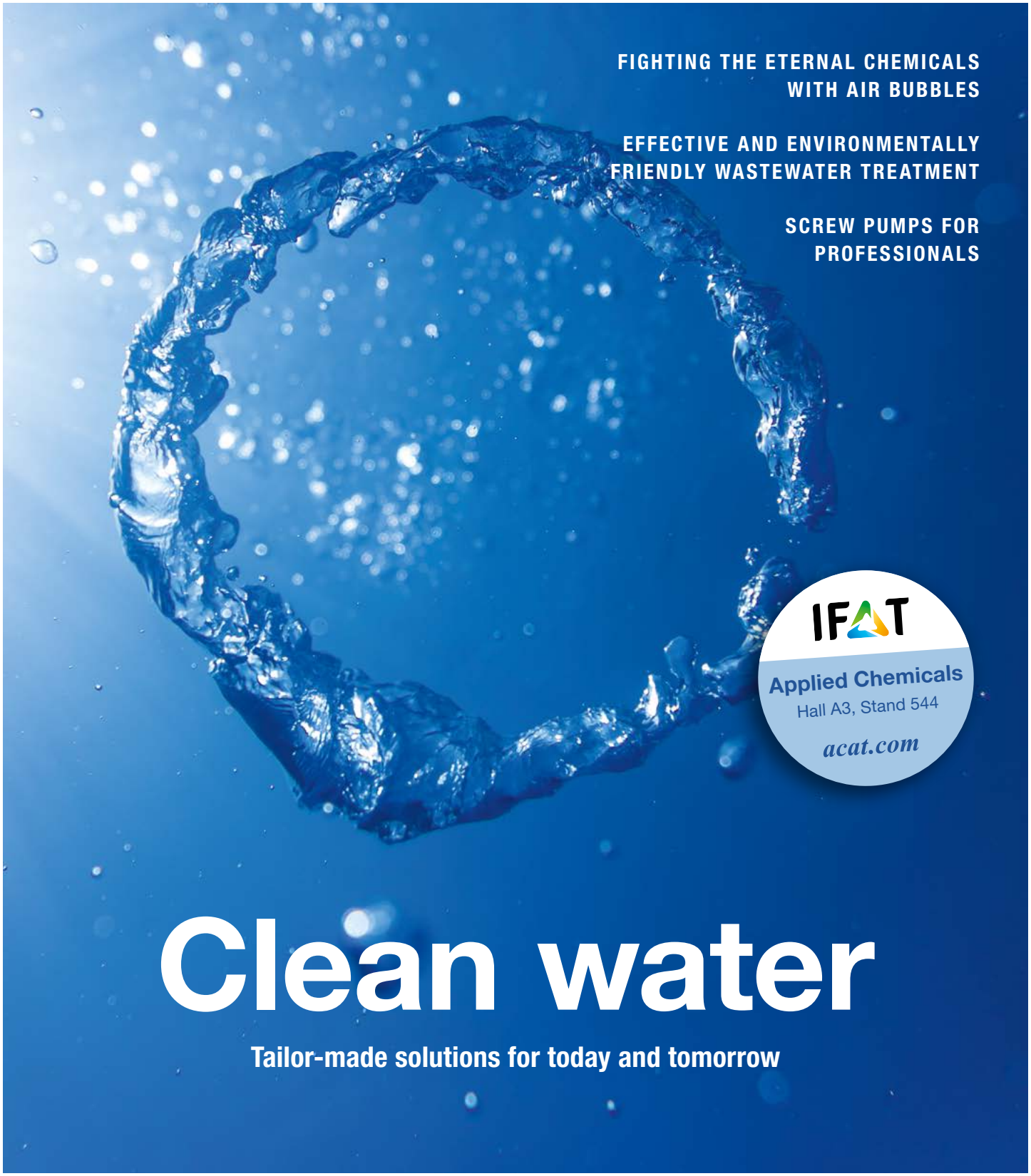
Inside ACAT Magazine

#34/2025



FIGHTING THE ETERNAL CHEMICALS WITH AIR BUBBLES

EFFECTIVE AND ENVIRONMENTALLY FRIENDLY WASTEWATER TREATMENT

SCREW PUMPS FOR PROFESSIONALS

IFAT

Applied Chemicals

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Clean water

Tailor-made solutions for today and tomorrow

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Dr Mauro Massimo Bighetti provides insights into the philosophy of the envirotech division.

Solvent stations, pumps and dosing systems are being developed in Scheibbs.

FlocStar® BIO reduces costs and CO_2 emissions.

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APPLIED CHEMICALS
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DIGITAL

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Best solutions, real added value

Per O. Bjöörn
CEO Applied Chemicals International Group

Dear readers,

It will be that time again from 4th to 7th May 2026: The IFAT will open its doors in Munich. The world's leading trade fair for environmental technologies is a very important event in ACAT's trade calendar. The IFAT provides an ideal platform for showcasing the newest innovations and current projects, ranging from efficient wastewater treatment to odour control. Furthermore, this industry gathering offers a unique opportunity to engage with customers and partner companies from around the globe.

Listening to our customers is a key success factor in everyday work. Only by understanding their challenges can we collaborate to find the optimal solution. In a wide-ranging interview that you can read in this issue, division manager Mauro Bighetti reports on how the envirotech division collaborates with the watertech and airtech divisions every day. His credo: Progress and genuine added value can only be achieved when everyone works together.

We also want to provide real added value with the other content of the current magazine, which, like the IFAT, showcases ACAT's performance and innovative strength. I would like to take this opportunity to thank all the readers who participated in the magazine survey. We received valuable feedback that we are implementing step by step to improve Inside ACAT.

I hope you find the content informative and look forward to welcoming you at the IFAT!

Best regards,

Yours Per O. Bjöörn

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“Trusting, long-term partnerships are the foundation of our work.”, says Dr Mauro Massimo Bighetti, Head of envirotech.

“We find the best solution for every challenge”

Interview: ACAT

The envirotech division specialises in chemical and technical solutions for water treatment and odour control – for municipal customers and the industrial sector. For Mauro Bighetti, head of the division, close and trusting collaboration with customers is of utmost importance. The focus is always on the future, with the aim of developing sustainable and economically attractive innovations to meet tomorrow’s challenges.

What are the main areas of focus of ACAT’s envirotech division?

MAURO BIGHETTI: We specialise in water treatment for the municipal and industrial sectors. Our motto is: “Technical service is our success” – and we live by that motto every day. We not only provide the right technology, but we also offer a reliable, solution-oriented service. Another key issue is odour control. This topic is becoming more important year after year. As a result, our customer base is growing steadily.

In your opinion, what values does ACAT, and in particular the envirotech division, stand for?

Our claim is clear: “We find the best chemical and technical solution for every challenge.” It’s not off-the-shelf, but tailor-made. This includes personalised service packages and advice. Listening to our customers is very important to me. That is the key to success.

Ultimately, what counts is that the solution really works and that customers save money. Reliability is also very important to us. Our customers can rely on us to react quickly and meet their requirements with custom solutions. Many of our offers are individually designed. This ensures that they match the respective requirements precisely.

ACAT aims to shape the future together with its customers, providing the best, most innovative and most sustainable technical solutions. How do you achieve this goal in concrete terms?

For us, innovation is not just a buzzword, but something we embrace every day. We are constantly looking for new technologies that are not only technically convincing, but also ecologically sound and economically viable. To this end, we attend trade fairs around the globe, for example. One current example is an innovative solution for removing PFAS, which we are currently using more and more. It is based on a natural principle, inspired by nature.

Another exciting topic is the use of a natural coagulant in water treatment. This product replaces conventional metal salts in many applications and it offers major advantages such as less sludge, a positive carbon footprint and significant cost savings for our customers. Here, innovation, sustainability and efficiency go hand in hand.

Which important topics and trends do you foresee in the future of water treatment and odour control? Are you already working on any developments in this area?

Many of our innovative solutions have been ready for use for a long time. In the industrial sector, we are already focusing on new, practical application solutions that will enable us to replace conventional processes in process water treatment in a targeted manner. This not only saves money, but also helps to reduce the carbon footprint.

We also see great potential in the municipal sector, and we are well prepared. We have developed suitable solutions for all substances that are relevant within the scope of the EU Urban Waste Water Directive. We have been testing some of these successfully in practice for several months now. We see ourselves as a reliable, independent and objective partner for customised applications. Our broad portfolio of different manufacturers allows us to select exactly what suits each customer best.

You have already mentioned PFAS – four inconspicuous letters that have an enormous impact on the environment. Could PFAS be the biggest challenge for future water treatment?

New pollutants such as PFAS, micropollutants and microplastics already pose a massive challenge for water treatment today. With PFAS in particular, I see that awareness is growing in Europe and that the need for action is being recognised. And I am convinced that PFAS will be regulated by law sooner or later.

Conversation with Dr Mauro Massimo Bighetti

“The IFAT is one of Europe’s leading environmental trade fairs and one of the most important platforms for showcasing innovations.”

Dr Mauro Massimo Bighetti
(ACAT Milan)

At ACAT, we are closely monitoring these developments and actively testing new technologies so that we can offer our customers future-proof solutions tailored to their needs. For this reason, we are focusing specifically on pilot tests. In this regard, close cooperation with our customers is very important to me. Because when we fail, we fail together, and when we succeed, we succeed together.

How important is long-term collaboration with customers for you?
Very important. Because trusting, long-term partnerships are the foundation of our work. On the one hand, in the area of procurement. Here, we ensure that our customers can build on a reliable supply in every respect. On the other hand, we need the trust of our customers so that we can successfully implement innovative solutions on the market. Progress and genuine added value can only be achieved when both sides work together.

What contribution do employees make to success?
Our employees are the foundation of our success. Their commitment, dedication and expertise are a cornerstone of our team. ACAT is a family business, and we are all part of this family. The majority of employees

“Trusting, long-term partnerships are the foundation of our work”, emphasises Dr Bighetti.

have been with the company for a very long time. New employees must not only have the right expertise, but also the right attitude and mindset. At the same time, we attach great importance to the continuous development of our team. Only those who remain open to new ideas can really drive innovation forward. That is why we provide our employees with targeted support and are always prepared to break new ground. And that with a clear goal: sustainable technologies with real added value for our customers.

You have been part of the ACAT family for eight years. How has your work changed over the years?
The main changes have been in working methods and communication. Nowadays, a lot of communication takes place via WhatsApp, and customers expect quick responses and advice at short notice, and here at ACAT, we are able to provide just that.

Taking place in Munich from 4 to 7 May 2026, the IFAT offers plenty of time for intensive discussions. How important is this trade fair for your business, and what can visitors to your stand at the IFAT look forward to?
The IFAT is one of Europe’s leading environmental trade fairs and one of the most important platforms for showcasing innovations. Many of our customers use the opportunity to visit our stand to discuss existing as well as new technologies in a relaxed and friendly atmosphere. Among other things, the focus will be on the latest developments in water treatment and odour control.

Where are you headed? What strategic goals are you pursuing, also with regard to your markets?
Our core markets are Austria, Switzerland, Hungary and Italy. We will continue to focus on these markets in the future. Our focus is on expanding our product portfolio and providing our customers with the best possible support, rather than on regional expansion. Our aim is to work together to achieve the best possible results in our daily work. ●

Fighting the eternal chemicals with air bubbles

Author: Per O. Bjöörn

PFAS, also known as “eternal chemicals”, pose one of the greatest challenges to environmental and health protection. In the fight against PFAS, ACAT relies on Surface Active Foam Fractionation (SAFF®). This innovative technology uses the natural surface activity and accumulation of PFAS in foam, which is a simple yet highly effective principle. SAFF® is already being used successfully in a variety of projects around the world, ranging from the treatment of landfill leachate to the remediation of groundwater.

Per- and polyfluorinated alkyl substances (PFAS) have been used in industry for decades. The spectrum ranges from coated pans to water-repellent textiles and fire-fighting foams. The problem: PFAS are chemically extremely stable and almost impossible to break down biologically. Drinking water sources, rivers, groundwater and soils are now contaminated worldwide.

This means a growing responsibility and an urgent need for action for the industry and municipal utilities, not only due to increasing legal limits, but also due to social pressure. Although traditional methods such as activated carbon or ion exchange can filter out some PFAS, they are ineffective at high contamination levels or when certain types of molecules are present. Furthermore, these processes produce significant amounts of contaminated waste that is challenging to treat.

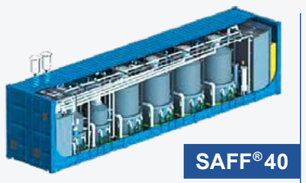
“We are very actively involved in combatting PFAS, constantly working on new technologies and solutions. The SAFF® technology is the first available process based on a natural physical mechanism that combines simplicity, efficiency and sustainability,” explains CEO Per O. Bjöörn.

The SAFF® process is based on a simple principle: it specifically separates PFAS from water (separative), and focuses exclusively on these pollutants (selective) without capturing large quantities of other substances at the same time. This results in a comparatively small volume of contaminated concentrate.

The method is based on the flotation principle: Air bubbles are introduced into the water in the knowledge that PFAS molecules will attach themselves to the surface

An introduction to the SAFF® product family

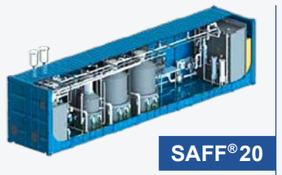
Smallest version SAFF®10 | Standard SAFF®20/SAFF®40 | Custom versions in any size



SAFF®40

SAFF®40 is our reliable workhorse for treating PFAS and is housed in a **40-foot shipping container.** SAFF®40 is suitable for locations with high volumes of contaminated water. It includes primary, secondary and tertiary fractionation.

20–40 m³/h treatment capacity



SAFF®20

SAFF®20 is designed for sites with lower flow rates and is housed in a **40-foot shipping container.** SAFF®20 is ideal for short-term projects and includes primary and secondary fractionation.

10–20 m³/h treatment capacity

SAFF®10

At 2.4 × 4.8 m, SAFF®10 is the smallest system and is mounted on a platform. However, housing in a **shipping container** is also possible. SAFF®10 is the ideal solution for projects with limited space and includes primary and secondary fractionation.

5–10 m³/h treatment capacity

of such bubbles. Together with the bubbles, they form a stable foam that settles on the surface of the water and can be removed. The result is virtually PFAS-free water and a PFAS-rich foam. This foam undergoes further compaction in an integrated post-treatment step. This increases the concentration of pollutants and signifi-

“The SAFF® technology is the first available process based on a natural physical mechanism that combines simplicity, efficiency and sustainability.”

Per O. Bjöörn (ACAT CEO)

cantly reduces the residual volume to be disposed of. What does that mean in concrete figures?

- **Approximately 5 m³ of concentrated PFAS waste is produced for every 100,000 m³ of treated landfill water.**
- **For 100,000 m³ of groundwater, this amounts to a volume of around 50 litres of concentrated PFAS waste.**

Focusing on the best solution

“Our goal is to collaborate with our customers to find the optimal solution to every challenge. That’s why we start joint projects with a comprehensive technical analysis and laboratory tests,” Per O. Bjöörn explains. The next step is to initiate a pilot project, the results of which will then be included in the decision as to which system will be implemented in practice.

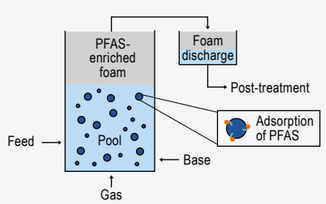
Flexible use

ACAT offers a range of different types of treatment systems. The “workhorse” is SAFF®40, which is housed in a 40-foot shipping container. SAFF®40 is suitable for locations with high volumes of contaminated water. Up to 40 m³ can be treated per hour. SAFF®20 has been designed specifically for short-term projects and locations with lower flow rates. SAFF®10 is the perfect solution for projects where space is limited.

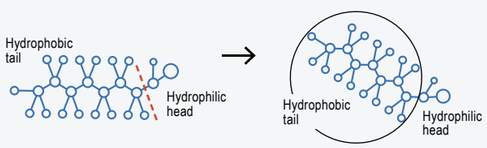
Internationally proven technology

The SAFF® process has long since moved beyond the pilot stage. With over 45 installations worldwide, including more than 15 in Europe alone, the technology has proven its worth. “Whether it’s the treatment of landfill leachate or groundwater remediation, SAFF® has impressively demonstrated its ability to remove PFAS effectively and sustainably in everyday use,” says Per O. Bjöörn, providing a thoroughly positive assessment of the experience to date.

How it works



The process is highly effective, as foam fractionation removes PFAS substances regardless of the concentrations of salts, nitrogen, metals, organic substances, TOC, DOC, DOM, suspended solids, and pH value.



Perfluorinated substances have:
- A **hydrophilic** head
  → The head loves water
- A **hydrophobic** tail
  → The tail hates water

The bubble becomes the perfect environment:
- The tail **“sticks in the bubble”**, the head floats freely.
- The molecule **can be removed** as foam.

Where is SAFF® used?

→ Landfill leachate

Landfills contain various substances that are flushed out by rain. The result is highly complex wastewater that can contaminate groundwater, thereby also contaminating our drinking water. The SAFF® process is ideal for this situation because it selectively separates PFAS, and existing mechanisms can be used to treat all residual materials. This is extremely economical and saves costs.

→ Groundwater

The purification of drinking water is often carried out using groundwater or spring water. The SAFF® process uses a natural process and does not require any additional chemicals. This allows PFAS pollutants to be removed in a targeted manner, without affecting the quality of the water with additional auxiliary materials.

→ Reverse osmosis

Existing processes often result in high-volume concentrates containing the filtered-out pollutants. Disposal costs are high because they depend on volume. The SAFF® process can significantly compact the concentrate, thereby reducing the volume that needs to be disposed of. This increases efficiency and reduces overall costs.

→ Activated carbon

Activated carbon is frequently used to absorb PFAS. “Fresh” activated carbon has a relatively high separation efficiency for PFAS. However, the efficiency decreases rapidly, allowing PFAS to seep through. A SAFF® pretreatment can significantly reduce PFAS levels. This means that activated carbon has a significantly longer lifespan and needs to be replaced and regenerated less frequently. This combination significantly reduces the total cost of PFAS removal.

Good to know

SAFF® is particularly effective against PFAS compounds with a chain length of ≥ C6, achieving 100 % removal of PFOS/PFOA and 99 % removal of PFHxS in independent tests. The result is a “PFAS super concentrate”, which means significantly less waste needs to be disposed of.[1]

[1] Source: https://epocenviro.com/frequently-asked-questions/

It all depends on the dosage

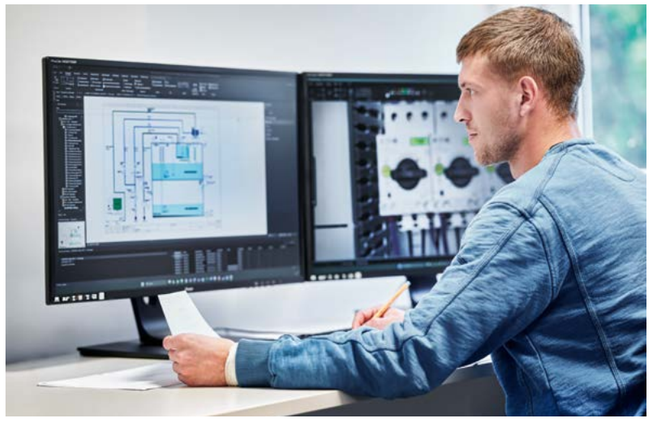
Authors: Theo Weinbrenner
and Alexander Frank

Reliable systems are required wherever chemicals need to be used precisely and efficiently, whether in municipal wastewater treatment or in paper mills.

With many years of experience in this field, ACAT's own plant engineering facility in Scheibbs supplies high-quality, tailor-made solvent stations, pumps and dosing systems.

What sets ACAT apart from many others is the combination of technological know-how, in-depth product knowledge and the ability to consistently adapt every solution to the customer's needs. At the facility in Scheibbs in Lower Austria, the company develops systems that go far beyond standard solutions. These range from solvent and dosing stations to pumping stations and complete treatment plants.

"Every installation situation, every process can be taken into account. Integration into existing process control systems is possible. Separate departments for software development, electrical engineering, and mechanical engineering ensure consistent planning and production from a single source," explains Theo Weinbrenner, head of the Technology & Production Centre in Scheibbs. A major advantage: ACAT not only develops and builds systems, but also has extensive knowledge of products and their applications.



Precise planning is essential for a new facility.

"Upon request, we can take care of maintenance work so that customers can rely on safe operation in the long term."

Theo Weinbrenner (ACAT Scheibbs)

ACAT systems are primarily used in wastewater treatment plants and in the paper industry. There, they are utilised for dissolving, processing and dosing a broad spectrum of substances. These include:

- **Solid and liquid polyacrylamides**
- **Defoamers and deaerators**
- **Fixing and coagulation agents**
- **Fillers and pigments**
- **Bentonite**
- **Iron and aluminium salts**

The systems are fully automated, can be operated via touch panels and can be connected to existing control systems. High-quality components ensure they have a long lifespan and require little maintenance. For dosing systems, ACAT supplies the complete package, consisting of dosing pumps, valves, piping, post-dilution units and a complete control system.

A broad portfolio with tangible results

To meet a variety of requirements, ACAT has developed a range of standardised systems:

ABA – Fully automatic bentonite processing station
Designed specifically for processing bentonite and fillers. The stainless steel plant also includes the necessary crane systems for feeding via Big Bags.

FPU – Fully automatic liquid polymer processing
This fully automatic system reliably processes liquid polymers. Thanks to a special mixing technology, it produces a streak-free, fully activated polymer solution. The dosage of the concentrate automatically adjusts to the volume of water inflow. This ensures that the set concentration remains constant, even during fluctuations in the inflow. The special design also prevents the dosing lines from becoming blocked.

PPU – Fully automatic powder polymer processing
This fully automatic system processes powdered polymers in individual batches. The special JetWet technology ensures that each powder particle is completely wetted, enabling the polymer to dissolve fully. An integrated disperser prevents lumps from forming. The polymer and water are dosed according to quantity and volume, ensuring that the desired concentration remains constant at all times. Thanks to batch operation, the optimum maturation time can be set individually for each polymer.

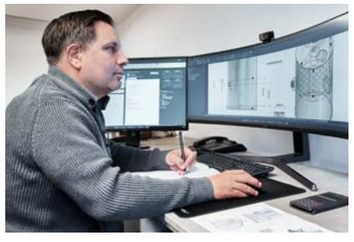
FPPU – Fully automatic liquid and powder polymer processing
The special design of this system enables both liquid and powdered polymers to be completely dissolved in a single step. This allows the respective product properties to be used efficiently in combined dosing, eliminating the need for two separate processing or dosing systems.

Image above: ACAT's systems are customised to meet the unique needs of each customer.
Image below: Theo Weinbrenner is in charge of plant engineering in Scheibbs, overseeing everything from planning to production.

Good to know

- **Solvent stations process solid or liquid chemicals so that they dissolve completely in water, providing a ready-to-use solution. In paper mills or wastewater treatment plants, these solutions can then be precisely introduced into the production process – for example to purify water, bind fibres or prevent foaming.**

- **Dosing systems ensure that the prepared chemicals are fed into the process in the exact quantities required. They operate automatically, compensating for fluctuations in demand to ensure consistent processes, efficient use of resources, and stable product quality.**



Service and maintenance from a single source

Even though the systems are designed for largely maintenance-free operation, wear and tear is inevitable. ACAT therefore offers spare parts, servicing and maintenance for all supplied systems, including installation by its field service team. "Upon request, we can take care of maintenance work so that customers can rely on safe operation in the long term", says Theo Weinbrenner.

FlocStar® BIO:

A genuine alternative

Author: Matthias Imrek

The future of wastewater treatment lies not in using more chemicals, but in using intelligent, natural operating materials. With FlocStar® BIO, ACAT proves that ecological responsibility and economic success are not mutually exclusive. For those seeking to reduce material consumption, CO_2 emissions and costs, this product offers an effective and environmentally friendly alternative.

In industrial wastewater treatment, inorganic precipitants such as ferric chloride (FeCl) or polyaluminium chloride (PAC) have been used for decades to separate solids from water. However, this has undesirable side effects. These include a reduction in the pH value and an increase in salt content. Caustic soda often needs to be added to raise the pH value again. Additionally, metal sludge can be produced, which is expensive to dispose of.

One instead of two: save 50 percent

"We have worked intensively on a solution that offers our customers clear advantages in their daily operations while also protecting the environment," says Matthias Imrek from ACAT watertech. The result is FlocStar® BIO, a liquid biopolymer based on natural raw materials, developed and manufactured for industrial wastewater treatment. "This eliminates the need for customers to use their own precipitants and the pH neutralisation that would otherwise be necessary. Around 50 percent of the total quantity can be saved compared to inorganic agents," says Matthias Imrek, summarising the advantages. "This leads to significant cost savings and optimises the total cost of ownership."

Significantly reduced carbon footprint

However, the use of FlocStar® BIO in the water treatment of industrial production facilities not only offers economic opportunities. The environment benefits too, as FlocStar® BIO is biodegradable. "The product also reduces the carbon footprint by requiring fewer chemicals to be transported, dosed and disposed of."

Wastewater treatment plants must be both environmentally friendly and economical to operate.

Advantages of FlocStar® BIO at a glance

- **No caustic soda**
- **Free of heavy metals**
- **Water can be reused**
- **Biodegradable**
- **Improved biomass quality**
- **Optimised water treatment costs**
- **Increased biogas production**
- **Sludge volume reduced by up to 30 percent**

FlocStar® BIO outperforms both inorganic and other natural coagulants. In addition to improved safety, its increased efficiency is impressive too. Compared to other biological coagulants containing the same substance, the dosage of FlocStar® BIO is reduced by 25 to 30 percent. Added to this is the higher active ingredient content: FlocStar® BIO contains up to 45 percent active mass, enabling a reduction in dosage and optimising the transport costs. As it is a liquid product, it can be applied directly or diluted.

"The product also reduces the carbon footprint by requiring fewer chemicals to be transported, dosed and disposed of."

Matthias Imrek (ACAT watertech)

This is also supported by a real-life example in which ACAT compared the use of FlocStar® BIO with conventional methods. The bottom line is that, compared to using ferric chloride and caustic soda, 49.2 percent CO_2e can be saved over the course of a year. CO_2e is the unit of measurement that standardises the climate impact of different greenhouse gases by converting their harmful effect on the climate to that of carbon dioxide (CO_2). "We are demonstrating that our solution also makes a very tangible contribution to environmental and climate protection," says Matthias Imrek.

Furthermore, FlocStar® BIO does not introduce any metals into the water or sludge, and the products are safe to transport, store and use. As the sludge is metal-free, it can be more easily reused in agriculture. Energy efficiency increases during biogas production.

Tried-and-tested

Its effectiveness has been proven in a variety of settings, from meat processing to dairies. "We have been able to demonstrate in various industries that FlocStar® BIO increases efficiency and reduces operating costs. One particular advantage is the simple integration into existing processes."

Reducing CO_2 with BondStar®

Author: Per O. Bjöörn

ACAT's BondStar® dry strength agents are a highly effective product range that enables cost-effective and efficient production of paper and cardboard. The targeted use of BondStar® also helps to save energy and makes paper production more environmentally and climate-friendly.

Paper production follows a simple principle: Fibres are fed into a sieve in a stream of water and then dewatered and dried. The most energy-intensive step in this process is thermal drying. According to a well-established rule of thumb, around one tonne of steam is needed for each tonne of paper produced. Roughly 740 kWh of energy is consumed to generate one tonne of steam (170 °C at eight bar).

This is where BondStar® comes in. The special chemical developed by ACAT helps to dewater the fibre mat, reducing the energy needed for drying later on. What does this mean in practice? When producing paper with a basis weight of 130 g/m², one customer was able to reduce its steam consumption by 8.5 percent. "At first glance, this may seem like a small amount, but it has a significant impact when production volumes are high," says CEO Per O. Bjöörn. With an annual production of 500,000 tonnes – a typical figure for a state-of-the-art production line today – this equates to a saving of 42,500 tonnes of steam. This corresponds to around 31 million fewer kilowatt-hours of energy.

Advantages of BondStar® at a glance

- **Significant increase in all strength values**
- **Improved ply adhesion and higher wet strength**
- **Less picking and dusting, more stable paper web**
- **Smooth running at higher production speeds**
- **Replacement of primary fibres with recycled paper is possible**
- **Reduction or elimination of "wet-end" and surface starches**
- **Lower energy costs thanks to optimised dewatering and reduced steam requirements**

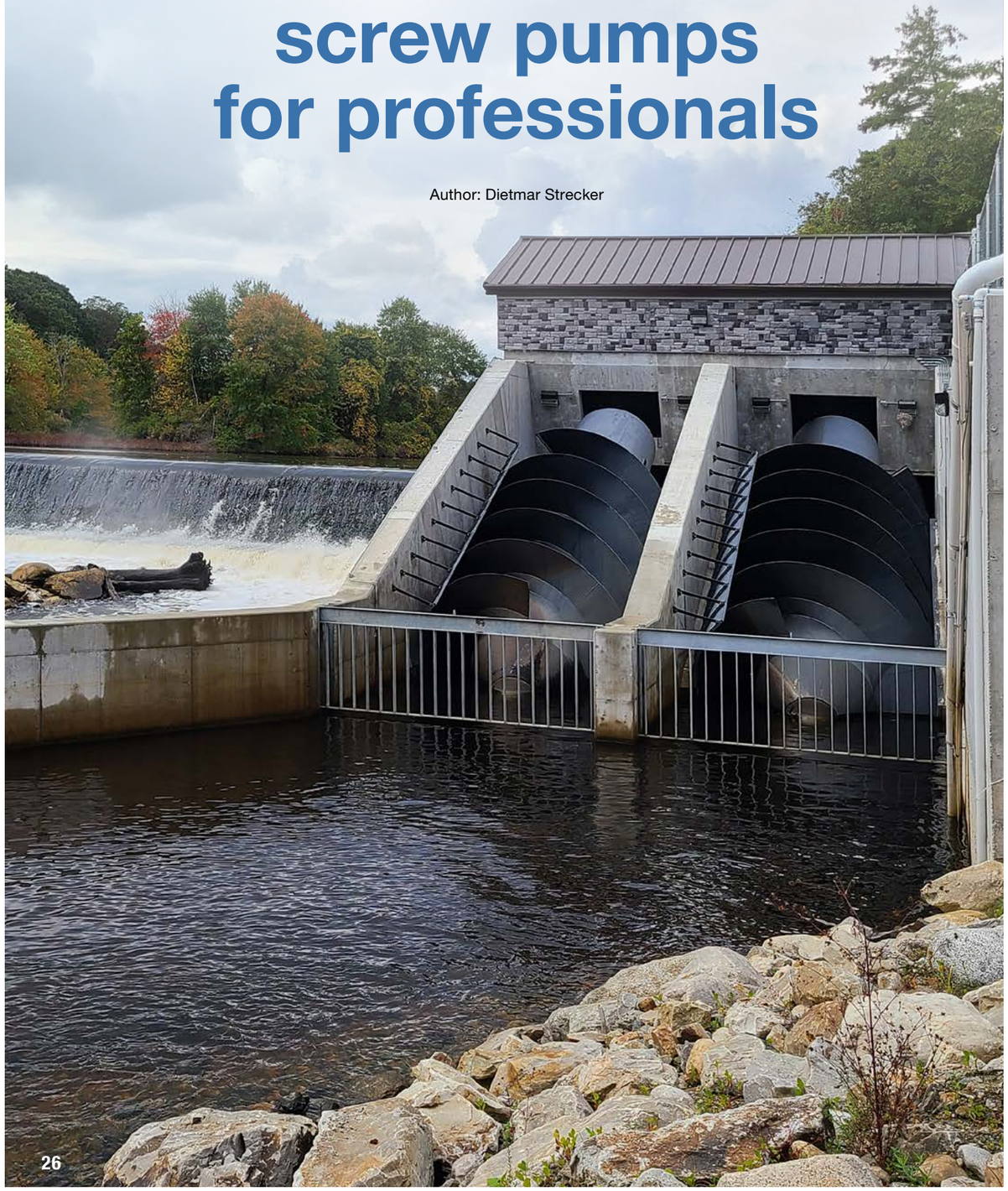
The results also have a positive impact on the climate. Depending on the fuel used, reduced steam generation results in between 7,000 and 12,000 fewer tonnes of CO_2 being emitted per year. Per O. Bjöörn says: "This demonstrates that the targeted use of chemicals such as BondStar® can make paper production more efficient and climate-friendly." ●

BondStar®, enhancing strength and performance.

ACAT and Spaans Babcock:

screw pumps for professionals

Author: Dietmar Strecker



ACAT has been distributing the high-quality screw pumps from Spaans Babcock in Austria for 15 years. They demonstrate their strengths in both wastewater treatment plants and industrial wastewater systems. Customers benefit from the long service life, high efficiency and easy maintenance.

With more than 35,000 installed screw pumps, the Dutch company Spaans Babcock is the world's largest manufacturer of screw pumps. More than half of all screw pumps around the world come from the company, which was founded in 1897. Since 2010, ACAT has been the representative in Austria and is therefore the first point of contact for this efficient and robust technology. A decisive advantage for customers: ACAT not only sells brand new systems, but also takes care of the maintenance and servicing of existing systems.

From sales to maintenance: ACAT is the first point of contact.

"Screw pumps are the best product on the market for pumping wastewater or return sludge."

Dietmar Strecker (ACAT watertech)

The ACAT product portfolio also includes screw turbines, centrifugal aerators and surface aerators for aeration tanks. Screw turbines are a further development of the tried-and-tested screw pumps. While the screw pump pumps the water upwards, the water flows downwards in the screw turbine, generating energy in the process.

In which applications do screw pumps excel?

- **Wastewater pumps**

Wastewater usually reaches pumping stations and wastewater treatment plants via natural inflow from below the earth's surface. Archimedean screw pumps effortlessly lift even heavily contaminated wastewater. A screen in front of the pump is not necessary.

- **Return sludge pumping stations**

Return sludge is an extremely sensitive biological substance. Thanks to their low speeds and the large distance between the blades, screw pumps lift the sludge flocs back into the aeration tanks without breaking them up. Centrifugal pumps, on the other hand, break up the sludge flocs into small pieces, making sewage treatment considerably more difficult.

“Spaans Babcock is the ideal partner for us, enabling us to offer our customers efficient and durable solutions.”

Dietmar Strecker (ACAT watertech)

- **Rainwater pumping systems**

Rainwater pumping systems often remain idle for 80 percent of the year. However, when heavy rainfall suddenly occurs, they must be able to pump thousands of cubic metres of heavily contaminated rainwater and waste immediately. This requires exceptional reliability at the push of a button.

- **Industrial wastewater systems**

There are also many possible applications for screw pumps in industrial wastewater treatment. These include

- ☑ Cooling water return pumps
- ☑ Refineries (oil sludge and wastewater)
- ☑ Potato processing factories
- ☑ The sugar industry

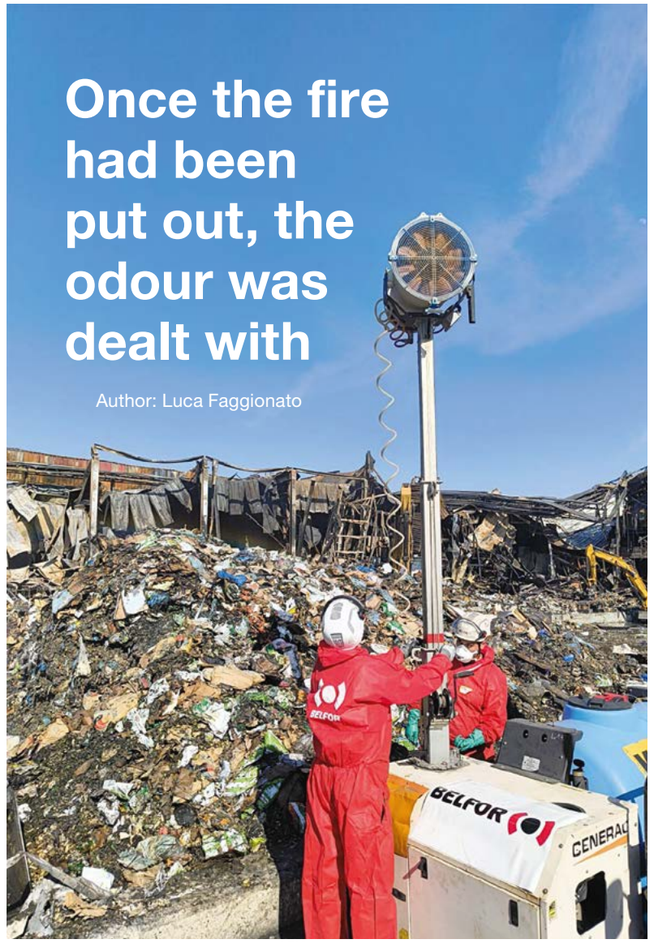
There are three basic configurations for installing screw pumps. The most common form is the installation in a traditional concrete trough. The second option is screw pumps with a steel trough, which ensure high operational reliability and a long service life, especially when dealing with large amounts of stones and gravel. No concrete work is necessary for the compact, prefabricated unit, which is ready for immediate installation. In general, screw pumps are made of mild steel with a special epoxy coating. The required coating is selected for each application. Optionally, the screw pumps can be made of stainless steel. They demonstrate their strengths in the range between 15 l/s and a maximum of 12 m^3/s.

Best technology

“Screw pumps are the best product on the market for pumping wastewater or return sludge,” Dietmar Strecker from ACAT watertech emphasises. The division specialises in water treatment for the municipal and industrial sectors. “Spaans Babcock is the ideal partner for us, enabling us to offer our customers efficient and durable solutions.”

For operators, the use of a screw pump means one thing above all else: decades of reliable service. Thanks to the low rotational speed and robust design, many systems achieve a service life of 20 to 40 years – with minimal wear and high energy efficiency. The technology also impresses in daily operation: The pump runs dry without damage, does not require a pump sump and automatically adjusts its flow rate to fluctuating inflows. Unlike other technologies, the presence of plastic, wood or stones does not reduce efficiency. Biological substances such as sludge flocs are treated particularly gently so that important structures are preserved during the cleaning process. Added to this is the ease of maintenance, which saves time and money. “A screw pump ensures performance, efficiency and durability – with a minimum effort for customers,” says Strecker. ●

Screw pumps are a proven and robust technology.



Once the fire had been put out, the odour was dealt with

Author: Luca Faggionato

Following a major fire at a logistics centre in Italy, the operators were faced with an enormous challenge: More than 1,000 tonnes of perishable goods had to be disposed of, causing significant odour pollution. The need for quick action was paramount. Together, ACAT and the damage restoration company BELFOR Italy have developed ONR 14, a fast, safe and natural solution to successfully control the odours.

In the early hours of 11 February 2025, a major fire broke out in a food logistics centre in Italy. The fire caused significant damage to the plant, producing a cloud of smoke that could be seen from far away. A total of 1,200 tonnes of perishable goods were affected, resulting in a strong odour developing quickly.

Impactful innovation

Working side by side, ACAT and the damage restoration company BELFOR Italy developed the product ONR 14 to restore air quality on site while protecting staff and the local population. To this end, the existing Ecosorb® application was further developed in close cooperation with BELFOR Italy's R&D department. This was based on joint studies with fire damage experts from BELFOR Italy. The result is a product based on natural essential oils, which was distributed using a fogging system. The odour nuisance decreased significantly during the work. Even at a distance of 20 metres, the odour was barely perceptible. In addition, the product was applied directly to organic waste using airless technology to achieve immediate sealing and neutralisation of odours during storage and transport.

Fast and efficient solutions

"In complex emergency situations, a fast response, quality and effectiveness must work together perfectly. Our goal was to not only remove the perishable material, but also to create safe and liveable conditions for the on-site staff and residents," emphasises Matteo Paolieri, Quality and R&D Manager at BELFOR Italy. The customer's praise underlines the successful operation. Luca Faggionato, sales engineer at ACAT, also has a positive view of the work carried out: "This collaboration demonstrates ACAT's ability to support partners such as BELFOR Italy in overcoming complex situations with fast, effective, and environmentally conscious solutions."

In the airtech sector, ACAT specialises in odour control. The complete range is not only extremely effective, but also plant-based and therefore very environmentally friendly. ●

BELFOR

CIRPLEX and Paper & Biorefinery:

Premieres featuring circular economy and PFAS

In May 2025, the first CIRPLEX took place in Klagenfurt. The focus was on innovations for a sustainable and circular plastics economy. This successful two-day congress and trade fair attracted around 1,800 trade visitors and experts from across the Alps-Adriatic region. ACAT was represented with its own stand, showcasing future-oriented solutions.

Shortly afterwards, the key players of the paper, pulp and biorefinery industries met at the Paper & Biorefinery in Graz. Once again, the paper conference was a key part of the ACAT trade fair calendar, providing an opportunity to meet with customers and partners. ●

Image above: Helmut Staufer, Matthias Imrek, Roland Auer and Reinhold Kreilmair
Image below: Nuri Kerman (left) and Manfred Zabl (right)

Austrian Water and Waste Management Association:

First Austrian PFAS Day

The eternal chemicals PFAS and their negative effects on people and the environment are increasingly becoming the focus of public debate. With this in mind, the Austrian Water and Waste Management Association (ÖWAV) held the first Austrian PFAS Day in June. The aim was to promote interdisciplinary exchange, discuss the current state of knowledge, highlight challenges, and resolve open questions. This premier event provided ACAT with the perfect opportunity to share insights on effective solutions for eliminating PFAS from water. ●

Per O. Bjöörn, Dietmar Strecker and Matthias Imrek

Our anniversaries

Our long-standing employees are the heart of the ACAT family.

Ursula Polt-Fischer
35 years ACAT Vienna

35 years with the same employer: Ursula is one of ACAT's longest-serving employees, but she has always adapted to change and continued to develop professionally. Thanks to her extensive network of contacts and her regular attendance at trade fairs and events, she is one of the most familiar faces of the ACAT community in Austria. She also looks after international customers, particularly those in Eastern Europe, and plays a key role in our sales team. With Uschi in charge, the goods always arrive on time. She is always enthusiastic and never gives up. Dear Uschi, we look forward to working with you for many years to come!

Susanna Weinrother
30 years ACAT Vienna

Susanna started out 30 years ago processing orders for environmental and paper products. To this day, she is responsible for processing international customer orders. She also oversees the spare parts business and plant construction, so you can't fool her when it comes to screws and nails. One of her greatest strengths is property management, and she takes care of our tenants' concerns and all matters relating to the building. Her colleagues highly value her as an extremely sociable and caring person. Thank you, Susanna, for your expertise and your daily commitment to our company!

Steffen Kleeb
25 years ACAT Basel

Steffen Kleeb has worked at ACAT for 25 years now. Working as an accountant in the Basel office, he is responsible for various accounting tasks for the entire group, both in Switzerland and abroad. The complexity and regulatory requirements are constantly increasing, so even with this extensive experience, it is still a challenging job. However, Steffen is in control of this and ensures that our growth and positive business performance are documented and recognised in black and white. Steffen, thank you very much for your excellent work and for your loyalty to the ACAT family over the last 25 years. The entire management team looks forward to continuing to work with you.

Our anniversaries

Thanks to their knowledge, experience and commitment, they play a significant role in our success.

Jasmin Thalmann
20 years ACAT Basel

Twenty years have flown by, which is also Jasmin's preferred style, as she works as fast as a jet plane flies and is a talented multitasker. Giving up is not an option for her, because the goods must arrive on time, no matter where in the world they are going. She always knows the current regulations inside out and is not afraid to deal with even the most difficult customs officers. Discipline, diligence and order form part of her credo, which is immediately apparent when you enter her office. Her friendly nature and loyalty to the company are among her special qualities. We look forward to continuing our excellent working relationship with you, Jasmin!

Nadine Lansucki
15 years ACAT Basel

Nadine has been an important member of the ACAT family for 15 years. She has continuously developed in her role as a sales assistant. Nadine anticipates the customers' needs before they are even expressed and then works with the team to find quick, creative and tailor-made solutions. We value her reliability and organisational skills, and her ability to stay on top of things, even in stressful situations. She never loses her friendly, clear and humorous manner. She approaches every project with passion and perfection, both privately and professionally. Nadine, thank you for your commitment and warmth. Here's to many more years together!

Pawel Loos
10 years papertech

Ten years ago, Pawel decided to take a job at ACAT. We hired him without hesitation, and you can still rely on him to this day. Thanks to his many years of expertise in the field of paper chemicals, he has made a decisive contribution to our company's advancement. Furthermore, Pawel has established strong partnerships by providing dedicated support to our customers in Poland. His commitment has played a significant role in our success in recent years. We value his reliability, friendliness and team spirit. Thank you very much for the past ten years!

"We would like to wish all of our colleagues all the best for the future".

Our anniversaries

Our long-standing employees are the heart of the ACAT family.

József Piczek
10 years ACAT Budapest

More than 10 years ago, we took over the Ferrecirk company, which significantly increased the workload in our Budapest office. Since then, József has been a central pillar of our ACAT team. He is a dedicated and highly independent coordinator who reliably takes on a wide range of tasks, especially those related to the delivery of precipitants. Outside of work, József pursues his passion for photography, showcasing his creative side. His expertise and dedication are of great value to our ACAT family. Thank you, József, and here's to many more successful years together!

Elmarie Pauw
10 years ACAT Durban

Elmarie is celebrating her 10th anniversary with our company. She is considered the cornerstone of the administration team at ACAT Durban. Elmarie brings calmness, composure and professionalism to everything she does. Her accuracy and in-depth knowledge of our diverse processes, coupled with her unwavering support for others, make her indispensable. She is always approachable and extremely reliable. This has earned her the respect and appreciation of her colleagues throughout the company. Thank you, dear Elmarie, for ten years of dedication and reliability!

Dragan Kojic
10 years watertech

Dragan Kojic has been a valuable member of our ACAT team for ten years. His journey began with an initial enquiry from Serbia, which paved the way for his success. Dragan is extremely independent and helpful, and is always open to new tasks, projects and products. His determined nature and diplomatic flair have played a significant role in consolidating our activities in South-Eastern Europe. Dragan coordinates our projects in the region with great commitment. Thank you for your continuous hard work, Dragan, and we look forward to many more years together!

"We would like to wish all of our colleagues all the best for the future".

ACAT at the IFAT Munich 2026

From efficient wastewater treatment to sustainable odour control: We will be showcasing our latest solutions and innovations at the world's leading trade fair for environmental technologies, which is celebrating its 60th anniversary in 2026. In keeping with the new title of the IFAT: "Solutions for Water, Recycling and Circularity".

We look forward to exciting discussions!

WHEN
4th to 7th May 2026

WHERE
Munich Exhibition Centre

Invitation to the IFAT in Munich including our traditional table football tournament

WHEN
Tue, 5 May
from 6 pm

WHERE
Hall A3
Stand 544

Please register by April 17, 2026 by email to susanne.durst@acat.com

Preview issue 35

The next issue of the Inside ACAT magazine will also feature a selection of interesting and exciting articles on wastewater treatment, air purification, paper manufacturing and speciality chemicals.

Applied Chemicals
International Group

We make air fresh. Effective and powerful solutions against unpleasant odours.

From industrial operations to waste management: ACAT's high-performance products and systems ensure the effective elimination of odours. Thanks to our many years of experience and extensive technical expertise, we deliver quick and long-lasting results. For more information, visit

acat.com

Our technical service is your success