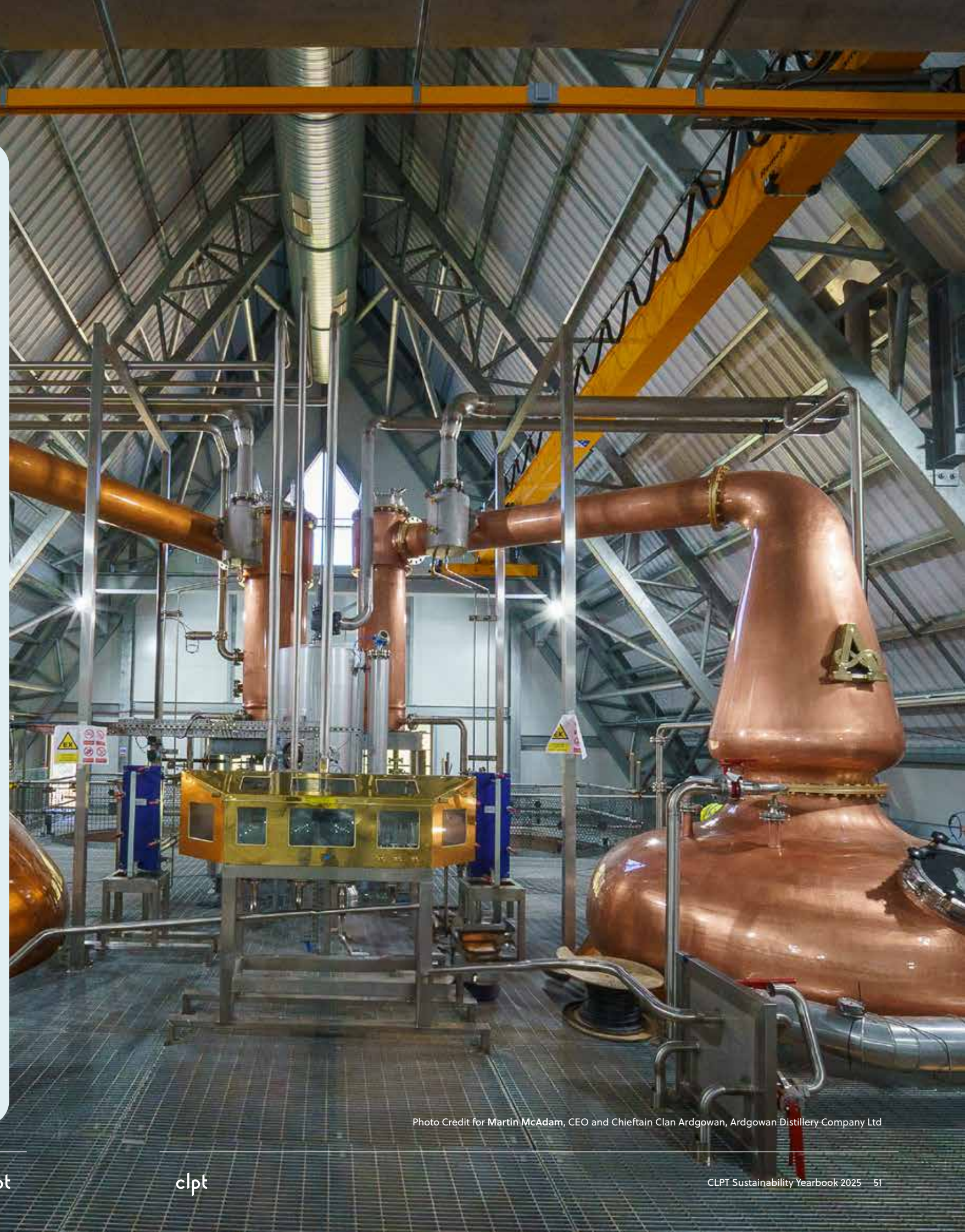


Photo Credit for Martin McAdam, CEO and Chieftain Clan Ardgowan, Ardgowan Distillery Company Ltd

Helping to pioneer greener propellants

To illustrate how our sustainability know-how applies to clients beyond brewing and distilling, take a look at our work to further the use of sustainable propellants in the pharma sector. Building on our previous work to support pharma transitioning away from ozone-depleting propellants, Briggs of Burton has designed, engineered and manufactured bespoke pilot and commercial mixing systems to produce inhalers that allow the adoption of the greener propellants.

The next generation propellants are HFA-152a and HFO-1234ze, which both have a lower Global Warming Potential (GWP) than traditional propellants. HFA-152a has a GWP footprint that is 90% lower, and HFO-1234ze is up to 99% lower. BRIGGS have delivered a pilot scale mixing system for HFA-152a and a commercial scale HFO-1234ze mixing system.

Our knowledge of dealing with hazardous ATEX environments has helped, as the systems in question involve heating, cooling and cleaning. As Richard Greenhough – the BRIGGS International Pharma Sales Manager says: **“It’s great to think that our diverse skills at BRIGGS mean we can help our customers to meet their regulatory requirements and contribute to a cleaner environment, as well as supporting the production of globally important medications to treat ailments like asthma, Chronic Obstructive Pulmonary Disease (COPD) and inflammatory conditions.”**

The example gains extra importance when you consider a recent review of our customers’ sustainability ambitions that we completed. In it we surveyed

14 clients and established, for example, that 12 have operational CO₂ reduction targets and 9 are aiming for reduction targets in their value chains too (both are goals that CLPT shares). In other words, most of our clients are actively trying to ‘go green’ and welcome help to get there.

The next generation propellants are HFA-152a and HFO-1234ze, which both have a lower Global Warming Potential (GWP) than traditional propellants.

HFA-152a has a GWP footprint

90% Lower

HFO-1234ze is up to

99% Lower

Resource & Climate Solutions

We are collaborating with our customers, suppliers and other partners to decarbonise our supply chain. Examples of our progress to date include:

BRIGGS ThermoDrive:
demonstrating the technology with the aim of lowering energy consumption at the Glenallachie Distillery wash stills by
90%

BrewSonic by Ziemann:
known to reduce cleaning demand by up to
50%

BRIGGS ThermoJet:
forecasting a
200 tonnes
CO₂ saving per year at the Ardgowan Distillery

Ziemann Holvrieka DeltaBrew:
improving energy efficiency by
10% and lowering CO₂ emissions by 9%
compared to a model 2 million hl brewery

Helping the pharmaceutical industry adopt inhaler propellants with at least
90% lower GWP footprints

Working in harmony with Hanuman

Cambodia's beer market is on the march. In a nation of close to 18 million people with remarkably young demographics – in 2010, about half of its citizens were aged under 22 – the demand for quality beverages is rising steadily alongside its growing population. And within this burgeoning corner of Southeast Asia, Ziemann Holvrieka has established itself as a key player in the brewing scene.

The business first provided a turnkey brewery in Cambodia back in 2011 and has already worked with three major clients in the country on large-scale facilities. One of these partnerships has been with Hanuman Beverages and it's a relationship that's allowed Ziemann Holvrieka to demonstrate its dedication not only to innovation, but also to Feng Shui principles and the pursuit of ever more sustainable forms of production.

Hanuman Beverages, led by its owner and Chairwoman Madam Sarsileap Khieu, takes a firm line on the sustainability of its operational methods and manufacturing, believing that the future of its business is closely intertwined with the preservation of the environment. Indeed, Hanuman is keen to see that its \$160 million brewery in Kandal province becomes Cambodia's first carbon neutral brewery.

Designed and delivered by Ziemann Holvrieka, and the most modern facility of its kind in Southeast Asia, the site already features the latest in brewing technology. This includes a highly efficient water

recycling system that reclaims and reuses 90% of all processed water. The brewery began operating in 2021, but with its maximum production level already reached, Hanuman has embarked on a new phase of growth linked to increased production capacity.

Hanuman is passionate about eliminating plastics and encouraging recycling, as well as rewarding its customers for their contributions to a cleaner environment. To aid all these concerns, their 'sustainability and shared future' programmes are focused on areas such as Water Balance, Renewable Energy, Zero Waste, Circular Economy and Responsible Consumption. All of which fit well with Ziemann Holvrieka's drive towards increasingly efficient and environmentally friendly means of production.

Sustainability Voices

Sarsileap Khieu,
Hanuman Beverages Owner and Chairwoman

"Hanuman Beverages strives to unite people, foster a safe and inspiring workplace, promote sustainability and innovation, and deliver quality beverages, while upholding core values to build a brighter future for Cambodia and to create joy for generations to come. This is why sustainability issues are such a high priority for us. We are actively engaged in the field of corporate social responsibility, investing heavily in eco-friendly systems, such as wastewater treatment technology, solar panels and recycling measures. And we're devoting great efforts to integrating our strategy with sustainable and long-term growth for all our stakeholders.

We were searching for a reliable partner in engineering, technology, project management and building design, and we found that in Ziemann Holvrieka. They delivered the highest standards in brewing techniques and technology, meeting all our expectations, and also supported the development of our beer recipes alongside our brand launch, offering invaluable expertise throughout the process.

Despite the challenges posed by the pandemic, Ziemann Holvrieka delivered the project on schedule, from engineering to successful acceptance. As a trusted partner, they've helped us to achieve excellence in every stage of our ambitious project."

