

TECHNOLOGY FOR CLEAN AIR





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#### Dear reader!

One development is affecting us greatly at the moment: new technologies to reduce CO2 emissions. history and shows that our strategy is bearing fruit. Why? Because we want to provide a liveable future for everyone. Research is the basis of this. Our aim is to develop continuously and drive climate technologies that make our world a planet that is worth living are designing their future with Scheuch in order to

are setting new standards and writing history - in Austria, around Europe, in America and in Asia. From the energy industry to the cement industry - only those who develop can survive and be successful in the future. At Scheuch, we know how that works. The figures show our success year in year out: You can find these and many other stories about rethe Scheuch Group is growing continuously. Even in the current difficult economic environment, we still grew our turnover by eight percent to 317 million

We are also particularly pleased that long-term partners such as EGGER, voestalpine and Sumitomo SHI have the latest technologies on board. They rely on our expertise. In order to continue to guarantee this Speaking of the future: Scheuch industrial products in the future, we are investing in research, digitisation and expanding our factory in Prievidza in Slovakia further. We have dedicated some articles in the magazine to our cooperation with these and other companies.

> search for a liveable future in this issue. We hope you enjoy reading!

> > **Scheuch Group Managing Board**







Stefan Scheuch



Heinz Autischer

Please note that the masculine form of address may be used for ease of reading. All statements apply equally to all genders.

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Dawn of new dimensions: far-reaching innovations are required to be prepared for the future. The greatest challenges are the climate crisis, the population explosion and the new opportunities provided by artificial intelligence. Scheuch has been a driving force for innovation and progress for more than six decades, and has developed leading technologies for air pollution control. This focus will continue to drive us.

limate change continues unabated and the urgency of measures to reduce emissions is clear. The focus is on industry to minimise its effects on the environment and this requires intensive commitment to innovation, research and development. Scheuch has positioned itself as a pioneer at the heart of these challenges and shows that inquisitiveness, passion and a high level of commitment to the environment are not only important but also mean economic success.

#### **REDUCING EMISSIONS RIGHT** FROM THE START

Scheuch is a leading company in the environmental technology area and has committed to reducing emissions right from the start. Since its founding, the company has followed a clear vision: using innovative solutions and sustainable technologies to make a positive contribution to protecting people

and the environment, and simultaneously helping customers to achieve their emissions targets.

With a heavy focus on research and development, Scheuch has invested continuously in new technologies, not just for new air filter systems but also to improve the efficiency of exhaust gas cleaning systems and for general climate-proofing.

#### **ENVIRONMENTALLY FRIENDLY TOGETHER**

One of Scheuch's important strategies is to work closely with customers to develop tailor-made solutions that meet their specific requirements. With this partnership approach, Scheuch has been able to complete a range of groundbreaking projects including implementing exhaust gas cleaning systems in many production companies in all industrial sectors around the world.

However, Scheuch's mission goes beyond developing environmentally friendly practices.

Stefan Scheuch, CEO of the Scheuch Group, emphasises the decisive role of innovation and cooperation in overcoming the global environmental crisis: "At Scheuch, we are convinced that innovation clear commitment to innovation, a strong customer is the key to overcoming the challenges of climate focus and deep-rotted environmental consciousness, change. By continuing to invest in research and development, and working closely with our and to deliver sustainable solutions for a changing customers, we are confident that we can achieve a world. sustainable future together."

#### **GREAT FUTURE**

innovative technologies. The company strives to The current trend shows increased awareness raise awareness of environmental topics and to of environmental topics and an ever increasing promote sustainable change in the industry. With demand for environmentally friendly solutions. various projects, Scheuch contributes to increasing Companies that are able to react to this demand and understanding of the importance of reducing act accordingly will be successful in the long term emissions and encouraging companies to implement and have a positive influence on society and the environment.

> Considering these perspectives and strategies, Scheuch is in the perfect position to take on a leading role in reducing emissions in the industry. With a Scheuch is ready to face the challenges of the future



#### **SCHEUCH GROUP VISION**

Our sustainable solutions ensure a clean planet for generations to come.

#### ON THE ROAD TO SUCCESS WITH KEY STRATEGIES

#### PIONEER IN EMISSION REDUCTION: THE SCHEUCH INNOVATION STRATEGY

#### THE CUSTOMER IS AT THE HEART OF ALL OF OUR STRATEGIC CONSIDERATIONS

The customer is at the heart of our company strategy. Their satisfaction and requirements are at the core of all of our strategic considerations and decisions. We strive to achieve the highest standards through innovation, commitment and passion in every area of our company.

#### WE WORK ON THE BASIS OF THE SCHEUCH VISION AND MISSION.

Our work is engrained in the Scheuch vision and mission. These guide us in all activities. By implementing these principles, we provide added value to our customers and society as a whole.

#### WE STRIVE FOR LEADERSHIP IN TECHNOLOGY IN OUR PRODUCTS

When developing our products, our aim is leadership in technology. Through continuous research and development, we strive to create industry-leading solutions that offer our customers real added value. Our products stand for quality, reliability and innovation.

#### THE SCHEUCH GROUP'S GROWTH TRAJECTORY CONTINUES

The Scheuch Group's stable growth trajectory will also continue in the future. With a further record turnover of around 317 million euro in the 2023/24 financial year, an increase of eight percent compared to the previous year, the company is on a consistent road to success.

We rely on sustainable and long-term development that is based on partnerships, innovation and customer satisfaction. Together with our customers, we are designing a successful future and are always in the lead in the sector.

#### **SCHEUCH GROUP MISSION**

We empower global industries to achieve their sustainability goals through our innovative and leading technologies.



#### INNOVATION AT SCHEUCH

At Scheuch, we deem innovation to be integral and multifaceted. As the renowned management thinker, Peter Drucker said, real innovation comprises numerous facets. We take varied approaches that are not just limited to our products, but also comprise our services, processes, marketing and sales strategies, applications and business models. To us, innovation means making use of the full range of possibilities available to our company. Through this comprehen- A typical innovation process at Scheuch sive approach, we provide our customers not just with technological advancements, but also with sustainable and tailor-made solutions that rise to the **1.** Identifying opportunities and challenges: which challenges of the future.

#### **ENGRAINED IN THE STRATEGY**

which is engrained into our company strategy. This process is implemented by various teams that concentrate on different areas and problems. Integrating innovation into strategic planning ensures that **3.** Evaluation and prioritising: which ideas have the all innovation efforts are tailored to the company's long term aims and contribute sustainably to success.

#### THE ROUTE TO THE BIG PICTURE

tion systematically and in a structured manner. We use targeted questions to guide the innovation process and work step-by-step towards a comprehensive big picture including innovation strategies. Therefore, strategically important future topics that must COOPERATION be worked on in the company over the next three Innovation at Scheuch is teamwork. Different teams years are developed, evaluated and implemented.

This methodical approach enables us to identify and cooperation enables us to consider complex chaldevelop both incremental and radical innovations.



Innovationen are all economically successful ideas that strengthen the competitivness of our Scheuch GROUP and provide benefits."

> Stefan Scheuch. CEO of the Scheuch Group

#### comprises the following steps:

- trends and developments could affect our busi-
- Innovating is a professional process at Scheuch, 2. Idea generation: which new products, services or business models could respond to these opportunities and challenges?
  - greatest potential and match our strategy best?
  - **4.** Development and implementation: how can we turn these ideas into market-ready solutions?
- Our way of working is based on approaching innova
  5. Feedback and project analysis: what can we learn from the market launch and how can we improve our solutions further?

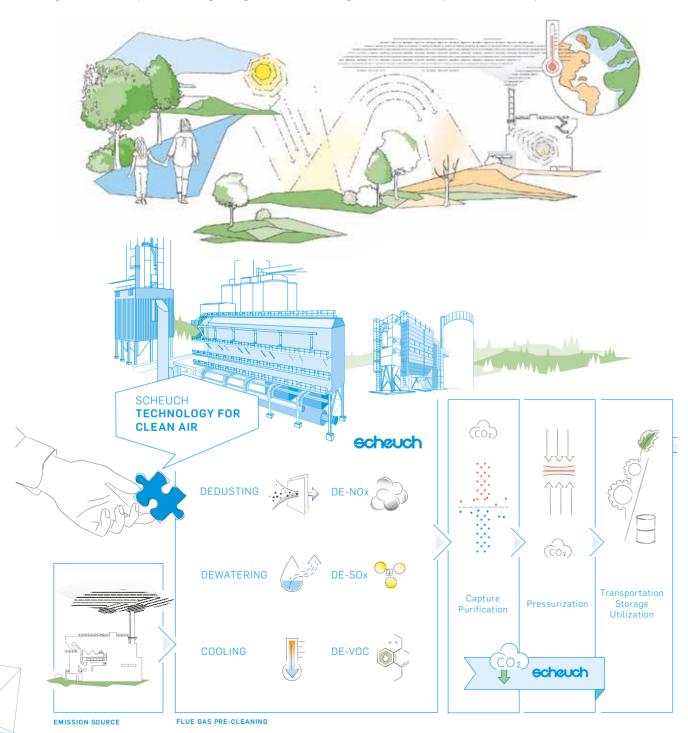
bring their expertise and perspectives to develop innovative solutions together. This inter-disciplinary lenges from different points of view.

#### **FACTS**

- More than 20 employees are involved in implementing the innovation strategy
- There are currently more than 10 large innovation projects
- A Group-wide innovation board guides the projects

## INDUSTY WITHOUT CO<sub>2</sub> - VISION OR REALITY

The course for the future is being set today. But is industry without CO<sub>2</sub> emissions possible or will this idea remain a vision? Scheuch, as an environmental technology expert, is tackling the subject thoroughly and setting standards that already start when pre-cleaning the gas – immediately before CO<sub>2</sub> separation takes place.



ducing greenhouse gases in high-emission industries. New research in the emission reduction area is bringing in a new era in which the use of carbon capture technologies will play a significant role. Despite the promising progress, the most Scheuch has always offered advanced technologies efficient way to reduce the CO2 content in the atmosphere remains reducing emissions significantly. However, where this is not fully possible, CCUS (carbon capture utilization and storage) is a valuable addition.

#### **GAS PRE-CLEANING:** THE DECISIVE STEP

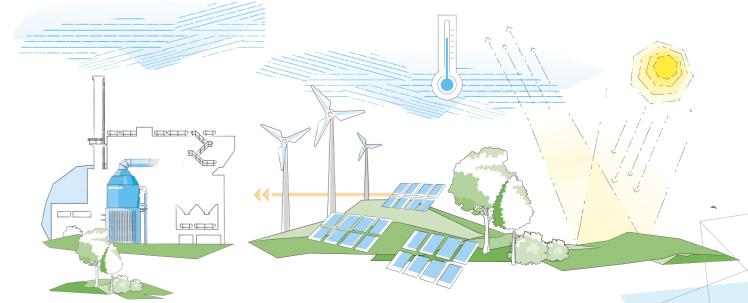
Before CO2 separation can start, careful gas pre-cleaning is required. This step is vital to remove harmful substances such as sulphur dioxides (SOx), nitrogen oxides (NOx), volatile organic compounds (VOCs) and fine dust from the exhaust gas. Thorough precleaning optimises the gas flow for CO2 separation and is a significant part of ensuring that the system runs optimally. Completely pure exhaust gas is essential for minimising operating costs: it lowers the membranes and reduces the postprocessing costs.

"Thanks to effective gas pre-cleaning, the separation system's efficiency and service life increase notably which results in significant cost reductions. We are logy", explained Thomas Fellner.

☐ he spotlight is increasingly being put on re- working on several projects with our customers to find solutions in order to achieve these values with minimum expense", said Thomas Fellner, Head of Business Development CO2.

> for exhaust gas pre-cleaning and is developing them continuously. These solutions are based on tried and tested procedures such as electric filtration, dedusting and sorption in order to remove even the smallest particles and hazardous substances from the system efficiently. Scheuch makes use of all of them, as a wide range of technologies is available, which can be combined as required. "More than 60 years of experience in the field of exhaust gas cleaning has given us a head start in adapting CO2 separation technologies to the needs of our industrial customers", said Heinz Autischer, COO of the Scheuch Group.

In addition to classic dedusting, the spotlight will be put on removing fine dusts and aerosols in the future. "Our SCR- and RTO combinations are optiamine consumption, extends the service life of the mised for the lowest emission values. Depending on the system configuration, we rely on dry sorption or scrubbers for acid gas, and these can also be used for dehumidification and for the highest level of heat extraction efficiency, such as via Scheuch ercs techno-





The requirement for exhaust gas cleaners for oxyfuel systems is also increasing. These systems currently have special requirements: they need components and conveyors that are free of leak air and require hazardous substance separation to be adjusted at low oxygen levels and high CO2 partial ses. Scheuch is also already working on optimisations here.

#### TECHNOLOGIES: CO2 SEPARATION

As a leading company in the air and environmental technology sector, Scheuch also believes in research and development for CO2 separation technologies and is focussing on concrete implementation of various procedures. These include adsorption technologies in fluidised bed and fixed bed procedures, as well as absorptive separation of CO2 using amine scrubbing.

#### directCCE: AN INNOVATIVE RESEARCH PROJECT

An outstanding example of Scheuch's commitment to research is the "Direct Carbon Capture and Electrolysis" (directCCE) project. Under the guidance of the Vienna University of Technology, a consortium pressures that could impair the oxidation proces- that also includes Scheuch is working on developing a novel technology to convert CO2 emissions from waste incineration plantes directly into valuable raw materials. The aim is to demonstrate this technology on a semi-industrial scale and therefore to make a major contribution to climate neutrality.

> Christian Bartel, Team Leader Group R&D and Test Lab at Scheuch, explains: "The centrepiece of the project is an integrated CO2 separation and electrolysis procedure that converts flue gas that is rich in CO2 into synthetic gas. This is then used as the base substance for manufacturing climate-neutral

Exhaust gas pre-cleaning is vital to remove even the smallest concentrations of hazardous substances and therefore to maximise the efficiency of the subsequent CO<sub>2</sub> separation."

Christian Bartel, Team Leader Group R&D and Test Lab

hydrocarbons." The innovative combination of vative solutions contribute to beating the climate a special electrolyte and highly efficient catalytic crisis. converters promises low energy consumption and low investment costs.

#### **NOW: GROUNDBREAKING SOLUTIONS FOR INDUSTRY**

At Scheuch, we know that CO2 can be produced freely today. However, further development to the functions of the various methods and systems, cost reduction and energy consumption, as well as the required infrastructure are required. Autischer is convinced that "All green technology must add up for the operating company. These projects are not currently financially viable without subsidies but this is changing gradually thanks to improved and cheaper technologies, and offsetting the costs for ons significantly and to be sustainable. The course CO2 certificates."

The advancements in CO2 separation technology and successful implementation of future-proof projects are helping to ease the transition to climate-neutral industry. "We support all industrial sectors in their endeavours to achieve CO2 neutrality", said Autischer. With gas pre-cleaning and projects such as directCCE, Scheuch is showing how inno-

"Carbon capture is not just an environmental necessity but also a strategic economic decision. Companies who implement these technologies early benefit from regulatory advantages, reinforce their market position, promote innovation and growth, and safeguard their long-term financial sustainability", says Autischer.

If you want to achieve something, you have to take initiative. Thanks to the combination of gas precleaning and CO2 separation, Scheuch is developing tailor-made solutions that enable industrial customers to reduce their greenhouse gas emissifor a sustainable future is being set today and Scheuch is leading the way.

"We are open to any projects and are happy for all cooperation in the research and development areas, up to and including implementing prototype systems and new technologies", said Thomas Fellner, head of the Business Development CO2 staff unit at Scheuch.



More than 60 years of experience in the field of exhaust gas cleaning has given us a head start in adapting CO<sub>2</sub> separation technologies to the needs of our industrial customers."

Heinz Autischer, COO of the Scheuch Group

We support all industrial sectors in their endeavours to achieve CO<sub>2</sub> neutrality."

Thomas Fellner. Head of Business Development CO<sub>2</sub>

## **FUTURE-PROOF WITH CLIMATE PROTECTION**

Interview with Hannes Mitterweissacher, CTO at EGGER

ustainability is the order of the day. All indus- ral lives. This includes recycled wood and saw mill tries are exhausting all of their possibilities residue. to meet the set climate targets. We wanted to know more and asked Hannes Mitterweissacher, Are technical innovations the key to sustainable CTO at EGGER in the wood industry. As an experienced expert in the wood materials area, he provides us with an exclusive insight into his area.

#### What can the wood industry contribute to solving the climate crisis?

would say today, much to valuable to simply burn. residues requires further innovations and Schuch The wood-based panel industry is an important part of the recycling economy and enables sustainable, responsible use of the material that is wood.

Trees absorb CO2 when growing, the carbon remains stored in the wood for its entire useful life. With each chip that is recycled, this storage effect is

For our wood materials, we mainly use wood from products and the manufacturing procedure. the recycling economy, which has already had seve-

#### development? What is still needed for the future?

We develop processing plants for recycled wood in order to re-use as much wood material as possible and to separate reusable materials such as iron, aluminium or glass from the wood in order to also return them to the cycle of materials.

Wood is too valuable to throw it away or, as we 
The implementation of processing technologies for extraction and filter systems are an important component in each of our systems.

#### What are the greatest challenges for companies when implementing their sustainability goals in your opinion?

Sustainability goals require a new, innovative look at

The challenges that we must face are handling re-



sources even more carefully and reducing our greenhouse gas emissions that affect the climate and therefore implementing our climate protection commitment to net zero by 2050. Large investments are required for this in order to achieve the switch to climate-neutral technologies.

In the future, products and manufacturers will rely increasingly on sustainable solutions and, at the end of the day, the customer will decide whether they prefer a sustainable product and are prepared to pay a higher price.

#### Climate protection and economic growth – can the two be combined?

I consider climate protection to be innovation. In the long-term, innovation is the basis for safeguarding our industry in Europe, which provides high quality jobs. It is therefore not a contradiction but rather a win-win situation; we do not need to be afraid of climate protection – we must work on it actively and this in turn creates economic growth and prosperity.

#### What is the outlook for your sector in the next two years? Could there be major changes in the wood industry?

I'm looking to the future positively, we have highly motivated and well trained employees who are constantly working on developing new, innovative products and also on manufacturing them highly efficiently.

The wood-based panel industry has already been working on achieving sustainability goals for many years, it's not new to us and we will therefore meet the challenges head-on together with our partners.

#### Your conclusion?

We can only overcome future challenges together with partners such as the family business, Scheuch. During our last visit, we decided jointly to strengthen this partnership even further. We are therefore looking to the future positively and are looking forward to cooperating on many projects.

Hannes Mitterweissacher has been responsible for the technology and production areas as a member of the EGGER Group management since 2022. He has worked for EGGER for almost 30 years and has held many different international technology and production functions during this time.

The EGGER Group with is headquarters in St. Johann in Tvrol is one of the world's leading wood based panel manufacturers. The family business was founded in 1961 and today has production facilities in 22 locations in 11 countries around the world with more than 11,000 employees.



on the "Best family business in Austria 2024" award

#### **THANK YOU!**

for more than 50 years of partnership with Scheuch!





## SCHEUCH IDEAS FOR A BETTER WORLD

**PROJECTS** 

Many industrial companies cannot work in an environmentally friendly way without Scheuch. Renowned production companies around the world trust Scheuch's environmental technology.

## PIONEER WITH **ENVIRONMENTALLY FRIENDLY FILTER TECHNOLOGY**

Advance Fiber leads the way in Thailand with environmentally friendly filter technology from Scheuch.

ast and detailed as-built survey using 3D scanning.



t a time when demands for environmentally friendly production processes are increasing worldwide, Advance Fiber Co, Ltd. is showing that sustainable innovations are precipitator system replaces the outdated and also making their way into Thailand. The company commissioned a state-of-the-art electrostatic precipitator system from Scheuch in 2024, taking a significant step towards environmental responsibility.

#### **TECHNOLOGY FOR CLEAN AIR AND ENERGY EFFICIENCY**

The new Scheuch SEF 10.0/5.6x2-11 electrostatic ageing multi-cyclone system and exceeds the current, strict emission requirements of the Thai go-

#### **DESIGN DATA ESP:**

Actual flue gas flow DESIGN (at 380°C, incl. sootblowing) 482.000 Am<sup>3</sup>/h (wet) Flue gas flow DESIGN (incl. sootblowing) 196.000 Nm<sup>3</sup>/h (wet)

Operating mode (suction/pressure): suction System pressure ESP (inlet) > -2.200 Pa

Crude gas dust content DESIGN

(max. incl. sootblowing) 2,5001 mg/Nm<sup>3</sup> (dry) at actual O<sub>2</sub>-content

Clean gas dust content < 60¹ mg/Nm³ (dry) at actual O2-content Clean gas dust content < 1201 mg/Nm³ (dry) at 7 % vol dry O2-content

With this investment in advanced filter technology, Advance Fiber, a Thai manufacturer and distributor of wood-based panels, shows that sustainability and economic success can complement each other perfectly. In addition to the significant reduction in emissions, electricity consumption has been reduced considerably, which brings the company both ecological and financial benefits.

By installing this advanced ESP (electrostatic precipitator) technology, Advance Fiber is leading the way in the industry and setting a new standard in the region, which is facing increasingly stringent environmental regulations. While many companies are still looking for solutions, Advance Fiber has already set the course for a more environmentally friendly future.

#### HIGH-TECH WITH PRECISE PLANNING

However, the success of the project is not only down to the customer's commitment, but also to Scheuch's technical expertise. The electrostatic precipitator system reduces dust emissions significantly and was specially adapted to the conditions at Advance Fiber. The project was anything but simple: space at the plant was very limited and a detailed 3D scan of the existing system was required in order to integrate the new filter technology with a perfect fit. The production and transport of the large-format raw and clean gas pipes (5 x 2.5 metres), which had to be specially prepared for overseas transport, was particularly challenging. The excellent coordination of all parties involved with the Thai Scheuch team ensured that the plant could be commissioned on schedule, which meant minimal disruption to Advance Fiber's production.

#### **FUTURE-PROOF AND EASY TO MAINTAIN**

The new separation system not only impresses with its environmental friendliness, but also with its ease of maintenance and durability. With this future-proof solution, Advance Fiber has not only fulfilled the current environmental requirements, but is also well prepared for future challenges. The success of this collaboration gives reason to hope that further production lines will be modernised at Advance Fiber in the future. In Scheuch, Advance Fiber has a reliable partner at its side that is not only a technological leader, but also has the expertise to respond flexibly to the specific requirements of the Asian market.

PROJECTS PANELS

lo room for manoeuvre: one half of the electrostatic precipitator's housing is fitted precisely in a confined space.

#### **ABOUT THE PROJECT:**

Customer:

Advance Fiber Co., Ltd., Thailand

*Industry:* Panels

Solution: HOT GAS ESP for drying plant

Highlight:

Limited space and commissioning process



The Scheuch ESP (electrostatic precipitator) system for Advance Fiber in Thailand ensures clean exhaust air.

PROJECTS ENERGY PROJECTS ENERGY

## SCHEUCH'S ROUTE **TO ÖSTERSUND**

Trend set: partnership, innovation and environmental protection in Sweden.

ometimes, it's not the major headlines that SCR system (selective catalytic reduction) with nachange the world but rather the silent, sustainable steps. In a time when people are becoming more and more aware of climate change, companies around the world are relying on innovative technologies to protect the environment. One of these projects that is taking shape in the city of Östersund, close to Åre in northern Sweden shows how high technological performance and environmental consciousness can work hand in hand.

#### A GREEN PARTNERSHIP

Together with Sumitomo SHI FW Energia Oy from Finland, Scheuch has started an ambitious project for the public energy company, Jämtkraft. The mission: a new district heating plant that does not just meet the strict EU and Swedish emission regulations but that also leaves a clean environment behind for future generations.

#### **TECHNOLOGY THAT IMPRESSES**

At the heart of this project, there is a Scheuch ultramodern bag filter with a sorbent metering system. This system has been designed specially to reduce dioxins, NOx and SOx. The special feature of this project is the integration of the bag filter on the electrical building. A space-saving solution that shows that innovation often overcomes spatial limits.

#### **CHALLENGE ACCEPTED**

Another highlight is the high operating temperature of the flue gas treatment system. In contrast to conventional procedures that pre-heat the tural gas, Sumitomo SHI FW Energia Oy dispenses with this method, which saves both the environment and operating costs.

#### A PROJECT WITH PROSPECTS

For Scheuch, this project is not just a technological success but also a special highlight. Östersund is close to the renowned Åre ski resort, a venue for many FIS Alpine World Cups and Alpine World Championships. The beauty of Swedish nature and the proximity to such prestigious venues make this project something special.

#### **LOOKING TO THE FUTURE**

The success story of Scheuch and Sumitomo SHI FW Energia Ov in Östersund is a shining example of how technological innovation and environmental consciousness can be combined to achieve sustainable solutions for the future. This partnership will continue to bear fruit in the future, as the vision of both companies is clear: a cleaner, greener world for

After many joint projects, we know each other's strengths and working methods and can therefore deliver optimised solutions."

> Paavo Sokura, Project Management, Sumitomo SHI FW Energia Oy

#### **HAPPY BIRTHDAY**



Scheuch Sweden is celebrating its 10th birthday in 2024



#### **ABOUT THE PROJECT:**

Customer:

Sumitomo SHI FW Energia Oy, Finland



## THREE BIRDS WITH ONE STONE

Scheuch reduces emissions, saves energy and increases production.

n Sully-sur-Loire, France, Swiss Krono, one of the leading manufacturers of engineered wood, has taken a major step towards sustainability and decarbonisation. In collaboration with Scheuch, Swiss Krono France, Dalkia and Meridiam have accomplished an ambitious mission:

#### to reduce energy consumption, to increase production efficiency and to reduce emissions massively.

What sounds like a difficult balancing act at first glance is a prime example of technological innovation.

#### **ROLE MODEL FOR SUSTAINABILITY**

"There are projects that go beyond the actual order," explains Thomas Rainer, Managing Director of Scheuch GmbH, enthusiastically. "Our latest project with Swiss Krono is one such milestone. It shows that technological innovation not only provides an answer to ecological challenges, but also strategically changes the future of the entire industry." What appeals to Rainer is the "Green Energy Sully" project - a pioneering initiative that could serve as a model not only for the Swiss Krono plant, but for the entire wood-based materials industry.

#### **ABOUT THE PROJECT:**

Customer:

Swiss Krono, Dalkia, Meridiam France

**Industry**: Energy

#### Solution:

Spark separator (as pre-separator)
Bag filter with sorbent dosing system
ercs (Energy Recovering & Cleaning Systems)

With the installation of a 65 MW biomass plant, which is fed by wood waste from the production process, Swiss Krono was able to achieve a remarkable reduction in its CO2 emissions by a whole 35,000 tonnes per year. But that"s not all: the plant reduced the factory"s gas consumption by up to 95 per cent - an achievement that not only protects the environment, but also noticeably reduces operating costs. An all-round successful decarbonisation that Swiss Krono implemented together with Dalkia, a specialist in energy efficiency, and Meridiam, an independent investment benefit corporation and an asset manager of sustainable infrastructures.

#### MORE THAN JUST TECHNOLOGY FROM SCHEUCH

Scheuch played a key role in this project. "We supplied the entire flue gas cleaning system and developed a customised solution for the customer. We focussed in particular on a coordinated combination of spark separators, bag filters and activated carbon and hydrated lime silos, all of which ensure optimum flue gas cleaning of the biomass incineration plant. Everything, even the system programming, was carried out by our teams", reports Alois Hermandinger, Director Sales & Product Management at Scheuch GmbH.

A particular highlight of the project was the innovative ercs system (Energy Recovering & Cleaning Systems) from Scheuch, which efficiently converts the residual heat from the cleaned flue gas into hot water and feeds this directly back into the factory. This technology ensures that valuable energy does not go unused but is reutilised in the production process. "We are particularly proud of this system",



Thomas Rainer, Managing Director and Alois Hermandinger, Director Sales & Product Management of Scheuch GmbH are enthusiastic about the green project in France.



emphasises Hermandinger. "It shows how technology not only solves problems, but also utilises resources more efficiently and creates sustainable benefits for the company."

With the "Green Energy Sully" project, Swiss Krono, together with Dalkia, Meridiam and Scheuch, is proving that technological innovation and sustainability are not only possible, but also the basis for a future-proof industry.

Dalkia, a subsidiary of the EDF Group, supports its customers in their energy and digital transformations through its two business lines: the development of local renewable energies and energy savings. Dalkia develops renewable and recovered energy sources in areas and provides long-term support to its customers to help enhance their energy efficiency.





## **ALL GREEN**

Forests and fields surround the stainless steel factory in Kapfenberg, Austria. Scheuch and voestalpine BÖHLER Edelstahl prove that sophisticated technology can ensure human health and an intact environment.

eighbours and employees of the stainless steel factory in Kapfenberg, Austria are fine. The environment is quiet and clear air surrounds them. The high-performance factory is an impressive demonstration that production can be clean, quiet and environmentally friendly.

#### THE MOST MODERN TECHNOLOGY IN THE WORLD

The stainless steel factory in Kapfenberg is the most advanced of its kind. It sets new worldwide benchmarks in terms of digitisation and meets both national and international environmental standards. The technological highlights of the system, such as the electric arc furnace are the centrepiece of the factory.

#### INNOVATIVE AIR CLEANING TECHNOLOGY

One of the most noteworthy feats is the air cleaning system developed by Scheuch. This system dedusts 1.4 million cubic metres (measured at operation pressure) of exhaust air per hour, which is developed during the casting process and cleaning the mould plates. Using integrated silencers in the bag filters and clean-gas ducts reduces noise emissions significantly.

#### SUSTAINABILITY DURING OPERATION

The stainless steel factory does not just operate quietly and cleanly, but also sustainably. All of the requires power is covered by renewable energy sources. Furthermore, an efficient heat recovery system enables the heat that is generated to be used internally or to be fed into the public district heating network.

#### A MODEL FOR SUCCESS IN THE FUTURE

This project is a model example for how industry and environmental protection can work hand in hand. The combination of advanced technology, sustainable energy sources and an environmentally friendly production process make the stainless steel factory in Kapfenberg a world-leading model company.

#### **ABOUT THE PROJECT:**

Customer:

voestalpine BÖHLER Edelstahl GmbH & Co KG, Austria

Industry: Metal

Solution: Sound-insulated dedusting system

Highlight: Cleaning 1.4 million Am³/h of air 40 extraction points tailored to the process

For more information on this impressive project, see our website:



## PRETTY GOOD **REASONS**

When we say something, we keep our word - regardless of whether it is about implementation planning, assembly or longevity and service. The US cement manufacturer ARGOS was convinced to modernise its plant in Martinsburg with Scheuch technology.

here are many good reasons for choosing Scheuch environmental technologies. When ARGOS, the renowned cement manufactufrom. But the decision quickly fell on Scheuch. Reliability, quality, and quick implementation — these were the promises that Scheuch made and kept.

#### A REVOLUTIONARY FILTER SYSTEM

Scheuch replaced an inefficient filter technology with an advanced one. The heart of the modernisation is a huge, double-row fipp filter (fipp20-8.5\_9.5-54/2e00). With 54 units, equipped with the latest sensors and a highly developed control unit, this filter sets new standards. Compared to the usual standards with 12, 15, or 18 bag filter units, this special filter with 20 bag units per row offers impressive performance.

#### **RECORD-BREAKING SPEED**

One of the biggest challenges was minimising downtime. In just 35 days, the entire kiln operation was converted and the new Scheuch plant was put into operation. A remarkable achievement that is rarely achieved in this short turnaround time.

#### **OUTSTANDING RESULTS**

Thanks to the increased effectiveness of the new plant, ARGOS is now achieving higher production rer in the USA, decided to modernise its plant in capacity. The innovative EMC technology reduces Martinsburg, there were many options to choose the need for filter bag changeouts and thus extends the operating life of the plant. This results in significantly lower operating costs and improved effi-

#### **CONFIRMED CONVICTION**

Even before the project started, ARGOS was convinced of Scheuch's quality and performance. The successful implementation has further strengthened this opinion. Dwight Savage and Karl Hartwagner, the project managers from Scheuch USA and Austria, expressed their pride in a job well done. "We are proud that we not only met ARGOS's expectations but exceeded them. We look forward to future projects and further successful implementations."

ARGOS is very satisfied because the downtime only lasted 35 days thanks to our efficient working methods and precise planning."

> Savage Dwight and Karl Hartwagner, Project Manager

EMC-Technology

Kiln downtime of only 35 days

Special filter with 20 filter bags per row

Hiahliaht:



The Scheuch teams from America and Austria mplemented the customer's requirements in record time. The Scheuch equipment was placed on an existing steel construction and hoppers and was modified

accordingly.

## **CLEVER SOLUTION** FOR BELT DRYER **DEDUSTING**

From the inventive talent of the Scheuch employees and the development of a dust concentrator.

talent is often the key to success. At Scheuch, this talent lead to an efficient and environmentally friendly invention: the dust concentrator. This technology that is being patented lowers costs and saves up to 80 percent of the air and energy required up to now. Thomas Lacher, Head of Sales at Scheuch LIGNO, talks about the development of this innovative solution.

#### How did the idea for the dust concentrator come

Through our intensive contact with our customers, we understand and record their short-term and long-term requirements. Our inventions do not just "happen". We are building on many years of experience and know just where potential improvements are lurking, and then try to find a better solution. With the dust concentrator, our aim was to optimise the efficiency of the belt dryer dedusting process. When drying materials such as wood chips, dust occurs, which sometimes exceeds the permissible emission limit values. Up to now, large quantities of air has to be filtered, which caused high costs. We wanted to find a solution that is both cost-efficient and environmentally friendly. The idea of the dust concentrator came about by thinking outside the box and using existing principles in a new way.

#### **T** n the world of industrial innovation, inventive *Can you describe the development process in more*

We started by analysing the existing drying process. We investigated the main sources of dust and how it behaves in the air flows. We then experimented with different approaches to separate the dust more efficiently. A key finding was that we could use the movement of the existing fans to concentrate the dust. This lead to the development of the dust concentrator that discharges a small amount of the air flow with a high dust concentration outside the fan.

#### What were the greatest challenges during develop-

One of the greatest challenges was configuring the technology so that it can be retrofitted to existing systems without major modifications. It was important that the dust concentrator did not have a negative effect on the air flow or require additional energy. We had to ensure that the pressure ratios in the fan remain stable and that the separation process works reliably.

#### What are the benefits of the dust concentrator?

This innovation on the belt dryer deduster reduces the quantity of air to be filtered by up to 80 percent. This means significant savings when it comes to investment and operating costs of the



filter systems. As less air has to be filtered, less pose existing systems in a new context. And ablimit values are complied with 100 percent, which is highly important to our customers.

Corporate R&D Engineer department...

#### opinion? What tips can you give us?

Be inquisitive and open to unconventional ideas. The solution to a problem is sometimes to repur-

energy is also required. Furthermore, the emission ove all: do not give up. Innovation often requires perseverance and a willingness to learn from mistakes. Scheuch provides the perfect environment and the resources required for research and new What are the decisive factors for innovation in your developments. The resulting dust concentrator shows that success often comes from thinking outside the box and having the courage to take a different route.



tem to confirm the functions of the dust concentrator was a complete success.

## **SCHEUCH AS AN INVISIBLE HERO**

Scheuch conveying technology runs tirelessly and connects industries.

drying systems. In the image:

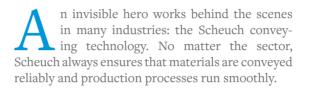
Scheuch develops and

conveying, discharge and

the bunker filling system.

mplements various

Extraction and conveying systems for filter systems



#### **ASK**

#### CONVEYING TECHNOLOGY EXPERT. **ALEXANDER PEEMÖLLER**

#### What makes Scheuch conveying technology

Our conveying, discharge and drying systems can largely be combined with each other as needed. This gives our customers enormous flexibility. Furthermore, our solutions impress with their gentle matecal and horizontal conveyance for up to 30 metres. It is worth mentioning that our conveyors have always been part of Scheuch's competence, as screws and discharge systems are an integrated component Can you give an application example? in almost all filter systems.

#### Which sectors benefit particularly from Scheuch conveyors?

We can be found in many sectors in addition to our main area of environmental technology. This includes the wood, cement, steel, plastics, energy, food, agriculture and even the chemical industry. We the wood industry in particular. Our technologies are also indispensable for conveying heavy materials such as limestone and clay in the cement industry. With our expertise, we are broadening the range in This example illustrates that Scheuch can supply the the environmental technology sector and are active our core area continuously.



It is worth mentioning that our conveyors have always been part of Scheuch's competence, as screws and discharge systems are an integrated component in almost all filter systems."

> Alexander Peemöller Senior Sales Manager, Scheuch COMPONENTS GmbH

#### What are the main benefits of Scheuch conveying technology?

Our conveying technology impresses with how easy it is to set up and its very low maintenance requirements, which guarantees a high level of reliability. Furthermorial conveyance and the capability of enabling verti- re, our systems are durance and energy efficient, which contributes to reducing operating costs and protects the environment.

Of course. We recently integrated more than 50 conveying technology systems in a renowned Swiss saw mill. A wide range of different functions was developed and applied in order to meet the customer's requirements completely: bark removal in the bunkers, bunker filling with return to the storage rooms, push floor drying for wood chips with sieving and post-drying, push rod discharges, conveying dried sawdust downsmove large quantities of wood chips and waste in tream of the belt dryer to the intermediate store, feeding the pelleting system, vegetable coal discharge and big bag filling.

entire conveying equipment for all technical requirein many other industries, whereby we are expanding ments. The ability to cover this wide range is what makes us stand out.

> Even more Information on the conveyor technology can be found on our website



PROJECTS RETROFIT PROJECTS RETROFIT

## **RETRO AND FIT**

Procure new or modernise the part? A frequent consideration in companies. Scheuch develops and modernises components for almost any system. Retrofit for sustainability and future-oriented technology.

echnologies develop at a fast pace in the MINIMUM TO OPTIMUM fast moving world and eventually, system owners must decide: buy a new system or perform a retrofit?

#### SUSTAINABILITY BEGINS WITH A RETROFIT

Production systems run reliably for years but new developments provide opportunities, such as to increase efficiency, lower costs, achieve new compulsory regulations or obtain better safety and control with digitally integrated systems. Instead of replacing the entire system, retrofitting enables just individual components, filters or system parts to be replaced with modern assemblies or technologies that have been improved by Scheuch. An overhaul can benefit system owners through significantly lower costs when compared to buying new. The basic substance that is normally very stable and high quality is therefore retained. Furthermore, production downtimes are reduced significantly by a retrofit.

#### WHEN IS A RETROFIT AN ALTERNATIVE **TO BUYING NEW?**

New brooms sweep well. That doesn't always apply to complex machinery in production halls.

A comprehensive cost-benefit analysis is required to determine whether it makes sense to retrofit an existing system. Scheuch approaches the task with end-to-end expertise and supports customers with making decisions, including through a wide range of measurements and considering all operational conditions. "We always try to implement the most efficient solution for both the system and energy consumption" according to the managing director team of the Scheuch Group.

With a low capital expenditure and minimum organisational effort, customers can achieve sustainable improvements while at the same time integrating the latest technologies. All optimised to the particular situation, sustainable and fit for the future.

#### **RETROFIT WORKS:**

#### A practical example:

retrofitting the control unit on filters with two units to Pulse Master Basic+ with differential pressure-dependent cleaning

running time of 10 h/day; 40 w/year, €0.40/kWh

- 20.697,6 kWh → 4181 kg in CO<sub>2</sub> equivalent
- 67,2 Nm<sup>3</sup>/h





BE RETRO. BE FIT:

- Lower production costs by improving energy efficiency and product quality
- Comply with compulsory regulations (emission and safety regulations)
- Record process and machine data for Industry 4.0
- Reduce downtimes
- Extending the life of the system with reduced costs
- State-of-the-art upgrades improve performance
- Increased machine availability and energy efficiency
- Enhanced system functions
- Soundproofing and insulation measures as required
- 3D scanning and pre-planning for optimal installation
- Replacement of system parts, including third-party

RETRO means "backwards" (Latin). "To **FIT**" means to "match" (English). RETROFIT combines both: Equipping and retrofitting old systems with modern components.

#### **RETROFITS BY SCHEUCH INCLUDE:**

KSK Industrielackierungen GmbH & Co. KG in Geilenkirchen, Germany

Radial fan with direct drive

Rosenberger Ventilatoren GmbH in Baden-Württemberg, Germany

■ Radial fan with belt drive and two-sided intake port

EEW Energy from Waste GmbH in Pirmasens, Germany

■ Replacing two electrostatic precipitator lines

ARGOS, Martinsburg, USA

■ Replacing a third-party manufacturer with double-row fipp filters with 54 units



Even more Information about RETROFIT can be found on our website:



SCHEUCH SLOVAKIA

# SCHEUCH SLOVAKIA CELEBRATES 20 YEARS AND SITE EXPANSION

The Eastern
European production
site Scheuch
s.r.o. in Prievidza
is celebrating its
anniversary and
introducing itself.

Cheuch has been represented in Slovakia with its own site since 2004 and has expanded considerably there in recent years. "At the beginning, we took over a production company for steel construction and pipelines due to increasing growth," explains Patrik Knajbel, Managing Director Scheuch s.r.o. Initially, the factory consisted of only 1,000 m² of production space. Two years later, the provisionally rented business with an area of 14,000 m² was purchased. In 2007, 90 people were already employed in Prievidza. Another significant expansion took place in 2019, when the site was extended by an additional 27,000 m² to meet the growing requirements.

#### SITE EXPANSION AS WELL IN ANNIVERSARY YEAR

To mark its twentieth anniversary, the site in Prievidza is once again expanding its production area. In addition to the anniversary celebration, the official ground-breaking ceremony for the expansion of the production centre took place on 6 July. The prefabrication setup will be significantly expanded in the new part of the factory. In addition, the paint shop will be expanded to the new capacity and investments will be made in welding automation and machining. The current production hours of around 160,000 are to be almost doubled by 2030.

"During the course of the conversion, we are also planning our own energy centre for a CO2-neutral energy supply. After all, as an environmental technology company, it is particularly important to us to produce in the most climate-friendly way possible," says Michal Dobrotka, Managing Director of Scheuch s.r.o., Prievidza. This energy centre will include heating, adiabatic cooling and ventilation as well as the expansion of the existing 600 kWp photovoltaic system.

#### STRENGTHENING COMPETITIVENESS

"The Scheuch Group wants to fulfil its growth requirements and strengthen its competitiveness by expanding its capacity once again. All phases of the modernisation and expansion of the warehouse and production areas should be completed by 2030," says Stefan Scheuch, CEO of Scheuch Management Holding GmbH.







Following the successful expansion of production, the Scheuch Group's largest production facility will make a significant contribution to achieving the economic and quality targets and ensuring the sustainability of the company."

Patrik Knajbel,

Managing Director Scheuch s.r.o., Prievidza

2024

242 Employees 2030

350 Employees

by 2030



48.000 m<sup>2</sup> Total area

**12.500 m²** Production area

#### **TEAMWORK**

Michal Dobrotka is responsible for and implementing the expansion of the site in Prievidza. Kurt Kirchgatterer, Managing Director of the Manufacturing Business Unit, coordinates the optimal utilisation of all production facilities for the entire Scheuch Group.

#### SLOVAKIA

in the centre of Europe. Although the country is one of the smallest in Europe, its economic growth puts it among the leaders in the eurozone. And it has a lot to offer: Unspoilt nature, a wealth of castles, a unique inland delta and much more.

Ground-breaking ceremony in July 2024 at the Scheuch site in Prievidza, Slovakia, with Manfred Neuböck, Franz Kobleder, Heinz Autischer, Patrik Knajbel, Michal Dobrotka, Kurt Kirchgatterer, Thomas Eberl and Stefan Scheuch.



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**DIFFERENT HAZARDOUS** SUBSTANCES FILTERED OUT OF THE AIR

1.500 **EMPLOYEES** 

**SECTORS** 

WOOD **METALS MINERALS ENERGY GLASS** 

600 t CO<sub>2</sub>

SAVED BY USING GREEN ELECTRICITY

~ 15.500 (Ø PER YEAR)

~10.000

PROJECTS WORLDWIDE (Ø PER YEAR)

317

TURNOVER IN MILLION EURO (FY2023/24)

## LOOKING FORWARDS



#### STEFAN SCHEUCH, CEO

Our strategy for the future is clearly defined: we are focussing on air pollution control and environmental protection technologies as the core parts of

and odours effectively. Our aim remains to develop our technology leadership consistently and to strengthen our innovative capacity. Digitisation helps this plan immensely. It enables more services for our customers, accelerates processes, offers greater flexibility and improves the overall quality of our services and products. Nowadays, we are a high tech company that sets standards through innovative solutions in air pollution control and environmental technology. We want to continue to shape the future and develop sustainable technologies that make our



Scheuch is facing exciting challenges and opportunities. In an ever-changing world, it is essential to look forwards and to develop visionary strategies. Find out more about the individual perspectives of our top management, both from a company point of view and with regard to our research and development aims:



#### **HEINZ AUTISCHER, COO**

As a GreenTech company, we play a decisive role in making our customers' industrial processes more sustainable – a challenge that we are accepting passionately. Our focus is on developing and implementing new technologies and applications. CO2 reduction and separation are new central topics that are having a major influence on our customers now and in the future. We are involved in many pilot projects together with our customers. We are currently testing a pilot system in our in-house technical centre – with promising results. Another major topic for us is applications for our technologies in the energy revolution and electric mobility sectors. For example, we have developed a new concept for how Scheuch can meet the highest requirements in exhaust gas cleaning as part of lithium production. We are always open to new ideas and cooperations that drive technical ideas. With our highly motivated employees and our expertise, we are well equipped to meet the new requirements.



#### THOMAS EBERL, CFO

As a family business, we have always focussed on long-term company development and responsible economic actions. As part of the green deal and prioritising the intergenerational environmental protection, we bear even more social responsibility: our environmental technologies are required in almost all sectors to ensure a clean planet with pure air. Based on this mandate, the Scheuch Group will continue to grow with a focus on independence. As part of an extended transformation, we are adapting processes and systems to optimise our size to the next company size. In addition to CO2 initiatives, we are focussing particularly on digitisation and innovation: in particular, expanding our product range and entering new industries are a core part of our future strategy. As a globally-active company group, we use the strengths of the group, drive internationalisation and develop our local presence around the world so that we can meet the requirements of various sectors even better. We can therefore impress our customers and make an active contribution to a green, healthy future!

## WITH DIGITISATION AND DIGITAL TWINS

How Scheuch is using the most modern digital technology and digital twins to optimise the entire product lifecycle and to provide innovative, sustainable solutions.

n a world in which digitisation is affecting our lives more and more, the basic way in which companies are working and developing products is also changing. This transformation is already fully underway at Scheuch: from the first idea, planning and design to production and assembly, digital technologies are supporting and optimising every step of the product lifecycle.

#### **DIGITISATION IN PLANT ENGINEERING:** THE ROAD TO SUCCESS

The process already starts with the first customer contact. In the past, Scheuch technicians spent days on construction sites in order to take measurements and document the circumstances. Nowadays, we use 3D scans that generate precise point clouds - digital depictions of the real environment, which are integrated directly in our design programs. These 3D scans form the basis of our digital world

fillions of dots form and outline an image. The digital depiction of the system is







### INTO THE FUTURE

where we install the planned system and adjust it to the customer requirements.

This digital system moves on to the production phase seamlessly. The strength of digital technologies is also evident here: production processes are simulated in advance, edging and welding programs are created virtually and optimised. Digital workstations in production enable access to the model at any time in order to minimise errors and reduce costs.

#### THE DIGITAL TWIN: A SCHEUCH STANDARD

The digital twin, the virtual depiction of systems, devices or components has established itself as a fixed part of the standard technology. This modern system enables continuous data flow and access at any time, dirty air using modern, digital solutions. which increases efficiency particularly in the production, assembly and after-sales service areas. This provides direct benefits to Scheuch's customers: work processes such as planning, development or tainable and successful future.

implementing customer requests become quicker and more flexible. This results in a process that is generally quicker and more responsive, which reduces project durations significantly.

#### **LOOKING FORWARDS:** SUSTAINABILITY THROUGH **DIGITISATION**

At Scheuch, we do not just consider digitisation and using digital twins a technical necessity but also as a chance to design our processes to be more intelligent and sustainable. It enables us to work more efficiently, to increase our speed and to improve our quality while, at the same time, making our contribution to environmental protection. Because, at the end of it all, the aim remains to make clean air from

With these technologies, we are not just designing the future but also laying the foundations for a sus-

#### DIGI-X: SCHEUCH'S PATH TO THE DIGITAL FUTURE

The DIGI-X project is driving continuous development and optimisation of our processes. In our digitisation building, the DIGI-Cube in Aurolzmünster, we are working on innovative technologies that run through our entire company group and even reach our customers. This transformation is not a temporary project, but a continuous process that safeguards our competitiveness sustainably.



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